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In Memoriam

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SCOTCHMER
1950–2014

FOREWORD

Misa Eiritz[†] and Allison A. Schmitt^{††}

The Annual Review is a yearly publication of the *Berkeley Technology Law Journal* that provides a summary of many of the major developments at the intersection of law and technology. Our aim is to provide a valuable resource for judges, policymakers, practitioners, students, and scholars. Each Note provides a primer on a particular area of law, a development in that area of law, and commentary on that development.

The twenty-two Notes in this issue continue a tradition of covering a wide range of topics. The Notes address developments in traditional intellectual property areas—patent, copyright, and trademark law—along with developments in cyberlaw and privacy. Following the Notes in each area of law, we have included a Survey of Additional IP Developments, which contains brief descriptions of important cases that were not addressed in the Notes.

I. PATENT LAW

Our first Note¹ in the Patent Law Section examines the promise of transparent patent ownership and reviews the United States Patent and Trademark Office (“PTO”)’s now-abandoned Attributable Ownership rulemaking.² In light of the failure of that proposal, this Note also examines alternative legislative proposals and recommends the adoption of a two-tiered disclosure system that would better balance the costs and benefits of ownership transparency requirements.

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1. Nathan P. Anderson, Note, *Striking a Balance: The Pursuit of Transparent Patent Ownership*, 30 *BERKELEY TECH. L.J.* 395 (2015).

2. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4106 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned).

The second Note³ examines the Supreme Court's ruling in *Nautilus, Inc. v. Biosig Instruments, Inc.*,⁴ focusing on how the decision advances a “duty of clarity” in patent prosecution with its observation that “[e]liminating that temptation [to claim ambiguously] is in order.”⁵ The Note critiques suggested approaches for improving clearer claiming and proposes the use of crowdsource-assisted examination as an additional approach to improve clearer claiming.

The third Note⁶ explores both statutory and procedural changes made to Section 337 proceedings at the International Trade Commission (“ITC”), and finds that these adjustments have maintained the ITC's role enforcing a distinct set of trade-related patent rights in an evolving global landscape of intellectual property enforcement. Through recent procedural adjustments, the ITC has avoided becoming a haven for non-practicing entities' patent hold-up attempts, while continuing to provide at-the-border protection against unfair competition in imported goods.

The fourth Note⁷ examines the evolution of three new patent validity procedures ushered in by the America Invents Act (“AIA”)⁸ over the past two years. The AIA reviews combine a one-year statutory timeline, lower costs, and more favorable standards for challengers; however, the compressed timeline and streamlined evidentiary procedures raise concerns that the new procedures treat patent owners unfairly. This Note assesses whether the AIA reviews afford patent owners a fair opportunity to defend their patents by analyzing the most common practitioner complaints, addressing constitutional and administrative law concerns, and drawing upon prior judicial challenges to PTO patent validity proceedings to conclude that the AIA reviews likely dodge these concerns.

The fifth Note⁹ analyzes domestic patent subject matter eligibility in the wake of recent Supreme Court¹⁰ and Federal Circuit¹¹ decisions,

3. Norris Boothe, Note, *Exercising a Duty of Clarity: Nautilus, Inc. v. Biosig Instruments, Inc.*, 30 BERKELEY TECH. L.J. 445 (2015).

4. 134 S. Ct. 2120, 2124 (2014).

5. *Id.* at 2129.

6. Joshua D. Furman, Note, *Reports of Section 337's Death Have Been Greatly Exaggerated: The ITC's Importance in an Evolving Patent Enforcement Environment*, 30 BERKELEY TECH. L.J. 489 (2015).

7. Ryan J. Gatzemeyer, Note, *Are Patent Owners Given a Fair Fight? Investigating the AIA Trial Practices*, 30 BERKELEY TECH. L.J. 531 (2015).

8. Leahy-Smith America Invents Act, Pub. L. 112-29; 125 Stat. 284 (2011).

9. Eneida Hoxha, Note, *Stemming the Tide: Stem Cell Innovation in the Myriad-Mayo-Roslin Era*, 30 BERKELEY TECH. L.J. 567 (2015).

10. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012); *Ass'n for Molecular Pathology v. Myriad Genetics*, 133 S. Ct. 2107 (2013).

particularly as it applies to stem cells. It also examines the potential effects these decisions will have on stem cell industries, both at home and abroad.

The sixth Note¹² examines the legal landscape for fee-shifting in exceptional cases following the Supreme Court's ruling in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*¹³ This note considers emerging trends post-*Octane Fitness* based on an empirical analysis of attorneys' fees granted under 35 U.S.C. § 285 post-*Octane Fitness* and discusses district determinations of "exceptional."

The seventh Note¹⁴ asserts that the Supreme Court's decision in *Limelight Networks, Inc. v. Akamai Technologies, Inc.*¹⁵ leaves a loophole in patent infringement law open with respect to divided infringement and multi-actor method patents. This Note examines emerging technologies where the doctrine of divided infringement is most relevant, taking into consideration the Supreme Court's recent decisions in *Mayo Collaborative Services v. Prometheus Laboratories*¹⁶ and *Alice Corp. v. CLS Bank International*,¹⁷ and explores alternatives to the current law of divided infringement.

The eighth Note¹⁸ reviews the chronological development of the patent landscape and analyzes the evolution of defensive patent strategies. This Note presents defensive "plays" used by organizations to overcome webs of overlapping patent rights, the threat of non-practicing entities, and the increasing trend towards patent monetization.

The ninth Note¹⁹ explores how the Supreme Court continued in *Medtronic, Inc. v. Mirowski Family Ventures, LLC*²⁰ the task, begun in *MedImmune, Inc. v. Genentech, Inc.*,²¹ of bringing patent law declaratory judgments into line with other legal fields, despite the Federal Circuit's

11. *In re Roslin Inst.*, 750 F.3d 1333, 1336 (Fed. Cir. 2014).

12. Hannah Jiam, Note, *Fee-Shifting and Octane Fitness: An Empirical Approach Toward Understanding "Exceptional,"* 30 BERKELEY TECH. L.J. 611 (2015).

13. 134 S. Ct. 1749 (2014).

14. Jingyuan Luo, Note, *Shining the Limelight on Divided Infringement: Emerging Technologies and the Liability Loophole*, 30 BERKELEY TECH. L.J. 675 (2015).

15. 134 S. Ct. 2111 (2014).

16. 132 S. Ct. 1289 (2012).

17. 134 S. Ct. 2347 (2014).

18. James M. Rice, Note, *The Defensive Patent Playbook*, 30 BERKELEY TECH. L.J. 725 (2015).

19. Sorin G. Zaharia, Note, *Burden of Proof in Medtronic: The Federal Circuit's Idiosyncratic Patent Jurisprudence Vetoed, Again*, 30 BERKELEY TECH. L.J. 777 (2015).

20. 134 S. Ct. 843 (2014).

21. 549 U.S. 118 (2007).

efforts to the contrary. While the Court's "simple legal logic"²² partly relies on a historical quirk, the result in *Medtronic* was unavoidable in view of longstanding legal precedent, practical considerations and public policy. Yet, *Medtronic's* full impact will be seen only if and when the Court settles the tug-of-war between contract law and federal patent policy, in particular the issue of non-repudiating licensee estoppel.

The tenth Note²³ surveys how different courts and commentators have interpreted the Supreme Court's recent *Alice Corp. v. CLS Bank, International*²⁴ decision regarding patent-eligible subject matter and have applied this decision when evaluating software patents. Further, this Note proposes that the purpose of the patent-eligible subject matter exceptions is accomplished by finding that additional claim limitations reciting specifics of how a piece of software accomplishes a patent-ineligible abstract idea confer patentability, even if the additional claim limitations are themselves patent-ineligible abstract ideas.

II. COPYRIGHT LAW

The first Note²⁵ explores two recent European Court of Justice cases²⁶ in an attempt to highlight how EU copyright laws place a higher burden on online intermediaries, like ISPs, to stop and prevent copyright infringement than what is required under U.S. copyright law. The Note contemplates how the high level of copyright protection in the EU creates higher legal uncertainties and compliance costs for online intermediaries in the EU than in the United States, and examines how more successful lobbying efforts by copyright holders may have been a factor.

22. *Medtronic*, 134 S. Ct. at 849.

23. Ognjen Zivojnovic, Note, *Patentable Subject Matter after Alice—Distinguishing Narrow Software Patents from Overly Broad Business Method Patents*, 30 BERKELEY TECH. L.J. 807 (2015).

24. 134 S. Ct. 2347 (2014).

25. Ali Amirmahani, Note, *Digital Apples and Oranges: A Comparative Analysis of Intermediary Copyright Liability in the United States and European Union*, 30 BERKELEY TECH. L.J. 865 (2015).

26. Case C-466/12, Nils Svensson v. Retriever Sverige AB (Feb. 13, 2014), available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>; Case C-314/12, UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH (Mar. 27, 2014), available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0314&from=EN>.

The second Note²⁷ examines the recent Supreme Court decision in *American Broadcasting Companies, Inc. v. Aereo, Inc.*,²⁸ where the Court rested its holding on Aereo's similarity to cable, the technology to which Congress responded when crafting the current public performance right. Despite the Court's narrow focus, the case may significantly impact the contours of copyright doctrine in many contexts.

The third Note²⁹ uses the recent high-profile *Marvel Characters, Inc. v. Kirby*³⁰ case to examine the instance and expense test, which is the works made for hire determinant under the 1909 Copyright Act. The Note concludes that while the instance and expense test does grant broad access of works to the public, the test's inherent flaws routinely harms creators and a proposed statutory amendment would help remedy existing inequities.

The fourth Note³¹ examines how the Supreme Court overruled the Ninth Circuit in *Petrella v. Metro-Goldwyn-Mayer, Inc.*³² to rule that the defense of laches is not available for copyright infringement suits for legal relief brought within the Copyright Act's three-year statute of limitations, thereby weakening an important safeguard of fairness in copyright law. The Court's decision—possibly an overreaction to the particular, sympathetic facts of the case—will likely result in a chilling effect in creative industries and new uncertainty for potential defendants as the door opens for plaintiffs to bring belated copyright lawsuits.

III. TRADEMARK LAW

The first Note³³ in the Trademark Law Section discusses the Tenth Circuit's decision in *1-800-Contacts v. Lens.com*³⁴ and proposes that the ruling made succeeding on a claim of trademark infringement through initial interest confusion in a competitive keyword-advertising case almost

27. Dallas T. Bullard, Note, *The Revolution Was Not Televised: Examining Copyright Doctrine after Aereo*, 30 BERKELEY TECH. L.J. 899 (2015).

28. 134 S. Ct. 2498 (2014).

29. Meredith Annan House, Note, *Marvel v. Kirby: A Clash of Comic Book Titans in the Work Made for Hire Arena*, 30 BERKELEY TECH. L.J. 933 (2015).

30. 726 F.3d 119 (2d Cir. 2013).

31. Jordyn Ostroff, Note, *Petrella v. Metro-Goldwyn-Mayer, Inc.: Is Equity in Copyright Law Down for the Count?*, 30 BERKELEY TECH. L.J. 965 (2015).

32. 134 S. Ct. 1962 (2014).

33. John Benton Russell, Note, *New Tenth Circuit's Standards: Competitive Keyword Advertising and Initial Interest Confusion in 1-800 Contacts v. Lens.com*, 30 BERKELEY TECH. L.J. 993 (2015).

34. 722 F.3d 1229 (10th Cir. 2013).

impossible in the Tenth Circuit. Despite previously finding infringement in this type of case if the competitive keyword advertising could merely divert consumers, the new ruling reflects an evolution in internet-based trademark doctrine by focusing instead on evidence of actual confusion—including defendant-friendly Google data.

The second Note³⁵ discusses the *Lexmark International, Inc. v. Static Control Components, Inc.*³⁶ test for federal false advertising standing and how it serves the Lanham Act's goal of protecting persons engaged in commerce against unfair competition better than the previous tests. The Note concludes that the *Lexmark* text is not perfect. The zone-of-interests prong, which requires that § 43(a) plaintiffs allege an injury to a commercial interest in reputation or sales, appropriately identifies parties within the class of plaintiffs the Lanham Act was intended to protect, but the proximate cause prong may unduly burden certain plaintiffs by requiring detailed pleadings establishing that the defendant's false advertising proximately caused its injury.

IV. CYBERLAW

The first Note³⁷ in the Cyberlaw Section discusses the sharing economy, which encompasses a broad range of peer-to-peer services. This new business model poses many regulatory challenges, and requires targeted legislative and administrative solutions.

The second Note³⁸ explores how Bitcoin and Blockchain technology pose a number of novel regulatory and legal issues. This Note examines how government agencies and courts have attempted to keep the society safe for—and sometimes from—Bitcoin and Blockchain users (with consumers and investors on one end and drug dealers, terrorists, and violent criminals on the other). The Note concludes with policy suggestions for changes to disclosure requirements and tax classifications to facilitate the broader adoption of Bitcoin as a currency by the general public.

35. Virginia E. Scholtes, Note, *The Lexmark Test for False Advertising Standing: When Two Prongs Don't Make a Right*, 30 BERKELEY TECH. L.J. 1023 (2015).

36. 134 S. Ct. 1377 (2014).

37. Vanessa Katz, Note, *Regulating the Sharing Economy*, 30 BERKELEY TECH. L.J. 1067 (2015).

38. Misha Tsukerman, Note, *The Block is Hot: A Survey of the State of Bitcoin Regulation and Suggestions for the Future*, 30 BERKELEY TECH. L.J. 1127 (2015).

V. PRIVACY LAW

The first Note³⁹ in the Privacy Law Section explores the European Union's recent "right to be forgotten" ruling,⁴⁰ which raises vital questions about free speech and privacy as the internet cements its importance in modern life. While a right to be forgotten may be useful for specific problems like nonconsensual pornography and criminal rehabilitation, this Note argues that in the United States, a blanket rule like the one in the EU raises numerous policy concerns and cannot be squared with the country's strong free speech right.

The second Note⁴¹ discusses Delaware's recently enacted legislation⁴² that provides for fiduciary access to assets that exist in digital form at the death of the owner. This Note proposes that in order to combat conflicting terms of service in service providers' user agreements, a necessary complement to this new law is a combined legislative and user-policy plan that assesses and respects users' individualized wishes for their digital assets.

The third Note⁴³ in this Section considers the California appeals court ruling in *Digital Music News v Superior Court*,⁴⁴ where the court ruled for the first time that the right to post anonymous online comments is grounded both in the First Amendment of the federal Constitution, but also in the 'privacy clause' of the California Constitution. This Note situates *Digital Music News* in the larger scholarly and judicial conversation about anonymous online speech, arguing that the court's reasoning is representative of a new way of thinking about online speech where the First Amendment and the right to privacy do not always work at cross purposes. It also provides detailed discussion of the origins of the California constitutional right to privacy, the state of First Amendment

39. Ravi Antani, Note, *The Resistance of Memory: Could the European Union's Right to Be Forgotten Exist in the United States?*, 30 BERKELEY TECH. L.J. 1173 (2015).

40. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 94, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

41. Elizabeth Holland Capel, Note, *Conflict and Solution in Delaware's Fiduciary Access to Digital Assets and Digital Accounts Act*, 30 BERKELEY TECH. L.J. 1211 (2015).

42. Fiduciary Access to Digital Assets and Digital Accounts Act, H.B. 345, 147th Gen. Assemb. (Del. 2014), available at <http://www.legis.delaware.gov/LIS/LIS147.NSF/vwLegislation/HB+345>.

43. Thaddeus Houston, Note, *Constitutional Drag Race: Anonymous Online Speech After Digital Music News v. Superior Court*, 30 BERKELEY TECH. L.J. 1243 (2015).

44. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014).

doctrine as it applies to anonymous online speakers, and *Digital Music News* itself.

The final Note⁴⁵ in this Section examines the recent Supreme Court decision in *Riley v. California*,⁴⁶ where the Court addressed the issue of “whether the police may, without a warrant, search digital information on a cell phone seized from an individual who has been arrested.”⁴⁷ In 2011, noted Fourth Amendment scholar Orin Kerr hypothesized that the Supreme Court decides Fourth Amendment cases with an eye to maintaining a balance between police power and individual rights initially established by the Framers; Kerr calls this theory Equilibrium-Adjustment.⁴⁸ This Note applies Kerr’s theory to *Riley* in order to illustrate three main limitations on his theory: (1) the application of the theory varies based on the analyst, making the theory too broad to provide much insight, (2) the current balance between police power and individual rights that the Court attempts to restore is difficult to define; one jurisdiction’s equilibrium may be another’s imbalance, and (3) the theory fails to account for profit-minded third parties that may cause a sudden shift in societal norms in a way that neither introduces a new crime nor practice yet still upsets the equilibrium.

45. Maya Ziv, Note, *Riley v. California, Can You Hear the Equilibrium Now?*, 30 BERKELEY TECH. L.J. 1283 (2015).

46. 134 S. Ct. 2473 (2014).

47. *Id.* at 2480.

48. Orin Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476 (2011).

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PATENT LAW

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STRIKING A BALANCE: THE PURSUIT OF TRANSPARENT PATENT OWNERSHIP

Nathan P. Anderson[†]

Concealed and misleading patent ownership information imposes substantial costs on the patent system through both persistent litigation and increased transaction costs.¹ By providing incomplete information regarding patent scope and ownership, some patent holders obfuscate the extent of their rights and game the system.² While uncertain claim boundaries create much of this strain, efforts to conceal ownership information exacerbate the problems and help create a system where the patent value can be divorced from the value of the covered innovation.³

In January 2014, in response to White House calls to make disclosure of patent ownership “the default,”⁴ the United States Patent and Trademark Office (“PTO”) published a Proposed Rule titled “Changes to

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1. *See generally* Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1 (2013) (discussing costs associated with notice failures in several intellectual property fields, and noting that those who create the costs are not those who ultimately bear them); FED. TRADE COMM’N, *THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION* 127–30 (2011) [hereinafter *FTC Report*].

2. *See* Menell & Meurer, *supra* note 1, at 8–9 (noting that parties can benefit when the extent of their patent portfolio is not easily known and that parties may consequently prefer to obscure the “existence, scope, or ownership of their property rights”); *see also* Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 26–29 (2012); *FTC Report*, *supra* note 1, at 130–31, 134–35 (discussing several instances in which hidden ownership information provided parties with favorable negotiation positions during and before litigation).

3. *See* *FTC Report*, *supra* note 1, at 130–31 (discussing the costs of notice problems in patent ownership); PRESIDENT’S COUNCIL OF ECON. ADVISERS, ET AL., EXEC. OFFICE OF THE PRESIDENT, *PATENT ASSERTION AND U.S. INNOVATION* 4 (2013), *available at* http://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf (noting that patent assertion entities often use networks of shell companies to hide their identities as part of a strategy to extract settlement fees) [hereinafter *Executive Report*].

4. Press Release, The White House Office of the Press Sec’y, Fact Sheet: White House Task Force on High-Tech Patents (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

Require Identification of Attributable Owner” (“Proposed Rule”).⁵ The Proposed Rule would have required parties to disclose “attributable owners,” including titleholders, enforcement entities, and ultimate parent entities, when the patent came before the PTO.⁶ Responses to the proposal were mixed, with many parties forcefully arguing that the rule would not bring substantial benefits to the patent system and that it would be unduly burdensome if implemented.⁷ In October 2014, the PTO abandoned its proposal, announcing that it would instead wait for Congress to act.⁸

This Note reviews the Proposed Rule to assess why it failed and to glean information about alternatives that would better serve the goal of increased transparency. It concludes that the reforms proposed by the PTO provide reason for optimism and a valuable starting point for future legislation, even if the Proposed Rule itself might have done more harm than good. Part I of this Note reviews the current landscape, paying particular attention to the burdens created by the lack of transparency in patent ownership. Part II then reviews the Proposed Rule and assesses its strengths and weaknesses. Part II concludes that while the Proposed Rule was a commendable attempt to increase patent ownership transparency, its

5. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4106 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned) (explaining that the proposed changes came in response to the President’s executive actions). The Proposed Rule followed in the footsteps of the Leahy-Smith America Invents Act, which President Obama claimed brought the reform movement “about halfway” in terms of combating patent misuse. Executive Report, *supra* note 3, at 2 (citing President Obama’s comments from February 14, 2013). The “impact of aggressive litigation tactics . . . was not widely known during the seven years the AIA was under negotiation.” *Id.* at 3. This may account for the perceived need to build upon the AIA. *See id.* But see BRIAN T. YEH, CONG. RESEARCH SERV., R42668, AN OVERVIEW OF THE “PATENT TROLLS” DEBATE 1 (2013) (suggesting that the AIA did little to combat patent trolls because of “lively debate” about how to address them).

6. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4106.

7. *See, e.g.*, Letter from Wayne P. Sobon, President, Am. Intellectual Property Ass’n, to Michelle K. Lee, Deputy Dir., USPTO 3–4 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-a_aipla_20140424.pdf [hereinafter AIPLA Comments]; Letter from Hunter R. Rawlings III, President, Ass’n of Am. Univs., et al., to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 3 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-c_sixassoc_20140424.pdf [hereinafter Association of Universities Comments]; *see also* Ryan Davis, *Critics Blast USPTO Patent Transparency Plan at Hearing*, LAW360 (Mar. 13, 2014, 6:09 PM), <http://www.law360.com/articles/515513/critics-blast-uspto-patent-transparency-plan-at-hearing>.

8. Ryan Davis, *USPTO Backs Away from Patent Ownership Transparency Rules*, LAW360 (Oct. 24, 2014, 4:48 PM), <http://www.law360.com/articles/590197/uspto-backs-away-from-patent-transparency-rules>.

administration costs would likely have outweighed any potential benefits. Part II also identifies several salvageable strategies from the PTO's proposal to form the basis for future legislation. Part III transitions into a discussion of recent legislative proposals that require disclosure of patent ownership information. Part IV draws upon ideas from Parts I-III to provide recommendations regarding possible legislative reforms that would create meaningful disclosure requirements while addressing the concerns surrounding the Proposed Rule. It concludes that a bifurcated set of disclosure requirements would best align the costs and benefits of ownership transparency, with the most substantial requirements reserved for litigants in infringement or invalidity suits.

I. THE STORY SO FAR: INFORMATION FAILURES AND PARTIAL SOLUTIONS

In theory, patents drive innovation and permit patent holders to profit from their innovations.⁹ In practice, market inefficiencies and gaps in patent law incentivize abusive behavior that divorces the value of the innovation from a patent's strategic value.¹⁰ Though many of these problems stem from unclear patent boundaries and low-quality patents,¹¹ lack of transparent patent ownership aggravates the situation and creates additional opportunities for parties to game the system.¹² This Part

9. *E.g.*, FTC Report, *supra* note 1, at 1. The ability to exclude others from practicing a patented invention allows patent holders to exert significant influence on the market and monetize their invention, for example through sales and licensing of the patented innovation or related technology. *Id.* at 2. Proponents of the right to exclude and related property rights assert that the benefits associated with such grants encourage investment in resource development. *See, e.g.*, Menell & Meurer, *supra* note 1, at 1.

10. *See* Menell and Meurer, *supra* note 1, at 7–15 (arguing that lack of information regarding both “deed” facts, including information about the identity of owners, and the scope of property rights creates inefficiencies that benefit resource holders, including patent owners, at the expense of competitors). A patent's strategic value includes its value as both a sword and a shield in patent litigation. *See* Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297, 310 (2010) (describing the recent growth in the market for patents as many companies seek to acquire or access large patent portfolios for both offensive and defensive purposes).

11. *See* Chien, *supra* note 10. These problems are beyond the scope of this Note and will be discussed only where they overlap with ownership transparency issues. While concealed ownership is problematic, even a perfectly transparent ownership system will not eliminate all of the abuses highlighted in Part I, *infra*. Consequently, this Note aims to propose a solution whose scope matches the scope of the problems it addresses.

12. *E.g.*, FTC Report, *supra* note 1, at 130 (“One strategy for navigating an environment with many potentially relevant parties is to concentrate clearance efforts on patents held by competitors or others who are likely to sue.”).

provides an overview of several symptoms bogging down the system, focusing on problems associated with hidden ownership information.

A. SYMPTOMS

Problems with hidden patent ownership arise largely in the shadow of litigation. Optimally, litigation permits patent holders to assert their rights and receive compensation for their inventive efforts. It also helps establish clear expectations for market participants by delineating existing patent rights and providing information about how a given patent has been asserted.¹³ Yet litigation, and the threat thereof, can also burden the patent system by permitting patent holders to impose substantial costs on even non-infringing competitors.¹⁴

Where abusive behavior is pervasive, costs created or increased by obfuscated patent ownership are substantial both before and after complaints are filed.¹⁵ Pre-litigation problems arise when parties cannot determine the contours of the patent landscape in which they intend to operate: a practitioner who cannot determine what patents cover her field or what other parties control those patents will struggle to assess her freedom to operate or obtain licenses to reinforce that freedom.¹⁶ Litigation and post-litigation problems grow out of the ability of some patent holders to capitalize on uncertain patent scope and ownership by asserting (sometimes valueless) patents against parties who have made a

13. See Robin Feldman, *Transparency*, VA. J.L. & TECH. (forthcoming) (manuscript at 11–12), available at <http://ssrn.com/abstract=2402389> (arguing that the definitions and relationships that limit patent scope become fixed over time in part through judicial interpretations of those definitions and comparison with other relevant art).

14. See, e.g., Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2124–25, 2145–46 (2013). “Patent trolls” are non-practicing entities (“NPEs”) who troll, primarily through licensing and litigation, the patent system in order to monetize patents as patents rather than the innovation a patent produced. *Id.*; see also Yeh, *supra* note 5, at 6; Ewing & Feldman, *supra* note 2, at 1. Not all NPEs are patent trolls, and not all patent trolls are NPEs. Ewing & Feldman, *supra* note 2, at 1. “Trolls” are those parties who, like the trolls waiting under the bridge in children’s stories, use their control of a resource (the patent, or bridge, in the stories) to demand payments from other users of the resource. *Id.*

15. See Yeh, *supra* note 5, at 6–7, 20 n.159 (discussing the costs associated with litigation by patent assertion entities, many of whom use abusive litigation tactics and obscure their ownership of patent rights); see also FTC Report, *supra* note 1, at 46–48, 53 (drawing a similar distinction, during a discussion of costs associated with uncertain patent boundaries, between “ex ante” problems pertaining to licensing before possible infringement and “ex post” problems pertaining to licensing and litigation after possible infringement).

16. See Menell & Meurer, *supra* note 1, at 7–9.

substantial investment in the intellectual space around those patents.¹⁷ Many defendants ultimately choose to settle early rather than risk a substantial damages award or injunction,¹⁸ which ultimately permits patent holders to monetize patents with questionable inventive value.¹⁹ Asymmetries in both bargaining power and information about the patent thereby allow some patent holders to exert an influence on the market that is entirely disproportionate to their patent's contribution to it.²⁰

These problems and their connection with obfuscated patent ownership are discussed in more detail below.

1. *Pre-Litigation Headaches*

Even before litigation begins, lack of transparent patent ownership increases the cost of innovation.²¹ First, opaque ownership creates substantial obstacles for preclearance that are particularly notable in the software/computer technology space.²² There, “patent thickets” make it nearly impossible to identify patent boundaries,²³ and innovation proceeds at a rapid pace that makes uncovering all the relevant patents before investing in product development infeasible.²⁴ Clear patent ownership can provide valuable information about the relevant parties and technologies in a given area and thereby accelerate freedom-to-operate analysis.²⁵ By

17. *See id.*

18. Ewing & Feldman, *supra* note 2, at 24 (noting that parties may settle lawsuits even when the claims brought against them are “quite weak”). Where risks are uncertain and the potential downside is substantial, parties may be more likely to settle than engage in costly litigation. *See* FTC Report, *supra* note 1, at 4. This problem is typically associated with uncertain patent boundaries, but where ownership information is also uncertain, burdens on accused infringers may increase further, as discussed in Section I.A.2, *infra*.

19. FTC Report, *supra* note 1; *see also* Chien, *supra* note 10, at 301 (arguing that the “intrinsic” value of a patent is often distinct from the “exclusion” value of a patent, i.e., the value a patent holder is able to extract from the patent by asserting it against others).

20. *See* Lemley & Melamed, *supra* note 14, at 2157–58 (“patent holders are often in a position . . . [to] command damages or royalties for their patents in excess of their value”).

21. *See* FTC Report, *supra* note 1, at 130.

22. *See id.* at 130–31.

23. *See id.* at 56 (citing Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, in *INNOVATION POLICY AND THE ECONOMY* 119 (Adam B. Jaffe et al. eds., 2001)). Patent thickets exist where “densely overlapping patent rights [are held] by multiple owners.” *Id.*

24. *See* Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 20–22 (2008).

25. *See* Feldman, *supra* note 13, at 19–21 (arguing that ownership information provides important contextual information regarding patent scope and strength and noting that there is a substantial relationship between the number of times a patent is

making it more difficult to access to contextual information about the claimed invention, how it has been asserted, and what other patents its owner also holds, parties that obfuscate ownership deprive interested parties of information that could help them navigate these thickets.²⁶ As a result, many market entrants simply ignore patent rights; they do not seek preclearance, instead opting to suffer the cost of litigation when the time comes.²⁷ While this is less of a problem in the life sciences where patent boundaries are clearer, investment in research and development nonetheless suffers from the uncertainty that comes with hidden ownership rights and incomplete patent information.²⁸

In addition to discouraging preclearance, opaque ownership bogs down licensing transactions.²⁹ First, parties are often rewarded for hiding ownership information during licensing negotiations.³⁰ Hiding ownership information may allow parties to lure their counterparts into incomplete licenses, necessitating further future licensing in the future at additional

transferred and whether that patent will be involved in litigation). Knowing what patents are held by major players in a field is often an important step in preclearance analysis. *See* FTC Report, *supra* note 1, at 130–31; Letter from Colleen Chien, Assistant Professor, Santa Clara School of Law, to U.S. Patent & Trademark Office, at 1–2 (Jan. 25, 2013), *available at* http://www.uspto.gov/patents/law/comments/rpii-f_chien_130125.pdf.

26. *See* Feldman, *supra* note 13, at 21; *see also* Colleen V. Chien, *Predicting Patent Litigation*, 90 TEX. L. REV. 283, 301–04 (2011) (noting, for example, that patents that have been transferred are more likely to be litigated than patents that have never been assigned); *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 7, 8 (Mar. 13, 2014) (statement of Charles Duan, Public Knowledge), http://www.uspto.gov/patents/init_events/transcript_031314_uspto.pdf (noting that ownership information is helpful for parties hoping to understand the “competitive environments” in which they operate). Obfuscation of ownership is rational; there are valid reasons, such as protecting one’s head start in an emerging market, to limit the contextual patent information available to competitors.

27. Lemley, *supra* note 24, at 21–22.

28. *See* Executive Report, *supra* note 3, at 9–10. *But see* *The Evolving IP Marketplace: Hearing Before the Fed. Trade Comm’n* 12–13 (May 5, 2009) (statement of Vernon Norviel), http://www.ftc.gov/sites/default/files/documents/public_events/evolving-ip-marketplace/090505transcript.pdf (noting that in the healthcare sector, “things aren’t too terribly broken” and that preclearance is possible and expected).

29. Feldman, *supra* note 13, at 17; *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 20 (Mar. 13, 2014) (statement of Scott Pojunas, Hewlett-Packard Co.), http://www.uspto.gov/patents/init_events/transcript_031314_uspto.pdf.

30. *See* Feldman, *supra* note 13, at 17; *see also* Letter from Curtis G. Rose, et al., Hewlett-Packard Co., to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 2 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_hp_20140424.pdf [hereinafter HP Comments] (describing a scenario in which a parent company is able to extract greater value from its licensing deals by hiding ownership of its entire portfolio among multiple related shell companies).

cost.³¹ The problem plagues both large companies and smaller, less sophisticated parties (e.g., startups) who struggle to differentiate between patents held by potential partners or non-litigious competitors and those held by potential litigation opponents.³² This difficulty makes it harder for market participants to adequately assess risks associated with practicing a particular technology and leads to significant costs that are particularly damaging for small businesses that lack the ability to pay for litigation when licensing fails.³³

These problems boil down to notice failures: where patents do not adequately inform parties of the rights held by other inventors, transaction costs multiply and parties spend resources navigating the patent system instead of developing new technologies.³⁴

2. *Litigation Abuse*

Incomplete or hidden ownership information also creates incentives for litigation abuse. Even patent holders with dubious patents are able to extract nuisance settlements by asserting weak patents against parties who are unwilling or unable to spend time and money litigating.³⁵ This scenario is particularly likely where parties lack the patent ownership

31. HP Comments, *supra* note 30, at 2 (citing, in addition, Feldman, *supra* note 13). Parties that delay initiating infringement actions or issuing demand letters may be able to extract higher settlements (not just additional settlements) from potential licensees, who may have invested more money in developing the potentially infringing product over time. See Menell & Meurer, *supra* note 1, at 14 (noting that remedies for trespass or infringement create additional bargaining leverage after accused infringers have invested heavily in developing that resource). To the extent that accessible ownership information will help a party identify the relevant patents in a given space, hidden ownership information might also lead a party to overpay for a patent or portfolio that it erroneously believes will provide it with full freedom-to-operate.

32. See Letter from John Thorne & Anna Mayergoyz Weinberg, Kellogg, Huber, Hansen, Todd, Evans & Figel, PLLC on behalf of Dell, Inc. and Cisco Systems, Inc., to the U.S. Patent & Trademark Office, at 2–4 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_dell_20140424.pdf [hereinafter Dell and Cisco Comments] (noting problems with covenants-not-to-sue, standard-setting, and licensing that apply to small and large companies).

33. See Executive Report, *supra* note 3, at 9 (noting that patent litigation costs range from a median of \$650,000 for smaller cases to over \$5 million for larger cases); see also Ewing & Feldman, *supra* note 2, at 19–20.

34. See Menell & Meurer, *supra* note 1, at 5–6.

35. Lemley & Melamed, *supra* note 14, at 21–26. While nuisance suits exist even when ownership is clear, the cost of litigation rises where ownership is unclear, and alternative means to achieving patent peace (e.g., cross-licensing patent portfolios) are less available.

information necessary to adequately assess litigation risk.³⁶ Within the current system, three abusive practices are particularly concerning: the mass-mailing of demand letters,³⁷ the filing of repetitive suits by the same or related plaintiffs against the same defendants,³⁸ and “patent privateering.”³⁹

The mass mailing of demand letters seeking licensing fees and/or threatening infringement litigation is one of the most problematic practices made economically attractive by obscure patent claims and opaque ownership information.⁴⁰ While some demand letters are valid, many are not, and are instead a means for patent owners to monetize their assets through threats alone.⁴¹ While uncertain scope and quality of existing patents enable this behavior, the ability to hide patent ownership creates further incentives to engage in this practice. Importantly, those receiving demand letters from faceless, untraceable shell companies may find that the demanding company’s obfuscated ownership makes it more difficult to determine whether a prior contractual agreement that would

36. See Menell & Meurer, *supra* note 1, at 5–6 (discussing the litigation costs borne by RIM after it failed to identify NTP as the relevant counterparty when it first entered the market); Letter from Colleen Chien, Assistant Professor, Santa Clara School of Law, to U.S. Patent & Trademark Office 1–2 (Jan. 25, 2013), *available at* http://www.uspto.gov/patents/law/comments/rpii-f_chien_130125.pdf (noting that parties assessing litigation risk care who the owner of a patent is in addition to what the patent covers).

37. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 26–27 (2013) (summarizing data indicating that the cost of NPE suits range from a median of \$300,000 for small companies to \$600,000 for large companies, that damages in NPE cases were higher than in other types of suits, that many parties pay settlements upon receipt of demand letters, and that many companies receive several times more demand letters than they have infringement suits actually filed).

38. While truly repetitive suits are barred by estoppel, *see Taylor v. Sturgell*, 553 U.S. 880, 895 (2008), parties may find that it is possible to extract redundant settlements from unsophisticated parties. *See Feldman, supra* note 13, at 17. In addition, some parties have attempted what amounts to “reverse trolling,” in which Company B attempts to use a PTAB proceeding to invalidate a patent that has been asserted against its ally or affiliate, Company A. Christopher Blazkowski, *A Definition for IPR ‘Real Party-In-Interest’*, LAW360 (June 20, 2014, 4:24 PM), <http://www.law360.com/articles/548079> (discussing such a scenario, which, while ultimately unsuccessful, nevertheless required substantial litigation).

39. Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors: IP Privateering and Modern Letters of Marque and Reprisal*, 4 HASTINGS SCI. & TECH. L.J. 1, 6–8 (2012).

40. *See, e.g.*, Executive Report, *supra* note 3, at 6–7.

41. *Id.*

negate the demand letter's claims already exists.⁴² In addition, even where no such agreement exists, hidden ownership allows the demanding company (or its parent) to demand payment without bearing the risks of counterclaims.⁴³ And should a party seek to preempt a demand letter by seeking declaratory judgment that it does not infringe a given patent, the filing party may struggle to identify the actual patent owner among a number of related parties.⁴⁴ Because determining the true owner of a patent may require a costly, detailed analysis of several layers of corporate structure,⁴⁵ many parties receiving demand letters choose to simply pay a licensing fee to avoid litigation.⁴⁶

Parallel to the licensing issue, incomplete settlements may subject practicing entities to repetitive lawsuits. Because parties hide what patents

42. See Justin R. Orr, Note, *Patent Aggregation: Models, Harms, and the Limited Role of Antitrust*, 28 BERKELEY TECH. L.J. 525, 549–50 (2013) (discussing how a practicing entity that agrees to subject all of its patents in a given space to RAND terms may nonetheless extract higher licensing fees by selling off a portion of those assets to another company that can then seek to license those assets on non-RAND terms); see also *Changes to Require Identification of Attributable Owner*, 79 Fed. Reg. 4105, 4109 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned) (noting that improved ownership information may help accused infringers determine if the patent at issue is subject to FRAND commitments); Feldman, *supra* note 13, at 17 (noting that unsophisticated parties may be tricked into making multiple payments to what is essentially the same entity); Lemley & Melamed, *supra* note 14, at 2164, n.196 (noting one troll attempted to extract settlements even though it knew a patent has already been licensed).

43. See Executive Report, *supra* note 3, at 5 (noting that patent assertion entities, who are largely responsible for the demand letters, “[have] no rival products, so they can’t be countersued”). While in some instances, the demanding parties might still be sued on some other basis, the stakes are much lower for those parties. See *id.* at 5, 12. In addition, as in the litigation context, hidden identities deprive opponents of negotiating leverage, e.g. by limiting exposure to claims against one’s own patent portfolio (if one exists). Cf. Ewing, *supra* note 39, at 34–35 (asking what parties do when they are faced with uncertainty regarding whom to sue).

44. Ewing & Feldman, *supra* note 2, at 40 (discussing a scenario in which a company sought declaratory relief in California, only to have some of its claims dismissed because it failed to name the correct defendant; the defendant in the declaratory relief action was then able to file an infringement suit in its preferred venue). While this mistake might be traceable to attorney error, it is difficult to argue that the time and energy spent determining ownership information to initiate the suit was well spent.

45. See *id.* at 2.

46. See Executive Report, *supra* note 3, at 6; *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* at 37–41 (Mar. 26, 2014) (statement of Daniel Nazer, Electronic Frontier Foundation), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf (noting, for example, that a settlement offer for \$50,000 is likely cheaper than the legal fees necessary to determine ownership in litigation).

they own and with whom they are affiliated, affiliates of an assertion entity sometimes remain able to send additional demand letters even after a practicing entity has settled the initial suit.⁴⁷ While estoppel provisions might theoretically apply to these interactions, the cost of determining whether such provisions actually apply makes settlement an attractive option, particularly because many settlements are sealed and subject to strict confidentiality terms.⁴⁸

As these techniques become widespread, a company seeking to reap the benefits of patent assertion without risking its reputation or the possibility of counterclaims⁴⁹ may choose to assign its patents to assertion entities. These entities then assert the patents on behalf of the original company without, strictly speaking, acting as agents of the corporation.⁵⁰ In this modern form of “privateering” Company A sanctions, or even directs, litigation that is ultimately carried out by Company B against Company C.⁵¹ This allows Company A to leverage obscured ownership information to benefit from patent assertion without exposing itself to the corresponding risk of counterclaims, estoppel provisions, or a damaged reputation.⁵²

B. LIMITED IMPROVEMENTS

The above symptoms arise because of market failures that produce “notice externalities.”⁵³ Fortunately, in 2011, Congress took a crucial first step towards improving transparency through provisions included in the Leahy-Smith America Invents Act.⁵⁴ Congress revisited the issue of

47. HP Comments, *supra* note 30, at 2.

48. See Feldman, *supra* note 13, at 16–18 (noting that licensing agreements and settlement agreements may be subject to confidentiality agreements, and that even trial records may be sealed by courts).

49. Parties subjected to infringement suits often assert patents they already own or acquire patents that they can then assert against the party who initiates the suit. Chien, *supra* note 10, at 299–300. This is a form of “mutually assured destruction” that can be largely avoided via patent privateering, which may prevent the alleged infringer from knowing whom it should countersue and may make initiating a new, separate suit against the privateer’s sponsor more less desirable. See Ewing, *supra* note 39, at 5–8, 34–35; see also Chien, *supra* note 10, at 299–300.

50. Ewing, *supra* note 39, at 5–8, 34–35.

51. *Id.*

52. *Id.* While estoppel provisions might apply in practice, the burden of proving that estoppel provisions apply falls on the defendant in the litigation, who lacks the necessary information to make such a showing.

53. See Menell & Meurer, *supra* note 1, at 5.

54. See EMILY M. LANZA, CONG. RESEARCH SERV., R43321, PATENT INFRINGEMENT PLEADINGS: AN ANALYSIS OF RECENT PROPOSALS FOR PATENT REFORM 4–5 (Nov. 22, 2013).

transparent patent ownership throughout 2013 and 2014 as an element of several new patent reform bills, though no laws ultimately passed.⁵⁵ In 2014, the White House also issued an executive action titled “Making ‘Real Party-in-Interest’ the New Default” that aimed to push reform efforts forward; that action led to the Proposed Rule discussed in Part II.⁵⁶ Viewed as a whole, these developments demonstrate the steps that have already been taken and outline the steps that remain to make transparent patent ownership the norm.

1. *Real Party-in-Interest and the America Invents Act*

The Leahy-Smith America Invents Act (“AIA”) included provisions to improve clarity with regard to real party-in-interest (“RPI”) information in patent proceedings.⁵⁷ In so doing, Congress hoped to prevent some of the abuses noted above.⁵⁸

Under the new regime, petitioners before the Patent Trial and Appeal Board (“PTAB”) must identify all real parties-in-interest.⁵⁹ A party petitioning for post grant review (“PGR”) or *inter partes* review (“IPR”) who fails to disclose all real parties-in-interest will have her petition denied or dismissed.⁶⁰ In addition, AIA provisions apply estoppel and time-bar restrictions to “petitioner[s], real part[ies] in interest, or priv[ies] of the petitioner” in an attempt to prevent abusive and redundant litigation in actions before the PTAB, actions in civil court, and actions

55. Jason Keener, *10 Ways Congress Tried to Address NPE Litigation in 2013*, LAW360 (Jan. 2, 2014, 6:04 PM), <http://www.law360.com/articles/494834>.

56. See Press Release, The White House Office of the Press Sec’y, Fact Sheet: White House Task Force on High-Tech Patents (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

57. Leahy-Smith America Invents Act § 6 (2011) (creating rules and procedures that apply to real-parties-in-interest in patent review proceedings) (codified in part at 35 U.S.C. §§ 315(a)-(e) (2012)).

58. See Lanza, *supra* note 54, at 4–5.

59. Leahy-Smith America Invents Act § 6 (2011) (codified in part at 35 U.S.C. §312(a)(2)). Notably, the AIA does not precisely define the term “real party-in-interest,” and Chief Judge James Donald Smith of the PTAB has noted that determining which parties are real parties-in-interest is a “highly fact-dependent question.” Lionel M. Lavenue & R. Benjamin Cassady, *Assuaging Estoppel Concerns: Defining “Real Parties in Interest” After the AIA*, INTELLECTUAL PROPERTY TODAY (Apr. 2013), available at <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=cd1ffd8f-8311-41dc-a517-2ca3cf7e1a9f>.

60. Leahy-Smith America Invents Act § 6 (2011) (providing that PGR and IPR petitions may be considered only if all real parties in interest are identified) (codified at 35 U.S.C. §§ 312(a)(2), 322(a)(2) (2012)).

before the International Trade Commission (“ITC”).⁶¹ These rules incentivize transparency in patent litigation by limiting a PTAB petitioner’s ability to use hidden ownership information to file multiple challenges to a patent in civil court and at the PTAB.⁶²

However, these rules do little, if anything, to change the behavior of those asserting patents outside of the patent office. Because those parties filing petitions before the PTAB seek to invalidate patents held by others, they do not own the patents at issue, though they may own other patents.⁶³ Thus in general, PTAB petitioners and civil court infringement plaintiffs are opponents,⁶⁴ and requiring disclosure of real parties-in-interest for PTAB petitioners is unlikely to clarify the ownership of most

61. *See id.* (codified in part at 35 U.S.C. §§ 315(b), (e)); Office Patent Trial Practice Guide, 77 Fed. Reg. 48756, 48759 (Aug. 14, 2012) (noting that “real party-in-interest” and “privies” requirements seek “to protect patent owners from harassment via successive petitions by the same or related parties”).

62. The story of *RPX v. VirnetX* provides one example of AIA estoppel provisions preventing redundant litigation. After VirnetX sued Apple for patent infringement in district court in 2010, winning an initial jury verdict of \$368 million, Apple filed several IPR petitions at the PTAB in 2013 challenging the asserted patents. Christopher Blaszkowski, *A Definition for IPR ‘Real Party-In-Interest’*, LAW360 (June 20, 2014, 4:24 PM), <http://www.law360.com/articles/548079>; Ryan Davis, *Full Fed. Circ. Won’t Review Toss of \$368M Apple IP Award*, LAW360 (Dec. 16, 2014, 8:16 PM), <http://www.law360.com/articles/605302/full-fed-circ-won-t-review-toss-of-368m-apple-ip-award>. The PTAB threw out Apple’s petitions as time-barred under 35 U.S.C. § 315(b). Christopher Blaszkowski, *A Definition for IPR ‘Real Party-In-Interest’*, LAW360 (June 20, 2014, 4:24 PM), <http://www.law360.com/articles/548079>. Apple also pursued several other means of challenging the patents at the PTAB, first attempting to join petitions filed by New Bay Capital, LLC. *Id.* After New Bay Capital terminated its petitions, Apple consulted with RPX, a defensive patent aggregator, possibly with the intention of using RPX-held patents to help invalidate the VirnetX patents at issue. *Id.* RPX then filed IPR petitions at the PTAB against the VirnetX patents that were the subject of the infringement suit. *Id.* The PTAB threw out those petitions in June 2014, concluding that Apple was the real party-in-interest in both the IPR and in the prior civil court proceeding and was therefore time-barred from filing the IPR petition. *Id.* Though Apple eventually succeeded in having the initial verdict thrown out on other grounds, Ryan Davis, *Full Fed. Circ. Won’t Review Toss of \$368M Apple IP Award*, LAW360 (Dec. 16, 2014, 8:16 PM), <http://www.law360.com/articles/605302/full-fed-circ-won-t-review-toss-of-368m-apple-ip-award>, this saga details the ways in which the current AIA rules protect patent holders from redundant suits by alleged infringers.

63. *See* Courtenay C. Brinckerhoff, *The USPTO Does Not Need The Onerous Proposed Attributable Owner Rules*, PHARMAPATENTS (Apr. 4, 2014), <http://www.pharmapatentsblog.com/2014/04/04/the-uspto-does-not-need-the-onerous-proposed-attributable-owner-rules/>.

64. *See* discussion at note 62, *supra*, for one example where the PTAB petitioner and civil court plaintiff were opposed in both proceedings.

patents and prevent abuses by parties asserting patents in other venues.⁶⁵ Consequently, patent ownership information remains hidden, notice problems continue to plague market participants, and the litigation abuses that occur mainly outside the PTO persist.

2. Other Legislative Initiatives

During the 113th Congress, lawmakers introduced several patent reform bills.⁶⁶ Their approaches to reform varied. Some sought to raise pleading standards in patent cases,⁶⁷ others hoped to shift costs and fees associated with patent litigation,⁶⁸ and most importantly for this discussion, several pieces of legislation aimed to combat the lack of transparency in patent ownership. Most notably, the End Anonymous Patents Act, the Patent Transparency and Improvements Act of 2013, and the Innovation Act all required disclosure of ownership information in an attempt to curb patent abuse.⁶⁹ While none of the proposals became law, the Innovation Act gained traction, and several congressmen voiced plans to raise these issues again during the 114th Congress.⁷⁰

These acts will be discussed in Part III, *infra*, as relevant starting points for future legislation.

II. THE PROPOSED RULE

The Proposed Rule also represented the culmination of more than five years of administrative discussion of potential reforms. The Federal Trade Commission (“FTC”) published a report, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*,⁷¹ following a series

65. Cf. Michael Smith, *How To ID Real Parties-In-Interest In Inter Partes Review*, LAW360 (Dec. 4, 2013, 1:19 PM ET) <http://www.law360.com/articles/485399/how-to-id-real-parties-in-interest-in-inter-partes-review> (discussing, in terms of the application of the AIA’s estoppel provisions, the relationship between defendants in infringement suits and challengers in IPR proceedings, but not discussing the relationship between IPR parties and those asserting patents in other venues).

66. Lanza, *supra* note 54, at 5–7.

67. *Id.* (discussing both the Innovation Act, H.R. 3309, and the Patent Abuse Reduction Act, S. 1013, each of which contains such provisions).

68. *Id.*

69. End Anonymous Patents Act, H.R. 2024, 113th Cong. § 2 (2013); Patent Transparency and Improvements Act of 2013, S. 1720, 113th Cong. § 3 (2013); Innovation Act, H.R. 3309, § 4 (2013).

70. Erica Teichert, *Congress to Push Patent Troll Bill in 2015, Goodlatte Says*, LAW360 (Nov. 18, 2014, 3:52 PM), <http://www.law360.com/articles/597447/congress-to-push-patent-troll-bill-in-2015-goodlatte-says>.

71. FTC Report, *supra* note 1.

of roundtables⁷² where commenters raised concerns about patent quality and ownership transparency.⁷³ The PTO similarly sought input from stakeholders regarding possible ownership transparency reforms several times between 2011 and 2013.⁷⁴ Thus, by the time the White House issued an executive action on June 4, 2013, titled “Making ‘Real Party-in-Interest’ the New Default” (“Executive Action”),⁷⁵ the reform conversation was well under way. In the press release accompanying the Executive Action, the White House took direct aim at patent trolls, stating:

Patent trolls often set up shell companies to hide their activities and enable their abusive litigation and extraction of settlements. This tactic prevents those facing litigation from knowing the full extent of the patents that their adversaries hold when negotiating settlements, or even knowing connections between multiple trolls.⁷⁶

To deal with that problem; improve functioning at the PTO; and streamline technology transfer, collaboration, and licensing, the White House called upon the PTO to begin a rulemaking process to require patent applicants and owners to regularly update ownership information when a patent is involved in a proceeding before the PTO.⁷⁷

On January 24, 2014, the PTO published a proposed rule and accompanying notice of proposed rulemaking under the title “Changes to Require Identification of Attributable Owner” (“Proposed Rule” and

72. *Id.* at 2–3; *The Evolving IP Marketplace: Hearing before the Fed. Trade Comm’n* (May 5, 2009), http://www.ftc.gov/sites/default/files/documents/public_events/evolving-ip-marketplace/090505transcript.pdf.

73. *E.g.*, *The Evolving IP Marketplace: Hearing before the Fed. Trade Comm’n*, transcript at 84 (Dec. 5, 2008) (statement of Daniel P. McCurdy), http://www.ftc.gov/sites/default/files/documents/public_events/evolving-ipmarketplace/evolvingiptranscript.pdf.

74. Request for Comments on Eliciting More Complete Patent Assignment Information, 76 Fed. Reg. 72372 (Nov. 23, 2011); Notice of Roundtable on Proposed Requirements for Recordation of Real-Party-in-Interest Information Throughout Application Pendency and Patent Term, 77 Fed. Reg. 70385 (Nov. 26, 2012).

75. Press Release, The White House Office of the Press Sec’y, Fact Sheet: White House Task Force on High-Tech Patent Issues (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

76. *Id.*

77. *Id.* Notably, the White House called upon the legislature to require patentees and applicants who “[send] demand letters, fil[e] an infringement suit[,] or seek[] PTO review of a patent” to file similar information. *Id.*

“NPRM,” respectively).⁷⁸ Although the PTO decided not to finalize a rule,⁷⁹ the Proposed Rule’s strengths and weaknesses provide a valuable starting point for future reform discussion.

A. STATED GOALS AND RULEMAKING AUTHORITY

In the NPRM, the PTO cited several internal and external goals justifying the Proposed Rule. In particular, the PTO identified the following objectives:

Internal Goals:

- (1) Ensure current power-of-attorney in each application or proceeding;
- (2) Avoid potential conflicts of interest for USPTO personnel;
- (3) Determine scope of prior art under common ownership exception and identify instances of double patenting;
- (4) Verify that those making post-issuance proceeding requests are proper parties for those proceedings;
- (5) Ensure that the information the USPTO provides concerning published applications and issued patents is accurate and not misleading.

External Goals:

- (1) Enhance competition and increase incentives to innovate by providing information to help innovators better understand the competitive environment;
- (2) Enhance technology transfer and reduce transaction costs for patent rights;
- (3) Reduce risk of abusive patent litigation; and
- (4) Level the playing field for innovators.⁸⁰

In crafting a rule to achieve these goals, the PTO relied on its authority under 35 U.S.C. § 2(b)(2), which “authorizes the [PTO] to

78. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned).

79. See Davis, *supra* note 8.

80. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4106.

establish regulations, not inconsistent with the law, which ‘govern the conduct of proceedings in the [PTO].’⁸¹ The PTO further cited its duty to disseminate information regarding patents.⁸² This obligation, the PTO noted, includes the requirement that information it has disclosed not be misleading.⁸³ The PTO relied on this authority to require patent owners to update information even after patent prosecution, including at times when a patent is not explicitly under review (e.g., at the time of payment of maintenance fees).⁸⁴

Although commendable,⁸⁵ the PTO’s attempt to address both internal and external goals in a single rulemaking made the success of the Proposed Rule unlikely. While the Proposed Rule’s breadth indicated that remedying external problems was its primary purpose,⁸⁶ the PTO’s cited

81. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4107 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt.1; currently abandoned) (citing *Star Fruits S.N.C. v. United States*, 393 F.3d 1277, 1282 (Fed. Cir. 2005) and 35 U.S.C. § 2(b)(2)); 35 U.S.C. § 2(b)(2)(A) (2012).

The PTO does not have unlimited authority to promulgate new rules; instead, it may only promulgate rules with the force of law when acting “reasonably within” a congressional grant of authority. Letter from Arti K. Rai, Professor of Law, Duke Law School, to U.S. Patent & Trademark Office 1 (Jan. 30, 2012), *available at* http://www.uspto.gov/patents/law/comments/f_rai_120130.pdf (citing *Chrysler v. Brown*, 441 U.S. 281, 305–06 (1979)) [hereinafter Rai Assignment Comments].

82. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4107 (citing 35 U.S.C. § 2(a)(2)).

83. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4108 (referring to 35 U.S.C. § 122).

84. *See id.* at 4108–09.

85. *See, e.g.*, Letter from Corey Salsberg, Senior Legal Counsel, Novartis Int’l AG, to James Engel, Senior Legal Advisor, Office of Patent Legal Admin., USPTO 1-2 (Apr. 15, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_novartis-20140415.pdf [hereinafter Novartis Comments] (supporting “many of the objectives” of the Proposed Rule and “appreciat[ing] the efforts of the [PTO’s] latest efforts to improve transparency of patent ownership”); Letter from Matthew Tanielian, Coal. for Patent Fairness, and William G. Jenks, Jenks IP Law PLLC, to U.S. Patent & Trademark Office 2 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-a_coalition_20140424.pdf [hereinafter Coalition for Patent Fairness Comments]; Letter from Matthew Sarboraria, Assoc. Gen. Counsel, Oracle Corp., to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 1 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_oracle_20140424.pdf [hereinafter Oracle Comments].

86. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4107; *see also* Press Release, The White House Office of the Press Sec’y, Fact Sheet: White House Task Force on High-Tech Patent Issues (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>; Novartis Comments, *supra* note 85, at 4–5 (arguing that the real purpose of the Proposed Rule was to deal with litigation abuse); AIPLA Comments, *supra* note 7, at 3–4.

rulemaking authority revolved primarily around setting procedural rules for internal proceedings.⁸⁷ The following discussion will focus on the Proposed Rule's potential efficacy regarding the PTO's cited external goals, with consideration of the internal goals only as needed.⁸⁸

B. THE PROPOSED RULE: "CHANGES TO REQUIRE DISCLOSURE OF ATTRIBUTABLE OWNER"

The PTO's decision to abandon the Proposed Rule came after significant opposition from a wide range of industry players during the most recent comment period.⁸⁹ These comments built upon concerns voiced at various roundtables⁹⁰ and in public responses to the PTO's solicitations for comments before the publication of the Proposed Rule.⁹¹ Critics generally fell into two categories: those who argued that the Proposed Rule failed to require enough disclosure to meaningfully improve the transparency of the system,⁹² and those who argued that the Proposed Rule required excessively burdensome disclosures given its theoretical benefits.⁹³ Notably, divisions in the assessment of the Proposed

87. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4107. As discussed in Section II.C.1, *infra*, the PTO may have determined that its limited authority required the Proposed Rule to have internal procedural justifications, even though the actual purpose was to remedy external issues.

88. The decision to frame the discussion in this manner fits with the focus of Parts III and IV, *infra*, which look to possible legislative solutions to the transparency problem and do not consider internal PTO functions.

89. Comments during this period were offered in response to the Proposed Rule itself. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4105.

90. See *Roundtable on Real Party-in-Interest Information: Hearing before the U.S. Patent & Trademark Office* (Jan. 11, 2013), http://www.uspto.gov/ip/officechiefecon/rpi_transcript_130111.pdf; *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* (March 26, 2014), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf.

91. See Letter from Jeffrey I.D. Lewis, President, American Intellectual Property Law Association, to Saurabh Vishnubhakat, Expert Advisor, Office of Chief Economist, U.S. Patent & Trademark Office, at 5 (Jan. 25, 2013), *available at* http://www.uspto.gov/patents/law/comments/rpii-a_aipla_130125.pdf; AIPLA Comments, *supra* note 7, at 2–4.

92. See, e.g., Coalition for Patent Fairness Comments, *supra* note 85, at 4 (noting that the proposed definition of attributable owner would not capture many parties that drive abusive litigation).

93. See, e.g., AIPLA Comments, *supra* note 7, at 2–4 (noting that the rules try to address a legitimate concern, but do so through “overly harsh consequences” and “potentially high burdens on all users of the patent system”); Letter from Heath Høglund, President, S.F. Intellectual Property Lawyers Assoc., to Michelle Lee, Deputy Dir., U.S. Patent & Trademark Office 2 (Apr. 24, 2014), http://www.uspto.gov/patents/law/comments/ao-a_sfipla_20140424.pdf [hereinafter SFIPLA Comments].

Rule broke along relatively distinct lines: large technology companies supported the goals of the Proposed Rule and fell into the former category.⁹⁴ Universities, attorneys, large life science firms, and some venture capitalists fell in the latter category.⁹⁵ Parties representing small businesses generally favored additional ownership transparency, but expressed concerns more in line with the latter category.⁹⁶

The Proposed Rule failed in three key respects. First, it required disclosure that was too broad and too costly, while still failing to force the parties most responsible for litigation abuse to fully disclose their patent interests. Second, the timing of the required disclosures was unlikely to provide information to parties when they most needed it. Third, the penalties cited by the PTO in the Proposed Rule were either too severe or too indeterminate to have deterred abuses and incentivized disclosure of ownership information.

1. *Attributable Owners*

To achieve greater transparency, the Proposed Rule required patent applicants and owners to disclose the “attributable owner” of a patent at various times during the life of the patent.⁹⁷ The term “attributable owner”, which the PTO selected in order to avoid confusion with the

94. See Oracle Comments, *supra* note 85, at 1; HP Comments, *supra* note 30, at 3, 5 (proposing modifications to expand, rather than limit, the scope of the Proposed Rule).

95. See Association of Universities Comments, *supra* note 7, at 1; Letter from J. Michael Strickland, Assistant Gen. Counsel (Patents), GlaxoSmithKline, to James Engel, Senior Legal Advisor, U.S. Patent & Trademark Office (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_glaxo_20140424.pdf [hereinafter GSK Comments]; Letter from Bobby Franklin, President & CEO, Nat'l Venture Capital Assoc., to Michelle K. Lee, Deputy Dir., U.S. Patent & Trademark Office 1–2 (Mar. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-a_nvca_03252014.pdf [hereinafter NVCA Comments]; *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 4–7 (Mar. 26, 2014) (statement of R. Reams Goodloe, solo practitioner), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf. [hereinafter Goodloe Statement].

96. See, e.g., *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 65 (Mar. 26, 2014) (statement of Mark Blafkin, Assoc. for Competitive Tech.), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf (expressing concern that broad attributable ownership rules might make it more difficult for start-ups to receive funding); *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 22–27 (Mar. 26, 2014) (statement Brian Schar, attorney), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf (expressing concern that the Proposed Rule effectively “discriminate against small companies, especially small venture-funded startups”).

97. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4106, 4109 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned)

definition of “real party-in-interest,” would have included all (1) “titleholders,” (2) “enforcement entities,” (3) “ultimate parent entities,” and (4) “hidden beneficial owners.”⁹⁸

The PTO intended the definition of “Attributable Owners” to be broad, covering both parties immediately connected to ownership of the patent and those with substantial downstream connections.⁹⁹ The first category, “titleholders,” was relatively narrow and included entities that have “been assigned title to the patent or application” and may have included exclusive licensees in cases where a grant of rights was broad enough to essentially constitute an assignment.¹⁰⁰ The second category, “enforcement entities,” was broader and captured entities who are not titleholders, but “who are necessary to be joined in a lawsuit in order to have standing to enforce the patent or any patent resulting from the application.”¹⁰¹ The third category, “ultimate parent entities,” was broader still, and included entities that control those in the first two categories and that are “not controlled by any other entity” as described in 16 C.F.R. § 801.1(a)(3).¹⁰² The definition of “ultimate parent entities” included people and companies that “(i) hold[] fifty percent or more of the outstanding voting securities of an issuer, or (ii) . . . hav[e] the right to fifty percent or more of the profits of the entity, or . . . the right in the event of dissolution to fifty percent or more of the assets of the entity.”¹⁰³ It also included parties who have contractual power to designate more than fifty percent of the directors of a company.¹⁰⁴ The fourth category, “hidden beneficial owners,” was a catch-all category that included parties who had “temporarily divest[ed] themselves of ownership rights through contractual or other arrangements” to keep their identities hidden.¹⁰⁵ Importantly, this provision would have included parties who have taken

98. *Id.* at 4106, 4110. While determining which parties are “real parties-in-interest” is a highly fact-dependent inquiry, *see supra* note 59, the Proposed Rule sought to identify not only those who might be expected to be “real parties-in-interest,” but also the entities that ultimately controlled those parties. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4107.

99. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4109–10.

100. *Id.* at 4110.

101. *Id.*

102. *Id.* 16 C.F.R. § 801.1 provides definitions that pertain to pre-merger notification requirements in the antitrust context. *See* 15 U.S.C. §18(a) (2012); 16 C.F.R. §801.1 (2011).

103. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4111.

104. *Id.*

105. *Id.* at 4110.

actions with either the “purpose or effect” of avoiding the definitions above.¹⁰⁶

Although the breadth of the attributable owner definition received some praise,¹⁰⁷ some parties complained that the definition was unclear or “irreducibly vague.”¹⁰⁸ In particular, various commenters raised the concern that determining who qualifies as an attributable owner for compliance purposes requires answering a host of complex business and legal questions.¹⁰⁹ This arguably increases costs beyond those officially acknowledged by the PTO and places a heavy burden on small businesses in particular.¹¹⁰

While requiring disclosure of titleholders was largely uncontroversial, some parties nevertheless objected to the possibility that Proposed Rule would require disclosure of some exclusive licensees.¹¹¹ This concern was critical to universities, who feared being drawn into breach-of-contract disputes for disclosing licensees and that the value of their patents would be substantially diminished if parties were unable to acquire them under confidentiality obligations.¹¹²

106. *Id.* at 4111.

107. *See, e.g.*, Feldman, *supra* note 13, at 48–49 (noting that, while flawed, the Proposed Rule represented a “much bolder effort to strike at the heart of patent transparency problems”).

108. *E.g.*, AIPLA Comments, *supra* note 7, at 3, 5.

109. *E.g., id.*; Letter from Steven W. Lundberg, Managing Shareholder, Schwegman Lundberg & Woessner, P.A., to James Engel, Senior Legal Advisor, OPLA 1–3 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-d_slw_20140424.pdf [hereinafter Schwegman Comments].

110. Letter from Phyllis T. Turner-Brim, Vice President, Chief IP Counsel & Russ Merbeth, Chief Pol’y Counsel, Intellectual Ventures, to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 23–24 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-e_intellectualventures_20140424.pdf [hereinafter IV Comments]. Schwegman Comments, *supra* note 109, at 2. While larger companies may tend to have more complex ownership structures, smaller companies may be less able to pay to have attorneys and business experts sort through the requirements. *See id.*

111. Association of Universities Comments, *supra* note 7, at 1–2; Letter from William T. Tucker, Exec. Dir., Innovation Alliances & Servs., Univ. of Cal., Office of the President, to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 1–2 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-c_uofca_20140424.pdf [hereinafter UC Comments] (supporting the positions offered in the Association of Universities Comments). Universities also raised these concerns with regard to the second category of attributable owners. Association of Universities Comments, *supra* note 7, at 2.

112. UC Comments, *supra* note 111, at 2. Life science companies including Novartis expressed similar concerns regarding the confidentiality provisions in their licensing agreements. *See* Novartis Comments, *supra* note 85, at 11–13.

The second category, “enforcement entities,” was more controversial. First, it is often difficult to identify entities that “must be joined in order to have standing to enforce the patent or any patent resulting from the application.”¹¹³ While including these parties in the second category might be necessary to prevent patent assertion entities from transferring ownership solely to gain the upper-hand in litigation and settlement,¹¹⁴ the highly fact-dependent and complex nature of that determination would have imposed substantial burdens on all patent owners and applicants, including those who had not deliberately engaged in such opportunistic practices.¹¹⁵ Some parties also objected strongly to the notion that it would be easy to assess when the scope of rights given to licensees was substantial enough to require their joinder to perfect standing.¹¹⁶

The third category, “ultimate parent entities,” also encountered substantial opposition. In general, commenters argued that the incorporated C.F.R. provision is too broad to apply in all instances in the patent context.¹¹⁷ They thus concluded that the PTO erred in its decision to incorporate a definition divorced from its purpose, namely preventing mergers that raise antitrust concerns.¹¹⁸ In addition, there are often legitimate business reasons for seeking confidentiality related to ownership information (e.g., protecting business strategy and trade secrets), but the

113. See Association of Universities Comments, *supra* note 7, at 2 (noting that the determination of necessary parties is often not obvious and that the PTO might lack the “authority or capability” necessary to make such a determination); HP Comments, *supra* note 30, at 3 (supporting the inclusion of a provision that reaches enforcement entities, but noting that identifying those entities will likely rely on a complex analysis of what patent rights have been transferred in a given agreement).

114. See HP Comments, *supra* note 30, at 2–3 (noting that without a provision that reaches enforcement entities, parties could continue to use contractual arrangements to obscure ownership, and that some version of this provision is necessary to capture the benefits of the Proposed Rule).

115. See GSK Comments, *supra* note 95, at 8–9 (noting that the burdens of parsing contract terms to identify enforcement entities would apply even if the patent application never matures into a patent and even if the patent is never enforced).

116. See Novartis Comments, *supra* note 85, at 11–12 n.8 (noting that standing requirements, e.g., whether or not an exclusive licensee qualifies as an “assignee” for the purposes of enforcement, vary by jurisdiction because of the interaction between state contract law and federal patent law); *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 80–81 (Mar. 26, 2014) (statement of Marcia Chang, Hewlett-Packard Co.), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf.

117. E.g., Goodloe Statement, *supra* note 95, at 11 (“The incorporation by reference should be totally rejected by the director of the Federal Register. They have rules to not allow incorporation by reference in the Federal Register”).

118. *Id.*

manner in which the Proposed Rule incorporated the C.F.R. provision failed to account for this reality.¹¹⁹ Moreover, the required disclosure of proprietary information may have constituted a regulatory taking.¹²⁰ And such disclosures would depart substantially from accepted international patent practices, directly in opposition to the PTO's stated goal of increasing harmony in that field.¹²¹ Moreover, there was some concern that investors would withdraw funding when faced with disclosure requirements that may reach equity investors who own less than a majority share in a company.¹²² Parties representing small businesses, who often use still-pending patent applications as collateral to secure loans, voiced concern that they would have had to update ownership information to disclose the interest of their creditors or risk abandonment of pending applications.¹²³ Last, some argued that the required disclosure of ultimate parent entities, to the extent that it would require disclosure of ownership information that is unavailable to the title owner of the patent, may create conflict between licensor-owners and licensees.¹²⁴ In theory, the former group would need the ownership information to maintain the patent, while the latter group may be reluctant to disclose ownership information for legitimate business reasons, and, in rare cases, might actually benefit from invalidation of the patent.¹²⁵

While some viewed the proposed rule as overinclusive, many commenters felt it was underinclusive because it failed to reach all parties that stand to benefit from the patent (either through assertion, royalties,

119. IV Comments, *supra* note 110, at 16 (noting that, in contrast to the required disclosure of ownership information in the antitrust context, the Proposed Rule would not have permitted parties to seek to have the required disclosures held in confidence); *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 65–66 (Mar. 26, 2014) (statement of Mark Blafkin, Assoc. for Competitive Tech.), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf (citing Apple's confidential acquisition of companies and technologies before the release of the first iPod as an example of a pro-competitive use of confidentiality).

120. Simon J. Elliott, *The Complexities of the USPTO Proposed Attributable Ownership Rules*, PHARMAPATENTS (Apr. 11, 2014), <http://www.pharmapatentsblog.com/2014/04/11/the-complexities-of-the-uspto-proposed-attributable-ownership-rules>.

121. *E.g.*, IV Comments, *supra* note 110, at 19.

122. NVCA Comments, *supra* note 95, at 1–2.

123. *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 29–34 (Mar. 26, 2014) (statement of Brian Schar, attorney), http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf.

124. *Id.*

125. *Id.*

etc.).¹²⁶ By focusing exclusively on those who own a majority stake in the patent or who are entitled to receive a majority of the licensing royalties, the Proposed Rule risked missing owners who share ownership among three or more parties even if those parties could effectively exercise control over the patent together.¹²⁷

The final category of “hidden beneficial owners” also faced opposition. While it took aim at companies that use complicated corporate structures to hide their true identities from the public (as many patent assertion entities have done), its vague definition risked reaching all manners of other parties.¹²⁸ Notably, the Proposed Rule did not clarify what constitutes a “temporary” divestment of ownership.¹²⁹ Defining “temporary” is essential given that this category included only parties who would avoid disclosure obligations through actions undertaken with “the purpose or effect of temporarily divesting such an entity of attributable ownership.”¹³⁰ While limiting required disclosures only to “temporary” divestments might narrow the scope of this category, the use of “purpose

126. *E.g.*, Coalition for Patent Fairness Comments, *supra* note 85, at 3–4. These positions are not necessarily mutually exclusive. The Proposed Rule was inefficient in that it imposed heavy burdens on patent owners without requiring disclosure all of the relevant parties.

127. *Id.* In theory, in such a scheme, all or some of the co-owning parties could avoid reaching the majority ownership stake required for disclosure. *Id.* C.F.R. § 801.1(a)(3) might cover such schemes as “joint ventures,” but it is unclear whether that provision would have effectively resolved this problem. *Compare* NVCA Comments, *supra* note 95, at 2 (observing that the joint venture rules are very broad, implying that the provisions would capture such arrangements) *with* Coalition for Patent Fairness Comments, *supra* note 85, at 3–4 (arguing that using such an arrangement could allow an entity to avoid disclosure obligations).

128. SFIPLA Comments, *supra* note 93, at 3–4 (“This sweepingly broad definition would capture perfectly legitimate licensing arrangements, including, for example, an option for an exclusive license that is triggered by a licensee meeting certain commercial or financial targets.”). *But see* Dell and Cisco Comments, *supra* note 32, at 4–6 (arguing that the provision should be clarified but broadened); HP Comments, *supra* note 30, at 4.

129. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4119 (providing no definition for “temporarily divesting” in any of the proposed CFR provisions).

130. *See id.* (drafting 37 CFR § 1.271); Dell and Cisco Comments, *supra* note 32, at 6 (arguing that “temporary” will be a source of dispute and that an interest that is hidden for any amount of time should be disclosed). Presumably, an owner that permanently divests itself of ownership would no longer qualify as an attributable owner, yet parties may be able to create long-term ownership arrangements in order to avoid disclosure obligations. *Cf. id.* (arguing essentially that the key issue is whether the ownership is purposefully hidden, not whether it is “temporarily” hidden). The Proposed Rule was unclear regarding when parties using such long-term strategies would be subject to disclosure requirements. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4119 (drafting 37 CFR § 1.271).

or effect” is problematic given that even non-abusive, normal transactions may have the “effect” of changing patent ownership status.¹³¹ It would be unnecessary and unduly burdensome to require disclosure of parties attempting to engage in legitimate transactions that merely have the incidental “effect” of avoiding disclosure obligations.¹³²

Patent practitioners harshly critiqued the rule, arguing that the rule’s complexities would burden the individuals who have to interpret and apply business and patent law concepts, even though few (if any) have the expertise and access to ownership information necessary to resolve these issues.¹³³ This, they argued, would increase the costs associated with patent maintenance far beyond the estimated \$100/patent cost cited by the PTO.¹³⁴ Furthermore, the PTO did little to convince critics that its definition of “attributable owner” would improve internal PTO functions.¹³⁵ Notably, the AIA’s new common ownership exceptions for prior art place the burden on the patentee to demonstrate that they apply, so requiring additional ownership disclosure would be premature and unnecessary.¹³⁶ Commenters similarly questioned the need for extensive

131. Novartis Comments, *supra* note 85, at 15 (noting, for example, that a manufacturer who obtains an exclusive option to license or purchase a patent at some future date may appear to have done so to avoid disclosure obligations, even if the manufacturer has a more innocent objective, e.g., limiting risk while searching for funding partners).

132. *See id.* at 15–16.

133. *See* Goodloe Statement, *supra* note 95, at 11–12. A related complaint might not be that the burden on individual attorneys or practitioners is too great, but rather that resolving these issues will require the expertise of additional attorneys and/or business experts. This solution would lead to increased costs associated with patent applications and patent maintenance.

134. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4116 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned); Schwegman Comments, *supra* note 109, at 1–2; *see also* Novartis Comments, *supra* note 85, at 16–19.

135. *See* Schwegman Comments, *supra* note 109, at 2.

136. *See* Letter from Courtenay C. Brinckerhoff, Chair, IP Law & Practice, Foley & Lardner LLP, to James Engel, Senior Legal Advisor, Office of Patent Legal Admin. 1–3 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-f_brinckerhoff_20140424.pdf [hereinafter Brinckerhoff Comments] (noting, for example, that the patent applicant must show that the common ownership exception in 35 U.S.C. §102(b)(2)(C) applies). Where a patent applicant fails to disclose sufficient ownership information to access the common ownership exception, that failure presumably harms only the applicant. *See id.* And where ownership issues are relevant to patentability, existing requirements already require the applicant to disclose the relevant information. *Id.*

disclosures in order to identify conflicts of interest and verify power of attorney.¹³⁷

2. *Timing*

The Proposed Rule required the Attributable Owner information to be provided when:

An application is filed (or shortly thereafter);

An attributable owner changes during the pendency of an application (within three months of such change);

The issue fee is due for an application that has been allowed;

A maintenance fee is due; and

A patent becomes involved in certain post-issuance proceedings at the Office, including in supplemental examination, *ex parte* reexamination, or a trial proceeding before the PTAB.¹³⁸

Following the White House's direction, these requirements required disclosure only when a patent is already before the PTO.¹³⁹ The Proposed Rule created no additional patent maintenance structures or opportunities for patents to come before the PTO after prosecution.¹⁴⁰ In so doing, the PTO apparently hoped to keep down the costs of maintaining ownership information.¹⁴¹

By requiring disclosure only at certain checkpoints when a patent is already scheduled to "touch" the PTO, the PTO sought to remain within its rulemaking prerogatives.¹⁴² However, commenters noted that the PTO may thereby have inadvertently created 1) substantial disclosure loopholes

137. *See id.*; SFIPLA Comments, *supra* note 93, at 5.

138. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4106.

139. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4106; Press Release, The White House Office of the Press Secretary, Fact Sheet: White House Task Force on High-Tech Patent Issues (June 4, 2013), *available at* <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

140. *See* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4110–11.

141. When asserting that the costs of compliance would not be substantial, the PTO noted that applicants and patentees would be reporting information "at a time they are otherwise interacting with the Office." *Id.* at 4117.

142. For an extended discussion, see Section C.1, *infra*.

that parties could exploit,¹⁴³ and 2) unjustifiable burdens on patent owners who must report information even when it has not changed.¹⁴⁴

First, commenters expressed dismay with the latency period between required ownership updates.¹⁴⁵ The PTO's failure to tie disclosure requirements to enforcement would have enabled parties to update information only to change it immediately prior to sending a demand letter or filing a lawsuit.¹⁴⁶ Thus, the new, undisclosed information could have remained hidden for several years before the next required update.¹⁴⁷ Furthermore, many NPEs litigate patents for which all maintenance payments have been made; this practice might have allowed these parties to avoid disclosure obligations altogether.¹⁴⁸

Commenters also argued that tying disclosure requirements to particular checkpoints, rather than simply requiring disclosure when ownership information changes, would have unnecessarily burdened patent holders, particularly small companies, by requiring updated attributable ownership information even when nothing has changed.¹⁴⁹ As noted before, the parties updating this information (including lawyers and companies charged with paying maintenance fees) may not be well-positioned to identify all attributable owners, and may find themselves forced to choose between incurring greater costs to verify the accuracy of information and risking severe penalties for non-compliance.¹⁵⁰

143. See, e.g., Coalition for Patent Fairness Comments, *supra* note 85, at 4–5.

144. See, e.g., Novartis Comments, *supra* note 85, at 16–17 (challenging the merits of requiring additional disclosures when ownership has not changed).

145. See Coalition for Patent Fairness Comments, *supra* note 85, at 4–5.

146. See *id.*

147. See *id.* (noting that in general, maintenance fees are paid only three times, with four-year intervals between payments).

148. *Attributable Ownership Public Hearing: Hearing before the U.S. Patent & Trademark Office* 52–53 (Mar. 26, 2014) (statement of Julie Samuels, Executive Director, Engine Advocacy), available at http://www.uspto.gov/patents/init_events/transcript_032614_uspto.pdf (noting that “[t]he research shows that a lot of patents are [sic] that are asserted by non-practicing entities are asserted at the end of their life” and concluding that more needs to be done regarding disclosure after payment of the final maintenance fee).

149. See Novartis Comments, *supra* note 85, at 16–17; see also Schwegman Comments, *supra* note 109, at 2–3 (noting that disclosure obligations may be complicated for small companies who are “constantly taking investments” and who might thus be obligated to update filings or risk having pending applications abandoned); see also Letter from James A. Oliff, Oliff, PLC to James Engel 3 (Apr. 24, 2014), available at http://www.uspto.gov/patents/law/comments/ao-d_oliff_20140424.pdf [hereinafter Oliff Comments].

150. Goodloe Statement, *supra* note 95, at 6–8.

3. Penalties

The Proposed Rule also created substantial ambiguity pertaining to the penalties for non-compliance. Non-compliance with the Proposed Rule during the pendency of a patent application would have led to the possible abandonment of the application.¹⁵¹ And revival would only have been possible if the applicant showed that the failure to comply occurred in good faith.¹⁵² Meanwhile, for non-compliant updating in post-grant procedures, the Proposed Rule mandated no particular penalty.¹⁵³

Many argued that the pre-grant penalty was too harsh. Although the Proposed Rule allowed revival of abandoned patent applications in the case of good faith mistakes, the Proposed Rule threatened to penalize both honest mistakes and purposeful actions.¹⁵⁴ Some practitioners have argued that demonstrating “good faith” errors is virtually impossible, meaning that the revival provision would rarely apply.¹⁵⁵ In addition, while the worst litigation abuses take place at the end of patent life cycles, the harshest penalty, abandonment of pending applications, would have been imposed at the start of the patent life cycle and disproportionately harmed small, potentially less sophisticated, patent owners.¹⁵⁶

151. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4112–13, 4120 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt.1; currently abandoned). In order to avoid abandonment, the patent owner would need to provide attributable ownership information within the notice period. *Id.* at 4112. Abandonment would be automatic, but a party who failed to comply with the provisions would be able to revive its application if it demonstrated that noncompliance was unintentional. *See id.* at 4112–13.

152. Changes to Require Identification of Attributable Owner, 79 Fed. Reg. 4105, 4112–13, 4120.

153. *See id.*; *see also* Letter from Herbert C. Wamsley, Exec. Dir., Intellectual Prop. Owners Assoc. to Michelle K. Lee, Deputy Dir., U.S. Patent & Trademark Office 6 (Apr. 24, 2014), *available at* http://www.uspto.gov/patents/law/comments/ao-a_ipo_20140424.pdf [hereinafter IP Owners Assoc. Comments] (asking for clarification regarding the penalty for non-compliance after issuance of the patent); AIPLA Comments, *supra* note 7, at 3–4.

154. *See* Oliff Comments, *supra* note 149, at 4; Goodloe Statement, *supra* note 95, at 16–18 (noting that petitions to revive patents after unintentional or unavoidable errors are rarely successful and may create problems for practitioners).

155. Goodloe Statement, *supra* note 95, at 16–18.

156. Since changes in attributable ownership during the pendency of an application must be reported promptly, the burden of disclosure would have been highest at this point. *See* AIPLA Comments, *supra* note 7, at 6. Small companies that receive new investments may have been required to disclose the identities of those investors. *Id.* This may have proved difficult for small companies unable to expend extra funds sorting out legal obligations. *Id.*

Commenters also derided the lack of clarity regarding post-grant penalties. In particular, some worried that courts could interpret non-compliance with the Proposed Rule as an instance of inequitable conduct, rendering the patent unenforceable.¹⁵⁷ Relatedly, such substantial penalties may merely shift the focus of litigation to proving intentional non-compliance and actually increase litigation.¹⁵⁸ Such an increase could arise in several ways. First, because failure to provide adequate attributable owner information could lead to abandonment or unenforceability, significant effort could be spent proving that a party failed to properly disclose information.¹⁵⁹ Second, demonstrating a good faith effort to disclose the appropriate information may necessitate introducing various financial records that are generally confidential, at least for private companies (e.g., partnership agreements and accounting information), which would only increase the scope of litigation by creating a new class of documents that would be relevant to the litigation.¹⁶⁰

C. THE DEMISE OF THE RULE

While there is substantial support for increased transparency in ownership, there was also concern that the Proposed Rule was poorly tailored to the ends it sought to achieve. While the rule aimed to improve PTO functions, it also sought to curb litigation abuse. By attempting to solve two problems simultaneously, the Proposed Rule solved neither. Limitations on the PTO's rulemaking authority, inappropriate definitions of ownership, mistimed obligations, and inappropriate penalties created a proposed system that both failed to effectively reach abusive litigation tactics while imposing substantial burdens on all patent owners.

1. *Rulemaking Authority*

The PTO's limited rulemaking authority may have produced some of the inadequacies that doomed the Proposed Rule. While the Proposed Rule was likely within the PTO's rulemaking authority, alternative, perhaps superior, proposals likely were not.¹⁶¹

157. See Novartis Comments, *supra* note 85, at 19–20.

158. See *id.*; Goodloe Statement, *supra* note 95, at 14–15 (noting that the Proposed Rule's disclosure requirements would essentially create an entirely new category of litigation and make most financial documents subject to discovery requests).

159. See Novartis Comments, *supra* note 85, at 19–20; see also Oliff Comments, *supra* note 149, at 3.

160. See Oliff Comments, *supra* note 149, at 3.

161. For the statutory basis for the PTO's rulemaking authority, see Section II.A, *supra*.

Critics of the Proposed Rule were skeptical of the PTO's authority to draft extensive disclosure requirements. For example, some questioned whether the rule is procedural as the PTO's rulemaking authority required, given the penalties for non-compliance.¹⁶² Others posited that a rule that adds requirements not present in any statute and that punishes non-compliance with patent abandonment cannot be procedural.¹⁶³ Meanwhile, others argued that some aspects of the patent code (e.g., those that make assignment disclosure optional) are inconsistent with the Proposed Rule and thus prevent the PTO from requiring the disclosure of ownership information and punishing non-compliance.¹⁶⁴ These complaints may or may not be correct, but they nevertheless point to limitations on the PTO's authority. In practice, the PTO itself acknowledged the limitations on its authority,¹⁶⁵ and the White House encouraged the PTO to adopt rules that affect patents only when their owners interact with the PTO.¹⁶⁶

Even assuming that the Proposed Rule did not exceed PTO rulemaking authority, it seems that the PTO's limited authority shaped key aspects of the Proposed Rule. First, while the Proposed Rule might have been more effective if it had imposed disclosure requirements beyond the PTO, the Proposed Rule's requirements arose only when a patent touched the PTO, when the PTO's rulemaking authority was greatest. Second, the penalties for noncompliance were harshest at the beginning of the patent's life cycle when, as noted before, the patent would have been

162. Simon J. Elliott, *The Complexities of the USPTO Proposed Attributable Ownership Rules*, PHARMAPATENTS (Apr. 11, 2014), <http://www.pharmapatentsblog.com/2014/04/11/the-complexities-of-the-uspto-proposed-attributable-ownership-rules>.

163. *Id.*

164. IV Comments, *supra* note 110, at 17–18; *see also* Simon J. Elliott, *The Complexities of the USPTO Proposed Attributable Ownership Rules*, PHARMAPATENTS (Apr. 11, 2014), <http://www.pharmapatentsblog.com/2014/04/11/the-complexities-of-the-uspto-proposed-attributable-ownership-rules>.

165. *Cf.* Changes to Require Identification of Attributable Owner, 79 Fed. Reg. at 4107–08 (offering justifications for its authority, but relying on rules that allowed the PTO to govern its own conduct, e.g. by ensuring it did not disseminate misleading information, and the conduct of others only to the extent that disclosures were necessary to improve PTO procedures). And, perhaps chastened by the Office's experience in *Tafas v. Dudas*, 541 F. Supp. 2d 805 (E.D. Va. 2008), in which a district court struck down the PTO's proposed limitations on continuances and claims on the basis that held that any rule that affects "individual rights and obligations" is substantive, the PTO was likely to have taken such limitations seriously.

166. Press Release, The White House Office of the Press Secretary, Fact Sheet: White House Task Force on High-Tech Patent Issues (June 4, 2013), *available at* <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

before the PTO and the need to clarify procedural aspects of prosecution (e.g., identifying conflicts of interest) would have been at its peak. Third, and in contrast to the previous point, the Proposed Rule identified no particular penalty for failure to comply after issuance, when the internal procedural benefits justifying the Proposed Rule would have been minimal and when the PTO's authority would therefore have been most questionable. The impact of these issues is discussed in Sections II.C.2–II.C.4, *infra*.

2. *Choosing the Wrong Standard: Underinclusion and Overinclusion of “Owners”*

The definition of attributable ownership under the Proposed Rule was inappropriate because it was simultaneously underinclusive and overinclusive. The definition reached entities that need not be disclosed to achieve the goals of transparent ownership, while failing to reach the parties who may have been behind the most problematic behavior. As a result, compliance would have been costly, yet the information provided would have been of only moderate use to market participants.

Some of these issues can be traced to the requirement to disclose “ultimate parent entities” as defined in the C.F.R. provisions based on the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (“HSR”).¹⁶⁷ Because HSR reaches through complex ownership schemes to clarify the relationships between various entities and prevent anticompetitive mergers, HSR seems attractive as a reference point for a rule seeking to provide greater patent ownership transparency. However, HSR's goals and manner of application are different than those of the Proposed Rule. For example, HSR requires disclosure of ultimate parent entities only for large mergers¹⁶⁸ and permits some disclosures to remain confidential.¹⁶⁹ HSR

167. Hart-Scott-Rodino Antitrust Improvements Act of 1976, P.L. 95-435 (1976) (amending 15 U.S.C. § 18); 16 C.F.R. § 801.1 (defining “person” as it applies to HSR to include ultimate parent entities); IV Comments, *supra* note 110, at 10 (citing 78 Fed. Reg. 3814 (Jan. 23, 2014)). HSR is a piece of antitrust legislation that mandates disclosure of ownership information as part of a preclearance requirement for merger events that exceed a statutorily set value (generally in the tens of millions of dollars). JANICE E. RUBIN, CONG. RESEARCH SERV., RL31026, GENERAL OVERVIEW OF UNITED STATES ANTITRUST LAW 4 (2005). This is both a timing problem and a definitional problem. It is addressed here, with the remainder of the HSR discussion, for simplicity.

168. See Feldman, *supra* note 13, at 47–48; IV Comments, *supra* note 110, at 10, 15–16.

169. See IV Comments, *supra* note 110, at 15–16. Professor Feldman and Intellectual Ventures typically support different sides of the transparency debate; it is thus somewhat

only seeks to enable the Department of Justice and the FTC to prevent large-scale, anticompetitive mergers.¹⁷⁰ Given that the costs of complying with the HSR disclosure requirements are substantial—the definitions are complex, interrelated, and reach people and companies that control corporate voting or receive over fifty percent of corporate profits¹⁷¹—HSR only imposes those burdens on parties when necessary to prevent major problems.¹⁷² In contrast, the Proposed Rule would have required public disclosures at several times during the life of every patent, irrespective of whether that disclosure would have improved the patent system.¹⁷³ While the identity of ultimate parent entities might be beneficial in some instances, it is unlikely that requiring disclosing in every instance would have been justifiable.¹⁷⁴

In addition, it seems that most of the important disclosures required by the Proposed Rule would have come about in connection with the HSR definition; that is, the Proposed Rule relied on the HSR definition to do much of the heavy lifting of sorting through obfuscated patent ownership. While other parts of the Proposed Rule would also have required disclosure of hidden parties, the HSR disclosure requirements were the broadest and the most likely to reveal the networks of shell companies and relationships that lie at the heart of ownership obfuscation. Oddly, however, HSR's definition of "ultimate parent entity," while broad, would not have reached parties who stand to benefit from the assertion of a patent but who own less than the threshold amount necessary for disclosure.¹⁷⁵

While the HSR provisions may provide a suboptimal definition of ownership, Professor Robin Feldman has noted that another area of business regulation, § 16 of the Securities Exchange Act of 1934, might be

noteworthy that they agree that antitrust provisions are inappropriate in the patent transparency context.

170. See Rubin, *supra* note 167 at 4, n.7.

171. See 15 U.S.C. § 18(a) (2012); see also Goodloe Statement, *supra* note 95, at 9–12.

172. See Rubin, *supra* note 167, at 4.

173. See Changes to Require Disclosure of Attributable Owner, 79 Fed. Reg. 4105, 4106-07 (Jan. 24, 2014) (considered for codification at 37 C.F.R. pt. 1; currently abandoned).

174. See SFIPLA Comments, *supra* note 93, at 3.

175. For example, companies that could split ownership of an assertion entity among three or more partners might avoid disclosure entirely since none would be an owner of more than fifty percent of the relevant patent assertion entity. See Coalition for Patent Fairness Comments, *supra* note 85, at 4; see also Feldman, *supra* note 13, at 48 (concluding generally that "[antitrust] thresholds are unlikely to be sensitive enough to serve as the appropriate analogy for patent transparency regulations").

more closely aligned with the needs of the patent system.¹⁷⁶ While § 16 aims to deter insider trading, its disclosure requirements also improve market transparency by requiring disclosure of those parties who stand to benefit from a given transaction.¹⁷⁷ The required disclosure of the “beneficial owner” prevents parties from using complex corporate structures to avoid disclosure obligations in the realm of insider trading;¹⁷⁸ a similar requirement could improve transparency by demonstrating which parties stand to gain financially from a patent’s assertion.¹⁷⁹ Disclosure of “beneficial owners” is also broad, but such a requirement may do more to uncover the parties that benefit from litigation abuse than a straightforward ownership test would have.

3. *Issues with Timing*

In addition, by requiring updated attributable owner information only when patents were already at the PTO, the Proposed Rule failed to compel disclosure of relevant information when it would have been most useful to a majority of parties—during or before litigation. Setting aside the question of whether the disclosures would have actually improved the PTO’s internal functions, the Proposed Rule’s greatest failing was that it would not adequately curb litigation abuse by shedding light on the parties using and directing abusive practices. Parties interested in concealing ownership information could have easily circumvented the disclosure obligations by waiting until after disclosure checkpoints to transfer ownership. By continuing to conceal ownership, those parties could have retained their advantageous litigation and bargaining positions even while complying with the Proposed Rule.

In addition, the Proposed Rule imposed costs on all patent owners, by requiring patent owners to file information regardless of whether ownership had changed. While the PTO assumed the costs of verifying that ownership had not changed would be minimal, this may not be the case. For small entities, verifying that ownership had not changed within the meaning of the Proposed Rule could have required a particularly damaging use of resources, contrary to the PTO’s goal of making

176. Feldman, *supra* note 13. Professor Feldman’s article provides a thorough discussion of the relationship between § 16 disclosures and patent disclosures and proposes § 16 as a potential source of guidance for future legislative reform. *Id.*; *see also* 15 U.S.C. § 78p (2012) (codifying in part the Securities Exchange Act of 1934 § 16 (1934) as amended through P.L. 112-158).

177. *Id.* at 25–26.

178. *Id.*

179. *Id.*

innovation more rapid and efficient. However, requiring disclosure of ownership information that had not changed would have merely created additional inefficiency in the system.

Because of these timing problems, the parties that currently bear the costs associated with hidden ownership information would have continued to bear those costs and would have incurred new costs, and any benefits of additional disclosure would likely have been minimal.

D. FINAL THOUGHTS ON THE PROPOSED RULE

The PTO's decision to abandon the Proposed Rule was reasonable. As constituted, it appeared unlikely to significantly aid the patent system, and it might have done more harm than good. Yet the Proposed Rule should be praised for its ambition, for moving the reform conversation forward, and for encouraging patent stakeholders to participate in the reform discussion out in the open.

Some aspects of the Proposed Rule, including the breadth of disclosure obligations, the attempt to limit disclosure obligations to specific times, and the attempt to maintain updated ownership information throughout the life of the patent should remain parts of future reforms. In addition, some critiques of the Proposed Rule were unpersuasive. For example, the costs of complying with disclosure may be substantial because of actions taken by the patent owners themselves: Where disclosure requirements place a greater burden on complex ownership structures, companies can assess whether complex structures remain beneficial and plan accordingly. In addition, shifting the burden of determining ownership from patent owners does not remove the burden from the system, but instead keeps it situated on other market participants.¹⁸⁰ For all of its possible failings, the Proposed Rule and its rulemaking process should meaningfully inform future legislative solutions.

III. BACK TO THE LEGISLATURE: EXISTING PROPOSALS AND CAUSE FOR OPTIMISM

When the PTO announced its decision to abandon the Proposed Rule, it indicated that it would defer to Congress to address the need for

180. This is not to say that the burden could not be lessened or more narrowly tailored to avoid creating unnecessary problems for legitimate businesses. Instead, altering who bears the burden of determining ownership information will inevitably have associated costs, and that those costs likely best reside with the owners themselves.

increased patent ownership transparency.¹⁸¹ Legislative reform is likely more appropriate for effecting change, particularly since Congress can adopt legislation that affects behavior outside the PTO, where most abuses take place.¹⁸² This Part examines proposed legislation from the 113th Congress to extract ideas that will be applicable moving forward. Though none of these bills became law, lawmakers from both parties have expressed optimism that a bill targeting patent reform will pass during the 114th Congress.¹⁸³

1. *Innovation Act*

The Innovation Act sought to require parties who file a complaint for patent infringement to disclose ownership information to the PTO, the court, and to each adverse party.¹⁸⁴ In particular, the Innovation Act would have required a party filing a complaint for patent infringement to disclose (1) any assignee of a patent, (2) any entity with the right to sublicense or enforce the patent, (3) any entity that the party asserting the patent knows to have a financial interest in the patent, and (4) the ultimate parent entity of any entity identified in (1)–(3).¹⁸⁵ Importantly, the Innovation Act defined “financial interest” as the right to receive proceeds from assertion of the patent or the ownership or control (direct or indirect) of more than five percent of the plaintiff entity.¹⁸⁶ This definition also excluded non-controlling interests in mutual investment funds and certain interests in mutual insurance companies or mutual savings corporations.¹⁸⁷ The party

181. Ryan Davis, *USPTO Backs Away From Patent Transparency Rules*, LAW360 (Oct. 24, 2014, 4:48 PM), <http://www.law360.com/articles/590197/uspto-backs-away-from-patent-transparency-rules>.

182. *See, e.g.*, how the PTO’s limited rulemaking authority hamstrung some of its wider-reaching reform efforts discussed in Section II.C.1, *supra*. Legislative solutions face no such limitations.

183. Erica Teichert, *Congress to Push Patent Troll Bill in 2015, Goodlatte Says*, LAW360 (Nov. 18, 2014, 3:52 PM) <http://www.law360.com/articles/597447/congress-to-push-patent-troll-bill-in-2015-goodlatte-says>.

184. Innovation Act, H.R. 3309, 113th Cong. § 4 (2013). Much of the Innovation Act is unrelated to ownership transparency and beyond the scope of this Note. *See, e.g., id.* §§ 1-4, 5-10. It is worth noting that many objections to the Innovation Act were based on provisions outside of its § 4 transparency requirements. *See* H.R. REP. NO. 113-279, at 95 (2013) (providing opinions opposed to H.R. 3309 that nevertheless note that it “contains some common sense proposals that [. . .] would improve the patent system,” including transparency requirements).

185. Innovation Act, H.R. 3309, 113th Cong. §§ 4(b), (d), (e)(3) (2013). This Innovation Act’s definition of ultimate parent entity would have incorporated the same HSR-derived definition as the Proposed Rule. *See id.* § 4(e)(3).

186. Innovation Act, H.R. 3309, § 4(e)(1).

187. Innovation Act, H.R. 3309, § 4(e)(2).

asserting the patent would also be required to submit updated identification information to the PTO within ninety days of any change regarding the parties identified in (1), (2), and (4).¹⁸⁸

The Innovation Act would require increased disclosure of ownership information, like the Proposed Rule, but would do so in a manner much more aptly tailored to curbing litigation abuse. While this limits the requirement's efficacy in pre-litigation licensing transactions (because information during those transactions could remain hidden), it would nevertheless accomplish much of what the Proposed Rule sought to do. And it would do so at a significantly reduced cost, since only those parties who file a complaint (or have filed a complaint on the patent in the past) are required to provide updated information. This makes the proposed legislation appealing: it is a limited remedy that attempts to curb litigation abuse, but because it is explicit about its purpose, it is more likely to be effective.

The Innovation Act's definition of ownership also represents a moderate improvement on the Proposed Rule's definition. First, determining the assignee of the patent as well as anyone with a right to sublicense or enforce the patent should be manageable. Although these determinations require some assessment of contract terms where there is a dispute regarding whether the rule applies (particularly when it is unclear if an exclusive license is a de facto assignment of the patent), determining parties with a right to sublicense or enforce the patent appears to be a simpler alternative to determining parties for whom it would be necessary to join to perfect standing in a suit for declaratory relief.¹⁸⁹ In addition, the requirement to disclose parties that the plaintiff knows to have an interest in the patent takes important steps towards solving the beneficial owner problem identified in Section II.B.1, *supra*, although the definition of "financial interest" may be broader than necessary. Lastly, requiring disclosure of the ultimate parent entity for any of the first three categories raises some of the problems that plagued the Proposed Rule, but does not worsen them.

188. Innovation Act, H.R. 3309, § 4(d).

189. First, given the timing of disclosure under the Innovation Act, the venue (and thus the governing law) would not be indeterminate (as it would have been under the Proposed Rule). Second, "those with a right to enforce or sublicense the patent" and "assignees" are terms that seem more concrete than "all parties necessary to be joined in a suit," which may include exclusive licensees, assignees, parties with standing to enforce the patent, any of those categories, or some combination thereof, depending on the jurisdiction. See *supra* note 116 for criticisms of the inclusion of the standing provision in the Proposed Rule.

Importantly, since these requirements attach only when an infringement suit is filed, they provide a choice for patent holders who wish to avoid disclosure requirements and thus they functionally exempt the vast majority of patent holders from the disclosure requirements.¹⁹⁰ By leaving patent holders the option to initiate the disclosure requirements, the Innovation Act's requirement burdens the enforcement right but imposes some of the costs associated with non-disclosure on the parties who create those costs. It does not create costs for all users of the patent system irrespective of whether they extract benefits from obfuscation of ownership. Given the limited number of patents that are actually litigated and the climbing percentage of litigation attributable to NPEs, this burden seems likely to fall precisely where it is needed most.

In addition, perhaps the most useful provision in the Innovation Act is its call for the PTO to maintain ownership information. Once a party has asserted a patent and disclosed ownership information, the PTO would make that information accessible to the public,¹⁹¹ which could help with preclearance, with the assessment of inequitable conduct, and with settlement negotiations should the patent be the source of future litigation.

Lastly, by providing clear penalties—barring, in particular, the recovery of attorney's fees under § 285 and increased damages under § 284¹⁹²—the Innovation Act creates a reasonable balance between incentives to disclose and penalties for non-compliance. Compared to the Proposed Rule's abandonment remedy, which commenters worried would predominantly affect unsophisticated patent applicants,¹⁹³ decreased recovery is more palatable and affects the parties most likely to abuse the system.

2. *Other Acts*

Other failed bills¹⁹⁴ proposed similar alterations to the patent code. The End Anonymous Patents Act ("EAPA"), for example, would have

190. As some parties noted, only two percent of patents are ever involved in litigation. Novartis Comments, *supra* note 85, at 5–6.

191. See Innovation Act, H.R. 3309, §§ 4(d), 7(b)(1).

192. Innovation Act, H.R. 3309, § 4(d)(2).

193. See discussion *supra* notes 149 and 156; see also AIPLA Comments, *supra* note 7, at 6.

194. Other bills discussed improved transparency and are not discussed here, including the Patent Abuse Reduction Act (S. 1013) and the Patent Litigation and Innovation Act (H.R. 2639). Transparency in demand letters is a topic beyond the scope of this Note. Several states have indicated an intention to regulate demand letters. Joshua

amended 35 U.S.C. § 261 to require disclosure of all real-parties-in-interest when new patents issue, at payment of maintenance fees, and whenever a patent, patent application, or interest therein is sold, granted, or conveyed.¹⁹⁵ Under the EAPA, any entity with a legal right to enforce the patent, any ultimate parent entity of an entity that can enforce, and any entity that has a controlling interest in the enforcement of the patent is a real party-in-interest.¹⁹⁶ To penalize non-compliance, the EAPA would bar plaintiffs from recovering damages before the date on which all ownership information is properly updated.¹⁹⁷

Notably, the EAPA applies whenever patent ownership changes rather than only during litigation or only during PTO proceedings, and establishes a penalty that is harsh but that does not prevent assertion of the patent. These alterations signal alternative approaches that might better align the goals of increased disclosure with the costs of administering a new rule.

The Patent Transparency and Improvements Act of 2013 (“PTIA”), meanwhile, would require disclosure of parties with (1) “a financial interest (of any kind) in the subject matter in controversy or in a party to the proceeding” or (2) “any other kind of interest that could be substantially affected by the outcome of the proceeding” upon filing an infringement suit.¹⁹⁸ The PTIA supplements this broad requirement by demanding updated assignment information any time the ultimate parent entity of the patent changes.¹⁹⁹ While the PTIA’s ownership definition is perhaps too broad, the formulation indicates that expansive disclosure requirements might be accompanied by limiting triggering events for those requirements, a trade-off that makes broad disclosure requirements more

Alston, *NJ's 'Patent Troll' Law Would Have More Bark Than Bite*, LAW360 (Oct. 27, 2014, 2:11 PM), <http://www.law360.com/articles/590339/nj-s-patent-troll-law-would-have-more-bark-than-bite> (noting that New Jersey and eighteen other states have passed or attempted to pass legislation to curb abusive patent litigation practices by focusing on demand letters).

195. End Anonymous Patents Act, H.R. 2024, 113th Cong. § 2 (2013).

196. End Anonymous Patents Act, H.R. 2024, § 2(e)(4). While this definition included “Ultimate Parent Entities,” it is worth noting that it did not incorporate the HSR definition into the requirement.

197. End Anonymous Patents Act, H.R. 2024, § 2(e)(5).

198. Patent Transparency and Improvements Act of 2013, S.1720, 113th Cong. § 3(b) (2013).

199. Patent Transparency and Improvements Act of 2013, S.1720, § 3(b)(1) (amending 35 U.S.C. to add §263(b)).

palatable.²⁰⁰ In addition, the PTIA punishes non-compliance by limiting recovery of increased damages and attorney fees (under § 284 and § 285, respectively) and by requiring the court to award a “prevailing accused infringer reasonable attorney fees and expenses incurred in discovery any previously undisclosed ultimate parent entities in the chain of title.”²⁰¹

IV. RECOMMENDATIONS

A rule to bring transparency to patent ownership information, whether promulgated by the PTO or passed by Congress, must require disclosure at times meaningful to stakeholders and must ensure that the disclosures provide stakeholders with valuable information. At the same time, administrative costs must not outweigh the benefits of increased ownership transparency. Ownership transparency is a worthy goal, but only within limits. Transparent ownership is not a cure-all, nor is a lack thereof the primary problem in the patent system. Without resolving issues related to patent quality and the boundaries of patents, even full ownership disclosure will not resolve every pre-litigation problem. Consequently, a narrowly tailored rule that provides limited pre-litigation transparency and that shifts burdens to parties seeking to exploit the system through litigation is most appropriate.

To that end, Part IV applies lessons from the Proposed Rule and recent legislative proposals to identify the features that best serve these goals. Most importantly, Part IV recommends a bifurcated system²⁰² that mandates one set of disclosure requirements independent of any adversarial proceedings and another that would necessitate greater disclosure by a party asserting a patent. Part IV also suggests that Congress require the PTO to maintain a database containing all ownership information disclosed under the new rule. While these

200. For example, by requiring parties to disclose ownership information only when suits are filed or when the ultimate parent entity changes, the PTIA's requirement is narrower than a disclosure requirement that triggers whenever any ownership information changes. Nevertheless, the PTIA's particular formulation is unlikely to be palatable given that there appears to be no limit on when an “interest” in the litigation, party, or subject matter of a proceeding that would be small enough to escape disclosure. While it would reach more parties than the beneficial owner definition from § 16 (for example), it seems likely that it would reach so many parties that in practice it would be impossible to administer. Moreover, disclosing *every* party with *any* interest in the litigation risks drowning users of the patent system in information, much of which might be useless.

201. Patent Transparency and Improvements Act of 2013, S.1720, § 263(d)(1)–(2).

202. At least one commenter proposed a similarly bifurcated system with separate requirements applying to all patent owners and to those applying only to those engaged in litigation. Novartis Comments, *supra* note 85, at 5–8.

proposals are not as broad as the Proposed Rule, they provide a balance between the burdens and benefits of disclosure.

A. TIMING AND GENERAL REQUIREMENTS

To begin, an effective disclosure requirement must result in greater access to ownership information when it is most meaningful to all parties. Parties might find additional ownership information useful at three distinct times: when seeking to enter a market protected by patents, when a patent is involved in licensing negotiations, and when a patent is threatened to be or is enforced (either in civil court, or at the ITC). To provide information at those times and decrease burdens on patent owners, disclosure should be required concurrently with two triggering events: (1) the assignment of patent rights, and (2) the filing of infringement claims in an adversarial proceeding.

First, patent owners and assignees should update ownership information upon the assignment of patent rights through a mandatory assignment recordation system maintained by the PTO.²⁰³ Initial disclosure should take place upon the filing of a patent application and should be maintained thereafter by patent applicants and owners. Requiring disclosure of ownership information upon assignment provides

203. While the PTO failed to make assignment information mandatory just a few years ago, the PTO's old proposal suffered from several problems that need not be imported into a new legislative rule. First, the PTO's definition of an assignee was a "real party[-]in[-]interest." Request for Comments on Eliciting More Complete Patent Assignment Information, 76 Fed. Reg. 72372 (Nov. 23, 2011). As discussed previously, identifying the real party-in-interest is a highly fact-dependent, complicated inquiry. *See* Lavenue & Cassady, *supra* note 59. Second, that proposal would have required disclosure of this information whenever a party communicated with the PTO during prosecution. Request for Comments on Eliciting More Complete Patent Assignment Information, 76 Fed. Reg. at 72372. This might have necessitated complicated, costly assessments of the real party-in-interest multiple times during the pendency of the patent application. In support of these changes, the PTO cited some of the same goals as it did in the Proposed Rule, including those directed at improving internal PTO functioning. *Id.* As at present, those issues pale in comparison to the abuses that occur outside the PTO in litigation and licensing, and thus scarcely justified additional disclosure. *See* Letter from William G. Barber, President, Am. Intellectual Prop. Law Assoc., to Saurabh Vishnubhakat, Attorney Advisor, Office of Chief Economist, USPTO 1-3 (Jan. 23, 2012), *available at* http://www.uspto.gov/patents/law/comments/a_aipla_120123.pdf. Based on these considerations, it is likely that the assignment disclosure contemplated here would be more palatable as part of a broader attempt at improving transparency in ownership and litigation.

"Assignment" of a patent might mean the literal assignment of a patent, or might be interpreted more broadly to mean the grant of any set of rights that constitutes the functional assignment of the patent. In the interest of clarity and to avoid creating an excessively complicated definition, "assignment" here should be interpreted narrowly.

market participants with more accurate information both during licensing negotiations and during freedom-to-operate analyses. For example, parties seeking to enter a given market would have contact information for potential licensors and would benefit from the additional contextual information that an assignment chain provides. This additional information would help shed light on the relationships between entities and, given the value of contextual information discussed in Section I.A.1, *supra*, would provide interested parties with additional information regarding the strength of the patent. In addition, recordation of assignment information would make it easier for parties seeking declaratory judgments to identify the owner of a patent, which would improve litigation efficiency, e.g., by limiting the instances in which a party could move to dismiss a declaratory action for failure to name the proper defendant.²⁰⁴

Importantly, costs associated with this disclosure requirement would be less than those under the Proposed Rule, since patent holders would not need to update information unless the patent changed hands. In addition, the PTO could theoretically manage the mandatory recordation of assignment information by leveraging the already-significant number of recorded assignments to further limit costs.

Second, ownership information should be disclosed upon the commencement of an infringement proceeding. By requiring public disclosure once litigation has been initiated, defendants will be able to better assess their risk and will more openly negotiate settlements. In addition, parties seeking to game the system will find it more difficult to use privateering techniques to surreptitiously litigate patents and thereby avoid litigation risk.²⁰⁵ By requiring disclosure upon the filing of an

204. *Cf.* Ewing & Feldman, *supra* note 2, at 40 (discussing a scenario in which a company sought declaratory relief in California, only to have some of its claims dismissed because it failed to name the correct defendant, i.e. the actual holder of the patent. Once this was sorted out, the defendant in the declaratory relief action was then able to file an infringement suit in its preferred venue).

205. Even where beneficial owners are disclosed, the appeal and availability of privateering techniques may persist. This is particularly true where the company encouraging the privateering receives no direct benefits from the assertion of the patent and where that company has never owned the patent asserted. *See* Ewing, *supra* note 39, at 6–8 (discussing how corporate sponsors of privateers receive mainly consequential benefits from patent assertions). Nevertheless, where patent ownership is more transparent, it will be more difficult to carry out some forms of privateering. First, a party that is merely outsourcing the assertion of a patent to another entity will likely have to disclose ownership, either directly during litigation (parties that use complex structures to avoid ownership obligations can qualify as beneficial owners under the proposed

infringement action, Congress would correct information asymmetries and better realign litigation rewards with the underlying value of the patents.

Alternative triggering events offer fewer benefits or increase burdens substantially. For example, a rule requiring disclosure of ownership information when sending a demand letter might seem desirable, but the number of letters sent each year would create unsustainable administrative costs.²⁰⁶ In addition, requiring disclosure any time a patent comes before the PTO (e.g., at the filing of maintenance fees) would raise many of the concerns discussed in Section II.C.3, *supra*, including burdening patent holders who have neither transferred ownership nor are engaged in abusive litigation or licensing practices, while failing to provide information at times that would help curb abuse.

B. ATTRIBUTABLE OWNERS

The disclosure requirements need not and should not be the same for both triggering events. To maximize benefits associated with disclosure while limiting burdens placed on legitimate interests, a legislative solution should require minimal disclosures upon assignment of the patent and more substantial disclosures upon initiation of litigation.

Legislation should also require assignees to update only basic assignment information with the PTO when the assignment takes place. Since the goal of additional disclosure at this point would be improving market information for licensing transactions and freedom-to-operate analyses, it need not include disclosure of beneficial owners, ultimate

definition) or indirectly when updating assignment information at the PTO. Second, as more information regarding the relationships between parties is disclosed during litigation, it should become easier for interested parties to assess the implied relationships between assertion entities and their sponsors. While sponsors may still benefit from the uncertainty surrounding their involvement in a privateering scheme, the benefits associated with those schemes should decrease as transparency increases.

206. One particularly active troll has sent more than 16,000 demand letters on his own. Ryan Davis, *FTC Settlement with 'Patent Troll' May Signal Wider Action*, LAW360 (Nov. 7, 2014, 7:54 PM), <http://www.law360.com/articles/594533/ftc-settlement-with-patent-troll-may-signal-wider-action>. Moreover, the FTC and several states have indicated a desire to regulate demand letters independently of any new legislative action by enforcing existing antifraud and consumer protection statutes. *See id.* (noting that the FTC successfully enforced existing law to prevent the “troll” in question from using “deceptive sales claims and phony legal threats” in patent licensing demand letters”); *see also* Joshua Alston, *NJ's 'Patent Troll' Law Would Have More Bark Than Bite*, LAW360 (Oct. 27, 2014, 2:11 PM), <http://www.law360.com/articles/590339/nj-s-patent-troll-law-would-have-more-bark-than-bite> (noting that New Jersey and eighteen other states have passed or attempted to pass legislation to curb abusive patent litigation practices by focusing on demand letters).

parent entities, or any of the more expansive definitions included in past proposals. Disclosure of those entities may compromise some legitimate business interests, and without a substantial need for thorough disclosure of ownership information prior to litigation,²⁰⁷ it is difficult to justify such broad disclosure. Limited disclosure, in contrast, addresses concerns that disclosure of too much information at this stage would discourage investment, for example by making it harder for companies to move into new markets without revealing plans to their competitors. Similarly, requiring only limited disclosure when patents are assigned would compromise far fewer confidentiality provisions in existing agreements, including many between universities and their exclusive licensees. Lastly, and perhaps most importantly, disclosure of only assignment information will reduce the administrative costs of disclosure for both patent holders and the PTO.²⁰⁸

At the same time, recordation of titleholders and assignees would provide information about whom to contact to initiate a licensing transaction and would provide some contextual information (e.g., a record of the number of times a patent has changed hands) that would help a diligent market participant to assess whether the patent is likely to be litigated.²⁰⁹ By soliciting and recording assignment information, the PTO could provide the public with chain-of-title information that would correct some of the imbalances in the licensing market and allow

207. Prior to litigation, there are fewer costs traceable to limited ownership information (rather than traceable to fuzzy patent boundaries, for example). Prior to litigation, the assertion that “what matters is not who owns the patent, but rather what the patent covers” is more accurate. *See* IV Comments, *supra* note 110, at 8–9.

208. While the PTO believed the cost of compliance with the Proposed Rule would have been negligible in many instances and would have cost only \$100 in others (based on input it had previously received at a roundtable), many commenters argued that this vastly underestimated the cost of compliance because of the complex analysis of corporate structure that would have happened multiple times pre- and post-issuance. *See, e.g.*, Schwegman Comments, *supra* note 134, at 2. Under this proposal, costs are more likely to align with the PTO’s proposal. Identifying assignees of patents is a much more straightforward inquiry than identifying all attributable owners, and because assignment information will only need to be updated when it changes, there will presumably be fewer instances when most patent owners will be required to undertake the ownership inquiry in the first place. In addition, since an assignment database is already in place, the PTO is more likely to be able to improve its existing structures in order to implement this requirement and less likely to need to create a new system from scratch. *See* Novartis Comments, *supra* note 85, at 6.

209. *See* Chien, *supra* note 26, at 301–02.

companies to more easily and efficiently assess risk, identify potential partners, and obtain or transfer patent rights as needed.²¹⁰

Once a patent is the subject of litigation, however, greater disclosure of ownership information is necessary. At this stage, additional disclosure is desirable to curb litigation abuse, not merely to improve ex ante licensing and freedom-to-operate analyses. Achieving this goal requires ferreting out parties who benefit from litigation, particularly those who use hidden ownership to artificially increase the value of their patents through questionable litigation practices. To adequately reach relevant parties, a broad definition similar to that in the Proposed Rule is necessary. To that end, the party that asserts a patent should disclose not only the identity of the current patent owner, but also the identities of parties who stand to benefit from assertion of the patent.

Here, the Proposed Rule and the Innovation Act provide some guidance. Analysis of the Proposed Rule militates for the removal of the HSR definition of “ultimate parent entities” given that it is burdensome without being particularly probative.²¹¹ Meanwhile, the Innovation Act’s definition, if amended to avoid incorporating the HSR definition of “ultimate parent entity,” provides a means to reach parties with a financial interest, and not merely an ownership interest, in patent enforcement cases. Indeed, the Innovation Act’s definition of attributable ownership would reach many parties without requiring unnecessarily complex assessments related to standing and “temporary” divestment of ownership.

Based on these considerations and those in Part II, *supra*, a party initiating an infringement action should be required to disclose (1) the assignee and titleholder of a patent, and (2) any beneficial owner of the patent. “Beneficial owners” should include parties identified by the Innovation Act, namely those who stand to receive proceeds from the assertion of the patent or who own five percent or more of the plaintiff entity. The definition could be explicitly expanded, however, to include those parties who, by virtue of control over a beneficial owner or by use of an arrangement designed to avoid this provision, qualify as beneficial owners themselves.²¹² Section 16 of the Securities Act supplies similar

210. See HP Comments, *supra* note 30, at 7.

211. See *supra* notes 171–74 and the accompanying discussion.

212. On its face, such a provision is likely to capture creditors and investment funds, much as the HSR provisions would have. However, because these disclosures would come about primarily during litigation rather than throughout the life of the patent, this disclosure is more justifiable. Cf. NVCA Comments, *supra* note 95, at 2 (noting that at times there is no reason for an investor to resist disclosure, and proposing a means to keep ownership concealed only where a party agrees not to seek licensing revenue or

rules that could serve as a model for these requirements.²¹³ Disclosure of these parties would shed light on many of the complex arrangements used to obscure ownership information and would do so with greater precision than disclosing ultimate parent entities would. This necessarily places a burden on plaintiffs with complex ownership structures, irrespective of whether that plaintiff has a complex structure for the purpose of gaming the litigation system or not. But, notably, this disclosure requirement would not create the burden, but rather shift it from defendants, who lack the information, to plaintiffs, who are better suited to disclose the information and who created the burden (for legitimate reasons or otherwise) when they chose a particular corporate structure. Moreover, since large companies are more likely to use complicated ownership structures, the disclosure burden would theoretically be less significant for small businesses and independent inventors looking to assert their rights.

Although these requirements could apply to both parties in an adversarial proceeding, they ought to apply only to the party who asserts the patent.²¹⁴ This limitation prevents parties from filing actions for the purpose of imposing disclosure costs on competitors and more closely aligns the costs and purposes of disclosure. This limitation also preserves the ability to choose whether to incur the costs of disclosure; ideally, this will deter some abusive litigation and prevent disclosure requirements

litigate a given patent). For example, since their investment may remain hidden until litigation arises, investors should be less concerned about telegraphing their investment strategies to competitors. The Innovation Act's explicit exclusion of ownership of an interest in certain mutual investment funds or insurance companies from the definition of "financial interest" might also serve as the basis for a provision limiting the application of this provision to creditors and investment funds. *See* Innovation Act, H.R. 3309, § 4(e)(1)(B) (2013).

213. Section 16 requires disclosure only above a ten percent ownership threshold; this number represented a compromise after the five percent threshold that both houses of Congress initially sought was abandoned. Feldman, *supra* note 13, at 31, 36–37. Alternatively or in supplement, full incorporation of the definition of "beneficial ownership" from § 16 might help alleviate any uncertainty in how "financial interest" might be determined given the extensive case law that already exists in that area. *See id.* at 39. Explicit incorporation of the § 16 definition risks requiring patent attorneys to perform complex analyses not unlike those that incorporation of the HSR definition would have required. However, since this analysis would take place during litigation only, the costs would not apply to all parties and would not have to be performed only by attorneys in charge of maintaining patents and patent applications.

214. This phrasing is intended to require disclosure of ownership for parties who assert the patents in civil court or at the ITC. The AIA requires PTAB petitioners to disclose real parties-in-interest. *See* Section I.B.1, *supra*.

from imposing unnecessary, unjustifiable burdens on parties employing legitimate business strategies.²¹⁵

Crucially, information disclosed at assignment and during litigation should be maintained by the PTO in a searchable database. The goal of transparency is best served when information is readily accessible, and by pooling information from litigation disclosures and assignments, the PTO could provide the public with a wealth of currently inaccessible information.²¹⁶ Notably, as information becomes accessible, the benefits associated with access to that information will increase rapidly, and the total value of the information disclosed through assignments and litigation will be greater than the sum of those parts. For example, mapping relationships between companies may help facilitate licensing and freedom-to-operate analyses pre-litigation.²¹⁷ In addition, uncovering these relationships burdens those seeking to keep their ownership information hidden; with each disclosure, a hidden owner would again have to alter its ownership structure, and any benefits derived from the change would be reduced to the extent that it will be disclosed in the future.

However, no definition or disclosure requirement will prevent all forms of litigation or licensing abuse,²¹⁸ and this Note consciously promotes disclosure requirements both at assignment and during litigation that fall short of creating a perfectly transparent system. A system that

215. Placing this burden on a party exercising its right to sue for infringement may be inappropriate because it will deter legitimate suits. This is a reasonable concern. However, there are always costs associated with the exercise of a right, and the question here is not whether such costs should exist, but rather who should bear those costs to the extent that they do exist. *Cf.* Menell & Meurer, *supra* note 1, at 5–6 (noting that notice costs not borne by one litigant in a patent case were instead borne by the opposing party; the costs did not go away in the absence of a rule pinning those costs to a given party).

216. The PTO's ability to administer such a database might be in doubt given the state of its current system. *See* Letter from Colleen Chien, Assistant Professor, Santa Clara Sch. of Law, to USPTO, at 4–6 (Jan. 25, 2013), *available at* http://www.uspto.gov/patents/law/comments/rpii-f_chien_130125.pdf (providing different recommendations for improving the current system, several of which involve improving public access to information the PTO already has). A legislative solution, however, could include provisions aimed at improving the current recordation system and could provide the PTO with the resources to do so (e.g., by permitting the PTO to use the fees it already collects to improve the system instead of continuing to divert fees to other uses).

217. Consequently, while the cost of transparency will be borne by plaintiffs with hidden ownership structures, the benefits of transparency will flow to the public at large.

218. And some forms of abuse are better dealt with by other areas of the law, e.g., antitrust, consumer protection, and antifraud.

required disclosure of licensing agreements for all transfers of patent rights would improve transparency, but at costs that would be enormous, and it seems implausible that such a rule would gain widespread approval. The patent system is inefficient, but it is not entirely broken, and other changes (e.g., to the manner in which courts assess patent scope) might be more appropriate means for improving the functioning of the pre-litigation patent system.

C. PENALTIES

Clear, meaningful penalties are necessary to make disclosure requirements worthwhile. In principle, penalties for noncompliance should also be proportional to the burden that noncompliance places on others.²¹⁹ Consequently, in contrast to the Proposed Rule, which imposed a severe penalty for nondisclosure during the pendency of an application but identified no particular penalty for noncompliance after issuance, a legislative solution should reserve its most severe penalties for noncompliance during litigation.

The Proposed Rule and legislative proposals, particularly the Innovation Act, provide guidance for possible penalties, particularly in regard to noncompliance during litigation. First, limiting recovery of attorney's fees and enhanced damages unless ownership information is updated provides a penalty that is both reasonably tied to the costs imposed by obfuscated ownership—in that it affects litigation costs—and does not jeopardize the enforceability of the patent. While this establishes a good baseline, Congress should also award discovery costs associated with determining beneficial ownership information to parties who show that the opposing party did not satisfy its disclosure obligations. Such a remedy would further limit the appeal of hiding ownership information in litigation and could be based on the language included in the PTIA,²²⁰ which required the court to award costs and fees associated with determining undisclosed ultimate parent entities to prevailing accused infringers.

Second, a permanent bar on recovery of monetary damages for infringing activities that took place when ownership information was not

219. That is, penalties for non-compliance need not be punitive to be effective and might be more palatable to the industry if they resemble compensatory damages.

220. Patent Transparency and Improvements Act of 2013, S.1720, 113th Cong. § 3(b) (2013) (drafting 35 U.S.C. §263(d)(2) as follows: “the court shall award a prevailing accused infringer reasonable attorney fees and expenses incurred in discovering any previously undisclosed ultimate parent entities in the chain of title.”)

properly maintained, should serve as an additional penalty in truly exceptional cases. For this rule, an exceptional case is one where the court determines that the plaintiff has acted egregiously and used abusive tactics to manipulate the litigation and settlement (or licensing) process. This definition can leverage the definition of “exceptional” used when awarding attorney fees under 35 U.S.C. § 286.²²¹ While a complete bar to recovery is too harsh a penalty to apply in most instances, judges should be able to use ownership information to assess harsher penalties as needed. Notably, this rule would only apply to monetary damages, meaning a court could still award injunctive relief to a successful plaintiff under the *eBay* standard.²²²

The above penalties focus on litigation abuse and non-compliance at the initiation of litigation, but it is also necessary to establish a clear penalty for failure to disclose proper ownership information at the time of assignment. Two remedies are appropriate. First, failure to update assignment information may, in exceptional circumstances, lead to a bar on recovery of monetary damages in an infringement suit for all times when ownership information was not properly recorded.²²³ This remedy is harsh, but it would apply rarely and would attempt to curb the most egregious forms of litigation abuse. In particular, this remedy would not affect pre-litigation abuses. Second, to penalize noncompliance pre-litigation, the PTO should assess fines that would scale up depending on the duration of non-compliance. Congress should grant the PTO authority to determine the exact value of those fines. To enforce that provision, the PTO could rely on assistance from others, who, upon becoming aware that assignment information is not up-to-date—e.g., via a failed attempt to contact the listed party for licensing purposes—could report that potential violation to the PTO for review. This would limit the

221. 35 U.S.C. § 286 (2012). “[A]n ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.” *Octane Fitness, LLC v. Icon Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014).

222. *eBay, Inc. v. MercExchange, LLC.*, 547 U.S. 388 (2006). Under the *eBay* factors, it is very difficult for an NPE to obtain injunctive relief. *See id.* at 391 (laying out the four-factor test for injunctive relief; the factors take into account equitable considerations including the public interest and the balance of hardships between the plaintiff and defendant). Accordingly, barring injunctive relief in order to combat abusive litigation practices would be an inappropriate remedy given that the primary concern in litigation comes from abusive practices by NPEs, and patent trolls in particular.

223. This provision is intended to conform to the penalty for non-compliance during litigation, *supra*.

PTO's expenditures in tracking down and verifying assignment information.

D. SUMMARY

A sound patent ownership-transparency rule should contain the following elements:

Disclosure obligations triggered 1) upon assignment, and 2) upon filing of an infringement suit at the ITC or in district court. The latter obligations should attach only to the party asserting the patent.

Different obligations depending on the triggering event, namely 1) disclosure of the assignee and titleholder upon assignment; and 2) disclosure of assignees, titleholders, and beneficial owners of the assignee, titleholder, or patent upon filing of an infringement suit.

Penalties a) barring enhanced damages and recovery of attorney's fees for parties who do not comply with disclosure obligations during litigation; b) requiring fee-shifting for costs associated with discovery of ownership information; c) permitting, in exceptional cases, a bar to recovery of monetary damages based on infringing activity that occurred when patent ownership information was not current; and d) imposing fines, whose value should be determined by the USPTO, for noncompliance pre-litigation.

These elements limit the costs associated with compliance while improving transparency in ownership both pre-litigation—for licensing and freedom-to-operate analyses—and during litigation. While this proposal imposes substantial costs on certain parties, it also mitigates the concerns raised in response to the Proposed Rule and legislative proposals.

V. CONCLUSION

Transparent patent ownership is a necessary goal that promises to curb litigation abuse and improve the efficiency of patent licensing negotiations, patent transfers, and freedom-to-operate analyses. It will also promote innovation and ensure that patent holders receive compensation that is commensurate with the value of their innovations.

While the PTO abandoned the Proposed Rule because it would have imposed substantial costs on patent owners without providing much additional ownership transparency, it nevertheless deserves praise for attempting to bring patent ownership out into the open. Additionally, the rulemaking process produced a meaningful conversation between a wide

variety of stakeholders about means to improve transparency while protecting legitimate business interests.

As the patent reform conversation moves forward, legislative proposals offer hope. Congress has the ability to carry this discussion forward and forge new transparency rules from the ashes of the past attempts. This Note has provided the essential elements of one possible approach, which aims to match the benefits and burdens of disclosure and to provide information when it will be most useful to stakeholders. The goal of transparent patent ownership remains both important and achievable.

EXERCISING A DUTY OF CLARITY: *NAUTILUS, INC. v. BIOSIG INSTRUMENTS, INC.*

Norris Boothe[†]

While there has long been a requirement in patent law to define patent scope,¹ the Supreme Court in *Nautilus, Inc. v. Biosig Instruments, Inc.*² interpreted § 112 of the Patent Act³ to require that “claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with *reasonable certainty*.”⁴ In doing so, the Supreme Court added its voice to a number of authorities asking for clearer claiming in patent examination.⁵ The Court rejected the previous test applied by the Federal Circuit that a claim has indeterminate scope “only when it is ‘not amenable to construction’ or ‘insolubly ambiguous.’”⁶ To arrive at this new “reasonable certainty” test, the Court balanced the limitations of written language in capturing the scope of an invention with the public notice⁷ demands of a patent.⁸

In *Nautilus*, the Supreme Court addressed how much imprecision § 112 ¶ 2 tolerates.⁹ But the Court did more than just clarify the test applied in litigation. The Court also observed that “patent applicants face powerful incentives to inject ambiguity into their claims.”¹⁰ Signaling a need for

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1. This requirement dates back to the 1836 Patent Act, which requires that the patent applicant “shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery.” Patent Act of Jul. 4, 1836 c. 357 § 6, 5 Stat. 117, 119.

2. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

3. 35 U.S.C. § 112 ¶ 2 (2006).

4. *Nautilus*, 134 S. Ct. at 2129 (emphasis added).

5. *See infra* Section I.E.

6. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 891, 898 (Fed. Cir. 2013), *vacated*, 134 S. Ct. 2120 (2014).

7. “Public notice” refers to the ability of the public to clearly understand the scope of the patent such that enterprising inventors can continue to develop and invent beyond the patent’s scope without fear of infringement. *See* Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 HARV. J.L. & TECH. 179, 187 (2007). Public notice also aids an accused infringer in determining whether or not he actually infringes.

8. *Nautilus*, 134 S. Ct. at 2128.

9. *See id.* at 2128–29.

10. *Id.*

clearer claiming during prosecution and discouraging ambiguous claiming,¹¹ the Court insisted that “[e]liminating that temptation is in order, and ‘the patent drafter is in the best position to resolve the ambiguity in patent claims.’”¹² In doing so, the Court sent a message to the United States Patent and Trademark Office (“PTO”) and patent prosecutors, calling for the elimination of unnecessary ambiguity in patent prosecution.¹³ With *Nautilus*, the Supreme Court joined a chorus of voices, both within the government and without, demanding clearer patent claims.¹⁴

This Note contends that the Supreme Court is calling for substantially improved claim clarity at the outset of a patent’s lifecycle, effectively imposing what might be called a “duty of clarity” upon those seeking patent protection and on the PTO. This duty of clarity is somewhat different from the codified duty of candor required of a patent applicant.¹⁵ Instead this is a joint duty owed by both the patent applicant and the patent examiner to ensure that the claims in the patent are clear enough to reasonably apprise the public of the scope of the patent.

Part I reviews the history of claim indefiniteness jurisprudence and the public notice doctrine, by examining the policy behind the public notice function in patents. Part I culminates in a summary of the Federal Circuit’s “insolubly ambiguous” test, and recent efforts by Congress, the White House, and the PTO to increase claim clarity, thus laying the foundation for the Supreme Court’s decision in *Nautilus*. Part II summarizes the *Nautilus* decision and the Court’s more exacting test for indefiniteness. Part III develops the concept of the duty of clarity by explaining the motivations for this duty, defining the duty, and examining how the Supreme Court’s *Nautilus* decision encourages a duty of clarity. Part III concludes by analyzing whether the duty of clarity is best enforced through litigation or changes to patent prosecution. Part IV critiques suggestions for improving the duty of clarity through various changes to patent prosecution, including the use of glossaries, structured forms in prosecution, hyperlinked applications, stricter application of § 112 in examination and litigation, special rules for software, and recording

11. *Id.* at 2129.

12. *Id.* (quoting *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1255 (Fed. Cir. 2008)) (internal alterations omitted).

13. *See id.*

14. *See infra* Section I.E.

15. 37 C.F.R. § 1.56 (2014) requires that patent applicants “disclose to the Office all information known to that individual to be material to patentability.”

interviews. Part IV concludes by suggesting an additional approach to improve clear claiming by taking advantage of technological advances that allow crowdsourced-assisted examination.

I. FOUNDATIONAL BACKGROUND

Patent laws bestow limited monopolies on inventors in the form of intellectual property (“IP”) rights.¹⁶ “[L]ike any property right, its boundaries should be clear.”¹⁷ In so stating, the Supreme Court quickly summarized the main reason for the definiteness requirement, and the foundation of the public notice doctrine today. This Part reviews the historical development of claim indefiniteness and the closely related concept of public notice from the original 1790 Patent Act¹⁸ to the present incarnation of the Patent Act, along with key legislative developments and judicial decisions that shaped these doctrines. This historical development came to a head with the relatively recent and apparently forgiving “insolubly ambiguous” test for indefiniteness introduced by the Federal Circuit in 2001.¹⁹ Running counter to this test, congressional, presidential, and PTO actions in the past few years evinced a need for more clarity in patent claims.²⁰ The doctrinal history, the insolubly ambiguous test, and recent congressional and executive actions form an important backdrop for understanding the Supreme Court’s *Nautilus* decision.

A. ORIGINS OF THE INDEFINITENESS DOCTRINE IN THE 1790 PATENT ACT AND 1793 PATENT ACT

When Congress first enacted the Patent Act in 1790, it embraced the concept of clear patent boundaries by requiring that the written description “contain a description . . . of the thing or things . . . invented or discovered . . . so particular . . . as . . . to distinguish the invention or discovery from other things before known and used.”²¹ This requirement for clear identification of an invention was different from modern requirements for claiming. First, the requirement focused on clearly distinguishing the invention from prior art, rather than clarifying areas

16. *Nautilus*, 134 S. Ct. at 2124.

17. *Id.* (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 730 (2002)).

18. Patent Act of 1790, ch. 7, 1 Stat. 109.

19. *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001), *abrogated by* *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

20. *See infra* Section I.E.

21. Patent Act of 1790 ch. 7 § 2, 1 Stat. 109, 110.

outside the patent's scope free for further invention.²² Therefore this language, although similar to the language in today's § 112, really formed part of today's novelty and obviousness requirements. Second, early patents did not typically have formal claims as are used today, but rather had a description of the invention.²³ Early nineteenth-century patents frequently included statements that "claimed" rights to the disclosed technology, although such claims were often not illuminating.²⁴

In 1793, only three years after the original Patent Act, Congress amended the patent system to replace the examination process with a patent registration system, leaving the question of patentability to the courts.²⁵ As the courts started reviewing disputed patents, it soon became clear that many patents contained only vague descriptions of inventions, failing to meet the requirement to distinguish the invention from all previous things known before.²⁶ Since many inventions involved incremental improvements where patentees described a full machine without expressly identifying the improvement, courts struggled to identify the inventive aspect of the patent.²⁷ Although the statute only required a patentee to distinguish the invention from what came before,²⁸ courts attempted to define patent scope in their analysis, extending the requirement to form the foundation of the public notice doctrine.²⁹ The Court in *Evans v. Eaton* observed: "How is any man to inform himself what it is that is patented, so that he may avoid the danger of infringement?"³⁰

22. See, e.g., *Whittemore v. Cutter*, 29 F. Cas. 1123, 1123–24 (C.C.D. Mass. 1813) (trying to resolve the scope of the invention as a whole machine or just an improvement, with the concern being not that the invention is invalid for indefiniteness, but that the invention would be invalid if claiming the whole machine because of prior art); see also William Redin Woodward, *Definiteness and Particularity in Patent Claims*, 46 MICH. L. REV. 755, 760 (1948).

23. Woodward, *supra* note 22, at 758.

24. See John M. Golden, *Construing Patent Claims According to their "Interpretive Community": A Call for an Attorney-Plus-Artisan Perspective*, 21 HARV. J.L. & TECH. 321, 350 (2008).

25. Patent Act of 1793, ch. 11, 1 Stat. 318.

26. See *Evans v. Eaton*, 20 U.S. 356, 366 (1822) (deciding that the inventor is only entitled to that which is new, but finding it difficult to resolve which improvements are new from the prior art).

27. See Woodward, *supra* note 22, at 760.

28. Patent Act of 1793, ch. 11, § 3, 1 Stat. 318, 321.

29. See *Evans*, 20 U.S. at 391 ("[O]f what use is the specification, unless it be to define, with precision, the extent and nature of the improvement?").

30. *Id.*

With many patents being invalidated by court review, the Superintendent of the Patent Office Thomas P. Jones wrote an article in 1828 warning prospective patentees that courts were vacating many patents due to the failure to identify the new elements claimed in a patent.³¹ In response to this concern, many patentees started formally claiming their inventions in the lead-up to the 1836 Patent Act.³² Despite better efforts to more precisely claim inventions, a proliferation of poorly written registered patents persisted in the patent marketplace.³³ Since so many patents could not hold up under judicial review, they effectively devalued the whole patent marketplace.³⁴

B. THE 1836 PATENT ACT: CODIFICATION AND INTRODUCTION OF PUBLIC NOTICE

Congress passed the 1836 Patent Act in part as a response to the concern that the average patent failed to meet statutory requirements.³⁵ The 1836 Patent Act restored the public's confidence in issued patents largely by reinstating the examination process.³⁶ At the same time, the 1836 Patent Act also codified much of the previous forty-plus years of judicially made patent law, including encouraging the use of more formal claiming.³⁷ The 1836 Patent Act clarified the 1793 Patent Act's requirement to define the invention, adding that the patentee "shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery."³⁸ The 1836 Patent Act also discarded language that previously limited the reason for defining the invention "to distinguish the invention or discovery from other things before known and used."³⁹ By dropping this limiting language, the 1836

31. See Thomas P. Jones, *Information to Persons Applying for Patents, or Transacting Other Business at the Patent Office*, 6 FRANKLIN J. & AM. MECHANICS' MAG. 332, 334 (1828).

32. See Karl B. Lutz, *Evolution of the Claims of U.S. Patents*, 20 J. PAT. OFF. SOC'Y 134, 139-40 (1938).

33. See Andrew P. Morriss & Craig Allen Nard, *Institutional Choice & Interest Groups in the Development of American Patent Law: 1790-1865*, 19 SUP. CT. ECON. REV. 143, 237-38 (2011).

34. *Id.*

35. *Id.*

36. *Id.*

37. See Lutz, *supra* note 32, at 143.

38. Patent Act of 1836, ch. 357 § 6, 5 Stat. 117.

39. Patent Act of 1790 ch. 7 § 2, 1 Stat. 110.

Patent Act included the public notice function discussed in *Evans*, incorporating that judicially made patent law.⁴⁰

However, the approach to claiming an invention after the 1836 Patent Act still largely differed from the modern approach used today.⁴¹ At the time, most patentees used “central claiming” where the entire specification formed the basis of the invention, and courts assessed infringement against the entire patent, not just against any specific claims to scope made in the patent.⁴² This approach contrasts with the “peripheral claiming” approach used today, where the “name of the game is the claim,” such that the claims alone define the scope of the invention with the specification only used to provide additional meaning.⁴³ Despite the eventual shift to peripheral claiming, commentators continue to debate whether central claiming or peripheral claiming better defines an invention.⁴⁴

Between the 1836 Patent Act and the 1870 Patent Act, the importance of providing public notice of patent scope gained greater recognition. The Supreme Court later adopted the view of the 1853 four-justice dissent in *Winans v. Denmead*, where Justice Campbell emphasized the importance of proper patent scope, noting that patents should not be used to “obstruct invention, and to deter from legitimate operations of skill and ingenuity.”⁴⁵ This view voiced the concern that other inventors would be discouraged from inventing and advancing technology within an area of ambiguous patent scope, for fear that all of their efforts would be usurped by an opportunistic patent holder who could have never claimed such advances if forced to claim more clearly.⁴⁶ The Supreme Court eventually agreed with this dissent and emphasized the public notice function soon after the 1870 Patent Act.⁴⁷

40. See Morriss & Nard, *supra* note 33.

41. See Lutz, *supra* note 32, at 147 (noting that before 1870 “claims rarely, if ever, received consideration on the question of infringement”).

42. See Woodward, *supra* note 22, at 760.

43. See *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) (quoting Giles Sutherland Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT’L REV. INDUS. PROP. & COPYRIGHT L. 497, 499 (1990) for its use of the phrase “the name of the game is the claim.”).

44. See Dan L. Burk & Mark A. Lemley, *Fence Posts or Sign Posts? Rethinking Patent Claim Construction*, 157 U. PA. L. REV. 1743 (2009).

45. *Winans v. Denmead*, 56 U.S. 330, 347 (1853) (Campbell, J., dissenting).

46. See *id.*

47. See *Merrill v. Yeomans*, 94 U.S. 568, 573 (1876).

C. FORMALIZING CLAIMING AND ESTABLISHING PUBLIC NOTICE

The 1870 Patent Act took formal claiming even further, formalizing the requirement that applicants “particularly point out and distinctly *claim* the part, improvement, or combination which he claims as his invention or discovery.”⁴⁸ In a major shift, the 1870 Patent Act placed the focus on the claims alone in a move to “peripheral claiming,”⁴⁹ instead of examining the entire specification to determine what the invention actually claimed.⁵⁰ The Supreme Court formally recognized the public notice function as well in two decisions soon after the 1870 Patent Act.⁵¹ With minor deviations,⁵² the Court has continued to include the importance of the public notice function in its patent law decisions.⁵³

The 1952 Patent Act updated the language from the 1870 Patent Act from “part, improvement, or combination” to “subject matter,” but kept the same principles of indefiniteness, requiring that “the specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”⁵⁴ Any failure to distinctly claim the subject matter renders invalid “the patent or any claim in suit.”⁵⁵ The 1952 Patent Act language is that used by the Supreme Court in its *Nautilus* decision, as unchanged in the 2006 edition of the United States Code.⁵⁶

48. Patent Act of 1870, ch. 230, § 26, 16 Stat. 198, 201 (emphasis added).

49. See J. Jonas Anderson & Peter S. Menell, *Informal Deference: A Historical, Empirical, and Normative Analysis of Patent Claim Construction*, 108 NW. U. L. REV. 1, 13–14 (2014).

50. See Lutz, *supra* note 32, at 147 (noting that prior to the 1870 Patent Act, analysis of patent scope considered the specification as well as the claims).

51. See *Merrill*, 94 U.S. at 573; *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278 (1877) (“When the terms of a claim in a patent are clear and distinct (as they always should be), the patentee, in a suit brought upon the patent, is bound by it.”).

52. See, e.g., *Carnegie Steel Co v. Cambria Iron Co*, 185 U.S. 403, 430 (1902) (starting with the specification rather than the claims to define the invention, focusing on the purpose of the invention described in the specification).

53. E.g., *Permutit Co. v. Graver Corp.*, 284 U.S. 52, 60 (1931) (“The statute requires the patentee . . . to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”); *Gen. Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938) (“The statute seeks to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights.”).

54. 35 U.S.C. § 112 ¶ 2 (2006).

55. 35 U.S.C. § 282 ¶ 2(3) (2006).

56. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2125 n.1 (2014).

D. THE FEDERAL CIRCUIT'S INSOLUBLY AMBIGUOUS STANDARD

The Federal Circuit first introduced its insolubly ambiguous⁵⁷ standard in 2001, in *Exxon Research & Engineering Co. v. United States*.⁵⁸ Under this standard, “[i]f the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree . . . the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds.”⁵⁹ A claim under the insolubly ambiguous standard is definite when “amenable to construction” and only indefinite if “no narrowing construction can properly be adopted.”⁶⁰ With this standard, the Federal Circuit reasoned that it was “protect[ing] the inventive contribution of patentees, even when the drafting of their patents has been less than ideal.”⁶¹ The Federal Circuit largely relied on the long-running canon of claim construction that claims should be construed to preserve their validity in developing this standard.⁶² However, courts typically applied this canon in claim construction to narrow scope in order to avoid invalidating prior art.⁶³ Yet the Federal Circuit appears to

57. The origins of the actual phrase “insolubly ambiguous” are not precisely clear, although it could be the Federal Circuit pulled the phrase from the Supreme Court’s jurisprudence on *Miranda* warnings, where the Court has said that “every post-arrest silence is insolubly ambiguous” in indicating innocence or guilt, such that the silence cannot be used against the arrestee. *Doyle v. Ohio*, 426 U.S. 610, 617 (1976).

58. *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1375 (Fed. Cir. 2001), *abrogated by* *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.* (citing *Modine Mfg. Co. v. USITC*, 75 F.3d 1545, 1557 (Fed. Cir. 1996) (rejecting indefiniteness argument after construing claims; stating that “when claims are amenable to more than one construction, they should when reasonably possible be interpreted to preserve their validity”); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996) (choosing the narrower of two equally plausible claim constructions in order to avoid invalidating the claim)). *Modine* in turn cites to *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 n.11 (Fed. Cir. 1984), regarding this canon of claim construction, while *ACS Hospital Systems* claims Supreme Court support for this canon of construction from *Klein v. Russell*, 86 U.S. 433, 467–68 (1873) and *Turrill v. Mich. S. & N. Ind. R.R. Co.*, 68 U.S. 491, 510 (1863). This canon also has more modern roots in circuit court caselaw before the formation of the Federal Circuit. *See Photo Elec. Corp. v. England*, 581 F.2d 772, 776 (9th Cir. 1978) (“The starting point is the rule that patent claims should be construed liberally to uphold the patent’s validity rather than to destroy the inventor’s right to protect the substance of his invention.”).

63. *Klein v. Russell*, 86 U.S. 433, 467 (1873) (applying the canon to avoid invalidity for lack of utility); *Turrill v. Mich. S. & N. Ind. R.R. Co.*, 68 U.S. 491, 509–10 (1863) (applying the canon to avoid prior art).

have misused this canon as the foundation for its insolubly ambiguous test by using the canon more broadly to construe otherwise ambiguous claim language.⁶⁴ The Federal Circuit applied the insolubly ambiguous standard to dozens of cases over the next fourteen years, providing further elucidation to this test.

Curiously, many applications of this supposedly relaxed standard have resulted in the Federal Circuit finding the claims at issue indefinite. The Federal Circuit first applied the new standard in a new case in *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, where it noted that “[t]he standard of indefiniteness is somewhat high,” but nevertheless found the patent in suit indefinite because “[o]ne [could not] logically determine whether an accused product comes within the bounds of a claim of unascertainable scope.”⁶⁵ Soon thereafter in *Honeywell International, Inc. v. International Trade Commission*, the Federal Circuit focused on the “amenable to construction” requirement, finding a claim indefinite because it was impossible to narrow the construction among several possible options, as the specification and prosecution history provided insufficient guidance to narrow the construction.⁶⁶ Similarly, in *Novo Industries, L.P. v. Micro Molds Corp.*, the Federal Circuit found a claim indefinite because there was an error in the term and the court could not determine the proper correction to make, leaving the term insolubly ambiguous and not amenable to construction.⁶⁷ In *Datamize, LLC v. Plumtree Software, Inc.*, the Federal Circuit again applied the insolubly ambiguous standard and again found a claim indefinite because the term “aesthetically pleasing” was too subjective, lacking an objective standard of measurement that would have allowed a proper construction.⁶⁸ The Federal Circuit in *Halliburton Energy Services, Inc. v. M-I LLC* noted that claims are “indefinite only where a person of ordinary skill in the art could not determine the bounds of the claims,” yet still found the claims at issue indefinite.⁶⁹ In *Halliburton*, the court somewhat limited the insolubly

64. See *infra* Section III.A.

65. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1342 (Fed. Cir. 2003).

66. *Honeywell Int’l, Inc. v. Int’l Trade Comm’n*, 341 F.3d 1332, 1338–40 (Fed. Cir. 2003).

67. *Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1358 (Fed. Cir. 2003).

68. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1356 (Fed. Cir. 2005), *abrogated by* *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

69. *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

ambiguous standard by noting that “[e]ven if a claim term’s definition can be reduced to words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope.”⁷⁰

That is not to say that the Federal Circuit always invalidated claims under this “high” standard. In its first application of the standard reversing a district court’s finding of indefiniteness, the Federal Circuit extensively considered arguments on the banking term “surrender value protected investment,” eventually finding the term definite because “the term was in use and had a discernible meaning to at least some persons practicing in the field.”⁷¹ In *SmithKline Beecham Corp. v. Apotex Corp.*, the Federal Circuit found a claim for a chemical structure “definitive,” easily satisfying the insolubly ambiguous test because the claim covered a “definite chemical structure.”⁷² In *Xerox Corp. v. 3Com Corp.*, the Federal Circuit reasoned that even when the patent term “descriptions are not rigorously precise, they [can] provide adequate guidance.”⁷³ A claim term can even take on different meanings in different parts of a claim as long as the meaning in each use is readily apparent from the context.⁷⁴

Following much dispute over this standard,⁷⁵ the Supreme Court granted certiorari to review *Biosig Instruments v. Nautilus* to resolve whether insolubly ambiguous should be the proper standard or whether

70. *Id.* at 1251.

71. *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1376 (Fed. Cir. 2004).

72. *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1340–41 (Fed. Cir. 2005).

73. *Xerox Corp. v. 3Com Corp.*, 458 F.3d 1310, 1323 (Fed. Cir. 2006) (finding the claims not indefinite).

74. *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1376 (Fed. Cir. 2008).

75. See, e.g., Dennis Crouch, *Is “Insolubly Ambiguous” the Correct Standard for Indefiniteness?*, PATENTLY-O (Sept. 21, 2013), <http://patentlyo.com/patent/2013/09/isinsolublyambiguous-the-correct-standard-for-indefiniteness.html>; FTC, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*, 94–103 (Mar. 2011), <http://www.ftc.gov/reports/evolving-ip-marketplacealigning-patent-notice-remedies-competition>; David A. Loewenstein & Clyde Shuman, *United States: The Federal Circuit’s “Insolubly Ambiguous” Standard of Indefiniteness*, MONDAQ BUS. BRIEFING (Nov. 26, 2008), <http://www.mondaq.com/unitedstates/x/70266/Patent/The+Federal+Circuits+Insolubly+Ambiguous+Standard+Of+Indefiniteness>; Eric Yeager, *Claim Whose Undefined Terms Are Reasonably Discernable Is Not Invalid*, 67 PAT. TRADEMARK & COPYRIGHT J. (BNA) 427 (2004).

another test should be applied.⁷⁶ *Nautilus* raised the issue of just how much imprecision §112 ¶ 2 tolerates.⁷⁷ Following the Supreme Court's oral arguments in *Nautilus*, but preceding the Supreme Court's opinion in *Nautilus*, the Federal Circuit issued one final decision under the insolubly ambiguous standard in *In re Packard*.⁷⁸ A concurring opinion by Judge Plager in *In re Packard* backed off the insolubly ambiguous test somewhat, perhaps sensing the change in the air.⁷⁹ Judge Plager acknowledged the lack of foundation for this standard and the dispute surrounding this standard.⁸⁰ Judge Plager proposed using a test closer to that later required by *Nautilus* in which an "ambiguous term . . . is a term that offers to one of skill in the art more than one reasonable meaning."⁸¹

E. INCREASED EXECUTIVE, ADMINISTRATIVE, AND
CONGRESSIONAL FOCUS ON CLEARER CLAIMING

Like the Supreme Court, the President, the PTO, and Congress through the Leahy-Smith America Invents Act of 2011 ("AIA")⁸² have also been pushing for greater clarity in patent claiming, with increasing volume over time. On June 4, 2013, almost a year before the *Nautilus* decision, the President issued an executive action to the PTO, instructing the PTO to tighten up functional claiming.⁸³ The President specifically spoke to claim clarity:

The AIA made important improvements to the examination process and overall patent quality, but stakeholders remain concerned about patents with overly broad claims—particularly in the context of software. The PTO will provide new targeted

76. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 896 (2014) (granting certiorari).

77. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

78. *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014) (deciding that the court did not need to determine whether or not the PTO had to apply the insolubly ambiguous standard in patent examination, because in this case after the PTO rejected a claim as ambiguous the applicant did not make a sufficient response to overcome the rejection).

79. *Id.* at 1317–18 (Plager, J., concurring).

80. *Id.* (Plager, J., concurring) (noting that when the "insolubly ambiguous" phrase was introduced in *Exxon* there was no prior use of that phrase, that the Federal Circuit continued to use both "insolubly ambiguous" and older tests for indefiniteness in cases that followed, and that the phrase has "generated considerable controversy.").

81. *Id.* at 1320 (Plager, J., concurring).

82. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

83. The White House: Office of the Press Secretary, *FACT SHEET: White House Task Force on High-Tech Patent Issues* (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

training to its examiners on scrutiny of functional claims and will, over the next six months develop strategies to improve claim clarity, such as by use of glossaries in patent specifications to assist examiners in the software field.⁸⁴

Although this statement focused more on functional claiming and software claims, it easily applies to all types of claims. With this executive action the President asked the PTO to step up its efforts to improve claim clarity, and effectively requested a duty of clarity on behalf of the PTO to help ensure patentees drafted clear claims.

The PTO responded to the President's order by indicating it will improve the review of patents for claim clarity through examiner training, by highlighting Patent Trial and Appeal Board ("PTAB") decisions examining functional claims, by initiating a glossary pilot program, by reaching out to the patent community for suggestions, and by looking inward to get feedback from its own examiners.⁸⁵ The Ninth Edition of the PTO's Manual of Patent Examining Procedure ("MPEP"), released in March 2014, has extensive language on enforcing the § 112 ¶ 2⁸⁶ requirement for claim definiteness.⁸⁷ Where an examiner rejects claim language as indefinite, "the applicant [must] respond by explaining why the language is definite or by amending the claim, thus making the record clear regarding the claim boundaries prior to issuance."⁸⁸ When arguing before the Federal Circuit, the PTO has highlighted the need for strong review of ambiguous claims during examination, arguing that "the patent system works best when claim ambiguity is resolved during examination, rather than to await litigation to determine the actual scope of a claim."⁸⁹

The PTO actually started pushing for greater claim clarity prior to the President's June 4, 2013 executive order, although the order undoubtedly increased the pressure on the PTO to show results. On January 3, 2013, the PTO requested comments on improving claim clarity in advance of a

84. *Id.* (emphasis added).

85. USPTO, *USPTO-led Executive Actions on High Tech Patent Issues*, http://www.uspto.gov/patents/init_events/executive_actions.jsp (last visited Dec. 23, 2014).

86. *See also* § 112(b) of the AIA.

87. MPEP § 2173 (9th ed., Mar. 2014).

88. *Id.*

89. *In re Packard*, 751 F.3d 1307, 1323 (Fed. Cir. 2014) (Plager, J., concurring).

roundtable on the subject,⁹⁰ receiving extensive commentary in response.⁹¹ The PTO also revised the MPEP prior to the President's executive order to increase the duty of clarity in examination.⁹² In the Eighth Edition, Revision Nine of the MPEP, the PTO introduced a more restrictive examination of claim definiteness, also present in the Ninth Edition.⁹³ Interestingly, in setting forth the reasonable certainty test in *Nautilus*, the Supreme Court did not use *Nautilus Inc.*'s requested test to find indefinite any "claim whose scope is . . . susceptible of more than one reasonable interpretation."⁹⁴ Yet the MPEP requires just such an analysis, rejecting a claim where there is more than one reasonable interpretation of scope.⁹⁵ The PTO changed this instruction only recently in Revision Nine of the

90. Request for Comments and Notice of Roundtable Events for Partnership for Enhancement of Quality of Software Related Patents, 78 Fed. Reg. 2, 292–93 (Jan. 3, 2013).

91. *Comments re: Partnership for Enhancement of Quality of Software-Related Patents*, USPTO, http://www.uspto.gov/patents/law/comments/comments_software_partnership.jsp (last visited Dec. 23, 2014). The ACM US Public Policy Council advocated for using software tools to aid § 112 examination and for more training on § 112 standards. ACM US Public Policy Council, *Public Comment on the Request for Comments and Notice of Roundtable Events for Partnership for Enhancement of Quality of Software-Related Patents*, Docket No. PTO-P-2-12-0052, USPTO, http://www.uspto.gov/patents/law/comments/swa_acm_us_public_policy_council_20130415.pdf. The Application Developer's Alliance asked for more rigor from examiners and applicants, which is the "duty of clarity" suggested by this note, in part through more structured examination and standardized dictionaries. Application Developers Alliance, *Comments of Application Developers Alliance*, USPTO, http://www.uspto.gov/patents/law/comments/sw-a_appalliance_20130415.pdf. BSA The Software Alliance asked for use of glossaries, indication whether a term has a lay or technical meaning, and a default dictionary designated by the applicant. BSA The Software Alliance, *Comments Submitted by BSA The Software Alliance*, USPTO, http://www.uspto.gov/patents/law/comments/sw-a_softwarealliance_20130415.pdf. Those arguing against additional efforts to improve claiming focused on the additional burden and costs that would be associated with examination. *See, e.g.*, Intellectual Property Owners Association, *IPO Response to the USPTO's "Request for Comments . . . for Partnership fo Enhancement of Quality of Software Related Patents"*, USPTO http://www.uspto.gov/patents/law/comments/sw-a_ipo_20130415.pdf.

92. *See* MPEP § 2173 (8th ed., Rev. 9, Aug. 2012).

93. *Id.*; MPEP § 2173.02(I) (9th ed., Mar. 2014).

94. Brief for Petitioner at 2, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014) (No. 13-369), 2014 WL 768314, at *2.

95. MPEP § 2173.02(I) (9th ed., Mar., 2014) ("if the language of a claim, given its broadest reasonable interpretation, is such that a person of ordinary skill in the relevant art would read it with more than one reasonable interpretation, then a rejection under 35 U.S.C. § 112(b) or pre-AIA 35 U.S.C. 112, second paragraph is appropriate.")

Eighth Edition of the MPEP, issued in August 2012.⁹⁶ In the previous version, Revision Eight of the Eighth Edition of the MPEP, issued in July 2010,⁹⁷ the corresponding language limited the ability of examiners to reject under § 112 ¶ 2 only where the “metes and bounds” of the claim could not be interpreted to avoid infringement.⁹⁸

The prior language under Revision Eight of the Eighth Edition of the MPEP focused on the ability of the person of ordinary skill in the art (“POSITA”) to avoid infringement. Yet this focus in practice did not provide good grounds for rejecting on the basis of § 112 ¶ 2.⁹⁹ In some art units, examiners rarely applied an ambiguousness rejection at all.¹⁰⁰ After all, a patent applicant could argue that a POSITA could avoid infringement by considering all possible variants of scope, and then know how to avoid infringement by avoiding the collective scope of all of them. Yet actual patent scope is not definite just because clear boundaries can be drawn around the broadest possible scope. Such boundaries only indicate that the uncertainty in scope is bounded, such that a POSITA could understand how to avoid infringement while still not knowing the actual scope of the patent with any certainty. By focusing on the ability of the public to avoid infringement, the old MPEP test, like the Federal Circuit’s insolubly ambiguous test,¹⁰¹ deviated from the statutory language requiring

96. MPEP § 2173.02(I) (8th ed., Rev. 9, Aug., 2012) (“if the language of a claim, given its broadest reasonable interpretation, is such that a person of ordinary skill in the relevant art would read it with more than one reasonable interpretation, then a rejection under 35 U.S.C. 112, second paragraph is appropriate.”).

97. See USPTO, <http://www.uspto.gov/web/offices/pac/mpep/old/index.htm> for MPEP archive indicating dates of versions of the MPEP.

98. MPEP § 2173.02(I) (8th ed., Rev. 8, Jul. 2010) states “[i]f the language of a claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. § 112, second paragraph, would be appropriate.” This definition aligns more closely to the old “insolubly ambiguous” standard.

99. See Kate S. Gaudry & Joseph J. Mallon, *Appeals and RCEs – the Frequency and Success of Challenges to Specific Rejection Types*, INTELLECTUAL PROP. TODAY, 27–28 (Nov. 2011) (examining appeals of patent application rejections from 2007–2009 out of the Biotechnology and Organic Chemistry Patent Technology Center, finding that only fourteen percent of indefiniteness rejections were upheld on appeal, compared to sixty-one percent of obviousness rejections upheld on appeal, thirty-seven percent of enablement rejections upheld on appeal, and thirty percent of written description rejections upheld on appeal).

100. See Arti Rai, *Let’s Tame Software Patent Claims: Lessons From Bioinformatics*, WIRED (Nov. 20, 2012, 6:30 AM) <http://www.wired.com/2012/11/software-patents-bioinformatics/>.

101. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 891, 898 (Fed. Cir. 2013), *vacated*, 134 S. Ct. 2120 (2014).

the patent to “particularly point[] out and distinctly claim[] the subject matter.”¹⁰² The ability to avoid infringement is not the same as ensuring the claims are definite. Just as the Supreme Court’s decision in *Nautilus* identified an improper balance in the weighing of competing interests in claim clarity requirements, the newest versions of the MPEP properly put the focus back on the patent applicant to make definite claims, improving the duty of clarity.

II. SUMMARY OF *NAUTILUS*

This Part reviews the factual background of *Nautilus*, the procedural history in the lower courts, and the Supreme Court’s analysis and conclusions.

A. FACTUAL BACKGROUND

The patent at issue in *Nautilus*, U.S. Patent No. 5,337,753 (“the ‘753 patent”), issued in 1994 and assigned to Biosig Instruments, Inc. (“Biosig”), concerned a heart rate monitor for use during exercise.¹⁰³ The ‘753 patent claimed an improvement on measuring the electrocardiograph (“ECG”) signals accompanying each heartbeat by filtering out electromyogram (“EMG”) signals given off by an exerciser’s skeletal muscles.¹⁰⁴ EMG signals are produced when the exerciser uses his muscles, by moving an arm or gripping an exercise monitor, for example.¹⁰⁵ These EMG signals can “mask” ECG signals, interfering with their detection.¹⁰⁶ The ‘753 patent filters out EMG signals by noting a key difference between EMG and ECG signals received in the left and right hands.¹⁰⁷ ECG signals detected in the left hand have the opposite polarity from ECG signals in the right hand, but EMG signals have the same polarity in both hands.¹⁰⁸ The ‘753 patent works by subtracting the equalized EMG signals detected in each hand from the overall signal, removing the EMG interference.¹⁰⁹

The ‘753 patent measures signals by using a cylindrical bar that a user grips with both hands such that each hand comes in contact with a pair of

102. 35 U.S.C. § 112, ¶ 2.

103. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2125 (2014).

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

electrodes, a “live” electrode and a “common” electrode.¹¹⁰ Claim 1 of the ‘753 patent¹¹¹ states the critical claim element at issue, describing the live electrode and common electrode mounted on the cylindrical bar “in spaced relationship with each other.”¹¹² Claim 1 also includes an additional element that requires each of the user’s hands “contact” one live electrode and common electrode pair.¹¹³ Claim 1 further requires that the two EMG signals detected are of substantially equal magnitude and phase.”¹¹⁴

During the 1990s Biosig allegedly disclosed the patented technology to StairMaster Sports Medical Products, Inc. (“StairMaster”).¹¹⁵ Biosig alleged that StairMaster, without obtaining a license, sold machines

110. *Id.* at 2126.

111. U.S. Patent No. 5,337,753 claim 1:

A heart rate monitor for use by a user in association with exercise apparatus and/or exercise procedures, comprising;

an elongate member;

electronic circuitry including a difference amplifier having a first input terminal of a first polarity and a second input terminal of a second polarity opposite to said first polarity;

said elongate member comprising a first half and a second half;

a first live electrode and a first common electrode mounted on said first half *in spaced relationship with each other*;

a second live electrode and a second common electrode mounted on said second half *in spaced relationship with each other*, . . .

wherein, said elongate member is held by said user with one hand of the user on said first half contacting said first live electrode and said first common electrode, and with the other hand of the user on said second half contacting said second live electrode and said second common electrode;

whereby, a first electromyogram signal will be detected between said first live electrode and said first common electrode, and a second electromyogram signal, of substantially equal magnitude and phase to said first electromyogram signal will be detected between said second live electrode and said second common electrode. . . .

(emphasis added identifying areas of dispute).

112. *Id.*

113. U.S. Patent No. 5,337,753 col. 5 l. 42–47 (filed Jun. 9, 1992).

114. *Nautilus*, 134 S. Ct. at 2126.

115. *Id.*

incorporating the patented technology, and continued to do so after Nautilus, Inc. (“Nautilus”) acquired the StairMaster brand.¹¹⁶

B. PROCEDURAL BACKGROUND

In 2004, Biosig brought a patent infringement suit against Nautilus in the Southern District of New York.¹¹⁷ In response, Nautilus twice asked the PTO to *ex parte* reexamine the ‘753 patent.¹¹⁸ Biosig and Nautilus voluntarily dismissed without prejudice their claims and counterclaims during the reexamination.¹¹⁹ During reexamination, in order to avoid a rejection over prior art, Biosig submitted a declaration by the ‘753 patent’s inventor that the patent sufficiently informed a person skilled in the art how to configure the detecting electrodes “to produce equal EMG [signals] from the left and right hands.”¹²⁰ The inventor claimed the placement of electrodes varied across different exercise machines, but could be achieved with a process of “trial and error.”¹²¹ In 2010 the PTO confirmed the patentability of the ‘753 patent’s claims.¹²²

Biosig then reinstated the patent suit in 2010 and the district court conducted a *Markman* hearing¹²³ in 2011 to construe the patent claims.¹²⁴ In response to competing constructions of “in spaced relationship with each other,” the district court construed this term to mean “there is a defined relationship between the live electrode and the common electrode on one side of the cylindrical bar and the same or a different defined relationship between the live electrode and the common electrode on the other side of the cylindrical bar.”¹²⁵ Nautilus moved for summary judgment, arguing the term was indefinite as construed under § 112 ¶ 2.¹²⁶ The district court granted the motion, because the term “did not tell [the

116. *Id.*

117. *Id.*

118. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 715 F.3d 891, 896 (Fed. Cir. 2013), *vacated*, 134 S. Ct. 2120 (2014).

119. *Id.*

120. *Nautilus*, 134 S. Ct. at 2126.

121. *Id.*

122. *Id.* at 2127.

123. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) (deciding that claim construction was exclusively in the province of the court, and did not require a jury; creating the pretrial *Markman* hearing structure to resolve the meaning of claim terms as a matter of law).

124. *Nautilus*, 134 S. Ct. at 2127; *Biosig Instruments*, 715 F.3d at 896.

125. *Nautilus*, 134 S. Ct. at 2127.

126. *Id.*

court] or anyone what precisely the space should be.”¹²⁷ The Federal Circuit reversed and remanded, finding that a term is indefinite “only when it is ‘not amenable to construction’ or [is] ‘insolubly ambiguous.’”¹²⁸ The Federal Circuit found that the term survived this indefiniteness test because “the claims provide inherent parameters sufficient for a skilled artisan to understand the bounds of ‘spaced relationship[,]’” and “a skilled artisan could apply a test and determine the ‘spaced relationship’ as pertaining to the function of substantially removing EMG signals.”¹²⁹ The Supreme Court granted certiorari and decided the case in 2014, vacating the Federal Circuit’s decision and remanding the case.¹³⁰

C. THE SUPREME COURT’S ANALYSIS

The Court first noted that the parties agreed on several requirements of § 112, ¶ 2.¹³¹ In particular the parties agreed that: (1) “definiteness is to be evaluated from the perspective of someone skilled in the relevant art,” (2) “claims are to be read in light of the patent’s specification and prosecution history,” and (3) “[d]efiniteness is measured from the viewpoint of a person skilled in [the] art *at the time the patent was filed*.”¹³² The Court highlighted that the key dispute lay in the parties’ “articulations of just how much imprecision § 112, ¶ 2 tolerates.”¹³³ Nautilus asserted that “a patent is invalid when a claim is ‘ambiguous, such that readers could reasonably interpret the claim’s scope differently.’”¹³⁴ Biosig and the Solicitor General in their briefs only required that a “patent provide reasonable notice of the scope of the claimed invention.”¹³⁵

The Supreme Court reasoned that § 112 requires a “delicate balance.”¹³⁶ Due to inherent limitations of language, the statute must allow for some amount of uncertainty in the effort to precisely capture the scope

127. *Id.*

128. *Biosig Instruments*, 715 F.3d at 898.

129. *Id.* at 900–01 (referring to the possible size of a person’s hand as an “inherent parameter.”).

130. *Nautilus*, 134 S. Ct. at 2128.

131. *Id.*

132. *Id.* (emphasis in original).

133. *Id.*

134. *Id.* (quoting Brief for Petitioner at 37, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014) (No. 13-369), 2014 WL 768314, at *37).

135. *Id.* (citing Brief for Respondent at 18, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014) (No. 13-369), 2014 WL 1260426, at *18).

136. *Nautilus*, 134 S. Ct. at 2128.

of the invention.¹³⁷ Without such allowances, reasonable efforts to properly define invention scope would frequently fail, and dampen incentives for innovation.¹³⁸ At the same time, “a patent must be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them.”¹³⁹ Without such precision, there would be “[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims.”¹⁴⁰ Further, the Supreme Court noted with concern that “the patent system fosters ‘an incentive to be as vague and ambiguous as you can with your claims’ and ‘defer clarity at all costs.’”¹⁴¹ The Court expressed that “[e]liminating that temptation is in order.”¹⁴²

The Federal Circuit’s insolubly ambiguous test permitted too much uncertainty under the Supreme Court’s reasoning.¹⁴³ Although the Federal Circuit’s test as applied in practice came closer to the statutory requirement than the language would suggest, the Court still found this test inadequate, as it was not “probative of the essential inquiry.”¹⁴⁴ Rejecting the Federal Circuit’s test, the Court instituted its own test that “claims, viewed in light of the specification and the prosecution history, inform those skilled in the art about the scope of the invention with *reasonable certainty*.”¹⁴⁵ Although the reasonable certainty test differed from the Federal Circuit’s test, Nautilus’s proposed test, and the test advocated by Biosig and the Solicitor General, it arguably comes closest to Nautilus’s requested test. Nautilus’s proposed test is close to reasonable certainty in that a claim with more than one reasonable interpretation might not achieve reasonable certainty.¹⁴⁶

137. *Id.*

138. *See id.*

139. *Id.* at 2129 (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (quoting *McClain v. Ortmyer*, 141 U.S. 419 (1891))) (internal quotations and indications of alteration omitted).

140. *Id.* (quoting *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942)).

141. *Id.* at 2129 (quoting testimony from Federal Trade Commission, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies With Competition* 85 (2011)).

142. *Id.*

143. *See id.* at 2130.

144. *Id.* (internal quotations omitted).

145. *Id.* at 2129 (emphasis added).

146. *See id.* at 2128 (quoting Brief for Petitioner at 37, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014) (No. 13-369), 2014 WL 768314, at *37).

Yet the Court chose an affirmative reasonable certainty standard for confirming the definiteness of a claim instead of *Nautilus's* negative “more than one reasonable interpretation” standard for striking a claim as indefinite, leaving open the question of what would suffice for finding a claim indefinite under this standard. Rather than settling this question, the Court instead noted that it is a court of review and not one of first impression, and therefore remanded the case back to the Federal Circuit to apply the new reasonable certainty test while noting that this new test is less “amorphous” than the Federal Circuit’s previous test.¹⁴⁷

III. THE DUTY OF CLARITY

The Supreme Court’s decision in *Nautilus* added judicial momentum to the efforts of the President, the PTO, and Congress to improve the clarity of patent claims. All three branches of the government have effectively called for a better and more honest effort from patent applicants themselves. This insistence on patent applicants intentionally writing more precise claims and tighter patent examination of those claims is the “duty of clarity.” This Part discusses why a duty of clarity is so important in patent law, what exactly it means to have a duty of clarity, and how the *Nautilus* decision advances this duty.

A. WHY A DUTY OF CLARITY

There are many reasons that society benefits from greater clarity in patent claiming. Clearer claiming benefits patentees by increasing their ability to extract license fees and by making the patents more marketable. In contrast, while patentees can also benefit from vague claims,¹⁴⁸ those advantages are typically unjust. Clearer claiming also favors other inventors advancing the art around the patentee’s invention and the greater patent community.

In some ways, patentees benefit from ambiguous claims. The Supreme Court commented that patent prosecutors have been incentivized to be vague and ambiguous in their claims.¹⁴⁹ Patentees benefit from fuzzy

147. See *Nautilus*, 134 S. Ct. at 2131.

148. See Ismael Arinas, *How Vague Can Your Patent Be? Vagueness Strategies in U.S. Patents*, 2012 HERMES J. LANG. & COMM. BUS. 48, 55–56 (2012) (distinguishing vague claims as acceptable from ambiguous claiming); Irving Kayton & Paul L. Gardner, *Crafting and Drafting Winning Patents: An Overview*, 85 J. PAT. & TRADEMARK OFF. SOC’Y 473, 483 (2003) (advocating that “the practitioner says, asserts, and does no more than is absolutely required by statute and case law”).

149. See *Nautilus*, 134 S. Ct. at 2129.

boundaries in their patents, and patent prosecutors face no penalties for such efforts.¹⁵⁰ Unclear boundaries allow a patentee to claim infringement by others that fall within the broader interpretation of the uncertain scope, yet still avoid later asserted prior art if necessary by arguing a narrower interpretation of the uncertain scope. This practice can be particularly troublesome where ambiguous language is used during prosecution to avoid prior art. While the patent applicant and patent examiner may agree on the outer limits of the patent scope obtained through prosecution, ambiguous language in the prosecution history may fail to serve the public notice requirements of § 112(b). Yet when a patent applicant inadequately documents the agreed-to scope through ambiguous language, this does not justify the use of vague claiming, as it is really just a failure to properly document the patent bargain.

Later efforts to remove ambiguity after issuance can also be problematic.¹⁵¹ A patentee can correct an ambiguous claim by seeking a reissue of the patent under 35 U.S.C. § 251, often to clean up a patent in preparation for litigation.¹⁵² That reissuance process can, with the patentee's permission, even happen concurrently with litigation.¹⁵³ A reissued patent may, however, invoke the doctrine of intervening rights under 35 U.S.C. § 252.¹⁵⁴ Under this doctrine, if the scope of a new or amended claim is not substantially identical to previously existing claims on reissue, then there are "absolute intervening rights" such that there can be no acts of infringement of the new or amended patent claims patent prior to the date of reissue.¹⁵⁵ Further, there are also "equitable intervening rights" such that there can also be no infringement where there is substantial preparation of products that infringe only under the reissued claims.¹⁵⁶ One might think that when a claim is amended from an

150. See Willis B. Rice & William L. Grossman, *Reissued Patents and Intervening Rights*, 43 YALE L.J. 766 (1934).

151. See *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 810 F.2d 1113, 1117 (Fed. Cir. 1987) (finding a claim substantially identical even after adding a missing antecedent basis to a claim to make it definite under § 112 ¶ 2, such that intervening rights did not apply).

152. Curtis B. Hamre et al., *Reissue and Reexamination*, 29 IDEA 311, 312 (1989) ("through use of the reissue procedure, a patentee can 'clean up' language in patent claims which, with hindsight, might be considered a problem during litigation.").

153. See *id.* ("the PTO will not stay its reexamination of a patent that is in litigation unless trial has commenced.").

154. 3 PAT. L. FUNDAMENTALS § 10:21 (2d ed. 2015).

155. 35 U.S.C. § 252 (2012); *BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc.*, 1 F.3d 1214, 1220 (Fed. Cir. 1993).

156. *BIC Leisure Prods.*, 1 F.3d at 1220.

ambiguous claim to become a clear claim, the claims would not be substantially identical. After all, the prior claim was ambiguous, and the amended claim is not. However, the Federal Circuit has found that claims can be substantially identical when a patentee corrects claims that were ambiguous under § 112 ¶ 2 with a narrowing amendment.¹⁵⁷ Since any removal of ambiguity could be considered narrowing of the broadest possible interpretation, there are typically no intervening rights for correcting ambiguous claims.¹⁵⁸ These reissuance rules further incentivize ambiguous claiming in prosecution, because the patentee can later fix the ambiguity with no intervening rights penalty. In fact, this encourages patentees to claim broadly with ambiguity, so as to be able to narrow the patent later to avoid prior art, while maintaining a scope that includes potential infringers, all without giving up intervening rights.

However, using vague claim language is not without risk for the patentee.¹⁵⁹ The problem for the patentee can arise later when a patentee actually asserts the patent in litigation. Once a patentee enters litigation, a claim may be invalidated because of ambiguous scope under § 112 ¶ 2, causing the patentee to lose the claim in its entirety. If the patentee had written clear patent claims in the first place, the patentee would not face this uncertainty in litigation and have this extra burden to defend his patent in litigation. Possibly ambiguous patents also make litigation outcome more uncertain, and given new fee shifting rules,¹⁶⁰ uncertain patent assertion can be riskier.

157. *Slimfold*, 810 F.2d at 1117 (finding a claim substantially identical when a missing antecedent basis was added to a claim to make it definite under § 112 ¶ 2, such that intervening rights did not apply); *see also* *Mendenhall v. Astec Indus., Inc.*, No. CIV-1-86-229, 1988 WL 188449, at *51 (E.D. Tenn. Oct. 31, 1988) (“The defense of intervening rights is unavailable when claims of a reissue patent are narrowed, rather than broadened”), *aff’d*, 887 F.2d 1094 (Fed. Cir. 1989).

158. *See Slimfold*, 810 F.2d at 1117. *But see* *Wayne-Gossard Corp. v. Sondra, Inc.*, 434 F. Supp. 1340, 1352 (E.D. Pa. 1977) (applying intervening rights to narrowing reissued patents), *aff’d sub nom. Wayne-Gossard Corp. v. Sondra Mfg. Co.*, 579 F.2d 41 (3d Cir. 1978).

159. *See Hamre et al.*, *supra* note 152, at 311–12 (1989). Since a reissuance must be “through error without any deceptive intention,” an effort to be intentionally vague in the initial prosecution might become problematic in reissuance.

160. *See Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014) (relaxing the standard for a case to be considered “exceptional” for fee-shifting purposes under 35 U.S.C. § 285); Hannah Jiam, *Fee-Shifting and Octane Fitness: An Empirical Approach Toward Understanding “Exceptional,”* 30 BERKELEY TECH. L.J. 611 (2015).

A patent with ambiguous scope also has an indeterminate value because uncertainty in the ability to successfully assert the patent in litigation creates high-risk litigation outcomes.¹⁶¹ Since a vague patent is worthless if invalidated as ambiguous, and of full value if valid, the uncertainty means the patent is valued somewhere between these extremes. This results in the undervaluing of valid patents based on ambiguous claims. More certainty is also important to a patent owner seeking market compensation for his intellectual property.¹⁶² This typically occurs with a corporate patent owner seeking funding, making purchases with equity, or offering its IP for sale.¹⁶³ Patent owners with ambiguous patents are able to extract less value in all of these activities. Therefore, to improve the monetization of patents, patentees can benefit from more clarity in prosecution.

Clearer claiming also improves the process of patent prosecution, because where a claim is more clear and determinate, it is easier for the patent examiner to examine the claim and identify potential prior art. Where claims are instead ambiguous, the examiner must first resolve the ambiguous scope, in order to properly identify prior art. Or worse, where the examiner fails to resolve the ambiguous scope, the examiner may waste prosecution time searching for prior art that is outside the actual scope of the claims. By making clear claims, patent prosecutors speed up the prosecution process for the examiners and can reduce the cost of prosecution for clients.¹⁶⁴

161. See Kelly Casey Mullally, *Legal (Un)certainty, Legal Process, and Patent Law*, 43 LOY. L.A.L. REV. 1109, 1113 (2010).

162. See Craig Allen Nard, *Certainty, Fence Building, and the Useful Arts*, 74 IND. L.J. 759, 759 (1999) (“The prospect of certainty in the patentee’s property interest has several benefits, one of which is to create a sense of security which permits the patentee to secure risk capital from investors, which in turn facilitates the commercialization of the claimed invention.”).

163. See *id.*

164. Examiners face substantial time pressure to complete their examinations. See John R. Thomas, *Collusion & Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 314 (2001); see also Milton Weissman, *Testimony Before the Senate Judiciary Committee, Subcommittee on Patents, Trademarks, and Copyrights, Relating to S. 1321 (Hart Bill)*, 55 J. PAT. OFF. SOC’Y. 604, 606-07 (1973), which quotes a 1918 Assistant Commissioner’s speech addressed to examiners:

[I]f you have to choose between making a less thorough examination and a general and material delay in getting the applications through, it is probably more to the public interest that the prosecution be prompt . . . [and] . . . if your examination is not sufficiently thorough, this is directly the fault of Congress.

Clear claiming certainly benefits other inventors, allowing advancement of the art around the patentee's invention.¹⁶⁵ The main advantage of clearer claims is that other inventors know the boundaries around which they can further the art without concern for infringing the patent.¹⁶⁶ These firm boundaries encourage investors to spend on research to develop commercial products outside of the patents' boundaries.¹⁶⁷ Without clear claiming, investors and inventors may be wary of developing products within the ambiguous boundaries of a patent, for fear that their efforts will only benefit the patent owner, and not themselves.¹⁶⁸

The greater patent community also benefits from clearer claiming. When many patents are ambiguous and others are not, it fouls the whole patent marketplace because it makes patents more difficult to value.¹⁶⁹ This echoes the concerns of Thomas P. Jones in 1828 about too many invalid patents harming the value of all patents;¹⁷⁰ only now, the problem is too many ambiguous patents harming the value of all patents. Because patents can be difficult to read and interpret, they can also be difficult to value, leading many to estimate the value of patents, particularly when

Id.; see also Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW U. L. REV. 1495, 1500 (2001) (noting that patent examiners average only eighteen hours of total examination time on each patent).

165. See, e.g., Christopher A. Cotropia, *Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms*, 47 WM. & MARY L. REV. 49, 69–70 (2005).

166. See *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942) (noting that without clear boundaries there would be “[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims”).

167. James Bessen et al., *The Private and Social Costs of Patent Trolls*, 34 REGULATION 26, 26 (2011–2012) (finding the net transfer of wealth from patent infringing defendants to patent plaintiffs represents a loss to social welfare, and the “fuzzy” boundaries enable the rise of NPE business models. “To the extent that . . . NPEs opportunistically assert ‘fuzzy patents’ against real technology firms, they can decrease the incentives for these firms to innovate.”).

168. See *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014) (“Otherwise there would be ‘[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims.’” (quoting *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236 (1942))).

169. See Malcolm T. “Ty” Meeks & Charles A. Eldering, *Patent Valuation: Aren't We Forgetting Something? Making the Case for Claims Analysis in Patent Valuation by Proposing A Patent Valuation Method and A Patent-Specific Discount Rate Using the CAPM*, 9 NW. J. TECH. & INTELL. PROP. 194, 196 (2010) (noting that there is no agreed-upon method for patent valuation, but arguing that a proper valuation should include an analysis of the claims).

170. See Thomas P. Jones, *Information to Persons Applying for Patents, or Transacting Other Business at the Patent Office*, 6 FRANKLIN J. & AM. MECHANICS' MAG. 332, 334 (1828).

valuing large portfolios with time constraints.¹⁷¹ Ambiguous patents make the valuation process even more difficult, leading to even more estimating. To account for the uncertainty in potentially ambiguous patents, patents must be discounted to account for the risk of invalidity.¹⁷² When many patents are ambiguous, there is uncertainty added to any sale of a large portfolio of patents, decreasing the value of the entire portfolio.¹⁷³

Clearer claiming can also facilitate licensing discussions. Where there is clearer scope, there is less uncertainty whether or not a product infringes a patent, which can encourage parties to license patents instead of litigating. Where there is ambiguous scope, the patentee is likely to interpret scope broadly to maximize the value of his patent while a potential licensee is likely to interpret scope narrowly to argue no infringement. Ambiguous claims fuel disputes, and naturally lead to litigation requiring a third party to resolve the disputed interpretation of scope.¹⁷⁴ When claims are more precise, there is less room for disputed scope and a more certain adjudicated outcome, such that parties are more likely to avoid litigation.¹⁷⁵ Greater claim clarity shortens the time to

171. See Meeks & Eldering, *supra* note 169.

172. See *Crossing the Finish Line on Patent Reform: What Can and Should Be Done: Hearing Before the Subcomm. on Intellectual Property, Competition, and the Internet of the H. Comm. on the Judiciary*, 112th Cong. 40 (2011) (statement of Chief Judge Paul R. Michel (Ret.)):

After delays, the next most harmful dynamic is extended uncertainty over the validity of issued patents. If patents were to suffer under a cloud of possible invalidation for years on end, how could their value not diminish? What then happens to their power to induce investments by risk capital managers and even large company CEOs?

173. See Michael Risch, *Patent Portfolios As Securities*, 63 DUKE L.J. 89, 146 (2013) (noting that newer patents with more uncertain value skew lower in value).

174. *Abusive Patent Litigation: The Impact on American Innovation and Jobs, and Potential Solutions: Hearing before the H. Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. 114 (Mar. 14, 2013) (statement of Electronic Frontier Foundation) (“Software patents are an attractive tool for patent trolls because they are notoriously difficult to interpret—giving unscrupulous patent owners the ability to claim that their patent covers a wide range of technology”); Julie Samuels, *Finally: This Is How to Fix the ‘Patent Fix’ We’re All In*, WIRED (Apr. 2, 2013, 9:30 AM) <http://archive.wired.com/opinion/2013/04/this-is-how-to-fix-the-patent-fix-were-in/> (noting that “[b]ecause software patents are so hard to understand, parties facing claims of infringement cannot make realistic predictions about their chances to succeed in court.”).

175. See Peter S. Menell et al., PATENT CASE MANAGEMENT JUDICIAL GUIDE 2D ED., § 2.1.3.4 (2012) (“One argument in favor of early, separate claim construction is that it may facilitate settlement. . . . A court’s rulings on claim scope can materially assist

settlement in litigation by diminishing the importance of the *Markman* hearing and increasing the possibility of an earlier summary judgment decision, greatly decreasing the cost of litigation. Those who extort settlement licenses using ambiguous patents may disfavor this change, as the threat of expensive litigation is one of their preferred tactics to get a party to buy a license, but such tactics are decried.¹⁷⁶

Although the patent statute requires clear claiming, efforts must be made to enforce the statute in the face of countervailing motivations to claim ambiguously.¹⁷⁷ The Supreme Court through its *Nautilus* decision added its support to addressing this concern.

B. THE SUPREME COURT'S DECISION ADVANCES A DUTY OF CLARITY

In *Nautilus*, the Court expounded at some length about how a stronger check on ambiguity is needed because patent prosecutors intentionally make ambiguous claims.¹⁷⁸ The Court referenced testimony that the “patent system fosters ‘an incentive to be as vague and ambiguous as you can with your claims’ and ‘defer clarity at all costs.’”¹⁷⁹ The Court sought to “[e]liminat[e] that temptation”¹⁸⁰ by attacking ambiguous claiming in both litigation and prosecution. First, the Court strengthened the test applied in litigation to invalidate ambiguous claims.¹⁸¹ Second, the Court’s opinion pushes for clearer claiming during patent prosecution.¹⁸²

First and more obviously, the Court’s new reasonable certainty test is more restrictive as it permits less ambiguity than the insolubly ambiguous test, which was “more amorphous than the statutory definiteness requirement allows.”¹⁸³ Patent applicants considering this new test may be more wary of drafting intentionally ambiguous claims, for fear that their patents will be later invalidated as ambiguous. As the Court noted, this

the parties in recalibrating their assessment of exposure and allow each side to take a fresh look at its case.”).

176. EFF Statement, *supra* note 174 (“Software patents are an attractive tool for patent trolls because they are notoriously difficult to interpret—giving unscrupulous patent owners the ability to claim that their patent covers a wide range of technology”).

177. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

178. *Id.*

179. *Id.*

180. *Id.*

181. *See id.* (advancing the new “reasonable certainty” test).

182. *See id.* (commenting on the need to eliminate the temptation to claim ambiguously).

183. *See id.* at 2131.

test is not a newly created judicial requirement, but one that is demanded by statute,¹⁸⁴ and therefore applies equally to past patents as well as future patents. Any further tightening of the indefiniteness requirement would also be backwards-looking in applying to past patents. Patent applicants observing the enthusiasm of the Supreme Court to eliminate the temptation to write ambiguous claims should be more wary of drafting ambiguous patent claims that may fail some stricter future test.¹⁸⁵ At the least, patent applicants may want to backstop any ambiguous claims with more clear versions to protect against this risk.

Second, the Court further recognized that its decision must change the behavior of patent applicants who are “in the best position to resolve the ambiguity in . . . patent claims.”¹⁸⁶ This language in the Court’s opinion was particularly illuminating, as it was not an instruction to the Federal Circuit or to any district court. The federal courts are rarely in a position to do anything differently to carry out this observation by the Supreme Court, as the federal courts do not generally oversee the drafting of patents.¹⁸⁷ Therefore, this statement can be read as request for patent applicants and the PTO to recognize the importance of clearer claiming, asking for a “duty of clarity” on their part. The Court further noted that the “definiteness requirement . . . mandates clarity.”¹⁸⁸ Once more, the federal courts can only review patented claims to determine if they are clear instead of indefinite, but can do very little to directly ensure that claims are clear in the first place. A mandate for clarity indicates that

184. *See id.* at 2130 (noting that the “insolubly ambiguous” standard “lack[s] the precision § 112 ¶ 2 demands”).

185. Despite this possible concern, the Supreme Court is not likely to challenge the Federal Circuit’s application of this test, as the Supreme Court seemed more concerned with the Federal Circuit’s articulation of the test than its actual application. *See id.* at 2130. That said, the Federal Circuit itself may take *Nautilus* as a signal to be more critical of ambiguous claims.

186. *Nautilus*, 134 S. Ct. at 2129.

187. The Federal Circuit does review appeals from the PTAB, providing some guidance to patent drafting in those cases, but those cases represent a very small percentage of the patent applications each year. *See* United States Court of Appeals for the Federal Circuit, *U.S. Court of Appeals for the Federal Circuit—Appeals Filed, Terminated, and Pending During the Twelve-Month Period Ended September 30, 2013*, <http://www.cafc.uscourts.gov/images/stories/the-court/statistics/FY13/appeals%20filed%20term%20pend%209.30.13.pdf> (illustrating that the Federal Circuit reviews just over one hundred PTAB decisions in a typical year); *see also* United States Court of Appeals for the Federal Circuit, *U.S. Patent Statistics Chart Calendar Years 1963–2013*, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm (last visited Feb. 7, 2015) (illustrating that the patent office receives over half-a-million applications per year).

188. *Nautilus*, 134 S. Ct. at 2129.

claims should be clear from the start, from the point of drafting, by emphasizing a duty of clarity. The Supreme Court is not the first voice to ask for a duty of clarity, as observed earlier in congressional and presidential actions,¹⁸⁹ or even the first court to do so.¹⁹⁰ However, the support of the Court should give the duty of clarity greater momentum.

This “duty of clarity” falls squarely on the parties involved in the prosecution of patents, in particular on the patent applicants and the patent examiners. For the patent applicants, the duty of clarity requires the applicant to draft unambiguous claims, or at least not draft intentionally ambiguous claims. For the patent examiner, the duty of clarity requires examination of the patent claims under the § 112(b) standard, applying the guidance of MPEP § 2173 to determine if claims are ambiguous.

C. HOW TO ACHIEVE A DUTY OF CLARITY

While there are strong reasons to require a duty of clarity and several ways to “[e]liminat[e] that temptation”¹⁹¹ of ambiguous claiming, some approaches may be more effective than others. In addition to simply invalidating a claim for indefiniteness, there are two possible models to further the duty of clarity that reflect the Supreme Court’s opinion: (1) litigation-based enforcement, and (2) prosecution-based restrictions.

1. *Inequitable Conduct—Litigation Approach*

One possible model for the duty of clarity uses a deterrent akin to inequitable conduct for violation of the duty of disclosure. Inequitable conduct is a judge-made doctrine that originates in the concept of unclean hands.¹⁹² It developed as a defense for accused patent infringers and an effort to penalize patent applicants that intentionally deceived the patent office in order to obtain a patent.¹⁹³ Inequitable conduct requires that “information material to patentability was withheld from the PTO, or material misinformation was provided to the PTO, with the intent to

189. *See supra* Section I.E.

190. *See* EOS GmbH Electro Optical Sys. v. DTM Corp., No. SACV 00-1230 DOC (MLGx), 2004 WL 5683723, at *20 (C.D. Cal. Jan. 12, 2004) (noting that the patentee is his own lexicographer, and with that “substantial power comes the duty of clarity”).

191. *Nautilus*, 134 S. Ct. at 2129.

192. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285 (Fed. Cir. 2011).

193. *See id.* at 1287.

deceive or mislead the patent examiner into granting the patent.”¹⁹⁴ For inequitable conduct to apply, the accused infringer must show that the patentee acted with the specific intent to deceive the PTO,¹⁹⁵ that the deception was “but-for” material to obtaining the patent,¹⁹⁶ and prove this with clear and convincing evidence.¹⁹⁷ Inequitable conduct is extremely difficult to prove.¹⁹⁸

While inequitable conduct could extend to the intentional efforts by a patent applicant to draft ambiguous claims or create ambiguous prosecution history, this would be problematic in practice. Inequitable conduct is already difficult to prove, typically requiring the alleged patent infringer to identify material prior art known to the patentee along with evidence that the patentee intentionally withheld that prior art from the PTO.¹⁹⁹ In the case of ambiguous claiming, it is even more difficult to distinguish a faulty effort to claim broadly from an intentional effort to claim ambiguously. There is simply too much room for disagreement over whether the applicant knew the language was ambiguous to prove that an applicant intentionally drafted ambiguous language. Further, inequitable conduct results in a severe punishment on the practitioner and the patent owner, and the courts have shown an unwillingness to apply this doctrine in all but the most egregious cases.²⁰⁰ The recent AIA legislation also suggests inequitable conduct is disfavored, as it provides supplemental examination as a means to avoid inequitable conduct.²⁰¹

In addition, one reaction to the inequitable conduct doctrine has been over-disclosure by patentees to bury material prior art, or innocent disclosure of anything that is possibly material.²⁰² This reaction has hurt

194. *Outside the Box Innovations, LLC v. Travel Caddy, Inc.*, 695 F.3d 1285, 1290 (Fed. Cir. 2012).

195. *Therasense*, 649 F.3d at 1287.

196. *See id.* at 1291 (indicating that for a failure to disclose to be material, the disclosure, if made, would have prevented the patent from being issued).

197. *Id.* at 1290.

198. *See* Gideon Mark & T. Leigh Anenson, *Inequitable Conduct and Walker Process Claims After Therasense and the America Invents Act*, 16 U. PA. J. BUS. L. 361, 384 (2014).

199. *See, e.g.*, *Aventis Pharma S.A. v. Amphastar Pharms., Inc.*, 525 F.3d 1334, 1337 (Fed. Cir. 2008) (exemplifying the difficulty of proving inequitable conduct, as the Federal Circuit affirmed the district court’s finding of inequitable conduct only after remand on the question of the intent to deceive).

200. Mark & Anenson, *supra* note 198, at 385–86.

201. John M. Golden, *Patent Law’s Falstaff: Inequitable Conduct, the Federal Circuit, and Therasense*, 7 WASH. J.L. TECH & ARTS 353, 377 (2012).

202. *See* Robert Brendan Taylor, *Burying*, 19 MICH. TELECOMM. & TECH. L. REV. 99, 112 (2012).

the PTO's ability to review large volumes of disclosed art, and may actually hinder the PTO from looking at the most relevant prior art.²⁰³ Creating an inequitable conduct equivalent for ambiguous claiming could have similar negative effects. An applicant wishing to avoid ambiguity could overload a claim with glossary and reference material in order to protect against inequitable conduct on the basis of ambiguous claiming. While an overabundance of details could help the examiner in understanding the scope of the claim, it could also hinder such efforts. Since examiners have limited time to review applications, this could interfere with the time spent searching for prior art. Further, too much additional detail could create opportunities for contradictory statements on scope that actually make the patent more ambiguous. While the patent system is better off when encouraging clear claiming, it is likely harmed by over-disclosure.²⁰⁴

2. *Stricter Examination—Prosecution Approach*

An alternate model imposes the duty of clarity on prosecution practice by rejecting or objecting to ambiguous claims. Many commentators have called for more claim clarity enforcement by the patent office.²⁰⁵ Fortunately, both patent applicants and the PTO are well positioned to handle this approach.²⁰⁶

203. *See id.* at 114–15.

204. *See id.*

205. *See, e.g.*, Peter Menell, *It's Time to Make Vague Software Patents More Clear*, WIRED (Feb. 2, 2013, 4:10 PM) <http://www.wired.com/2013/02/its-time-to-make-vague-software-patents-more-clear/> (“advocated putting more onus on the patent applicants to clarify the boundaries of their claimed inventions at the outset of the process.”); Colleen Chien & Aashish Karkhanis, *Software Patents and Functional Claiming*, http://www.uspto.gov/patents/init_events/software_ak_cc_sw.pdf (quoting Mark Lemley: “Why don’t we more forcefully apply the disclosure law (35 USC 112(b) and 35 USC 112(f)) to rebalance the patent bargain without changing the patent statute?”); Mark Lemley, *Let's Go Back to Patenting the 'Solution,' Not the 'Problem'*, WIRED (Oct. 31, 2012, 6:30 AM) <http://www.wired.com/2012/10/mark-lemley-functional-claiming/> (calling for more precise functional claiming, arguing “[i]f someone invents a program, s/he can own that program and ones like it, but not every program that might achieve the same end.”).

206. Rai, *supra* note 100 (presenting a study finding heavier use of § 112 in the bioinformatics PTO unit compared to rare use in the software art unit. “Unlike many other patentability requirements, both written description and definiteness are relatively easy-to-implement mechanisms for limiting broad claiming and improving notice. They provide overworked and under-resourced patent examiners the right tools to do their job.”).

For applicants, previously ambiguous claims can be simply rewritten to be more precise. One of the largest concerns of prosecutors intentionally making ambiguous claims is that they want to anticipate future variations that should be covered by the patent, and ambiguous claims allow these variations to be captured.²⁰⁷ Yet there is already a separate concept, the doctrine of equivalents, which is supposed to capture such variations, such that there is no reason to use ambiguous claiming to achieve this objective.²⁰⁸ If an applicant wants to claim broadly, but is unsure about prior art, the applicant can write both specific broad claims, and more narrow claims, and does not need to resort to ambiguous claiming. Where ranges are applicable to a patent, a patent applicant does not need to use ambiguous language to capture such ranges, but can claim with numeric values at the extreme edges enabled by the invention, and narrow those ranges during prosecution as necessary. The patent applicant might even benefit from this approach by getting to issuance faster, since the examiner will have a clearer understanding of patent scope, and a clearer case can be made for prior art falling within or outside of that scope.

For the prosecution approach to work, the main pressure must come from the PTO. Patent examination is largely a non-adversarial process between the PTO and the applicant, with the PTO both advancing and judging arguments against the applicant.²⁰⁹ However, when the PTO pushes back on patent applicants to require clearer claiming, those applicants may become more proactive in claiming more clearly from the start, so as to avoid unnecessary exchanges with the patent office that risk time and possible scope disclaimer.²¹⁰ The latest revisions of the MPEP have given patent examiners more authority to reject claims for indefiniteness, and it is a matter of the examiners taking advantage of that authority to do so. Fortunately, examining a claim for ambiguity is well within the skills and time constraints facing patent examiners. Claims are

207. See Arinas, *supra* note 148, at 55–56; Kayton & Gardner, *supra* note 148, at 483 (advocating that “the practitioner says, asserts, and does no more than is absolutely required by statute and case law” to protect the breadth of claiming).

208. See 4 MOY’S WALKER ON PATENTS § 13:61 (4th ed. 2013) (“the Doctrine of Equivalents exists mainly as a response to the inherent limitations of language in fashioning the patent claim”).

209. See Dennis Crouch, *Pre-Issuance Submissions*, PATENTLY-O (Sept. 15, 2012), <http://patentlyo.com/patent/2012/09/pre-issuance-submissions.html>.

210. See OECD, *INTELLECTUAL ASSETS AND INNOVATION: THE SME DIMENSION*, OECD STUDIES ON SMES AND ENTREPRENEURSHIP 162 (OECD Publishing 2011).

viewed for indefiniteness by a POSITA at the time the patent was filed.²¹¹ Since examiners are skilled in their area of examination, and since examiners evaluate claims fairly close to the time of filing, they are capable of evaluating claims for indefiniteness with minimal reference to outside sources. Effectively, an examiner can make a determination of indefiniteness simply by carefully reading the claims, which the examiner already does in order to evaluate the patent for prior art, patentability, and other rejections. Therefore, there is a minimal extra burden on the examiner in reviewing claims for indefiniteness.²¹² Examiners must learn to write § 112(b) rejections supported by the reasoning provided in the MPEP, but once properly trained, such rejections will have common language that the examiner can reuse for speedy prosecution.

While inequitable conduct is a poor mechanism for enforcing the duty of clarity due to the difficult enforcement and unintended effects, stricter application of § 112(b) in prosecution is an excellent way to improve clearer claiming. Both patent applicants and examiners have the tools and capability to make claims clearer. Importantly, patent examiners can do this with a relatively low extra cost of time. Further, once claim scope is more clearly defined, additional prosecution should be even easier because it will be clearer what prior art is within or outside of that claim scope.

D. THE REASONABLY CERTAIN STANDARD ALMOST CERTAINLY APPLIES UNDER THE AIA

One might ask whether the Supreme Court's test from *Nautilus* applies to patents under the AIA,²¹³ since the Court applied § 112 ¶ 2 of the 2006 version of the Patent Act in the case, and not § 112(b) of the AIA, which only applies to applications filed after September 16, 2012.²¹⁴ While § 112 ¶ 2 states that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention,"²¹⁵ the § 112(b) language does not differ significantly with respect to clarity of the claims, requiring that "[t]he specification shall conclude with one or more claims

211. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2128 (2014).

212. Rai, *supra* note 100 ("Unlike many other patentability requirements, both written description and definiteness are relatively easy-to-implement mechanisms for limiting broad claiming and improving notice. They provide overworked and under-resourced patent examiners the right tools to do their job.")

213. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

214. See *Nautilus*, 134 S. Ct. at 2124 n.1.

215. 35 U.S.C. § 112 ¶ 2 (2006).

particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.”²¹⁶ The Court itself noted that these differences were “minor” but did not specifically address whether the reasonable certainty test applied to the AIA.²¹⁷ Because the critical language covering the requirement for claim clarity is the same under the AIA as under previous patent law, the Supreme Court’s reasonable certainty test should apply under the AIA.

IV. IMPLEMENTING THE DUTY OF CLARITY

Many scholars and patent practitioners have commented on the need for greater clarity in patent claiming, recognizing that a duty of clarity benefits the patent community.²¹⁸ In addition, commentators also have advanced various proposals to support the duty of clarity. These proposals effectively split the duty two ways. Some of the proposals center on improving prosecution by changing the examination process as implemented by the examiners, focusing on the examiner’s duty of clarity. Other proposals put more burdens on patent applicants, focusing on the applicant’s duty of clarity. While both these approaches are meritorious and worthy of pursuit, this Note also advances a third approach where the duty of clarity is also borne by the greater patent community.

A. EXAMINER’S DUTY OF CLARITY

One of the more obvious solutions to increase clarity in claiming is to change the examination process applied by the examiners. After all, the patent examiners are the gatekeepers of patent issuance. Many advocates for clearer claiming have focused on software patents as the source of ambiguous patents causing the most problems in litigation.²¹⁹ While studies of software patent prosecution are illuminating, the approaches suggested in these studies can be applied more broadly.

Some commentators have suggested that there should be special rules for the examination of software patents.²²⁰ The main argument is that

216. 35 U.S.C. § 112(b) (2012).

217. *See Nautilus*, 134 S. Ct. at 2124 n.1.

218. *See supra* Section III.C.2.

219. *See, e.g.*, JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS AND LAWYERS PUT INNOVATORS AT RISK 92–93 (2008) (addressing the ambiguity in patent claims for patents in a variety of industries, but singling out software patents as especially problematic).

220. *See, e.g.*, Julie Samuels, *supra* note 174; BESSEN & MEURER, *supra* note 219, at 201.

software patents are too inherently abstract to allow for precise claiming.²²¹ However, efforts to make special patent laws for a particular industry have been ineffective, despite actual differences in application to those industries.²²² The closest success along these lines might be in judicial decisions that apply to all patents, but have a disproportionate effect on software patents. These decisions have affected examination of software patents in particular. For example, software patents are more likely to have algorithms in the claims that are further defined by reference to the specification as functional claims.

Other commentators have not advocated for special rules for software, but do focus on software patent prosecution to look for improvements. Professor Arti Rai, for example, observes that written description and definiteness standards are properly applied in other PTO examining art units, and the failure is the application of these standards within the software-examining art units.²²³ Rai suggests that the software-examining art unit should vigorously adopt the definiteness standards of the Bioinformatics unit and that the source of the problem is institutional learning delay within the PTO.²²⁴ Professor Andrew Chin attempts to answer the concerns of Bessen and Meurer that software patents are too abstract²²⁵ by asking the patent system to “harness cognitive abstraction skills to promote innovation rather than allow their abuse to evade otherwise generally applicable requirements for patentability.”²²⁶

Both Rai and Chin identify a key for clarity in claiming the need to have properly trained examiners. As previously noted in Section III.C.2, *supra*, the MPEP has recently been revised to greatly empower examiners to reject on the basis of § 112 ¶ 2 (or § 112(b)). These revisions, however, are only effective if the examiners are current in their training and knowledge of the MPEP, and this only happens when the PTO makes sure its examiners are current on this section. Fortunately, *Nautilus* is likely to aid this training. Supreme Court decisions that change tests often

221. See BESSEN & MEURER, *supra* note 219, at 201.

222. See John R. Allison & Mark A. Lemley, *The Growing Complexity of the United States Patent System*, 82 B.U. L. REV. 77, 78–81 (2002). Such an approach may also be in contravention of various patent law treaties such as TRIPS.

223. Rai, *supra* note 100.

224. *Id.*

225. BESSEN & MEURER, *supra* note 219, at 201.

226. Andrew Chin, *On Abstraction and Equivalence in Software Patent Doctrine: A Response to Bessen, Meurer and Klemens*, 16 J. INTELL. PROP. L. 197, 227 (2009) (identifying the abstract software patent problem as one of training and skillset, not a problem with the patents themselves).

prompt changes in the MPEP and further prompt the PTO to notify and train their examiners on application of that area of examination.²²⁷ The PTO is making affirmative efforts to improve training of its examiners.²²⁸ This should continue, with the PTO paying particular attention to training on § 112. Although § 112 has received less attention than §§ 101–103 in examination, disputes in many issued patents can be traced to ambiguous language, resulting in unnecessary litigation. Also, because § 112 problems cannot be challenged in reexamination, and can be abused by carefully timed fixes in reissuance, the examiner should have a more pressing duty to properly examine claims for clarity.

B. APPLICANT'S DUTY OF CLARITY

In addition to a stricter application of the indefiniteness standard by the examiner, there are changes in the application process that affect the applicant's duty of clarity by using more structure in applications.²²⁹ This type of change puts more pressure on patent applicants to fulfill the structured requirements, and aid the examiner in evaluating an application for clarity.

Professor Peter Menell suggests that patent applications should use structured forms for claims that include a checkbox for each claim to indicate whether or not it is a functional claim to be evaluated under § 112(f).²³⁰ It is important to distinguish functional claims from non-functional claims because functional claims require supporting structure in the specification disclosing how to implement that function, and the scope of the functional claim is limited to that disclosure.²³¹ If a functional claim

227. See, e.g., *Supreme Court Decision in Bilski v. Kappos*, USPTO http://www.uspto.gov/patents/law/exam/bilski_guidance_28jun2010.pdf (providing interim guidance to patent examiners following *Bilski v. Kappos*); *2012 Interim Procedure For Subject Matter Eligibility Analysis of Process Claims Involving Laws of Nature*, USPTO, http://www.uspto.gov/patents/law/exam/2012_interim_guidance.pdf (providing interim guidance in view of *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*).

228. See USPTO Training Academy, *35 U.S.C. § 112(b) and (d)*, <http://www.uspto.gov/video/cbt/35USC112b-d/> (last visited Feb. 8, 2015) (providing USPTO online training specifically on § 112(b) and (d) using Adobe Presenter); see also USPTO, *Patent Examiner Technical Training Program (PETTP)*, <http://www.uspto.gov/patents/pettp.jsp> (last visited Feb. 8, 2015) (demonstrating how the patent office is reaching out to technical experts to better train examiners).

229. See Menell, *supra* note 205.

230. See *id.*; 35 U.S.C. § 112(f) corresponds to 35 U.S.C. § 112 ¶ 6 for patent applications before the AIA was enacted. Prior to September 16, 2011, § 112(f) was referred to as § 112 ¶ 6. The America Invents Act changed the designations.

231. See *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113–14 (Fed. Cir. 2002).

lacks supporting structure, it is invalid for indefiniteness.²³² Yet whether or not a patent claim invokes § 112(f) is often a matter of debate in litigation. It is such a difficult issue to resolve that the Federal Circuit often disagrees with a district court's finding.²³³ Courts are aided by the appearance of certain terms in a claim, which raise a "rebuttable presumption" that the claim is functional.²³⁴ However, patent prosecutors, knowing this, may choose to obscure whether a claim is functional or not by intentionally choosing language that does not raise this rebuttable presumption. A time-pressured examiner may not realize that the claim is functional, and may fail to check for supporting structure to make sure the claim is definite. Alternately, a time-pressured examiner may think a claim is functional when the applicant does not intend it to be, and may waste valuable time looking for supporting structure only to have the applicant amend the claim to avoid any functional claiming. If patent applicants are required to indicate whether a claim is functional or not, this change would greatly advance clearer claiming. First, it saves the patent examiner time and informs the examiner whether to evaluate the claim on its own for definiteness, or whether to treat the claim as functional and use supporting structure to determine definiteness. Second, it eliminates later unnecessary disputes in evaluating a patent claim because intent is clearly indicated.

In further support of clarity in functional claims, Menell advocates for hyperlinking functional claim elements to their supporting structure in the specification, and identifying the supporting structure.²³⁵ Such an approach eliminates ambiguity in identifying the supporting structure of functional claims, speeds the work of the examiner who no longer needs to hunt through the entire application for support, and makes the claim scope clearer to those reading them after issuance.

Undoubtedly, the structured form and hyperlink to supporting structure for functional claims puts more burdens on the patent applicant, as part of the applicant's duty of clarity. But the applicant should know whether or not a claim is functional, making the checking of a box a trivial burden. And the patent applicant should also be able to identify the

232. *Id.* at 1114.

233. *See, e.g.,* *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1260 (Fed. Cir. 2008); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369–70 (Fed. Cir. 2002); *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1354 (Fed. Cir. 2013), *cert. denied*, 134 S. Ct. 900 (2014).

234. *See CCS Fitness*, 288 F.3d at 1369–70.

235. Menell, *supra* note 205.

supporting structure quickly and save the examiner time by sharing this information. If the patent applicant cannot identify where the supporting structure is, that aids the patent applicant by indicating that supporting structure needs to be provided, or the claim should be amended. This extra structure also removes the debate over whether there is a supporting structure for a claim when reviewing prosecution history. A person reviewing this history will no longer wonder whether the examiner took that support as limiting support for a functional claim or as an enabling embodiment for a non-functional claim where the examiner considered the claim definite on its own. One objection to this approach could be that a patent applicant might not check the box even when a claim is really functional. But in such a case, the applicant would be bound by this choice and the claim would have to stand as definite all on its own.

Along similar lines, Menell also advocates for applicants indicating any limiting embodiments in the application, again with specific structure identifying the limiting embodiments for a claim.²³⁶ This designation would be useful in clarifying scope as it can be a question in litigation whether embodiments are limiting,²³⁷ with the default rule that embodiments are not limiting.²³⁸ In general, an application does not limit claim scope by using example embodiments, and most applicants would prefer to write claims that are not limited by the embodiments because this grants the broadest possible scope. But in order to avoid prior art or satisfy an enablement requirement, a patent applicant may use embodiments during prosecution to limit the claim's scope. Such limitation is not always clear in the prosecution history, though, leading to later ambiguity when evaluating the claims. If an examiner could simply require an applicant to indicate limitations to disclosed embodiments through formal structure, this later ambiguity could be avoided.

Menell also suggests that patent applicants could provide a glossary to explain otherwise ambiguous terms.²³⁹ The examiner can then accept or reject claims based on indefiniteness while considering these glossary terms. An examiner could also request additional glossary terms for otherwise ambiguous language, where the applicant would need to pull the definitions from the original specification or existing published sources at

236. *Id.*

237. *See* Golight, Inc. v. Wal-Mart Stores, Inc., 355 F.3d 1327, 1331 (Fed. Cir. 2004) (finding that disclosure of a single embodiment was not limiting in that case).

238. *See id.*

239. Menell, *supra* note 205.

the time of the application priority date in order to preserve the priority date of the application. While this technique is more work for the patent applicant, it should be straightforward if the applicant has a clear understanding of the terms used in the claims. If this work is not straightforward because the applicant himself cannot advance clear definitions, this likely indicates the very ambiguity problem against which § 112(b) guards. The PTO has started experiments with glossaries in a pilot program, using the incentive of faster prosecution to encourage participation.²⁴⁰ However, commentators have suggested that faster prosecution may not be worth what the applicant gives up by restricting the scope of the application with glossary terms.²⁴¹ Even in advising against the optional use of glossaries, these commentators affirm their very importance by noting that they clarify claims, and the applicant is better off if the applicant can continue to use claims of more uncertain scope.²⁴² These comments and perspectives only serve to highlight the value of glossaries in clarifying claims, and suggest that glossaries should be required, not optional.

Finally, both the patent applicant and the patent examiner will have a heightened duty of clarity if interviews between them are recorded.²⁴³ Many interviews between applicants and examiners are initiated to resolve questions of uncertain scope related to prior art.²⁴⁴ Since these interviews can result in the examiner reconsidering a position and allowing a claim based on a reduction in scope, this information is very important to

240. Glossary Pilot Program, 79 Fed. Reg. 59, 17137–39 (Mar. 27, 2014); USPTO, *Glossary Initiative*, http://www.uspto.gov/patents/init_events/glossary_initiative.jsp (last visited Feb. 8, 2015). The PTO has since extended the term of the Glossary Pilot Program to June 2, 2015 to gather more data.

241. Ryan Davis, *USPTO Extends Glossary Program For Speedier Patent Apps*, LAW360 (Dec. 11, 2014, 2:46 PM) <http://www.law360.com/ip/articles/603691/uspto-extends-glossary-program-for-speedier-patent-apps> (“the program presents a tough choice for applicants, since getting a patent faster will come at a cost of reducing the protection it provides”).

242. *Id.* (“I don’t think there’s any doubt that it will clarify the claims, but the question is whether people want to go this extra step, since it limits the scope of the claims as well as clarifies them,” William Rowland of Buchanan Ingersoll & Rooney PC told Law360 in June. ‘Clearly, it’s a two-edged sword.’”).

243. Menell, *supra* note 205.

244. Richard Neifeld, *Analysis of the New Patent Laws Enacted November 29, 1999*, 82 J. PAT. & TRADEMARK OFF. SOC’Y 181, 200 (2000) (“practitioners acknowledge that personal interviews with the examiners are effective in clarifying and rapidly resolving issues”).

determining the scope of the application.²⁴⁵ Indeed, the substance of the interview is recorded in writing as “a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant.”²⁴⁶ However, the oral interviews are not currently recorded, and examiners may fail to make or correct any submission by the applicant of any or all of the discussion, due to faulty memory or busy schedules.²⁴⁷ Most of these applicant-examiner interviews could be recorded easily with the informed consent of the parties. Such informed consent is easily achieved, as it could be a job requirement for the examiner, and a requirement for the applicant to get the interview. Further, once recorded, the interview could be stored both as an audio file and could be computer-transcribed to a text file to become part of the prosecution history.

The biggest obstacle to recording these discussions is not technological, but instead an apparent resistance on the part of the PTO and patent examiners.²⁴⁸ The PTO has said that interviews are productive for narrowing issues in prosecution and they should not be discouraged,²⁴⁹ yet recordings create technical obstacles to interviews and burden the examiners.²⁵⁰ The PTO is also concerned that intermediate positions in interviews should not be part of the record, and that statements may be taken out of context.²⁵¹ Although unsaid, examiners may be concerned about recordings being used against them by patent applicants in prosecution, or by superiors conducting a review of their work. The technical concerns raised in 1998 may be easily addressed today, and recordings would be highly beneficial for clarity, yet recordings still appear

245. 1 MOY'S WALKER ON PATENTS, *supra* note 208, at § 3:37 (“it is fair to say that there is a lingering impression that the interview process can, on occasion, be used by the patent applicant to conceal damaging concessions made to obtain the patent's issuance”).

246. 37 C.F.R. § 1.133 (2014).

247. *See* 1 MOY'S WALKER ON PATENTS, *supra* note 208, at § 3:37:

[T]he completeness of the interview record typically leaves much to be desired. As a general practice the agency does not require that the remarks made at the interview be transcribed or otherwise preserved verbatim. The summaries of the interview, by both the applicant and the examiner, are moreover usually quite brief, often spanning only a few broadly worded sentences.

248. *Statement of the Patent & Trademark Office Society to the United States Patent & Trademark Office on Procedures for Recording Patent Prosecution File Histories*, 80 J. PAT. & TRADEMARK OFF. SOC'Y 369, 372–74 (1998).

249. *Id.* at 372–73.

250. *Id.* at 373.

251. *Id.* at 373–74.

to be thwarted only by internal resistance within the PTO.²⁵² Therefore this improvement is an ideal candidate for implementation by the President, the head of the PTO, or even by a refinement in the law by Congress requiring more transparency.

Recording interviews burdens both the examiner and the patent applicant with a greater duty of clarity. Since the examiner is “on the record” in a recorded interview, he must be more cognizant of his conversation and arguments, and may want to prepare more thoroughly as he will have no later opportunity to change his words. That is not to say that an examiner cannot later correct an earlier mistake or misstatement, but that the examiner is stuck with that earlier mistake or misstatement on a permanent record. For the same reasons, the patent applicant must be very careful about what is said during an interview, as the applicant cannot undo what was said, but only correct misstatements to make the record clear. Most importantly, the applicant can no longer say something contradictory in an interview to the rest of the prosecution and avoid such statements becoming part of the prosecution history. This forces the applicant to be clearer in prosecution by taking away one of the patent applicant’s current best tools for getting ambiguous claims allowed by only clarifying those claims orally.

C. THE PATENT COMMUNITY CAN IMPROVE CLARITY

A final technique that can improve claim clarity is to involve the greater patent community in prosecution. Patent examiners face great time pressures to properly examine patent applications within tight time constraints. This makes it nearly impossible for a patent examiner to identify and review the best prior art that could challenge an application. Similarly, a patent examiner may lack sufficient time to recognize ambiguous terms within an application because a patent examiner may only consider one interpretation of a term, missing reasonable interpretations by others.

The President issued an executive order on February 20, 2014 that, among other actions, required the patent office to investigate the use of

252. 1 MOY’S WALKER ON PATENTS, *supra* note 208, at § 3:37 (“The [PTO] has not responded favorably to [requests for interview transcriptions] to date, however. The reasons have apparently been matters of expense and administrative inconvenience as well as, perhaps, the recognition that a more rigorous practice would require examiners to be additionally trained.”).

crowdsourcing to aid examiners in finding relevant prior art.²⁵³ The patent office has started this process with roundtable discussions.²⁵⁴ This initiative recognizes that today's technology allows the PTO to open up the examination process to more external participation, while still leaving the actual examination in the hands of the examiners.

The patent office could also further involve the greater patent community by enlisting their aid in identifying ambiguous terms in an application. A single examiner is vulnerable to tunnel vision and could easily miss multiple reasonable meanings for a term by just focusing on a single meaning that is reasonable to him. In doing so, an examiner would be applying the very insolubly ambiguous standard the Supreme Court rejected, by finding a term clear because the examiner has successfully identified a single reasonable meaning. A larger group, on the other hand, is much better equipped to identify multiple meanings associated with a term, and identify ambiguous terms as a crowd better than any one individual. The use of "crowdsourcing" to solve problems is especially powerful where more than one perspective enhances a solution.²⁵⁵ Identifying ambiguous terms is precisely such a case where the crowd is more powerful than the individual.²⁵⁶

253. The White House: Office of the Press Secretary, *FACT SHEET - Executive Actions: Answering the President's Call to Strengthen Our Patent System and Foster Innovation* (Feb. 20, 2014), <http://www.whitehouse.gov/the-press-office/2014/02/20/fact-sheet-executive-actions-answering-president-s-call-strengthen-our-p>.

Crowdsourcing Prior Art — To help ensure that U.S. patents are of the highest quality, the USPTO is announcing a new initiative focused on expanding ways for companies, experts, and the general public to help patent examiners, holders, and applicants find relevant 'prior art'—that is, the technical information patent examiners need to make a determination of whether an invention is truly novel.

254. USPTO, *Roundtable on the Use of Crowdsourcing and Third-Party Preissuance Submissions to Identify Relevant Prior Art*, http://www.uspto.gov/patents/init_events/crowdsourcing_roundtable_04-2014.jsp (last visited Feb. 8, 2015); USPTO, *Roundtable on USPTO Use of Crowdsourcing to Identify Relevant Prior Art*, http://www.uspto.gov/patents/init_events/crowdsourcing_roundtable_20141202.jsp (last visited Feb. 8, 2015).

255. Gary Sloper, *Why Creative Crowdsourcing Is Good For Business*, FORBES (Apr. 17, 2014, 2:05 PM), <http://www.forbes.com/sites/centurylink/2014/04/17/why-creative-crowdsourcing-is-good-for-business/> ("the crowdsourced workers help solve problems, add value, and obtain specialized expertise"); see also United States Department of Labor's IdeaScale website, <http://dolregs.ideascale.com> (last visited Feb. 28, 2015) (illustrating another administrative agency using crowdsourcing for considering ideas).

256. Kevin Casey, *10 Crowdsourcing Success Stories*, INFORMATIONWEEK (Mar. 4, 2011, 6:06 PM) http://www.informationweek.com/10-crowdsourcing-success-stories/d/d-id/1096464?page_number=9 (discussing use of crowdsourcing to identify

One problem in using crowds to supply solutions to a problem is that the volume of solutions proposed by the crowd can be overwhelming. However, the crowd can be used to solve this problem as well by using two simple steps: identification of ambiguous terms, and prioritization of arguments. First, individuals in the crowd may identify terms in the application that they consider ambiguous. Each person identifying an ambiguous term should also supply an explanation of why the term is ambiguous. Second, the crowd reviews the various ambiguous terms identified along with the explanations, and votes for the “best” identifications. The voting process can be single vote, ranked voting, or even multiple votes where each voter can vote for no more than half of the available options.²⁵⁷ The submission and voting process can be sequential, with no votes allowed until the submission window closes, or can be more fluid, allowing people to vote and change their votes as entries come in until the voting period closes.²⁵⁸

After this crowdsourced process, the examiner is left with a list of prioritized arguments stating why the terms are ambiguous. Since an examiner is time pressured and may lack the sufficient time to investigate all possible arguments, the prioritized list allows the examiner to simply start with the highest ranked argument, and also apply the next best arguments as time permits.²⁵⁹ In the end, it is still an examination of an application by an examiner interacting with the applicant. The crowd does not replace the examiner in this application process, but merely acts as a supplemental research tool.

Although this Note advocates for crowdsourcing of indefiniteness arguments by the greater patent community, this technique could also be implemented within a single art unit at the patent office. There can be crowdsourcing within an art unit where all the examiners within that art

bugs in applications). This is similar to using crowdsourcing to identify a problem in a patent application, such as ambiguity.

257. See William V. Gehrlein and Peter C. Fishburn, *Constant Scoring Rules For Choosing One Among Many Alternatives*, 15 *QUALITY AND QUANTITY* 2, 203–10 (April 1981) (finding voters should be allowed to vote for no more than half the options to obtain optimal majority selections).

258. Several websites such as www.digg.com and www.reddit.com use the latter approach to identify content with the greatest community interest on an ongoing basis. One website providing this model is Ideastorm, <http://www.ideastorm.com/>, which takes submissions of ideas and then allows the community to vote on the best ideas, allocating a limited amount of points to each idea.

259. Although not otherwise discussed in this Note, the same crowdsourcing technique could also be applied to streamline submissions of prior art to the patent examiner.

unit could take a small amount of time to review claims in each other's applications and identify potentially ambiguous claims using the above-described technique. This could be particularly useful in cases where the public cannot review the patent application claims, such as when claims are subject to a secrecy order²⁶⁰ or where a patent applicant has requested non-publication²⁶¹ of the application. In such cases, the greater patent community is not privy to the application until issuance, yet crowdsourcing within the PTO itself could improve the quality of the applications issued.

There are several techniques available to improve the duty of clarity in patent prosecution. Some of these techniques require greater diligence by the examiner and ongoing training by the PTO. Other techniques shift the burden and create a duty of clarity on the part of the patent applicant by using structured applications that remove ambiguities, using glossaries to clarify terms, and/or recording interviews to fill in a current gap in the prosecution history. Clearer claiming can also be achieved by looking beyond the patent office to enlist the aid of the greater patent community. This last approach heeds the call of many advocates for the PTO to take advantage of technological solutions to improve patent examination.²⁶²

V. CONCLUSION

In *Nautilus*, the Supreme Court corrected the test for indefiniteness, replacing the Federal Circuit's insolubly ambiguous test with a reasonable certainty test.²⁶³ In doing so, the Court acknowledged that the Federal Circuit's application in practice may actually come closer to reasonable certainty, but that the test still needed correction to be "at least 'probative of the essential inquiry.'"²⁶⁴ Therefore, while the new reasonable certainty

260. 35 U.S.C. § 181 (2012) allows for the government to keep an invention secret while continuing prosecution up to the point of issuance.

261. 35 U.S.C. § 122(b)(2)(B) allows an applicant to request that the patent application not be published under the condition that the invention will not be the subject of a foreign application.

262. See *Crossing the Finish Line on Patent Reform: What Can and Should Be Done: Hearing Before the Subcomm. on Intellectual Property, Competition, and the Internet of the H. Comm. On the Judiciary*, 112th Cong. 8 (2011) (testimony of David Simon) ("[E]xamination of patents do not take advantage of technology to actually affirmatively do that examination.").

263. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014).

264. *Id.* at 2130 (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997)).

test is certainly stricter than the “insolubly ambiguous” standard on its face, in application, the difference may be minor.

However, the Supreme Court also sent a strong message in its disparagement of ambiguous claiming practices during patent prosecution.²⁶⁵ The Court stated that “[e]liminat[ion] of that temptation is in order, and the patent drafter is in the best position to resolve the ambiguity in patent claims.”²⁶⁶ In sending this message, the Court joined recent efforts by the President, Congress, and the PTO to improve the clarity of claiming during patent examination by placing more requirements on the patent applicants and examiners. This Note captures this mandate to claim clearly as the duty of clarity.²⁶⁷ In addition to the public notice benefits, clearer claiming also enhances the value of patents for all patent holders and reduces costs in the patent process. While litigation-based review of patents and patent examination could help improve clarity, deterrents such as inequitable conduct work poorly in this regard. Also, because a patent applicant can fix ambiguous claims with narrowing amendments at any time through a reissuance without giving up intervening rights, litigation threatening invalidity for indefiniteness is unlikely to change efforts to claim clearly during initial examination.

Instead, the duty of clarity is best achieved by changes to the patent examination process. Some of these changes place additional clarity burdens on the examiners such as stricter application of § 112(b), training, and recoding of interviews. Other changes place clarity burdens on the applicant, such as the use of glossaries, more structure in applications, and recording of interviews. Despite these extra burdens, there are also benefits to patent applicants and examiners in speedier examination where there are clearer claims, in addition to the benefits of clearer claims post-issuance. The patent examination process can also benefit from using crowdsourced aid to identify ambiguous claims, taking advantage of technological solutions that were not available even ten years ago. The capabilities are there for a duty of clarity, and the advantages of clearer claiming mandate that we adopt them.

265. *Id.* at 2129.

266. *Id.* (internal quotations, alterations, and citations omitted).

267. *See id.* (“The definiteness requirement . . . *mandates* clarity” (emphasis added)).

REPORTS OF SECTION 337'S DEATH HAVE BEEN GREATLY EXAGGERATED: THE ITC'S IMPORTANCE IN AN EVOLVING PATENT ENFORCEMENT ENVIRONMENT

Joshua D. Furman[†]

The United States International Trade Commission (“ITC”) is a federal agency with a broad trade and tariff setting mission that includes investigating patent infringement by imported goods.¹ Throughout its existence, the ITC has been challenged by a constantly evolving patent landscape shaped by increasing technological complexity, corporate organizational complexity, and trade globalization. Historically, the ITC has maintained its strength as a patent infringement adjudication venue by implementing statutory and administrative reforms in response to domestic and international pressures. This Note reviews critiques of the position of 19 U.S.C. § 1337 (“Section 337”) in the patent enforcement landscape and suggests that the ITC’s recent, narrowly tailored procedural changes have continued to maintain the relevance, uniqueness, and attractiveness of the Section 337’s adjudicative power.

Since the creation of the Section 337 patent adjudication process in 1974, commentators, scholars, and businesses have criticized the ITC’s role in patent enforcement, reported its demise, and called for its abolition.² Today, specific criticisms leveled at the ITC include concern

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1. See *Mission Statement*, USITC, http://www.usitc.gov/press_room/mission_statement.htm (last visited Oct. 31, 2014).

2. See, e.g., Harvey Kaye et al., *The Jurisdictional Paradigm Between the United States International Trade Commission and the Federal District Courts*, 64 J. PAT. OFF. SOC’Y 118 (1982) (describing “fundamental jurisdictional conflicts” between ITC proceedings and the federal courts); Robert G. Krupka et al., *Section 337 and the GATT: The Problem or the Solution*, 42 AM. L. REV. 779 (1993) (questioning the role of the ITC in view of international trade agreements); Sapna Kumar, *The Other Patent Agency: Congressional Regulation of the ITC*, 61 FLA. L. REV. 529 (2009) (calling for reform or abolition of Section 337); Michael A. Ritscher et al., *The Status of Dual Path Litigation in the ITC and the Courts: Issues of Res Judicata and Appellate Review*, 18 AIPLA QJ. 155 (1990) (questioning whether Section 337 acts properly with respect to parallel litigation paths); K. William Watson, *Still a Protectionist Trade Remedy: The Case for Repealing Section 337*, in POLY ANALYSIS 2012 (Cato Inst., No. 708) (contending that the ITC violates free

over its permissiveness toward exploitive complainants, overlap of its remedies with inter-company contractual agreements, and inconsistent treatment of induced and downstream infringement. These critiques have led to calls for dramatic reform, with some calling for abolition of the ITC's patent enforcement powers under Section 337. In response, Congress, the ITC, and the Court of Appeals for the Federal Circuit have adjusted the statutes, rules, and procedures governing Section 337 investigations in ways that have maintained Section 337's relevance in the intellectual property enforcement landscape. Steps taken by the ITC and the Federal Circuit to revise Section 337 procedures have created a balanced regime that maintains the ITC's position as a protector of domestic patent rights without overly enabling patent hold-up.

Generally, the ITC investigates "Unfair Practices in Import Trade" under 19 U.S.C. § 1337 and bars importation of goods that are found to infringe domestic patent rights.³ Section 337 of the Tariff Act of 1930 first enabled these investigations,⁴ and today's proceedings are still referred to as Section 337 investigations.⁵ The original intent of the Act was to shield domestic industries from foreign competitors as the country slipped into the Great Depression.⁶ The modern ITC, and its power to adjudicate claims of patent infringement, came about primarily under the Trade

trade agreements); Jenna Greene, *Back to Normal: Once the hot forum for IP disputes, the ITC has since cooled down*, 20 CORPORATE COUNSEL 51, Aug. 1, 2013 (describing a decline in the number of Section 337 filings); Charlotte R. Lane, *The International Trolling Commission*, WALL ST. J., Oct. 8, 2013, at A15 (calling for broad reforms to limit non-practicing entity litigation under Section 337).

3. 19 U.S.C. § 1337 (2012); *Intellectual Property Infringement and Other Unfair Acts*, USITC, http://www.usitc.gov/intellectual_property.htm (last visited Oct. 19, 2014).

4. Tariff Act of 1930, Pub. L. No. 71-361, § 337, 46 Stat. 590, 703 (1930).

5. See, e.g., *FAQs*, INTERNATIONAL TRADE COMMISSION TRIAL LAWYERS ASSOCIATION, <http://www.itctla.org/resources/faqs> (last visited Feb 1, 2015); Robert J. Walters & Yefat Levy, *An Introduction To Remedies and Enforcement Proceedings in Section 337 Investigations at the International Trade Commission*, INTELLECTUAL PROP. OWNERS ASS'N (2007), available at <http://www.ipo.org/wp-content/uploads/2013/04/ITCRemedies.pdf>.

6. See *Smoot-Hawley Tariff*, U.S. DEPT. OF STATE, http://future.state.gov/when/timeline/1921_timeline/smoot_tariff.html (last visited Oct. 19, 2014) ("The original intention behind the legislation was to increase the protection afforded domestic farmers against foreign agricultural imports."); Kumiko Koyama, *The Passage of the Smoot-Hawley Tariff Act: Why Did the President Sign the Bill?*, 21 J. POL'Y HIST. 163, 178 (2009) (noting that in Congress "the majority Republican Party had committed itself to the principle of tariff protection"). For a general review of the impacts of protectionist trade policies, see Jakob B. Madsen, *Trade Barriers and the Collapse of World Trade During the Great Depression*, 67 S. ECON. J. 848 (2001).

Reform Act of 1974,⁷ with major statutory reforms in 1988⁸ and 1994.⁹ While the ITC applies the same patent infringement standards as federal courts, there are important differences between the two. Most significantly, Section 337 investigations are typically completed within eighteen months, while federal court proceedings may take as long as several years.¹⁰ Additionally, Section 337 remedies are limited to exclusion orders and do not include monetary damages.¹¹ These unique features of the ITC have been attractive to complainants seeking rapid resolution of infringement claims, both in place of and in parallel with federal court litigation.¹² Admittedly, the current triple-path of US Patent and Trademark Office (“PTO”), federal court, and ITC proceedings might not be the ideal structure for infringement adjudication. Nevertheless, Section 337 investigations remain a political reality that will not easily be undone, due in no small part to the ITC’s willingness and ability to update its policies and procedures to maintain Section 337’s attractiveness to complainants.

In recent years, the ITC has faced new challenges in the rise of non-practicing entity (“NPE”) litigation, protection of standard essential patents, changes brought about at the PTO by the America Invents Act (“AIA”), and challenges in handling inducement and downstream activity that has become more common with the complex modern technology involved in today’s international trade.¹³ Rather than remain rigid and break in response to these new challenges, the ITC has modified, or at least is in the process of modifying, certain procedures used in providing its distinctive form of protection to domestic trade.¹⁴

This Note explores how the recent changes in procedure and interpretation of statutory provisions have maintained the ITC’s relevance

7. Trade Act of 1974, Pub. L. No. 93-618, 88 Stat. 1978 (1975).

8. Omnibus Foreign Trade and Competitiveness Act, Pub. L. No. 100-418, 102 Stat. 1107 (1988).

9. Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809 (1994).

10. PETER S. MENELL ET AL., SECTION 337 PATENT INVESTIGATION MANAGEMENT GUIDE, § 1.4 (Matthew Bender & Co., Inc. eds., 2012), *available at* LexisNexis.

11. *Id.* § 1.4, at 1-24.

12. *See, e.g., FAQs*, INTERNATIONAL TRADE COMMISSION TRIAL LAWYERS ASSOCIATION, <http://www.itctla.org/resources/faqs> (last visited Feb. 1, 2015); *Intellectual Property Infringement and Other Unfair Acts*, USITC, http://www.usitc.gov/intellectual_property.htm (last visited Feb. 1, 2015).

13. *See infra* Section II.B.

14. *See infra* Part III.

in an evolving patent enforcement landscape. Part I examines the Section 337 rules and procedures at the ITC, and how Congress, the Federal Circuit, and the ITC by its internal authority can shape those rules and procedures. Part II discusses historical and contemporary criticism of Section 337 investigations. It explores congressional responses to historical criticism and shows how Section 337 practice has evolved in response to external forces. This Part also details the contemporary challenges raised by exploitive NPE complainants, standard essential patents, and increasing technological complexity, and finally reviews calls for change to Section 337 investigations that have come from commentators and politicians. Part III discusses recent responses by the ITC to these external challenges, including tightening the definition of a domestic industry and a 2013 presidential veto of an exclusion order based on a standard essential patent. Part IV discusses the interactions of Section 337 investigations with PTO and federal court proceedings following patent statutory reforms under the AIA, and looks at changes in the annual rate of Section 337 filings to evaluate the effects of recent procedural changes. This Part suggests that while the filing rate has decreased in recent years, the long-term trend remains stable. Part V concludes that the changes discussed in Part IV have bolstered the ongoing relevance of Section 337 in an evolving patent landscape.

I. SECTION 337 INVESTIGATIONS AT THE ITC

The statutory basis of the ITC's power to adjudicate infringement claims and issue exclusion orders traces to Section 337 of the Tariff Act of 1930.¹⁵ While the role of the ITC today goes beyond tariff setting to include unfair importation investigations and anti-dumping measures, the ITC's core mission remains limiting damage to domestic industries by foreign actors. The 1974 Trade Reform Act restyled the Tariff Commission as the International Trade Commission, gave the ITC much more authority to provide relief independent of Executive action, and explicitly authorized the ITC to grant exclusion orders for products infringing U.S. patent rights.¹⁶ This Part discusses Section 337 rules and procedures in place today and how those rules are created and modified. The application of these rulemaking procedures will be discussed in

15. Tariff Act of 1930, Pub. L. No. 71-361, § 337, 46 Stat. 590, 703 (1930). For a discussion of the relationship between the Great Depression and the Tariff Act, see, for example, *The Battle of Smoot-Hawley*, ECONOMIST, Dec. 18, 2008, available at <http://www.economist.com/node/12798595>.

16. Trade Act of 1974, Pub. L. No. 93-618, 88 Stat. 1978 (1975).

Section II.A and Part III, *infra*, with regard to how procedures at the ITC have been modified historically and contemporarily, respectively.

A. SECTION 337 INVESTIGATION PROCEDURES

A Section 337 investigation begins with a complainant alleging that one or more parties' "imports . . . injure a domestic industry or violate U.S. intellectual property rights."¹⁷ The ITC's Office of Unfair Import Investigations makes a decision whether to institute an investigation based in part on whether the complainant is likely to meet the threshold statutory requirements of Section 337.¹⁸ These statutory requirements are: "(1) sale for importation, importation, or sale after importation of goods; (2) unfair acts or methods of competition—such as infringement of a U.S. patent; (3) presence of a domestic industry; and (4) proof of substantial or threatened injury in the case of non-statutory intellectual property rights complaints."¹⁹ If the complaint meets these threshold requirements, the ITC assigns an administrative law judge ("ALJ") and institutes an investigation.²⁰ Following claim construction, discovery, and hearings (all accelerated in comparison to district court), the ALJ issues an initial determination.²¹ The ITC Commissioners review the ALJ's initial determination and either adopt it or issue their own ruling in a final determination.²² The final determination is subject to a presidential veto on public policy grounds, and finally is appealable to the Federal Circuit.²³

Section 337 investigations are distinct from federal court proceedings in that they require showing both patent infringement and a trade violation.²⁴ This trade violation is referred to as the domestic industry requirement, i.e., in order to qualify for protection under Section 337 a company must be engaged in a domestic industry.²⁵ Courts and

17. USITC Mission Statement, *supra* note 1. In addition, the ITC "provides independent tariff, trade and competitiveness-related analysis and information; and maintains the U.S. tariff schedule." *Id.*

18. 19 U.S.C. § 1337(b)(1) (2012); 19 C.F.R. § 210.10 (2013); *see also* Menell, *supra* note 10, at § 1.3.2.

19. Menell, *supra* note 10, at § 1.3.2.

20. 19 C.F.R. § 210.4; *see also* Menell, *supra* note 10, at § 1.3.2.

21. 19 C.F.R. § 210.42; *see also* Menell, *supra* note 10, at § 1.3.2.

22. 19 C.F.R. § 210.42; *see also* Menell, *supra* note 10, at § 9.5.1.

23. 19 U.S.C. § 1337(j); *see also* Menell, *supra* note 10, at §§ 1.2.2–1.2.3.

24. For a comparison chart, *see* Menell, *supra* note 10, at § 1.2.3. In contrast to Section 337 investigations, patent infringement in federal court is subject to a strict liability standard. *See, e.g.,* Roger D. Blair and Thomas F. Cotter, *Strict Liability and its Alternatives in Patent Law*, 17 BERKELEY TECH. L.J. 799, 800 (2002).

25. *See* Wei Wang, Note, *Non-practicing Complainants at the ITC: Domestic Industry or Not?*, 27 BERKELEY TECH. L.J. 409, 409–10, 412–414 (2012); *see also* International

commentators typically describe the domestic industry requirement under a two-prong analysis that requires satisfying both economic and technical elements.²⁶ Satisfying the economic prong requires showing that the complainant, with respect to at least one claim in the asserted patent, engages in one of the economic requirements listed in § 1337(a)(3): significant investment in plant and equipment; significant employment of labor or capital; or substantial investment in exploitation, including engineering, research and development, or licensing.²⁷ To satisfy the technical prong, the complainant must show that it has a domestic product that practices at least one claim of the asserted patent.²⁸ To satisfy the economic prong, the complainant must show that it has made “substantial” or “significant” investment in domestic activities.²⁹ Generally, for a domestic industry that is not based on patent licensing, the technical prong is easily satisfied, for example by evidence of manufactured goods.³⁰ Meeting the technical prong for licensing-based complaints requires establishing a sufficient nexus between licensing activities and the asserted patents.³¹ This test will be discussed in detail *infra* in Section III.A.

At different stages in an ITC investigation, complainants or respondents may be required to post a bond with the ITC. A bond may be required, for example, from a complainant at the time of filing to discourage frivolous complaints.³² Bonds may also be required of respondents after entry of a temporary exclusion order by the ALJ to allow continued importation during the review of the initial determination, and similarly following a final determination during the period of presidential review.³³ The amount of the bond is set to either eliminate the difference in sales prices between the patented domestic product and the infringing product or is based upon a reasonable royalty.³⁴ Bonding “offset[s] any competitive advantage resulting from the alleged unfair methods of

Trade Commission Trial Lawyers Association FAQs, *supra* note 12; Menell, *supra* note 10, at § 3.1.3.2.

26. Wang, *supra* note 25, at 414–16.

27. *Id.*

28. *Id.*

29. *Id.*

30. International Trade Commission Trial Lawyers Association FAQs, *supra* note 12.

31. Wang, *supra* note 25, at 409–10.

32. 35 U.S.C. § 1337(e) (2012).

33. *Id.* § 1337(j)(3).

34. Certain Microsphere Adhesives, Inv. No. 337-TA-366, USITC Pub. 2949, Comm’n Op. at 24 (Jan. 1996).

competition and unfair acts enjoyed by persons benefiting from the importation of the articles in question.”³⁵

During the presidential review period following the ITC’s final determination, the President may disapprove of an ITC decision on public policy reasons and make the remedy unenforceable.³⁶ The review period carries a default of approval, such that if the President makes no statement within the sixty-day window, the ruling of the ITC automatically stands.³⁷ Presidential review is rarely invoked, and had only been used five times prior to August 3, 2013, when the President vetoed an exclusion order in a dispute between Apple and Samsung regarding importation of smartphones.³⁸ This veto is discussed in detail *infra* in Section III.B.

B. RULEMAKING AT THE ITC

The rules and procedures at the ITC come from three main sources: the ITC’s internal rulemaking authority, congressional statutes, and Federal Circuit appellate review. 19 U.S.C. § 1335 enables “[t]he commission . . . to adopt such reasonable procedures and rules and regulations as it deems necessary to carry out its functions and duties.” This empowerment gives the ITC broad power to craft its own rules within statutory boundaries and the ITC’s limits as a federal agency. The ITC publishes notices of proposed rules in the Federal Register, and accepted rules are codified in the Code of Federal Regulations at 19

35. Certain Crystalline Cefadroxil Monohydrate, Inv. No. 337-TA-293, USITC Pub. 2373, Comm’n Op. at 10 (Jan. 1990) (Temporary Limited Exclusion Order, Mar. 1990) (citing 28 C.F.R. § 210.58(a)(3) (1989) (internal quotation marks removed)); *see also* Menell, *supra* note 10, at § 3.6.2.

36. 19 U.S.C. 1337(j) (“Referral to the President”).

37. Menell, *supra* note 10, at § 1.4. The Office of the President delegated this review power to the Office of the U.S. Trade Representative in 2005. *Id.*

38. Presidential disapproval was first invoked in 1978. Presidential Determination of April 22, 1978, 43 Fed. Reg. 177,898 (Apr. 22, 1978). It was invoked again in 1981 for a paper-forming machine that had few alternatives in the marketplace, Presidential Disapproval of Determination of the U.S. International Trade Commission in Investigation No. 337-TA-82, 46 Fed. Reg. 32361-01 (June 22, 1981), in 1982 recognizing the unintended consequences of favoring an imported product over a domestic alternative due to a Section 337 ITC ruling on a process patent, Presidential Disapproval of the Determination of the U.S. International Trade Commission in Investigation No. 337-TA-99, Certain Molded-In Sandwich Panel Inserts, 47 Fed. Reg. 29919-02 (July 9, 1982), in 1985 regarding trademarks of certain alkaline batteries from investigation number 337-TA-165. Determination of the President Regarding Certain Alkaline Batteries, 50 Fed. Reg. 1655-01 (Jan. 11, 1985), and finally, in 1987 for certain random access memory semiconductor devices, overturning a limited exclusion order that would be unduly difficult for customs to enforce. Presidential Disapproval of a Section 337 Determination, 52 Fed. Reg. 46011-02 (Dec. 3, 1987).

C.F.R. § 200.³⁹ Congress can also modify procedures at the ITC by statutory reform, as they have several times, as discussed in Section II.A.1, *infra*.

As a federal government agency, and not an Article III court, the doctrine of *stare decisis* does not formally apply to the ITC, although other checks do encourage adjudicative consistency.⁴⁰ Under the Administrative Procedures Act (“APA”), the ITC is required to provide basic due process and other procedural minimums. The ITC is also expected to act consistently, and its decisions are subject to review by the Federal Circuit—an Article III court bound to follow its prior decisions and those of the Supreme Court. Thus, in a practical sense, decisions on ITC procedure and rules made by the Federal Circuit are likely to be followed by the ITC in future Section 337 investigations. Further, the Federal Circuit has overturned ITC decisions that were inconsistent with the ITC’s own rules, thus enforcing a degree of internal consistency.⁴¹

II. HISTORICAL AND CONTEMPORARY CRITICISM OF SECTION 337

Section 337 investigations have faced historical and contemporary criticism. Prior criticism included treatment of licensing activity as a domestic industry and Section 337’s alignment with international free trade agreements.⁴² Contemporary issues include (1) how to treat NPEs,

39. See 5 U.S.C. § 553 (2006) (“Rule Making”). For an example of a proposed rule, see Rules of General Application, Adjudication, and Enforcement, 77 Fed. Reg. 60952-56 (Oct. 5, 2012) (codified at 19 C.F.R. § 210.27(c) (2014)) (describing “proposed rulemaking” to include “specific limitations on electronically stored information”).

40. See Justin Hendrix et al., *Stare Decisis and Litigating at the International Trade Commission*, 25 INTELL. PROP. & TECH. L.J. 18 (2013); see generally Justin Hendrix et al., *The Role of Stare Decisis at the U.S. International Trade Commission*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 703 (2014).

41. See, e.g., *Align Tech., Inc. v. ITC*, 771 F.3d 1317, 1319 (Fed. Cir. 2014) (reviewing Certain Incremental Dental Positioning Adjustment Appliances, Inv. No. 337-TA-562, Notice of Commission Not To Review the Administrative Law Judge’s Initial Determination Granting a Joint Motion to Terminate the Investigation Based on a Consent Order (Nov. 13, 2006)). The Federal Circuit found that the ITC’s overturning of an ALJ’s denial of a motion via an order was improper because the Commission is not empowered by its own rules to overturn orders, but only to review initial determinations. *Id.*; see also Christopher May, *At the ITC, Even the Rulemaker Has To Follow the Rules*, LAW360 (Sept. 10, 2014, 10:23 AM), <http://www.law360.com/articles/574076/at-the-itc-even-the-rulemaker-has-to-follow-the-rules>.

42. See, e.g., Terry Lynn Clark, *The Future of Patent-Based Investigations Under Section 337 After the Omnibus Trade and Competitiveness Act of 1988*, 38 AM. L. REV. 1150, 1153–1155 (1989) (expressing concern over potential unintended impacts of the 1988

(2) how to provide relief with respect to standard essential patents, and (3) how to adjudicate technologically complex patents in an increasingly global marketplace. This Part describes both historical and contemporary critiques of Section 337, and then discusses the calls for change at the ITC that have arisen out of contemporary concerns.

A. SECTION 337'S HISTORICAL DIFFICULTIES

At two critical points since the creation of the modern ITC Section 337 adjudication process in 1974, Congress has passed statutory amendments that altered the power and scope of Section 337. The first, in 1988, was passed in response to domestic pressure to protect certain industries from unfair importation where their product designs were licensed to third parties, rather than manufactured internally.⁴³ The second, adopted in 1994, addressed international pressures to conform to cross-border trade agreements.⁴⁴

1. Gremlins and the 1988 Omnibus Trade and Competitiveness Act

A mid-1980's case involving non-manufacturing economic activity spurred a statutory change in Section 337's trade violation requirement from domestic *injury* to a domestic *industry*. Prior to the change, the special remedies provided by Section 337 required establishing "unfair acts in the importation of articles . . . which . . . destroy or substantially injure an industry, efficiently and economically operated, in the United States . . ." ⁴⁵ Thus, Section 337 relief required both infringement and a showing that there would be economic injury to an operating domestic industry.⁴⁶ In *Certain Products with Gremlins Character Depictions* ("Gremlins"), the ITC found that a Hollywood movie company's copyright licensing of movie paraphernalia, without associated manufacturing, was

amendments); Antoinette M. von dem Hagen, *Trade-Based Remedies for Copyright Infringement: Utilizing a "Loss-Preventative" Synthesis*, 12 HASTINGS COMM. & ENT. L.J. 99, 134–135 (1989) (describing problems with the narrow domestic industry standard prior to the 1988 amendments); Mark Modak-Truran, *Section 337 and GATT and the Akzo Controversy: A Pre- and Post-Omnibus Trade and Competitiveness Act Analysis*, 9 NW. J. INT'L L. & BUS. 382, 382–383 (1988) (describing the international treaty conflicts that led up to the 1988 amendments); Martin B. Schwimmer, *Defining Domestic Industry in the Tariff Act of 1930: Removing Gremlins From Section 337*, 11 FORDHAM INT'L L.J. 165, 166 (1987) (expressing concern that an expanded definition of licensing would allow misuse of Section 337).

43. See *infra* Section II.A.1.

44. See *infra* Section II.A.2.

45. 19 U.S.C. § 1337(a) (1976); see also Terry Lynn Clark, *supra* note 42, at 1153–1155.

46. See *id.*

an insufficient domestic “industry” to warrant Section 337 standing.⁴⁷ Accordingly, the ITC did not issue an exclusion order against the allegedly infringing imported goods.⁴⁸

Within the same time period, the Bayh-Dole Act of 1980 permitted federally funded researchers to independently pursue intellectual property rights.⁴⁹ Thus, patents issued to universities and small research organizations were licensed to larger companies for the adoption and manufacture of the underlying technologies.⁵⁰ Under Section 337 at the time, universities and small companies could not bring a claim because they were not themselves engaged in manufacturing sufficient to establish both domestic industry and injury.⁵¹ Nevertheless, the government, and the public by proxy, had vested monetary and policy interests in the success and protection of these licensing programs.⁵²

These interests spurred Congress to revise Section 337, relaxing the domestic industry requirements and bringing this licensing activity under the protection of the ITC.⁵³ The 1988 Omnibus Trade and

47. Certain Products With Gremlins Character Depictions, Inv. No. 337-TA-201, USITC Pub. 1815 (Mar. 1986); *see also* Taras M. Czebiniak, Note, *When Congress Gives Two Hats, Which Do You Wear? Choosing Between Domestic Industry Protection and IP Enforcement in § 337 Investigations*, 26 BERKELEY TECH. L.J. 93, 110 (2011).

48. *Id.*

49. Bayh-Dole Act, Pub. L. No. 96-517 § 200, 94 Stat. 3015, 3019 (Dec. 12, 1980):

It is the policy and objective of the Congress to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of small business firms in federally supported research . . . ; to promote collaborations between commercial concerns . . . [and] universities

Id.

50. *See* WENDY H. SCHACHT, CONG. RESEARCH SERV., RL 32076, THE BAYH-DOLE ACT: SELECTED ISSUES IN PATENT POLICY AND THE COMMERCIALIZATION OF TECHNOLOGY 11 (2012) (noting that by 1987, business sponsorship of university research had grown 74 percent from 1980 to 1985, and that the act “provides an incentive for universities to take the time and effort to pursue a patent and to license those patents”). Academic patenting increased from 390 in 1980 to 1602 in 1992. *Id.*; NAT’L SCI. FOUND., SCIENCE AND ENGINEERING INDICATORS 2014, Appendix Table 5-63, available at <http://www.nsf.gov/statistics/seind14/content/chapter-5/at05-63.pdf>.

51. *Facts and Trends Regarding USITC 337 Investigations*, USITC, at 2 (Apr. 15, 2013), http://www.usitc.gov/press_room/documents/featured_news/337facts.pdf [hereinafter *ITC Facts and Trends*].

52. *See id.*

53. *See id.*

Competitiveness Act⁵⁴ amended Section 337 by loosening the domestic industry and injury requirements for granting exclusionary relief in two ways.⁵⁵ First, rather than requiring injury, the amended statute only required showing that a domestic industry does in fact exist.⁵⁶ Second, the amended statute explicitly included “licensing” as a recognized form of domestic industry.⁵⁷ The legislative history reveals that Congress considered the limiting requirement of establishing a domestic injury to be overly narrow.⁵⁸ In comparison, asserters of patent rights in federal court are entitled to strict liability: infringement alone is sufficient for relief.⁵⁹

The 1988 amendments replaced the injury and industry requirements with three elements to establish a domestic industry sufficient for Section 337 protection: (1) significant investment in plant and equipment, (2) significant employment of labor or capital, or (3) substantial investment in its exploitation, including engineering, research and development, or licensing.⁶⁰ Injury was no longer required. Documents surrounding the 1988 amendments also clarify that licensing as a domestic industry was intentionally included, noting that “actual production of the article” is not required:

[Substantial investment in exploitation] does not require actual production of the article in the United States if it can be demonstrated that significant investment and activities of the type enumerated are taking place in the United States. Marketing and sales in the United States alone would not, however, be sufficient to meet this test. The definition could, however, encompass universities and other intellectual property owners who engage in extensive licensing of their rights to manufacturers.⁶¹

Thus, Congress intended to increase incentives for United States companies to invest not only in manufacturing, but also in research and

54. Omnibus Trade and Competitiveness Act of 1980, Pub. L. No. 100-418 § 1342, 102 Stat. 1107 (1988); *see also ITC Facts and Trends, supra* note 51, at 2.

55. Omnibus Trade and Competitiveness Act of 1980, Pub. L. No. 100-418 § 1342, 102 Stat. 1107 (1988).

56. *Id.*

57. *Id.*

58. Trade and International Economic Policy Reform Act of 1987, H.R. REP. NO. 100-40, Pt. 1 at 156 (1987) (“[R]equiring proof of injury, beyond that shown by proof of the infringement of a valid intellectual property right, should not be necessary.”).

59. *See Blair, supra* note 24.

60. 19 U.S.C. § 1337 (1988).

61. Trade and International Economic Policy Reform Act of 1987, H.R. REP. NO. 100-40, at 157 (1987); *see also Terry Lynn Clark, supra* note 42, at 1185 n.277.

development.⁶² In short, congressional disapproval of the result in *Gremlins*, where the ITC was statutorily barred from protecting a substantial domestic expenditure for lack of manufacturing and labor investments, led Congress to amend 19 U.S.C. § 1337. These amendments brought the licensing activities of Hollywood, federally funded universities, and small research organizations within the trade protection sphere provided by Section 337. This shift in policy further maintained the relevance of a trade organization in a country that was rapidly shifting from a manufacturing economy to a knowledge economy.⁶³

2. *The Aramid Fibers Decision and the 1994 Uruguay Round Agreements Act*

In 1990, the ITC faced a new challenge, this time from international sources. A panel consisting of members of the General Agreement on Tariffs and Trade (“GATT”) found that an ITC decision in *Certain Aramid Fibers* (“*Aramid*”) barring certain imported synthetic fabric materials⁶⁴ conflicted with GATT, a multilateral agreement on international trade. The GATT panel found that the Section 337 proceedings in the matter were inconsistent with international trade agreements for six reasons: (1) the ITC provides no choice of forum for imported products, (2) there is a disadvantage to foreign products due to strict time limits on ITC proceedings, (3) counterclaims are not available at the ITC, (4) the ITC grants general exclusion orders when no comparable domestic remedy exists in federal courts, (5) exclusion orders are automatically enforced, and (6) the ITC can create a need for importers to defend themselves before multiple courts.⁶⁵ These six reasons allege that the burdens placed on defendants of patent infringement allegations at the ITC are unreasonable in comparison to the treatment of

62. See Terry Lynn Clark, *supra* note 42, at 1151.

63. See, e.g., W. Brian Arthur, *Increasing Returns and the New World of Business*, HARV. BUS. REV. (July–Aug. 1996) (discussing the replacement of the manufacturing world—bulk production of metal ores, lumber, and soybeans—with the software world of Microsoft and Sun Microsystems); Walter W. Powell & Kaisa Snellman, *The Knowledge Economy*, 30 ANN. REV. SOC. 199, 201 (2004) (describing “the transition that has occurred in advanced industrial nations from a manufacturing-based to services-driven economy”).

64. Panel Report, *United States – Section 337 of the Tariff Act of 1930: Report by the Panel adopted on 7 November 1989*, L/6439 - 36S/345 (Jan. 16 1989), available at http://www.wto.org/english/tratop_e/dispu_e/87tar337.pdf [hereinafter *GATT Report*]; In re *Certain Aramid Fibers*, Inv. No. 337-TA-194, USITC Pub. 1824 (Mar. 1986).

65. *GATT Report*, *supra* note 64, at 40; see also Tom M. Schaumberg, *A Revitalized Section 337 to Prohibit Unfairly Traded Imports*, 77 J. PAT. & TRADEMARK OFF. SOC’Y 259, 260 (1995).

allegations of domestic patent infringement in district court. The GATT panel reasoned that this treatment is at odds with international free trade agreements, which require imported goods to be treated at least as well as domestic goods.⁶⁶ Thus, the GATT panel argued that the ITC hinders free trade by placing international participants at a significant disadvantage.

A simplified explanation of the 1994 amendments—the GATT panel found the *Aramid* decision in violation of international treaties, leading Congress to amend Section 337 in order to comply—obscures crucial historical details.⁶⁷ Importantly, the ITC decided *Aramid* in 1986,⁶⁸ the GATT panel released its findings in January 1989,⁶⁹ Congress did not amend Section 337 until 1994, and the amendments did not go into effect until January 1995.⁷⁰ In the interim, the future of Section 337 investigations dangled in uncertainty. In 1990, the United States Trade Representative put out a request for comment that included propositions to abolish Section 337 and create a single, unified Article III trial court for both patent infringement and unfair importation claims, and propositions allowing the ITC to transfer investigations to federal courts to create a path for money damages.⁷¹ Neither proposal was adopted,⁷² but the proposals were indicative of the uncertain future of Section 337 at the time.

The amendments adopted in the Uruguay Round Agreements Act of 1994 (“URAA”) struck a balance between the demands of the GATT panel and a desire to protect domestic industries.⁷³ The amendments replaced the statutory time limit with an “earliest as practicable” requirement, added a counterclaim provision, and heightened

66. *GATT Report*, *supra* note 64, at 11–12; *see also* Mark Modak-Truran, *supra* note 42, at 395.

67. *See, e.g.*, Bryan A. Schwartz, *The Fate of Section 337 Litigation After the Uruguay Round Agreements Act*, 27 *LAW & POLY INT’L BUS.* 1, 1–2 (1995).

68. *In re Certain Aramid Fibers*, Inv. No. 337-TA-194, USITC Pub. 1824 (Mar. 1986).

69. *GATT Report*, *supra* note 64.

70. Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809, 4943–45 (1994).

71. Revisions to U.S. Patent Enforcement Procedures; Section 337: Request for Public Comments, 55 *Fed. Reg.* 3503, 3503–04 (Feb. 1, 1990); *see also* Schwartz, *supra* note 67, at 10.

72. Schwartz, *supra* note 67, at 10–11.

73. Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809, 4943–45 (1994).

requirements for general exclusion orders.⁷⁴ These changes allowed the ITC to maintain its fast timelines while responding to the GATT panel's concern over strict time limits. Further, the changes continue to provide general exclusion orders where warranted, while mollifying the GATT panel's complaints regarding distinctions between ITC and federal court remedies. One commentator at the time noted that "[w]ith the amendments in place, the cloud over Section 337 has been removed. The statute has survived"⁷⁵

B. CONTEMPORARY SECTION 337 DIFFICULTIES

Today, Section 337 practice at the ITC faces new difficulties. First, there is concern that the 1994 amendments⁷⁶ passed in response to *Aramid* opened the door too widely to exploitive non-practicing entity complainants.⁷⁷ Second, standard essential patents have introduced a new layer of complexity in balancing patent rights, public policy, and contractual obligations.⁷⁸ Third, increasing technological and business complexity has raised new difficulties in crafting effective trade policy at the boarder when companies collaborate globally.⁷⁹ The following Sections discuss each of these three issues in turn.

1. *Non-Practicing Entities*

Non-practicing entities ("NPEs"), in the most general terms, are patent litigants that do not practice and have no intention of practicing their patented technologies.⁸⁰ Many scholars have worked to classify subtypes of NPEs, which include both universities and small research entities who seek to license their inventions for lack of funding and infrastructure and patent monetization groups that use the court system to extract value from intellectual property rights.⁸¹ Without parsing the frequently-raised

74. See Schaumberg, *supra* note 65, at 262–269.

75. *Id.* at 269.

76. See *supra* Section II.A.2.

77. See *infra* Section II.B.1.

78. See *infra* Section II.B.2.

79. See *infra* Section II.B.3.

80. See generally Colleen Chien, *Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents*, 87 N.C. L. REV. 1571 (2008); Colleen Chien, *Everything You Need To Know About Trolls (The Patent Kind)*, WIRED (June 26, 2013, 9:25 AM), available at <http://www.wired.com/2013/06/everything-you-need-to-know-about-trolls-the-patent-kind>; see also *The Original Patent Troll*, YOUTUBE (Jan. 28, 2007), <http://www.youtube.com/watch?v=lOGozFzHkhs> (showing an educational video including what might be the first usage of the term "patent troll").

81. See, e.g., John R. Allison et al., *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677 (2011); Mark A. Lemley, *Are Universities Patent*

value judgments associated with NPEs, it suffices to say that the ITC holds an interest in maintaining access to Section 337 investigations when the core mission of the ITC is upheld—protecting against unfair trade practices—while at the same time limiting the ability of the more exploitive complainants to impede the very economic development that the patent system was designed to encourage.

As discussed in Section II.A.1 *supra*, the 1988 Omnibus Trade and Competitiveness Act amended Section 337's domestic industry and injury requirements, allowing complaints to be predicated solely upon a substantial domestic industry, including licensing activity without manufacturing.⁸² Concern over Hollywood's copyrights and inventions from research and development only entities drove the change in domestic industry standards. At the time of drafting the 1988 amendments, the modern NPE notion of acquiring patent assets solely for the sake of monetization was uncommon. Rather, the "licensing" contemplated in the 1988 amendment was that of a company licensing a design to a manufacturer rather than performing the manufacturing themselves.⁸³ In the wake of the 1990's dot-com bubble, however, patent rights from many defunct companies were sold in bankruptcy proceedings to monetization entities.⁸⁴ These monetization companies planned to extract value from the intellectual property assets without any intent to practice the inventions.⁸⁵ This particular subset of NPEs were the unintended benefactors of the 1988 amendments as they fell under the same licensing provisions of Section 337 as universities and research and development companies.

Trolls?, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611 (2007) (finding that while a University is a non-practicing entity, it is not a "troll"); Ira Glass et al., *When Patents Attack!*, THIS AMERICAN LIFE (July 22, 2011), available at <http://www.thisamericanlife.org/radio-archives/episode/441/when-patents-attack>.

82. Omnibus Trade and Competitiveness Act of 1980, Pub. L. No. 100-418, § 1342, 102 Stat. 1107 (1988). For an analysis of the changes to Section 337 investigations see, for example, Terry Lynn Clark, *supra* note 42.

83. Terry Lynn Clark, *supra* note 42, at 1164–68.

84. See, e.g., Christopher Hu, *Some Observations on the Patent Troll Litigation Problem*, 26 INTELL. PROP. & TECH. L.J. 10 n.6 (2014); Robert D. Hof, *Venture Capital's Liquidators*, BLOOMBERG BUSINESSWEEK, Dec. 3, 2008, available at <http://www.businessweek.com/stories/2008-12-03/venture-capitals-liquidators>; Lorraine Woellert, *eBay Takes on the Patent Trolls*, BLOOMBERG BUSINESSWEEK, Mar. 29, 2006, available at <http://www.businessweek.com/stories/2006-03-29/ebay-takes-on-the-patent-trolls>.

85. See, e.g., Hu, *supra* note 84; Hof, *supra* note 84.

The 2006 *eBay Inc. v. MercExchange L.L.C.*⁸⁶ decision further channeled NPEs into the ITC because NPEs rarely satisfy the requirements set out by the Supreme Court for injunctive relief in district court.⁸⁷ In *eBay*, the Supreme Court adopted a four-factor test for granting injunctive relief in patent infringement cases.⁸⁸ This decision severely hampered the ability of NPEs to obtain injunctions in federal court,⁸⁹ thereby reducing their ability to engage in patent “hold-up”—where NPEs are able to extort large payouts based on dubitable patent infringement claims by negotiating royalties at legal-gunpoint.⁹⁰ Prior to *eBay*, easy access to preliminary injunctions led to the NPE practice of filing a large number of lawsuits, some of dubious merit, in hopes of quick settlements as an alternative to costly and lengthy litigation.⁹¹ The *eBay* limitation on injunctive relief drove some NPEs toward the ITC in hopes of continuing their hold-up practices in a different venue.⁹²

86. In *eBay Inc. v. MercExchange L.L.C.*, 547 U.S. 388 (2006), the Court affirmed a four-factor test for granting injunctive relief to an entity or individual:

(1) that it has suffered an irreparable injury; (2) that remedies available at law are inadequate to compensate for that injury; (3) that considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

Id.

87. Non-practicing entities have difficulty satisfying the “irreparable injury” and “remedies available at law are inadequate to compensate for that injury” requirements of *eBay*. *Id.* at 391.

88. *Id.*

89. See, e.g., Yixin H. Tang, *Recent Development: The Future of Patent Enforcement After eBay v. MercExchange*, 20 HARV. J.L. & TECH. 235, 236 (2006) (noting that the decision “made it much harder for patent holders who do not practice their patented inventions to obtain a permanent injunction . . .”).

90. See, e.g., Colleen V. Chien & Mark A. Lemley, *Patent Holdup, The ITC, and the Public Interest*, 98 CORNELL L. REV. 1, 1 (2012) (citing Justice Kennedy’s concurrence in *eBay*: “an injunction . . . can be employed as a bargaining tool to charge exorbitant fees” and pointing out that “[*eBay*] has had the unintended consequence of driving patent assertion entities to a different forum, the International Trade Commission (ITC), in hopes of obtaining injunctive relief no longer available in district courts.”); Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007) (expressing concern over patent hold-up in royalty negotiations for products covered by hundreds or thousands of patents).

91. See, e.g., Chien & Lemley, *supra* note 90, at 8 (“Patentees who owned rights in very small pieces of complex, multicomponent products could threaten to shut down the entire product. As a result, even a very weak patent could command a high royalty in settlement from defendants afraid of gambling their entire product on a jury’s decision.”).

92. See Wang, *supra* note 31, at 417, 419.

2. *Standard Essential Patents at the ITC*

Standard essential patents (“SEPs”) cover innovations that industry groups have adopted to promote interoperability, and thus are made available for licensing to any market participant at reasonable rates.⁹³ The USB and Wi-Fi standards are some recent examples of this, wherein multiple manufacturers agreed upon a single set of protocols so that consumer products would have greater functionality and interoperability. Standard Setting Organizations (“SSOs”), who work to develop and maintain these standards, include the Institute of Electrical and Electronics Engineers, the American National Standards Institute, and the International Organization for Standardization. When a particular manufacturer’s patented technology is included in an agreed-upon standard, it is referred to as an SEP. The owner of an SEP contractually agrees to license the patent under terms that are fair, reasonable, and non-discriminatory (“FRAND”).⁹⁴ Thus, FRAND agreements mark a commitment to negotiate licenses without engaging in patent “hold-up.”

The ban on patent hold-up inherent in FRAND agreements ensure that SEPs remain available for licensing and promotes the general advancement of technology and the economy.⁹⁵ The on/off switches of district court injunctive and Section 337 exclusionary relief are ill-fitting remedies for SEPs, as they provide too much leverage to complainants.⁹⁶ As the ITC is not statutorily empowered to provide money damages—exclusion orders are the only remedy available—a Section 337 remedy may hinder fair royalty negotiation under SSO contractual agreements. In view of this, a joint 2013 Department of Justice–PTO policy statement reasoned that injunctive and exclusionary relief “may be inconsistent with the public interest” for FRAND-encumbered patents, although the statement also identifies possible exceptions to the limitation.⁹⁷

93. See generally Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 BERKELEY TECH. L.J. 1135 (2013).

94. Also sometimes abbreviated as “RAND.”

95. Kassandra Maldonado, Note, *Breaching RAND and Reaching for Reasonable: Microsoft v. Motorola and Standard-Essential Patent Litigation*, 29 BERKELEY TECH. L.J. 419, 429 (2014).

96. See BRIAN T. YEH, CONG. RESEARCH SERV., R42705, AVAILABILITY OF INJUNCTIVE RELIEF FOR STANDARD-ESSENTIAL PATENT HOLDERS (2012), available at http://www.law.berkeley.edu/files/CRS_SEP_Report_9-2012.pdf (describing Congressional hearings where members of Congress and ITC commissioners expressed concern over the granting of exclusionary relief for SEPs).

97. U.S. Dep’t of Justice & USPTO, *Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments*, Jan. 8, 2013, at 6, available

3. *Technological Complexity*

In addition to the specific difficulties imposed on Section 337 investigations by NPEs and SEPs, increasing business and technological complexity has led to increased concerns over induced and downstream patent infringement.⁹⁸ Devices sold today are commonly protected by a multitude of patents and involve hardware and software produced by a variety of companies. The Apple iPhone, for example, includes components produced by Samsung,⁹⁹ Corning, Broadcom, and a long list of other contributors, and is primarily assembled by Foxconn in China.¹⁰⁰ The iPhone uses Wi-Fi technology under the IEEE 802.11 standard, Bluetooth connectivity, and a variety of cellular standards such as GSM and CDMA. These connectivity standards implicate the SEPs described *supra* in Section II.B.2. Further, the device can be loaded with software from a myriad of providers and used with a wide variety of third-party accessories such as cases and external speakers.¹⁰¹ This technological and commercial complexity raises many questions for the ITC, including whether it is required to include downstream users, such as the software companies whose software may be loaded onto a device after importation, in Section 337 proceedings to issue an exclusion order against them.

at http://www.uspto.gov/about/offices/ogc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf. *But see* Anne Layne-Farrar, *Moving Past the SEP RAND Obsession: Some Thoughts on the Economic Implications of Unilateral Commitments and the Complexities of Patent Licensing*, 21 GEO. MASON L. REV. 1093, 1093, 1110 (2014) (arguing that it is important to consider SEPs in view of a broader licensing strategy and not treat individual agreements in isolation when considering infringement remedies).

98. *See, e.g.*, Georg von Graevenitz et al., *Incidence and Growth of Patent Thickets: The Impact of Technological Opportunities and Complexity*, 61 J. INDUS. ECON. 521, 522 (2013) (citing references therein establishing a link between explosive increases in patenting rates and technological complexity); Ricard V. Solé et al., *The Evolutionary Ecology of Technological Innovations*, 18 COMPLEXITY 15, 21 (2013) (describing “Innovation Networks” wherein technological improvements accelerate as new advancements are built on existing knowledge).

99. Neil Hughes, *Samsung Still Reportedly Supplying 40% of Apple A8 Chips for iPhone 6 & 6 Plus*, APPLEINSIDER (Sept. 23, 2014, 9:23 AM), <http://appleinsider.com/articles/14/09/23/samsung-still-reportedly-supplying-40-of-apple-a8-chips-for-iphone-6-6-plus>.

100. *How and Where iPhone is Made*, FINANCESONLINE, <http://financesonline.com/how-iphone-is-made/> (last visited Feb. 1, 2015); *see also* Daniel Eran Dilger, *American Components in Apple’s iPhone Supply Chain Graphically Detailed*, APPLEINSIDER (Aug. 13, 2013, 1:30 PM), <http://appleinsider.com/articles/13/08/13/iphones-american-components-in-apple-inc-supply-chain-graphically-detailed>.

101. *See, e.g.*, Will Greenwald, *The 10 Best Apple iPhone 5s Accessories*, PC MAGAZINE (Sept. 26, 2013), *available at* <http://www.pcmag.com/slideshow/story/316256/the-10-best-apple-iphone-5s-accessories>.

Similarly, if device software or accessories are found to infringe patents, can the device manufacture be found liable for inducing infringement despite a lack of direct involvement?

C. CALLS FOR CHANGE

The ITC's handling of NPEs, SEPs, and technologically complex goods has generated calls for procedural changes, statutory reform, and even the abolition of Section 337. The following Section discusses some of these calls for change.

1. *Academic Calls for Reform Within the Bounds of the Current Statute*

A 2012 paper by Professors Colleen Chien and Mark Lemley lays out three proposed changes to Section 337 investigations that the ITC could presumably implement within their own rulemaking authority, without requiring congressional amendments to Section 337.¹⁰² First, Chien and Lemley propose tailoring the economic impact of exclusion orders by limiting the “the ability of a patentee to extract settlements that exceed the economic value of the patent.”¹⁰³ This tailoring might include grandfathering goods that have already been imported or manufactured, thus limiting the application exclusion orders to future orders. Second, they advocate delaying the implementation of exclusion orders to soften the economic damage caused by overbroad remedies.¹⁰⁴ Third, they suggest using the bond requirements granted by the ITC during presidential review as a form of quasi-damages.¹⁰⁵ These bonds are paid to allow continued importation of accused goods during the period of presidential review and are nearly always forfeited.¹⁰⁶ Thus, the bonding could potentially be used as to impose de facto money damages, despite the ITC's statutory limitations.¹⁰⁷

These three proposed reforms seek to limit the damage that exploitive complainants can inflict using Section 337 exclusion orders to extract unreasonable royalties in the wake of the *eBay* limitations on injunctive

102. Chien & Lemley, *supra* note 90. Further calls for reform and change are listed therein in footnotes 7 through 11 from the “mainstream media, commentators, practitioners, Congress, and the Federal Trade Commission.” *Id.* at 3–4.

103. *Id.* at 1, 32.

104. *Id.* at 34.

105. *Id.* at 36–39.

106. *Id.*; see also *supra* Section I.A.

107. *Id.*

relief in federal court.¹⁰⁸ Chien and Lemley argue that there is “more flexibility in [the ITC’s] choice of remedies than has previously been recognized”—responding to other commentators who believe statutory reform is the only route to make such impactful changes.¹⁰⁹

Other commentators have suggested granting *exclusive* jurisdiction to federal district courts in cases where they have jurisdiction over the parties, or applying the *eBay* standards for injunctive relief to the ITC’s exclusion and cease and desist orders.¹¹⁰ The first change would limit the ITC to hearing patent disputes only when the infringer is not identified (although the infringing goods are), or when personal jurisdiction cannot be established in federal court.¹¹¹ The second change, applying the *eBay* standard, would likely discourage patent holdup by NPEs filing Section 337 complaints entirely. In *Spansion, Inc. v. ITC*, however, the Federal Circuit affirmed an ITC decision not to apply the *eBay* standards to Section 337 proceedings, and thus at least this second route to reform seems unavailable without congressional action.¹¹²

2. *Potential Reform by Amending the Statute: H.R. 4763 in the 113th Congress*

Former ITC commissioner Charlotte Lane has argued that for Section 337 to survive the “core problem [of] patent trolls,” Congress needs “to define more clearly what constitutes a domestic business, and enforce an equitable standard for granting an exclusion order.”¹¹³ Congress has considered bills that would respond to this call, but none has been enacted.

108. *Id.* at 2–3.

109. *Id.* at 5.

110. Robert W. Hahn & Hal J. Singer, *Assessing Bias in Patent Infringement Cases: A Review of International Trade Commission Decisions*, 21 HARV. J.L. & TECH. 457, 488–89 (2007).

111. See generally Nathaniel Bruno, *Assessing Personal Jurisdiction in Patent Litigation Actions*, 19 INTELL. PROP. & TECH. L.J. 10 (2007).

112. *Spansion, Inc. v. ITC*, 629 F.3d 1331, 1359 (Fed. Cir. 2010). In issuing its determination, the Commission declined to apply the *eBay* standards for injunctive relief. *Id.* at 1358. On appellate review, the Federal Circuit “review[ed] the Commission’s action in awarding injunctive relief as to whether it is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,” and found that “*eBay* does not apply to Commission remedy determinations under Section 337,” in part because Section 337 exclusion orders are governed by statute, and not the equitable concerns addressed in *eBay*. *Id.* at 1358–1359. For a detailed discussion of rulemaking at the ITC, see *supra* Section I.B.

113. Charlotte R. Lane, *The International Trolling Commission*, WALL ST. J., Oct. 8, 2013, at A15, available at <http://www.wsj.com/articles/SB10001424127887323308504579083701201429502>.

One such bill was the 2014 “Trade Protection Not Troll Protection Act.”¹¹⁴ While this bill did not make it out of committee, the language used provides a potential approach to refining the domestic industry requirements and some insight into congressional considerations.¹¹⁵ The Act would have revised 19 U.S.C. § 1337(a)(3) as follows:

(3) . . . an industry in the United States shall be considered to exist if there is . . .

(A) significant investment in plant and equipment;

(B) significant employment of labor or capital; ~~or~~

(C) substantial investment in its exploitation, including ~~engineering, research and development or licensing, engineering and research and development; or~~

(D) substantial investment in licensing activities that leads to the adoption and development of articles that incorporate the patent, copyright, trademark, mask work, or design.

(4) For purposes of paragraph (3), the complainant may not rely upon activities by its licensees unless the license leads to the adoption and development of articles that incorporate the claimed patent, copyright, trademark, mask work, or design for sale in the United States.¹¹⁶

In short, the proposed amendments limit the prior “substantial licensing activity” to licensing activity that “leads to the adoption and development of articles that incorporate the claimed” intellectual property “in the United States.” This proposed legislation goes a step beyond the limitations expressed by the Federal Circuit in *Certain Coaxial Cable Connectors* (“*Coaxial Cable*”) and *Certain 3G Mobile Handsets and Components Thereof* (“*InterDigital*”), discussed *infra* in Section III.A, holding that expenses associated with litigation alone do not constitute sufficient “domestic industry” to satisfy the § 1337(a)(3)(C) “substantial licensing” requirement. The Federal Circuit did not, however go so far as

114. H.R. 4763, 113th Cong. (2014), *available at* <https://www.congress.gov/bill/113th-congress/house-bill/4763>.

115. *See H.R. 4763 - Trade Protection Not Troll Protection Act: All Actions*, CONGRESS.GOV, <https://www.congress.gov/bill/113th-congress/house-bill/4763/all-actions> (last visited Feb. 1, 2015).

116. H.R. 4763, *supra* note 114. Underlined text indicates insertions and strikethrough text indicates deletions.

to require licensing to “lead[] to the adoption and development of articles.”

The 2014 proposed bill is not the first call for reform to deal with exploitive patent litigation. In a report on the smartphone wars calling for statutory reform, Section 337 was described as an “absurdity . . . that could do great economic harm to one of the few U.S. industries that is growing rapidly” and “an accident of history that is now being exploited for anticompetitive purposes.”¹¹⁷ Additionally, other bills have been introduced to limit exploitive NPE litigation at the PTO and in federal court, but recent legislation has not addressed Section 337.¹¹⁸

3. *Calls to Abolish Section 337 in its Entirety*

Others have gone much further than calls for reform, suggesting that Congress put an end to Section 337 investigations entirely. In a response to the Chien and Lemley proposals, Professor Thomas F. Cotter agrees with the suggestion’s direction, but argues that they do not go far enough to fix the intrinsic, systemic problems of our multi-track patent litigation system.¹¹⁹ Rather, Cotter proposes the abolition of Section 337 investigations, suggesting that complainants should seek relief solely in federal court. Similarly, Professor Sapna Kumar notes that “[i]deally, Congress should develop a uniform approach to promoting innovation through patent legislation.”¹²⁰ She argues that uniformity may be difficult to accomplish without the abolition of Section 337, while at the same time acknowledging the political difficulties in doing so.¹²¹

Another more libertarian viewpoint from the Cato Institute argues that Section 337, by its very nature, violates free trade principles by

117. Editorial, *The Android Patent War*, WALL ST. J., Dec. 5, 2011, at A16, available at <http://www.wsj.com/articles/SB10001424052970204826704577074523539966352>.

118. The most discussed bill has been the Innovation Act, which has passed the House but not the Senate during the 113th Congress. Innovation Act, H.R. 3309, 113th Cong. (2013); see also Mengyi Wang, *Innovation Act of 2013 – Latest Effort to Disarm Patent Trolls*, HARV. J.L. & TECH. DIG. (Nov. 3, 2013), <http://jolt.law.harvard.edu/digest/patent/innovation-act-of-2013-latest-effort-to-disarm-patent-trolls>; Dennis Crouch, *New Patent Legislation: Innovation Act of 2013*, PATENTLY-O (Oct. 24, 2014), <http://patentlyo.com/patent/2013/10/new-patent-legislation-innovation-act-of-2013.html>.

119. Thomas F. Cotter, *The International Trade Commission: Reform Or Abolition? A Comment on Colleen v. Chien & Mark A. Lemley, Patent Holdup, the ITC, and the Public Interest*, 98 CORNELL L. REV. ONLINE 43, 54 (2013).

120. Kumar, *supra* note 2, at 578.

121. *Id.* at 578–79.

treating products differently depending upon their country of origin.¹²² Accordingly, they argue, “[r]epealing Section 337 is the only way to ensure the integrity of the U.S. patent system, to bring the United States into compliance with trade obligations, and to prevent future abuse of this protectionist trade law.”¹²³

* * *

The Sections above discussed calls for Section 337 changes in three ways: through the ITC’s rulemaking authority, by congressional amendment, and by abolition of Section 337. Practically speaking, however, changes to Section 337 through congressional amendment or abolition are unlikely to succeed in the short term. Congressional gridlock makes statutory reform slow at best and difficult in the present political climate. This leaves internal rulemaking and Federal Circuit oversight as the most likely avenues through which the ITC can make rule and procedural changes to Section 337. Accordingly, Part III below discusses changes that the ITC and the Federal Circuit have made to Section 337 investigations. While these changes may not go as far as some commentators have hoped, they nevertheless have the same goals in mind and have found some success.

III. RECENT CHANGES IN SECTION 337 POLICY AND PROCEDURE

In response to the evolving patent landscape, illustrated both by the contemporary challenges faced by the ITC and the calls for change discussed in Part II *supra*, the ITC, the Federal Circuit, and the Office of the President have implemented non-statutory modifications to policies and procedures under Section 337. These changes include tailoring the interpretation of the domestic industry standard in order to limit jurisdiction over NPE complainants, denying exclusionary relief based on FRAND-encumbered SEPs, limiting the application of exclusion orders to downstream patent users, reaffirming jurisdiction over induced infringement, and maintaining a high speed adjudication process with limited access to stays for parallel proceedings in the PTO.

122. Watson, *supra* note 2, at 1 (arguing that the ITC violates the national treatment requirements placed on international trade by the World Trade Organization).

123. *Id.*

A. TAILORING OF THE DOMESTIC INDUSTRY STANDARD: *COAXIAL CABLE* AND *INTERDIGITAL*

The 1988 amendments to § 1337(a)(3)(C) broadened the domestic industry standard to include “substantial investment in . . . licensing,” opening the ITC’s door to Hollywood movie copyright licensing, universities, and other non-manufacturing domestic activities.¹²⁴ Today, the rise of more exploitive litigation—for instance where complainants have licensed patents solely for the sake of litigation and patent hold-up, rather than manufacturing and commerce—has made many feel that the amendment opened the door too widely. That is to say, the ITC’s transition from never allowing licensing to satisfy the domestic industry requirement to allowing nearly any licensing activity to constitute a domestic industry took the requirement from overly narrow to overly broad.¹²⁵ While Congress clearly intended to allow licensing by universities and small research institutions to constitute a domestic industry under § 1377(a)(3)(C), it is not clear that Congress intended licensing activities tied solely to seeking injunctive and monetary relief to satisfy the requirement, particularly when there is no relationship between the licensing and the manufacturing or use of the technology.¹²⁶ This has placed pressure on the ITC to limit economic damage associated with exploitive NPE litigation,¹²⁷ and the ITC has responded by tightening the requirements on domestic industry by refining its interpretation of the existing statute.

Two recent Section 337 investigations—*Coaxial Cable* and *InterDigital*—have refined the ITC’s interpretation of the statutory scope of “licensing” and limited access for some NPEs. The Federal Circuit appellate holding in *Coaxial Cable* clarified that the “licensing” relied upon in establishing a domestic industry must not be solely for the sake of litigation. *InterDigital* further tightened the scope of § 1337(a)(C)(3) by requiring licensing activity to have a nexus with the asserted patent, and not just with the complainant.¹²⁸

124. See *supra* Section II.A.1.

125. See *supra* Section II.C.

126. The statute itself, however, requires “substantial investment in its exploitation, including engineering, research and development, or licensing,” and thus strictly literal reading may imply that substantial investment in licensing of any sort is satisfactory. 19 U.S.C. § 1337(a)(3)(C).

127. See *supra* Section II.C.

128. *InterDigital Commc’ns, LLC v. ITC*, 707 F.3d 1295, 1297–98 (Fed. Cir. 2013), *rev’g* In re Certain 3G Mobile Handsets and Components Thereof, Inv. No. 337-TA-613, USITC Pub. 4145 (Apr. 2010).

In *Coaxial Cable*, the ITC held that a complainant must show that qualifying litigation expenses are part of a broader licensing effort, and not solely for the sake of seeking injunctions, damages, and other legal remedies.¹²⁹ This requirement was affirmed by the Federal Circuit on appeal, holding that “the [ITC] reasonably concluded that expenses associated with ordinary patent litigation should not automatically be considered a ‘substantial investment in . . . licensing.’”¹³⁰

The ITC applied this new standard in *Certain Video Game Systems and Controllers (“Motiva”)*¹³¹ and in *Certain Products Having Laminated Packaging (“Lamina”)*.¹³² In *Motiva*, the Federal Circuit affirmed the final determination of the ITC, finding that the appellant did not meet the domestic industry requirement because “Motiva’s litigation against Nintendo was not directed at developing such a licensing program” to “adopt its patented technology,” but rather “that Motiva’s litigation was targeted at financial gains.”¹³³ In *Lamina*, the ITC found that the complainant’s licensing expenditures were only connected to “antecedent litigation that led to the licenses, *i.e.*, settlement agreements” and not sufficiently related to adoption of the technology.¹³⁴ Thus, these cases show that the ITC is willing to deny NPE’s access to Section 337 proceedings where the new domestic industry requirements are unmet.

129. *Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same* at 18, No. 337-TA-650, at 115–17, 2009 WL 3694421 (Int’l Trade Comm’n Oct. 13, 2009).

130. *John Mezzalingua Associates, Inc. v. ITC* [hereinafter *Coaxial Cable*], 660 F.3d 1322 (Fed. Cir. 2011); *see also* Tom Fisher, *Did You Know . . . Satisfying The Domestic Industry Requirement With Licensing Now Requires Proof Of Articles Protected By The Patent?*, ITC 337 LAW BLOG (May 19, 2014), <http://www.itcblog.com/did-you-know-satisfying-the-domestic-industry-requirement-with-licensing-now-requires-proof-of-articles-protected-by-the-patent>.

131. *Certain Video Game Systems and Controllers 14*, Inv. No. 337-TA-743, USITC Pub. 4377, (Feb. 2013) (“A complainant relying upon a domestic industry founded upon section 337(a)(3)(C) [licensing] must demonstrate the existence of articles that practice the asserted patent.”). The Commission specifically points out that “The Federal Circuit decisions in *InterDigital* and *Microsoft* changed th[e] analysis” that existed prior to those cases. *Id.* at 35.

132. *Certain Products Having Laminated Packaging*, Commission Opinion at 14, Inv. No. 337-TA-874, EDIS No. 517360 (Sept. 3, 2013).

133. *Motiva, LLC v. ITC*, 716 F.3d 596, 606 (Fed. Cir. 2013).

134. *Certain Products Having Laminated Packaging*, Commission Opinion, *supra* note 132, at 14; *see also* Emi Ito Ortiz, *Federal Circuit Affirms ITC’s Determination on Sec. 337 Domestic Industry Litigation Expenses*, WASH. LEGAL FOUND.: LEGAL PULSE (May 15, 2013), <http://wfllegalpulse.com/2013/05/15/federal-circuit-affirms-itcs-determination-on-sec-337-domestic-industry-litigation-expenses/>.

In *InterDigital*, the Federal Circuit further clarified what licensing can satisfy the domestic industry requirement by specifically requiring satisfaction of the technical prong.¹³⁵ Complainants at the ITC must now show proof of articles protected by the patent, even when relying upon licensing alone.¹³⁶ The complainant need not manufacture the product themselves, but it nevertheless must be manufactured. In reaching this holding, the Court reviewed the legislative history of the 1988 amendments and found this interpretation consistent with Section 337's core purpose: "protect[ing] American industries, including American industries that are built on the exploitation of intellectual property through engineering, research and development, or licensing."¹³⁷ Accordingly, substantial licensing for the sake of seeking damages in the absence of any adoption of the patented technology in trade is insufficient to satisfy the domestic industry requirement.

Subsequently, the ITC cited *InterDigital* in finding insufficient domestic industry in *Certain Integrated Circuit Chips* ("*Realtek*"). The ITC reasoned that "the 'its' in the phrase 'investment in its exploitation' in [§ 1337(a)(3)(C)] refers to the asserted patent or other intellectual-property right being asserted."¹³⁸ Thus "'its exploitation' . . . must refer to the patent and not to the articles."¹³⁹ Based on this understanding of licensing, the ITC did not find a sufficient nexus between domestic expenditures and licensing of the asserted patent in *Realtek*, but rather only a nexus with articles protected by the patent.¹⁴⁰

These decisions make clear that while "engineering, research and development, or licensing" may be recited in the statute, the ITC will not simply find any licensing program sufficient. Specifically, licensing must be in furtherance of adoption of the patented technology. In contrast, licensing efforts embarked upon solely for the sake of damages and patent hold-up are insufficient.¹⁴¹ Accordingly, the limitations the ITC and the Federal Circuit introduced in *Coaxial Cable* and *InterDigital* have made it more difficult for exploitive NPEs to access Section 337 proceedings.

135. *InterDigital Commc'ns, LLC v. ITC*, 707 F.3d 1295, 1298 (Fed. Cir. 2013).

136. *Id.* at 1304; *see also* Fisher, *supra* note 130.

137. *InterDigital*, 707 F.3d at 1304.

138. *Certain Integrated Circuit Chips*, Commission Opinion at 37, Inv. No. 337-TA-859, EDIS No. 540729 (Oct 22, 2014).

139. *Id.* (emphasis in original).

140. *Id.* at 49; *see also* Michael Lipkin, *No Domestic Industry For Realtek Patent, ITC Says*, LAW360 (July 21, 2014, 9:49 PM), <http://www.law360.com/articles/559651/no-domestic-industry-for-realtek-patent-itc-says>.

141. Wang, *supra* note 31, at 428.

B. SEPs UNDER SECTION 337: PRESIDENTIAL VETO IN THE APPLE/SAMSUNG DISPUTE

The Obama administration used its presidential veto power to limit Section 337's applicability to SEPs, reasoning that exclusionary and injunctive relief are unfit remedies on public policy grounds. In a Section 337 proceeding, Samsung Electronics accused Apple of infringing five of Samsung's patents.¹⁴² Some of the involved patents were encumbered by FRAND agreements, contractually obligating the parties to negotiate fair licensing royalties.¹⁴³ As part of their review of the initial determination of infringement by the ALJ, the ITC invited comment from the parties and the public on the ITC's "authority to issue a remedy for the importation of articles that infringe patents that the patent owner has stated it will license on [FRAND] terms."¹⁴⁴ Despite public calls urging the ITC not to impose an exclusion order, the ITC upheld the infringement finding and further stated that they had "determined that Samsung's FRAND declarations do not preclude [a limited exclusion order]."¹⁴⁵ That is, the ITC found that the contractual FRAND obligation to negotiate royalties did not bar injunctive relief under Section 337. Notably, one of the commissioners dissented from the decision, citing public interest grounds.¹⁴⁶ Additionally, no bond was required during the period of presidential review.¹⁴⁷ While the Commissioners' stated reason for the zero percent bonding was a lack of necessity to protect Samsung,¹⁴⁸ the move is nevertheless suggestive of some apprehension on the part of the ITC in their authority to issue exclusion orders for FRAND encumbered patents.

The Office of the President disapproved of the ITC ruling in a letter from U.S. Trade Representative Froman to the Chair of the ITC, rendering the exclusion order unenforceable.¹⁴⁹ Ambassador Froman cited

142. Certain Electronic Devices, Including Wireless Communication Devices, *Notice of Institution of Investigation*, Inv. No. 337-TA-794, EDIS No. 455355 (July 27, 2011).

143. *See supra* Section II.B.2.

144. Certain Electronic Devices, Including Wireless Communication Devices, *Commission's Final Determination Finding a Violation of Section 337; Issuance of a Limited Exclusion Order and a Cease and Desist Order; Termination of the Investigation* at 3, Inv. No. 337-TA-794, EDIS No. 510578 (June 4, 2013).

145. *Id.*

146. Certain Electronic Devices, Including Wireless Communication Devices, *Commission Opinion* at D1, Inv. No. 337-TA-794, EDIS No. 512742 (July 5, 2013) ("I determine that the relief in question is not consistent with the public interest and should not issue.").

147. *Id.* at 117–19.

148. *Id.* at 118 ("Samsung ha[d] not shown a need for protection by bond.").

149. *See supra* Section I.A.

public policy grounds, reasoning that to “mitigate against patent hold-up, exclusionary relief from the Commission based on FRAND-encumbered SEPs should be available” only in very limited circumstances that were not met in this case.¹⁵⁰ The letter points to an earlier policy statement on remedies for patents subject to FRAND requirements, and indicates that the disapproval is based on “various policy considerations . . . as they relate to the effect on competitive conditions in the U.S. Economy and the effect on U.S. Consumers.”¹⁵¹ The letter also urges the ITC to consider the public interest in making their decision regarding SEPs and to develop a record as to the “standard essential nature of the patent at issue[,] . . . mak[ing] explicit findings on these issues to the maximum extent possible” such that they can be reviewed during the presidential veto period.¹⁵² Thus, in addition to blocking the remedy provided by the ITC in this particular case, the President’s veto provides instructions for future handling of SEPs in Section 337 investigations: Make sure the public interest issues are substantiated and considered throughout the investigation, and not merely treated as an afterthought.

C. LIMITATIONS ON DOWNSTREAM EXCLUSION ORDERS: *KYOCERA*

Another open question at the ITC is the extent to which limited exclusion orders can apply to “downstream” products—domestically manufactured goods that incorporate infringing international imports—where those manufacturers were not parties in the investigation.¹⁵³ This question has become increasingly relevant due to complaints involving complex products that implicate tens or hundreds of patents and multiple

150. Letter from Ambassador Froman to Chairman Williamson (Aug. 3, 2013), available at http://www.ustr.gov/sites/default/files/08032013%20Letter_1.PDF.

151. *Id.* at 3; U.S. Dep’t of Justice & USPTO, *Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments*, Jan. 8, 2013, at 6, available at http://www.uspto.gov/about/offices/ogc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf; see also Letter from Senators Klobuchar, Lee, Boxer, and Risch to Ambassador Froman (July 30, 2013), available at <http://www.scribd.com/doc/157168884/13-07-30-Senators-to-USTR-Letter-Samsung-Apple> (expressing concern that “if companies implementing standards cannot rely on FRAND commitments, they will be less likely to participate in standard setting, which will drive up costs for consumers and reduce the pace of innovation”); Letter from Senators Lee, Klobuchar, Risch, and Begich to International Trade Commission Chair Williamson (May 21, 2013), available at <http://www.scribd.com/doc/142826966/ITC-Letter-on-Standard-Essential-Patents> (expressing the same concerns).

152. Letter from Ambassador Froman to Chairman Williamson, *supra* note 150, at 3 (suggesting that the record in this dispute was insufficient to determine whether royalty negotiations were in fact fairly conducted).

153. *ITC Facts and Trends*, *supra* note 51, at 3–4.

manufacturers in different countries. The ITC has historically held that it has statutory authority under Section 337 to “order [a limited exclusion order] which excludes all of a respondent’s articles that are determined to violate, regardless of the identity of the importer.”¹⁵⁴ A nine-factor test for exclusion orders against downstream infringers was recited in a 1990 Commission decision¹⁵⁵ and applied to several subsequent investigations.¹⁵⁶ This precedent was reversed in *Kyocera Wireless Corp. v. ITC*,¹⁵⁷ where the Federal Circuit found no statutory authority to enforce an exclusion order against unnamed downstream infringers.

In the Section 337 proceeding reviewed in *Kyocera*,¹⁵⁸ the ITC reviewed communications semiconductor components that would later be incorporated into cellphones and other devices.¹⁵⁹ In its complaint, Broadcom alleged that Qualcomm’s devices infringed several of Broadcom’s patents.¹⁶⁰ Because complainants brought the case to the ITC, the available remedy was to bar importation of those infringing devices into the United States.¹⁶¹ This case is further complicated because these devices are not stand-alone items, but rather other manufacturers had incorporated them into their own products (hence application of the term

154. 545 F.3d 1340, 1355 (Fed. Cir. 2008).

155. The EPROM factors were first recited in *Certain Erasable Programmable Read-Only Memories, Components Thereof, Products Containing Such Memories, and Processes for Making Such Memories*, Inv. No. 337-TA-276, USITC Pub. 2196, at 125 (May 1989), *aff’d sub nom.* Hyundai Elec. Indus. Co. v. Int’l Trade Comm’n, 899 F.2d 1204 (Fed. Cir. 1990).

156. *See, e.g.*, *Certain High-Brightness Light-Emitting Diodes, and Products Containing Same*, Inv. No. 337-TA-556, USITC Pub. 4011, at 28 (June 2008); *Certain Audio Processing Integrated Circuits, and Products Containing Same*, Inv. No. 337-TA-538, USITC Pub. 3991, at 9 (May 2008); *see also* Chien & Lemley, *supra* note 90, at 29–31; Christopher A. Cotropia, *Strength of the International Trade Commission as a Patent Venue*, 20 TEX. INTELL. PROP. L.J. 1, 7 (2011).

157. *Kyocera*, 545 F.3d at 1345 (Fed. Cir. 2008), *rev’g* *Certain Baseband Processor Chips and Chipsets, Transmitter and Receiver (Radio) Chips, Power Control Chips*, Inv. No. 337-TA-543, USITC Pub. 4258 (Oct. 2011); *see also* Bas de Blank & Bing Cheng, *Where Is the ITC Going After Kyocera?*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 701, 709–15 (2009).

158. *Kyocera*, 545 F.3d at 1345 (Fed. Cir. 2008), *rev’g* *Certain Baseband Processor Chips and Chipsets, Transmitter and Receiver (Radio) Chips, Power Control Chips*, Inv. No. 337-TA-543, USITC Pub. 4258 (Oct. 2011).

159. *Certain Baseband Processor Chips*, *supra* note 157.

160. *Certain Baseband Processor Chips*, *supra* note 157, at 57 (Commission Opinion on Remedy, The Public Interest, and Bonding, at 19).

161. *Id.* at 55 (Commission Opinion on Remedy, The Public Interest, and Bonding, at 16–17)

“downstream”). Ultimately, the ITC issued a limited exclusion order¹⁶² that included certain products incorporating the infringing components, regardless of whether they were imported by Qualcomm or by another company.¹⁶³

The decision was appealed to the Federal Circuit, and six downstream companies, not originally named in the Section 337 complaint—including Kyocera—joined as interveners.¹⁶⁴ The interveners argued that because Broadcom did not name them as respondents in the Section 337 investigation, the ITC should not subject them to the limited exclusion.¹⁶⁵ The Federal Circuit agreed with the interveners, finding no statutory authority under § 1337(d) to impose an exclusion order on a non-party, regardless of whether the nine-factor downstream infringement test is satisfied.¹⁶⁶

Despite varied predictions in the wake of *Kyocera*, ultimate impact appears to be relatively limited. Projections included that the number of named respondents would increase,¹⁶⁷ the number of named respondents would not increase for fear of slowing down investigations,¹⁶⁸ there would be an increase in the number of complaints seeking general exclusion orders,¹⁶⁹ and that the number of filings would decrease.¹⁷⁰ Recent empirical studies, however, reveal that these doomsday scenarios for Section 337 have not come about. Rather, there has been an increase in the number Section 337 filings, though without any impact on

162. A “limited exclusion order” applies to the persons determined to be violating Section 337. A “General exclusion order” applies to all manufacturers, but is an exception remedy available only when “necessary to prevent circumvention of a [LEO]” or “there is a pattern of violation . . . and it is difficult to identify the source of infringing products.” 19 U.S.C. § 1337(d)(2)(A)–(B) (2012); *Kyocera*, 545 F.3d at 1356; see also Cotropia, *supra* note 156, at 8.

163. In re Certain Baseband Processor Chips and Chipsets, Transmitter and Receiver (Radio) Chips, Power Control Chips, Inv. No. 337-TA-543, USITC Pub. 4258, at 5 (Oct. 2011) (“[T]he U.S. International Trade Commission has issued a limited exclusion order . . . against certain products of respondent Qualcomm . . . and certain downstream products that contain them.”).

164. *Kyocera*, 545 F.3d at 1354.

165. *Id.*

166. *Id.* at 1356. The non-parties might have been excluded under a *general* exclusion order, but “Broadcom appears to have made the strategic decision to not name downstream wireless device manufacturers and to not request the ITC to enter a [general exclusion order].” *Id.* at 1357.

167. Cotropia, *supra* note 156, at 10.

168. Blank and Cheng, *supra* note 157, at 716.

169. *Id.* at 717.

170. *Id.* at 720; Cotropia, *supra* note 156, at 11.

adjudication timelines.¹⁷¹ Thus, *Kyocera* provides an example of a change in procedural rules at the ITC triggered by the Federal Circuit. While the ITC is not bound to follow the new rule regarding downstream products, in a practical sense it can expect the Federal Circuit to overturn any decisions to the contrary on appellate review, and thus is strongly incentivized to do so.¹⁷²

D. INDUCEMENT UNDER SECTION 337: *SUPREMA*

Similar to the technological complexities that lead to the implication of downstream companies in *Kyocera*, induced infringement is a rising concern, particularly for devices included both hardware and software components. In *Certain Biometric Scanning Devices* (“*Suprema*”), the ITC addressed whether it could exclude only articles that infringe a patent at the time of importation, or whether indirect infringement would attach to an importer of a non-infringing hardware, should software be installed after importation that makes the functioning device infringe.¹⁷³ While the outcome of this litigation is pending en banc review before the Federal Circuit at this time,¹⁷⁴ the issue is another difficult question that the ITC must resolve so as to maintain its relevancy in patent disputes.

The *Suprema* Section 337 investigation involves a hardware device manufactured outside of the United States with software loaded after importation by a second company.¹⁷⁵ Specifically, *Suprema, Inc.* manufactured and imported a fingerprint identification scanner.¹⁷⁶ After importation, *Mentalix* loaded their own software onto the *Suprema* scanners and sold the devices.¹⁷⁷ *Cross Match Technologies*, a competing

171. Chien & Lemley, *supra* note 90, at 17 n.90 (observing a growth in ITC filings following *Kyocera* in 2008). *But see ITC Facts and Trends*, *supra* note 51, at 3–4 (reporting no statistically conclusive impact to the number of named respondents in ITC investigations following *Kyocera*).

172. *See also* Cotropia, *supra* note 156:

[T]he fact that ITC filings have continued to increase, even though the scope of remedies available at the ITC, due to *Kyocera*, has decreased, reinforces that patentees favor the ITC as a venue” in part because of “other advantages—jurisdictional-breadth, speed of adjudication, [and a] high-likelihood of injunctive relief

Id. at 23.

173. In the Matter of Certain Biometric Scanning Devices, Inv. No. 337-TA-720, USITC Pub. 4366 (Feb. 2013).

174. *Suprema, Inc. v. ITC*, No. 2012-1170, 2014 WL 3036241 (Fed. Cir. May 13, 2014).

175. *Suprema, Inc. v. ITC*, 742 F.3d 1350, 1352 (Fed. Cir. 2013)

176. *Id.* at 1353.

177. *Id.* at 1355.

biometric identification company, filed a complaint in May 2010 alleging that Suprema and Mentalix infringed upon four of their patents for a fingerprint scanning method.¹⁷⁸ After initial determinations made by the ALJ, the ITC determined that Suprema had indirectly infringed claim 19 of U.S. Patent No. 7,203,344, which recites “A method for capturing and processing a fingerprint image” that includes both image scanning steps and processing steps,¹⁷⁹ where the scanning was carried out by Suprema’s hardware and the processing steps were carried out by Mentalix.¹⁸⁰ The finding of induced infringement against Suprema arose under a theory of willful blindness toward Mentalix’s actions.¹⁸¹ The ITC held both that (1) there was direct infringement by Mentalix,¹⁸² and (2) Suprema “willfully blinded’ itself to the infringing nature of Mentalix’s activities which it had actively encouraged.”¹⁸³

The Federal Circuit, reviewing the Section 337 investigation on appeal, found that the ITC did not have jurisdiction to exclude items that were not infringing at the time of their importation in Section 337 investigations.¹⁸⁴ Thus, because the scanners themselves were not

178. In the Matter of Certain Biometric Scanning Devices, Inv. No. 337-TA-720, USITC Pub. 4366, at 23 (Feb. 2013).

179. The Cross Match claim recites:

19. A method for capturing and processing a fingerprint image, the method comprising:

- (a) scanning one or more fingers;
- (b) capturing data representing a corresponding fingerprint image;
- (c) filtering the fingerprint image;
- (d) binarizing the filtered fingerprint image;
- (e) detecting a fingerprint area based on a concentration of black pixels in the binarized fingerprint image;
- (f) detecting a fingerprint shape based on an arrangement of the concentrated black pixels in an oval-like shape in the binarized fingerprint image; and
- (g) determining whether the detected fingerprint area and shape are of an acceptable quality.

U.S. Patent No. 7,203,344 (filed Apr. 10, 2007).

180. *Suprema*, 742 F.3d at 1355.

181. *Id.* at 1353; *see also* In the Matter of Certain Biometric Scanning Devices, Inv. No. 337-TA-720, USITC Pub. 4366, Comm’n Op. at 38 (Feb. 2013).

182. “[T]here can be no indirect infringement unless there is direct infringement.” In the Matter of Certain Biometric Scanning Devices, Inv. No. 337-TA-720, USITC Pub. 4366, Comm’n Op. at 5 (Feb. 2013) (citing *Glenayre Elecs., Inc. v. Jackson*, 443 F.3d 851, 858 (Fed. Cir. 2006)).

183. *Id.* at 12.

184. *Suprema*, 742 F.3d at 1352; *see also* Mary Schnoor, *Federal Circuit Limits the ITC’s Authority to Address Post-Importation Induced Infringement*, HARV. J.L. & TECH.

infringing at the time of importation, and the infringing software was installed domestically, the ITC's issuance of an exclusion order against the scanner company was improper. The court noted that "while the [ITC] may ban articles imported by an "inducer" where the article itself directly infringes when imported . . ." it may not ban articles "based solely on the alleged intent of the importer."¹⁸⁵

The Federal Circuit vacated this decision in May 2014 and granted en banc review, which is currently scheduled for rehearing in February 2015.¹⁸⁶ The now-vacated panel decision has come under much criticism, as it allows an end-run around Section 337 protections by waiting to install infringing software or other sub-parts until after importation. Accordingly, uncertainty surrounds the outcome of *Suprema* and what effect it might have on the power and attractiveness of the ITC to complainants.

An en banc reversal would strengthen the ITC's role as a patent infringement adjudication venue and make clear that complainants can continue to bring claims both for articles infringing at importation and those articles that are intended to infringe after importation, or where there is willful blindness toward the infringement. According to Judge Reyna's now-vacated dissent in *Suprema*, the panel decision overturns decades of ITC precedent and thus disrupts the reliability of Section 337 proceedings.¹⁸⁷ In contrast, should the en banc opinion reinstate the panel decision, the Federal Circuit will have narrowed the scope of claims that complainants can bring before the ITC, and thus lessened Section 337's attractiveness as an intellectual property rights venue.

DIG. (Mar. 18, 2014), <http://jolt.law.harvard.edu/digest/software/federal-circuit-limits-the-itcs-authority-to-address-post-importation-induced-infringement>; Dennis Crouch, *USITC Asks En Banc Federal Circuit for Power to Block Imports Whose Distribution Induce Infringement in the US*, PATENTLY-O (Mar. 10, 2014), <http://patentlyo.com/patent/itc/2014/03/imports-distribution-infringement.html>; Dennis Crouch, *En Banc Federal Circuit to Review ITC's Power over Induced Infringement*, PATENTLY-O (May 15, 2014), <http://patentlyo.com/patent/2014/05/federal-circuit-infringement.html>.

185. *Suprema*, 742 F.3d at 1363 (emphasis in original).

186. *Suprema v. ITC*, No. 2012-1170, 2014 WL 3036241 (Fed. Cir. May 13, 2014). The Federal Circuit vacated this decision in May 2014 and granted en banc review. The en banc panel heard oral arguments on February 5, 2015. Tony Dutra, *En Banc Federal Circuit Considers Significant Limit on ITC Authority to Bar Staple Products*, BLOOMBERG BNA (Feb. 11, 2015), <http://www.bna.com/en-banc-federal-n17179923011/>.

187. *Suprema*, 742 F.3d at 1372 n.2 (Reyna, J., dissenting) (listing fifteen previous ITC investigations where induced infringement actively induced by respondents after importation was found as a basis for exclusion orders).

The problem the ITC faces is two-fold. First, allowing circumvention of Section 337 exclusion orders simply by waiting until after importation to load software elements severely weakens the ITC's power as a trade protection forum.¹⁸⁸ Second, and more generally, the Federal Circuit's unpredictable review of Commission decisions could lessen complainants' desire to seek relief at the ITC if they find inconsistent application of the law.¹⁸⁹

Further complicating these issues, the Supreme Court handed down the *Limelight Networks, Inc. v. Akamai Technologies, Inc.* ("Akamai") decision after the Federal Circuit issued its notice of en banc review for *Suprema*. In *Akamai*, the Supreme Court unanimously overturned a Federal Circuit decision regarding induced infringement. The Supreme Court set out standards for induced infringement, namely that there must be direct infringement for there to be indirect infringement (a requirement that seems to be satisfied in the *Suprema* facts).¹⁹⁰ In view of *Akamai*, amicus briefs filed by Google, Apple, Dell, LG, and Samsung for the *Suprema* en banc hearing urge the Federal Circuit court to reinstate the vacated decision and thus limit the ability of the ITC to enjoin induced infringement.¹⁹¹ The amici argue that (1) there are alternative venues available for induced infringement claims, (2) Section 337's "articles that infringe" language should not apply to method claims because method claims are not "articles," and (3) the ITC has misused the "willful blindness" standard.¹⁹² On the other side, the ITC argues that only the

188. See Lisa Schuchman, *IP at the ITC: A High-Profile and Unpredictable Forum*, CORPORATE COUNSEL, July 1, 2014.

189. The predictability and consistency of Federal Circuit jurisprudence is, of course, a separate but important concern in the current IP landscape. See, e.g., Sapna Kumar, *Expert Court, Expert Agency*, 44 U.C. DAVIS L. REV. 1547 (2011); *Keynote Address: Is It Time to Abolish the Federal Circuit's Exclusive Jurisdiction in Patent Cases?* 13 CHI.-KENT J. INTELL. PROP. 1 (2013); Arti Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. (2003); William C. Rooklidge & Matthew F. Weil, *Judicial Hyperactivity: The Federal Circuit's Discomfort with its Appellate Role*, 15 BERKELEY TECH. L.J. 725 (2000).

190. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014) ("There can be no liability for inducing patent infringement . . . if there has been no direct infringement . . ."). For a review of this case, see Jingyuan Luo, Note, *Shining the Limelight on Divided Infringement: Emerging Technologies and the Liability Loophole*, 30 BERKELEY TECH. L.J. 675 (2015).

191. See Ryan Davis, *Tech Giants Back Fed. Circ. Limits on ITC Patent Authority*, LAW360 (Aug. 21, 2014, 5:27 PM), <http://www.law360.com/articles/569781>.

192. Corrected Brief of Dell Inc., et al. as Amici Curiae in Support of Appellants at n.1, 8-9, *Suprema v. Int'l Trade Comm'n*, No. 12-1170 (Fed. Cir. Aug. 19, 2014); see generally Brief of Amicus Curiae Google Inc. In Support of Neither Party, *Suprema v.*

narrowest possible reading of the statutory language results in the earlier Federal Circuit decision, and that “appellants’ interpretation of Section 337 would . . . ignore the Patent Act, the language of Section 337, the intent of Congress and decades of established practice.”¹⁹³ Rather, the ITC argues that induced infringement is properly considered under Section 337.¹⁹⁴

The outcome of the *Suprema* debate, and the future of induced infringement claims before the ITC, remains to be seen. While the *Akamai* decision does not facially conflict with the facts in *Suprema*, it may signal to the Federal Circuit that the Supreme Court is not particularly friendly to claims of induced infringement in general, and thus may encourage reinstatement of the vacated decision barring induced infringement under Section 337. If history and the aforementioned rule-shift examples teach anything, it is that the ITC will take steps to maintain its strength and attractiveness as a patent forum. Accordingly, should a decision unfavorable to the ITC be issued, it is likely that the ITC will lobby Congress to implement statutory amendments to reverse that change.

IV. SECTION 337’S POSITION IN AN EVOLVING PATENT ENVIRONMENT

The rules, procedures, and externalities of the intellectual property landscape continue to evolve. Congress passed the AIA, patent law’s most recent statutory update, in 2011. While the AIA did not amend Section 337, it did change the environment in which Section 337 operates. Both Section 337’s interactions with the AIA, and the recent trends in filing rates, suggest that the changes in Section 337 procedure discussed *supra* in Part III have stabilized the ITC’s role in the enforcement landscape.

Int’l Trade Comm’n, No. 12-1170 (Fed. Cir. May 14, 2012) (arguing that the Commission’s finding of “willful blindness” improperly included “the lesser ‘knew or should have known’ standard” that was rejected in *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060 (2011)).

193. Non-Confidential En Banc Brief of Appellee International Trade Commission at 35–37, *Suprema v. Int’l Trade Comm’n*, No. 12-1170 (Fed. Cir. Oct. 15, 2014); *see also* Nonconfidential Brief of Appellee International Trade Commission at 35–37, *Suprema v. Int’l Trade Comm’n*, No. 12-1170 (Fed. Cir. Aug. 20, 2012) (“Neither the case law, Commission precedent, nor the legislative history of section 337 support appellants’ assertion.”); Allissa Wickham, *ITC Says It Can Bar Goods Aimed At Induced Infringement*, LAW360 (Oct. 21, 2014, 8:01 PM), <https://www.law360.com/articles/588898>.

194. Non-Confidential En Banc Brief of Appellee International Trade Commission at 65, *Suprema v. Int’l Trade Comm’n*, No. 12-1170 (Fed. Cir. Oct. 15, 2014).

Moreover, these changes have stabilized filing rates without the need for drastic reform and without making the ITC an overly powerful venue for patent hold-up. Accordingly, although the recent filing rate has slowed, careful analysis reveals filings have merely returned to pre-2010 levels.

A. INTERACTIONS OF SECTION 337 WITH THE AIA

The AIA became law on September 16, 2011,¹⁹⁵ with the intent of modernizing certain elements of the patent system.¹⁹⁶ The AIA eliminated PTO *inter partes* reexamination proceedings and replaced them with the *inter partes* review (“IPR”) system.¹⁹⁷ In IPR, a third party can challenge the validity of a granted patent before PTO administrative law judges.¹⁹⁸ Many procedural and cost differences exist between the old reexamination proceeding and the new IPR proceeding, most notably that the speed of an IPR is required to be resolved within eighteen months, while reexaminations on average may take twice as long.¹⁹⁹

While it was possible that the relative speed of IPR proceedings would encourage the ITC to grant stays of Section 337 proceedings pending the result of a PTO review, that has not yet been the case. Prior to the AIA, the ITC rarely considered staying Section 337 investigations pending the outcome of a PTO reexamination, attributable to Section 337’s rapid

195. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

196. Press Release, The White House Office of the Press Secretary, President Obama Signs America Invents Act, Overhauling the Patent System to Stimulate Economic Growth, and Announces New Steps to Help Entrepreneurs Create Jobs (Sept. 16, 2011), available at <http://www.whitehouse.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim>; see also Jonathan Tamimi, Note, *Breaking Bad Patents: The Formula for Quick, Inexpensive Resolution of Patent Validity*, 29 BERKELEY TECH. L.J. 587, 587 (2014).

197. See USPTO, MANUAL OF PATENT EXAMINING PROCEDURE § 2601 (9th ed. 2014), available at <http://www.uspto.gov/web/offices/pac/mpep/index.html>.

198. See *Inter Partes Disputes*, USPTO, <http://www.uspto.gov/patent/laws-and-regulations/america-invents-act-aia/inter-partes-disputes> (last updated Apr. 2, 2013); see also Office Patent Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012).

199. The average pendency of pre-AIA *inter partes* reexaminations was 36 months. USPTO, INTER PARTES REEXAMINATION FILING DATA – SEP 30, 2013, at 1, available at http://www.uspto.gov/patents/stats/inter_parte_historical_stats_roll_up_EOY_2013.pdf. Post-AIA *inter partes* review proceedings are required to be completed in “normally no more than one year,” extendable for another “six months for good cause.” Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,680, 48,727 (Aug. 14, 2012) (to be codified at 37 C.F.R. pt. 42).

timeline.²⁰⁰ The ITC typically concludes their Section 337 investigations in eighteen months. In a practical sense, this rapid timeline is one of the ITC's core advantages over the PTO and federal court proceedings, and granting stays would cede that benefit. Additionally, the quick results provided by the ITC in Section 337 investigations are both required by statute and beneficial from a policy standpoint when the ITC is viewed as a trade protection venue. That is to say, waiting several years to provide injunctive relief may be too long to effectively protect domestic industries. Motions to stay in Section 337 proceedings are not entirely unheard of, however. A motion to stay was granted in *Certain Semiconductor Chips* (“*Tessera*”), where a six-factor test was recited and a fact based determination of “appropriate circumstances” left to the ALJ. In *Tessera*, the ITC found that the factors weighed in favor of a stay, in large part because parallel proceedings at the PTO had already significantly advanced.²⁰¹

The introduction of the relatively rapid IPR proceedings raises the question, however, of whether Section 337 investigations should be stayed when a patent's validity is being challenged at the PTO. One of the main arguments against stays at the ITC was that it could take years to wait for a federal court decision or a PTO reexamination—a concern that does not necessarily hold for IPR. In contrast to the delay, there is the potential benefit to the ITC in instituting a stay as certain disputes or issues may be resolved by the PTO in an IPR, thus lessening the judicial burden on the ITC.²⁰² A recent post-AIA denial of a request for a stay suggests that the ITC has been unswayed by the PTO changes. In *Certain Microelectromechanical Systems*, a motion to stay a Section 337 investigation pending an IPR was denied based on the same six-factor test applied in *Tessera*.²⁰³ There, the Commissioners noted that “there is a certain intangible cost to the [ITC] in maintaining such a lengthy investigation

200. Rebecca D. Hess & Angela Y. Dai, *Effect of New PTO Patent Review Proceedings on Concurrent Patent Disputes in U.S. District Court or the ITC: Have the Chances of a Stay Increased?*, 25 INTELL. PROP. L.J. 3, 5 (2013).

201. *Certain Semiconductor Chips*, Inv. No. 337-TA-605, Order No. 52: Initial Determination Granting Respondents' Motion For Stay Pending Reexamination 10 (Feb. 26, 2008).

202. Additionally, estoppel does apply to arguments made in an IPR with respect to later arguments at the ITC. Hess & Dai, *supra* note 200, at 9.

203. *Certain Microelectromechanical Systems*, Inv. No. 337-TA-876, Order No. 6: Denying Request For Stay 1, 3 (May 21, 2013); *see also* Eric W. Schweibenz, *ALJ Gildea Denies Motion to Stay in Certain Microelectromechanical Systems (“MEMS Devices”)*, OBLON SPIVAK (Mar. 19, 2014), <http://www.oblon.com/alj-gildea-denies-motion-stay-certain-microelectromechanical-systems-“mems-devices”-337-ta-876>.

when it is under a statutory mandate to proceed expeditiously.”²⁰⁴ Thus, the ITC seems to suggest that they are intent on remaining a resource for high-speed dispute resolution, despite changes in parallel agencies.

B. CURRENT SECTION 337 FILING RATES

While the number of Section 337 filings has decreased to approximately half their 2011 peak, the long-term trend appears to have returned to a pre-*eBay* (i.e., pre-2006) rate. Figure 1 plots the annual number of Section 337 investigations instituted by the ITC and the number of district court patent proceedings commenced. While there was a sharp decrease in Section 337 proceedings between 2011 and 2012, the data suggest that the rate has merely returned to normal following a spike, rather than indicating a precipitous drop.²⁰⁵ Further, when compared to district court filing rates, it appears that the steep 2009–2011 increase may not have been a result unique to the ITC, but rather an across-the-board increase in patent litigation.²⁰⁶

If the availability of exclusion orders to non-practicing entities increased the number of Section 337 filings in the wake of *eBay*, it appears that the tightening of the domestic industry requirements for licensing and the other rule changes described *supra* in Part III have counter-balanced that trend. *eBay* was decided in May 2006.²⁰⁷ The ITC tightened the domestic industry requirements to require more than licensing solely for the sake of litigation in *Coaxial Cable*, published in April 2010, which the Federal Circuit affirmed in October 2011. Further, the presidential veto in the Apple/Samsung Section 337 decision issued in August 2013²⁰⁸ has likely frightened off nearly all FRAND-encumbered complainants from the ITC.²⁰⁹ One possible interpretation of these developments is that

204. In the matter of Certain Microelectromechanical Systems, Inv. No. 337-TA-876, Order No. 6: Denying Request For Stay 6 (May 21, 2013).

205. See Greene, *supra* note 2 (suggesting that large smartphone and electronics companies have significantly reduced their ITC filing rate, and quoting practitioners who state that “[t]he docket has returned to . . . a more historically normal level”).

206. Notably, however, the steep increase in the number of federal district court infringement filings from 2011 to 2012 is largely attributable to the change in joinder rules included in the AIA, resulting in more single defendant lawsuits in place of multi-defendant suits. See Dongbiao Shen, Note, *Misjoinder or Mishap? The Consequences of the AIA Joinder Provision*, 29 BERKELEY TECH. L.J. 545, 556–60 (2014).

207. *eBay v. MercExchange*, 547 U.S. 388 (2006).

208. See *supra* Section III.B.

209. See Ryan Davis, *ITC Becomes Ghost Town for Essential Patent Filings*, LAW360 (Aug. 8, 2014, 6:02 PM), <http://www.law360.com/articles/565263/itc-becomes-ghost-town-for-essential-patent-filings> (reporting that since the presidential veto in the

patent complaints rose at the ITC as they did in all patent venues, though even more so because of the apparent availability of an exclusion remedy from 2008 through 2011. Subsequently, limitations on certain NPE and SEP complainants, in combination with an overall slowing in patent litigation, led to a reduction in Section 337 filings back to a more “normal” level.²¹⁰ It is important to note, however, that the data trends are still unstable, and time will tell whether further adjustments to Section 337’s implementation are required.

Apple/Samsung Section 337 investigation, FRAND encumbered patent owners are “shying away” from the ITC; however, quotations from practitioners suggest that while the veto creates a high bar, it is not a complete wall); Ryan Davis, *Apple-Motorola Case Clarifies Rules on Injunctions, Damages*, LAW360 (Apr. 25, 2014, 9:09 PM), <http://www.law360.com/articles/532140>. Additionally, the Federal Circuit reaffirmed the application of the *eBay* standard to FRAND-encumbered patents for District Court Appeals, overturning a ruling that would have applied the same standards voiced in the Presidential Veto of the ITC finding. *See id.*; *see also* *Apple v. Motorola*, 757 F.3d 1286 (Fed. Cir. 2014), *rev’g in part* 869 F. Supp. 2d 901 (N.D. Ill. 2012); *Tony v. Pezzano & Jeffery M. Telep*, *Latest Developments on Injunctive Relief for Infringement of FRAND-encumbered SEPs — Part I*, 26 No. 2 INTELL. PROP. & TECH. L.J. 14 (2014).

210. It is important to note that the absolute number of Section 337 filings at the ITC remains in the tens, and so large relative changes can be created by just a handful of complainants taking their cases elsewhere.

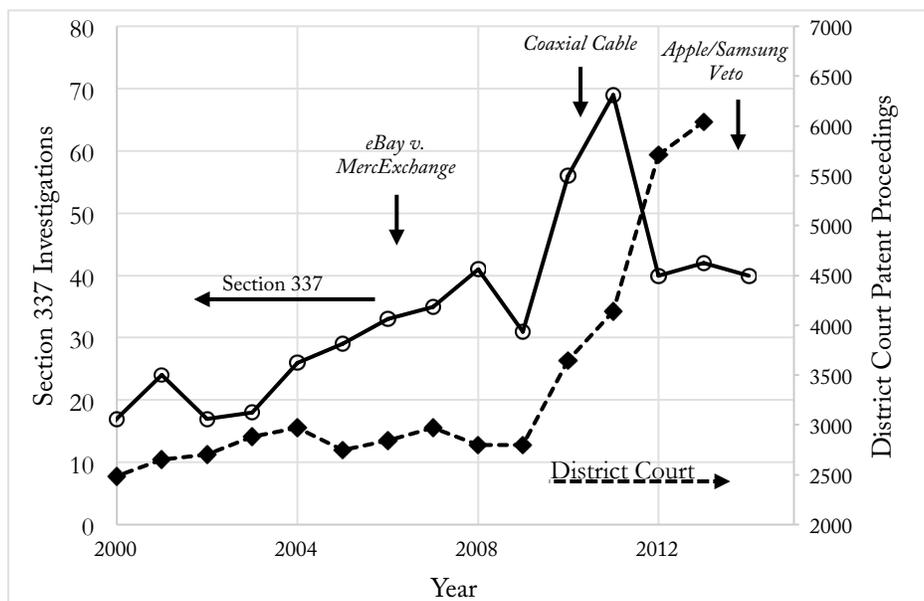


Figure 1: Section 337 investigations instituted (open circles) as compared to federal district court patent infringement proceedings (diamonds) commenced per year for the trailing twelve months²¹¹

V. CONCLUSION

Following both the calls for change in Section 337 investigations—some more drastic than others—and the ITC’s tailored response, Section 337 remains a unique and relevant adjudicative body. For example, rather than apply the *eBay* standard to Section 337 investigations directly, a move which would have (1) made the ITC overly duplicative of the federal courts, and (2) suicidal in that it would have left the ITC with no available remedy for certain wrongs that rightly belong before a trade forum, the ITC instead pulled the drawstring just a bit tighter on their domestic industry filter under § 1337(a)(3)(C). This choice led to largely the same result, that is, a reduction in particularly exploitive NPE claims; however, the ITC accomplished this result by pulling on a different, more trade forum-appropriate lever. Had the ITC replicated the *eBay* standard and taken other steps to completely unify its adjudications with those of the

211. *337Info*, USITC, <http://pubapps2.usitc.gov/337external/> (last visited Feb. 1, 2015) (ITC Section 337 filings); U.S. COURTS, STATISTICAL TABLES FOR THE FEDERAL JUDICIARY, TABLE C-2, 2001–2013, available at <http://www.uscourts.gov/Statistics/StatisticalTablesForTheFederalJudiciary.aspx> (Federal court filing information).

federal courts, its only remaining “benefit” to complainants is that it would presumably offer a faster timeline. However, if procedures were in fact adopted to match those of the federal courts (e.g., replacing binary decision making on whether to issue an exclusion order with arguments over particular damages amounts, and the additional fact-finding required to determine whether the *eBay* factors are met), it is possible that the rapid timeline would not remain possible.²¹² Thus, following this alternative path may have led to the demise of Section 337 by making it duplicative and unnecessary. Rather, the ITC’s response to these external pressures maintained its position as a unique adjudicative body that can act in parallel with the federal courts and the PTO, providing rapid adjudication and injunctive remedies in a subset of patent infringement disputes.

While a degree of consistency is beneficial across the multiple patent venues, there is no requirement that they remain uniform. The ITC has evolved their Section 337 proceedings to conform in part to an ever-evolving intellectual property landscape, while at the same time maintaining their own attractive benefits. In short, the ITC, through internal rule making and appellate review by the Federal Circuit, has repeatedly shown that Section 337 remains a vital and unique instrument in patent rights and trade protection.

212. There is also a degree of expert knowledge provided by the ITC in that they are familiar with patent cases in ways that district court judges may not be. However, district court cases are appealable to the Federal Circuit—another expert community with particularized knowledge of patent adjudication—and it is not immediately apparent that the expert knowledge of the ITC necessarily leads to more desirable outcomes for Section 337 complainants. *See, e.g.,* Kumar, *supra* note 189, at 1591.

ARE PATENT OWNERS GIVEN A FAIR FIGHT? INVESTIGATING THE AIA TRIAL PRACTICES

Ryan J. Gatzemeyer[†]

More than two years have passed since the Leahy-Smith America Invents Act (“AIA”) ushered in a new era for the U.S. patent system by establishing three new proceedings allowing patent validity challenges before the United States Patent and Trademark Office (“PTO”): *inter partes* review (“IPR”), covered business method review (“CBM”), and post-grant review (“PGR”).¹ The PTO Patent Trial and Appeal Board (“PTAB”) conducts these administrative reviews, intended to weed out low-quality patents, primarily those asserted by non-practicing entities (“NPEs”).² Yet, no one predicted how popular these reviews would become. In fact, they have caused a paradigm shift in patent litigation strategy.

Since it was established in 2012, the PTAB has quickly risen as one of the nation’s premier venues for challenging patent validity—behind only the Eastern District of Texas in overall patent adjudications.³ 1494 AIA petitions were filed in fiscal year 2014, nearly tripling the previous year’s filings.⁴ For perspective, the two-year AIA petition volume has already exceeded the total number of requests filed during the entire thirteen-year history of *inter partes* reexamination, the predecessor to the AIA reviews.⁵

This boom in popularity is partially due to the AIA proceedings providing a more effective means to invalidate patents than district court

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1. See Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284–341 (2011) (codified at 35 U.S.C. §§ 1–37).

2. See 198 CONG. REC. S131 (daily ed. Jan. 25, 2011) (statement of Sen. Leahy introducing the “Patent Reform Act of 2011”).

3. See Lisa Shuchman, *Patent Troll MPHJ Faces Special PTO Review*, LAW.COM (Aug. 27, 2014), <http://www.law.com/sites/articles/2014/08/27/patent-troll-mphj-faces-special-pto-review/?slreturn=20150101012722>.

4. See *Patent Trial and Appeal Board AIA Progress*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/stats/aia_statistics_01-22-2015.pdf (last updated Jan. 22, 2015).

5. See *Inter Parte Reexamination Filing Data*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/patents/stats/inter_parte_historical_stats_roll_up_EOY_2013.pdf (last updated Sept. 30, 2013).

litigation. The AIA reviews combine a one-year statutory timeline,⁶ lower costs,⁷ and more favorable standards for challengers, including a lower preponderance-of-evidence standard for demonstrating unpatentability,⁸ and the broadest reasonable claim construction⁹ standard that potentially encompasses a greater amount of invalidating prior art.

The compressed timeline and streamlined evidentiary procedures raise concerns, however, that the new procedures treat patent owners unfairly. At first blush, patent claim cancellation rates from IPR and CBM reviews appear alarming. As of January 15, 2015, in reviews resulting in a final written decision, the PTAB has instituted a trial on 6,114 claims, or sixty-eight percent of claims challenged.¹⁰ Fifty-one percent of those instituted claims were found unpatentable or were conceded by the patent owner.¹¹ Business method claims have fared even worse under the broader CBM review.¹² Of the twenty-six CBM cases reaching a final written decision and corresponding 531 claims that have overcome the “more likely than not” hurdle for institution, only twenty-four claims, less than five percent,

6. 35 U.S.C. § 316(a)(11) (2012) (requiring that final determinations in IPR issue not later than one year after the institution of a review, with a six month maximum extension); *id.* § 326(a)(11) (CBM and PGR).

7. *See* Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,680, 48,715 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42) (estimating the cost of filing an IPR petition to be approximately \$46,000).

8. *See* 37 C.F.R. § 42.1(d) (2014) (“The default evidentiary standard is a preponderance of the evidence.”).

9. *See id.* § 42.100(b) (“A claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.”); *see also* *In re Swanson*, 540 F.3d 1368, 1377–78 (Fed. Cir. 2008) (“And unlike in district courts, in reexamination proceedings [c]laims are given their broadest reasonable interpretation, consistent with the specification. . . .”) (quoting *In re Trans Texas Holdings Corp.*, 498 F.3d 1290, 1298 (Fed. Cir. 2007)).

10. *See Inter Partes Review Petitions Terminated to Date*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/stats/inter_partes_review_petitions_terminated_to_date_01_15_2015.pdf (last updated Jan. 15, 2014).

11. *See id.* (2,176 claims were found unpatentable, while an additional 893 were cancelled or disclaimed by the owner).

12. *See Leahy-Smith America Invents Act*, Pub. L. No. 112-29, 125 Stat. 331 §13(d)(1) (2011) (“the term ‘covered business method patent’ means a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions”).

remained intact: 493 claims were found unpatentable, with patent owners conceding the remaining fourteen claims.¹³

High claim cancellation rates trouble patent owners who are forced to defend themselves in AIA proceedings that appear patent-unfriendly. There is growing concern that even if there is no bias against patent owners, the AIA trial rules and practices do not provide patent owners with a fair opportunity to defend their patents.

This Note assesses whether the AIA proceedings afford patent owners a fair opportunity to defend their patents. Part I reviews the AIA's statutory language, legislative intent, and trial timelines for the AIA review proceedings. Part II analyzes the most common practitioner complaints about the AIA review proceedings: page limitations, motions to amend, and discovery. Part III addresses constitutional and administrative law concerns, drawing upon prior judicial challenges to PTO patent validity review to conclude that the AIA reviews likely dodge these concerns.

I. THE AIA AND THE PTO'S RULEMAKING

With the rise of costly and abusive patent litigation during the past fifteen years, Congress established a new set of post-grant review proceedings to provide timely, fair, cost-effective, and efficient patent validity determinations by technical experts at the PTO.¹⁴ Pursuant to its authority under this new regime, the PTO promulgated rules to govern PTAB trial practices to meet this goal, while attempting to balance the interests of all parties involved.¹⁵ This Section reviews the PTO's AIA implementation in light of Congress's intent and provides an overview of the new AIA proceedings and PTAB practices.

A. LEGISLATIVE INTENT AND THE PTO RULEMAKING PROCESS

AIA §§ 316(b) and 326(b) set forth considerations for the PTO's new review proceedings: (1) the effect of any such regulation on the economy, (2) the integrity of the patent system, (3) the efficient administration of

13. See 35 U.S.C. § 324(a) (2012) (requiring that for a CBM or PGR trial to be instituted, the petitioner must "demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable"); Daniel F. Klodowski & Jonathan R.K. Stroud, *AIA Claim and Case Disposition*, AIABLOG, <http://www.aiablog.com/claim-and-case-disposition/> (last updated Jan. 1, 2015).

14. See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,756–57 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

15. *Id.*

the PTO, and (4) the ability of the PTO to timely complete the AIA proceedings.¹⁶ These concerns prompted the PTO to publish a series of proposed rules and request public comments.¹⁷ In February 2012, the USPTO published a Practice Guide for Proposed Trial Rules (“Patent Trial Practice Guide”) to provide guidance on the general framework and structure of the new proceedings.¹⁸ In response, the PTO received 251 public comments providing support for and opposition against the proposed rules.¹⁹

After considering the public comments, the PTO modified the proposed rules to “provide clarity and to balance the interests of the public, patent owners, and patent challengers, and other interested parties in light of the statutory requirements and considerations.”²⁰ The final rules and the Patent Trial Practice Guide were published in August 2012,²¹ and the PTO responded to the public comments, explaining the changes made or justifying its position for maintaining the rules initially proposed.²²

In June 2014, the PTO again asked for public commentary on how the AIA proceedings were working.²³ The PTAB reviewed the thirty-seven written comments it received and plans to issue rule packages throughout

16. 35 U.S.C. §§ 316(b), 326(b) (2012).

17. *See, e.g.*, Rules of Practice for Trials before the Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions, 77 Fed. Reg. 6879 (proposed Feb. 9, 2012) (to be codified at 37 C.F.R. §§ 42, 90); Changes to Implement Inter Partes Review Proceedings, 77 Fed. Reg. 7041 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Post-Grant Review Proceedings, 77 Fed. Reg. 7060 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 7080 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Transitional Program for Covered Business Method Patents—Definition of Technological Invention, 77 Fed. Reg. 7095 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42).

18. *See* Practice Guide for Proposed Trial Rules, 77 Fed. Reg. 6868 (proposed Feb. 9, 2012) (to be codified at 37 C.F.R. § 42).

19. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

20. *Id.*

21. *Id.*

22. *See, e.g., id.*

23. *See* Request for Comments on Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 79 Fed. Reg. 36,474, 36,476 (June 27, 2014); *see also* *Comments on Trial Proceedings Under the American Invents Act Before the Patent Trial and Appeal Board*, U.S. PATENT & TRADEMARK OFFICE, <http://www.uspto.gov/page/comments-trial-proceedings-under-america-invents-act-patent-trial-and-appeal-board/> (last updated Oct. 16, 2014).

2015 that will improve the proceedings, especially for patent owners.²⁴ On March 27, 2015, the PTO announced a three-part plan to revise and improve the PTAB proceedings.²⁵ The first rule package, described as “quick fixes,” was effective immediately and expands the page limits for certain briefs and motions.²⁶ Most attractive to patent owners, the page limit for motions to amend will nearly double to twenty-five pages.²⁷ A second proposed rule package will issue mid-year, and further modify the amendment procedure.²⁸ The rule packages will be followed by a revised Trial Practice Guide and another notice-and-comment period for more significant modifications to the proceedings.²⁹

B. OVERVIEW OF IPR, CBM, AND PGR PROCEEDINGS

The AIA placed statutory requirements on PTAB trial proceedings—they begin with a patent challenger filing a petition and conclude with the PTAB’s final written decision. While the statute designed the trial structure, PTO rules govern the conduct of the proceedings, subject to guidance through the PTAB’s procedural and substantive rulings. The figure below³⁰ and subsequent discussion illustrate the AIA trial timeline and provide context for the more specific practitioner complaints and PTO responses that follow in Part II.

24. See Director’s Forum, *PTAB’s Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFFICE (Mar. 27, 2015, 10:18AM), <http://www.uspto.gov/blog/>.

25. See *id.*

26. See *id.*

27. See *id.*

28. See *id.*

29. See *id.*

30. See *id.* The figure provides a representative timeline for IPR, PGR, and CBM proceedings. *Id.*

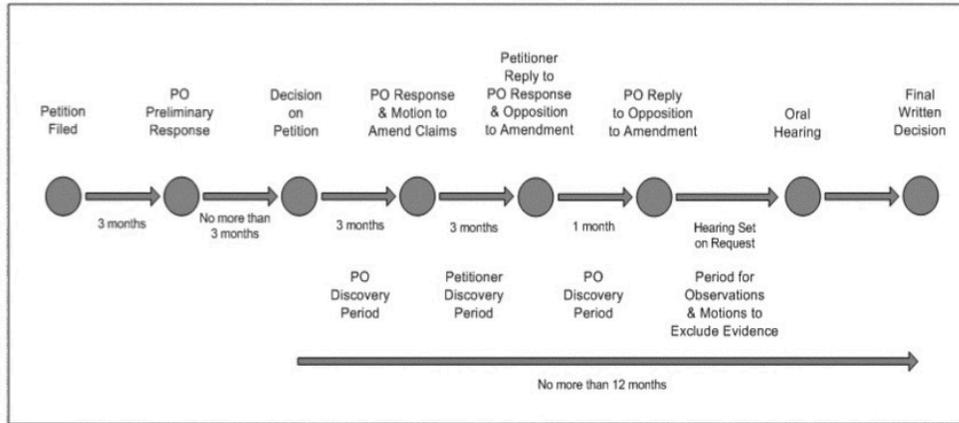


Figure 1: PTO Summary Timeline for IPR, CBM, and PGR

1. *Petition to Institute and Patent Owner Response*

An AIA proceeding begins with a patent challenger filing a petition to institute a trial, requesting to cancel as unpatentable one or more claims of a patent.³¹ The petition must identify each claim challenged, the grounds of each challenge, a claim construction for each challenged claim, and evidence to support the grounds.³² Copies of prior art patents or printed publications relied upon to challenge patentability must accompany the petition.³³

A petition to institute IPR is limited to challenges on 35 U.S.C. § 102 or 35 U.S.C. § 103 grounds as being anticipated by or obvious in light of “prior art consisting of patents or publications.”³⁴ CBM and PGR allow challenges on any ground relating to invalidity, including 35 U.S.C. § 101 and 35 U.S.C. § 112 subject matter eligibility and written description challenges.³⁵ While the petition requesting IPR is limited to sixty pages,³⁶ the additional grounds available in CBM review warranted expanding the CBM petition to eighty pages.³⁷

31. See 37 C.F.R. §§ 42.104 (IPR), 42.204 (PGR), 42.304 (CBM) (2014).

32. See *id.* §§ 42.104(b) (IPR), 42.204(b) (PGR), 42.304(b) (CBM).

33. See *id.*

34. 35 U.S.C. § 311(b) (2012); 37 C.F.R. § 42.104(b)(2) (2014).

35. See 35 U.S.C. § 321(b) (2012); see also 37 C.F.R. § 42.304(b)(2) (2014) (permitting invalidity arguments consistent with 35 U.S.C. §§ 282(b)(2)–(3)).

36. 37 C.F.R. § 42.24(a)(1)(i) (2014).

37. *Id.* § 42.24(a)(1)(iii).

After a petition has been filed, the patent owner can file an optional preliminary response within three months from the petition filing date.³⁸ The preliminary response addresses the grounds raised in the challenger's petition and explains why no review is warranted.³⁹ The preliminary response is limited to the same of number pages the challenger was allowed in its petition.⁴⁰ The patent owner may include additional evidence to demonstrate that no review should be instituted. However, the evidence will only be permitted if it is shown to be "in the interests of justice."⁴¹

Since October 2012, patent owners have chosen to file a preliminary response to 1,644 of the 2,653 IPR and CBM petitions—roughly sixty-two percent of cases.⁴² The purpose of the preliminary response is to prevent trial institution, arguing either that the petitioner's claim constructions are incorrect, that the cited patents or publications do not qualify as prior art, or that they do not disclose each and every claim limitation. A patent owner may choose not to file a preliminary response because, by doing so, the patent owner is allowed more time to craft its arguments. While the petitioner could well have spent several months preparing the petition, the patent owner's preliminary response must be filed within three months.⁴³

2. *PTAB Decision to Institute*

The first determination made by the PTAB is whether to institute a trial. The PTAB will make its decision no more than three months from the patent owner's preliminary response (if applicable) and no more than six months from the petition filing date. To institute an IPR, the petitioner must show there is a "reasonable likelihood" that at least one of the claims challenged in the petition is unpatentable.⁴⁴ The threshold to institute a CBM is slightly higher, requiring the petitioner to demonstrate it is "more likely than not" that at least one of the claims challenged is

38. *Id.* §§ 42.107(b) (IPR), 42.207(b) (CBM and PGR).

39. *Id.* §§ 42.107(a) (IPR), 42.207(a) (CBM and PGR).

40. *Id.* § 42.24(b).

41. *Id.* § 42.107(c) (IPR), 42.207(c) (CBM and PGR).

42. See *ALA Progress Statistics—Graphical View and Subsets*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/stats/012215_aia_stat_graph.pdf (last updated Jan. 22, 2014).

43. 37 C.F.R. §§ 42.107(b) (IPR), 42.207(b) (CBM and PGR) (2014).

44. *Id.* §§ 314(a)–(b).

unpatentable, in other words, a greater than 50 percent chance of prevailing.⁴⁵

To ensure fast and inexpensive patent validity resolutions relative to district court litigation, the statute requires the PTAB to issue a final written decision no more than twelve months from its decision to institute.⁴⁶ The AIA provides flexibility to extend the twelve-month deadline by up to six additional months “for good cause shown” or in the case of joinder.⁴⁷ The PTAB enters an initial scheduling order concurrent with the decision to institute, and all deadlines are subject to the order.⁴⁸ Any objection to evidence that was submitted prior to the PTAB decision to institute must be served within ten business days from the decision to institute.⁴⁹ The decision to institute begins a three-month patent owner discovery period, allowing the patent owner to depose the petitioner’s declarants.⁵⁰

3. *Patent Owner Response and Motions; Petitioner Reply and Oppositions; Oral Hearing*

In the three months following the decision to institute, the patent owner may file a response to the petition, limited to sixty pages,⁵¹ addressing grounds for unpatentability not already denied in a preliminary response.⁵² The patent owner can accompany its response with a motion to amend the claims, but only after first conferring with the PTAB.⁵³ The patent owner’s motion to amend is limited to fifteen pages⁵⁴ and must include a claim chart that clearly shows the amendments and citations to the original patent disclosure.⁵⁵ The patent owner’s response filing ends the three-month patent owner discovery period and begins a three-month

45. *Id.* § 324(a).

46. *Id.* §§ 316(a)(11) (IPR), 326(a)(11) (CBM and PGR).

47. *See id.* §§ 316(a)(11), 326(a)(11) (providing that the PTAB “may, for good cause shown, extend the one-year period [for resolving an IPR, PGR, or CBA review] by not more than six months, and may adjust the time periods . . . in the case of joinder”).

48. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,757 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

49. 37 C.F.R. § 42.64(b)(1) (2014).

50. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,757–58 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

51. 37 C.F.R. § 42.24(b) (2014).

52. *Id.* §§ 42.120 (IPR), 42.220 (CBM and PGR).

53. *Id.* §§ 42.121(a) (IPR), 42.221(a) (CBM and PGR).

54. *Id.* § 42.24(a)(1)(v).

55. *Id.* §§ 42.121(b) (IPR), 42.221(b) (CBM and PGR).

petitioner discovery period, allowing the petitioner to depose the patent owner's declarants.⁵⁶

After the patent owner response, the petitioner may file a reply within three months, and oppose the motion to amend (if applicable).⁵⁷ The petitioner's reply and opposition are each limited to fifteen pages, with the opposition to amendment limited to the same number of pages as the patent owner's motion to amend.⁵⁸ If the patent owner relied on new declaration evidence to support its claim amendments, the petitioner may depose those declarants and submit all deposition observations in a statement not to exceed one short paragraph.⁵⁹ Upon receipt of the petitioner's reply, the three-month petitioner discovery period ends and another one-month patent owner discovery period begins.⁶⁰

Before this final one-month discovery period ends, the patent owner may file a reply to the petitioner's opposition; however, the reply must only respond to arguments raised in the opposition and cannot introduce new issues or evidence.⁶¹ If a patent owner reply to the opposition is filed, this ends the one-month patent owner discovery period.⁶² After all motions have been filed, the parties may request an oral argument before the PTAB.⁶³ During oral argument, each party will present their position to at least three members of the PTAB. The petitioner generally argues first, followed by the patent owner, and ending with the petitioner's rebuttal.⁶⁴

The end of motion filing also ends the discovery period.⁶⁵ Admissibility of evidence in the proceedings is generally governed by the Federal Rules of Evidence.⁶⁶ The parties may object to evidence during a deposition, within ten days from trial institution for evidence submitted in the petition or preliminary response, and for evidence submitted after trial

56. See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,757–58 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

57. See *id.* at 48,769.

58. 37 C.F.R. §§ 42.24(b)(3)–(c)(1) (2014).

59. See Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,768–69.

60. See *id.* at 48,757–58.

61. 37 C.F.R. §§ 42.23 (IPR), 42.220 (CBM and PGR) (2014).

62. See Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,758

63. 37 C.F.R. § 42.70(a) (2014).

64. See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,768 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

65. *Id.*

66. 37 C.F.R. § 42.62(a) (2014).

is instituted the objection must be made within five days from the date upon which it is served.⁶⁷

4. *PTAB Final Written Decision and Request for Rehearing*

When a trial has been instituted and the case proceeds to a final written decision, the PTAB will issue its decision within one year from the decision to institute.⁶⁸ This deadline may be extended by up to six months for good cause or in the case of joinder,⁶⁹ yet the PTAB strictly adheres to the one-year statutory deadline because district courts often stay litigation pending the AIA trial outcome because of the short deadline. The petitioner and patent owner may choose to terminate the proceeding by filing a written agreement, and settling the case, unless the PTAB has already decided the merits of the proceeding.⁷⁰ Strong policy reasons favor settlement and the PTAB may require a settlement discussion as part of the proceeding.⁷¹

A party dissatisfied with the final written decision may file a request for rehearing within thirty days.⁷² The requesting party has the burden to show that the decision should be modified and must “specifically identify” all matters believed to have been “misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.”⁷³ A request for rehearing is decided approximately one month after receipt, unless there is a need for additional briefing by the opposing party.⁷⁴ After the PTAB issues its final written decision, and the time for appeal has expired or any appeal has terminated, the PTO will issue a certificate canceling or confirming the claims at issue, or incorporating any claims amendment.⁷⁵

67. *Id.* §§ 42.64(a)–(b).

68. *Id.* § 42.100(c); *see also* Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,768.

69. 37 C.F.R. § 42.100(c) (2014); *see also* 35 U.S.C. § 326(a)(11) (2012).

70. 35 U.S.C. §§ 317, 327 (2012).

71. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,768 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

72. 37 C.F.R. § 42.71(d) (2014).

73. *Id.*

74. Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,768.

75. 37 C.F.R. § 42.80 (2014).

II. PTAB TRIAL PRACTICES, PUBLIC COMMENTS, AND PTO RESPONSES

As part of the rulemaking process, the PTO published a series of proposed rules for the new review proceedings.⁷⁶ The PTO also published a Patent Trial Practice Guide and asked for public comments.⁷⁷ During the comment period, the PTO hosted a series of public roadshows across the country to present its AIA implementation.⁷⁸ In response to the proposed rules, Patent Trial Practice Guide, and AIA roadshows, the PTO received 251 public comments.⁷⁹ The comments raised over 124 issues, with the most common complaints relating to (1) presenting successful arguments within the strict page limitations, (2) limited discovery, and (3) the near impossibility of amending claims during a proceeding. This Section describes the relevant rules and trial practices, and then summarizes the public comments, PTO responses, and resulting modifications to the proposed rules.

A. PAGE LIMITS

Practitioners lamented their inability to make successful arguments, especially in complex cases, given the short page limits. The PTO responded by loosening the proposed rules, effectively increasing the page space allotted for arguments. In the most recent PTO announcement, the rules were modified to nearly double the number of pages for a motion to amend and the petitioner's reply brief. Under the AIA, parties may also file a motion to waive page limits if the additional pages are found necessary in the "interest of justice."⁸⁰ The PTAB has narrowly applied the interest-of-justice standard, and denied most motions to waive page limits,

76. See Rules of Practice for Trials before the Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions, 77 Fed. Reg. 6879 (proposed Feb. 9, 2012) (to be codified at 37 C.F.R. §§ 42, 90); Changes to Implement Inter Partes Review Proceedings, 77 Fed. Reg. 7041 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Post-Grant Review Proceedings, 77 Fed. Reg. 7060 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 7080 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Transitional Program for Covered Business Method Patents—Definition of Technological Invention, 77 Fed. Reg. 7095 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42).

77. See Practice Guide for Proposed Trial Rules, 77 Fed. Reg. 6868 (proposed Feb. 9, 2012) (to be codified at 37 C.F.R. § 42).

78. See *AIA Roadshow*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/aia_implementation/roadshow.jsp (last visited Feb. 2, 2015).

79. See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,680, 48,681 (Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

80. 37 C.F.R. § 42.24(a)(2) (2014).

but at the same time approving alternative means for circumventing page limitations.⁸¹

1. *USPTO Rulemaking and PTAB Practices*

AIA petitions, responses, motions, oppositions, and replies are subject to strict page limits to streamline the proceedings.⁸² The PTAB requires a minimum fourteen-point font,⁸³ double spacing (except in claim charts), and one inch margins.⁸⁴ IPR petitions are limited to sixty pages, CBM and PGR petitions are limited to eighty pages, and motions are limited to fifteen pages, except for motions to amend, which were expanded to twenty-five pages.⁸⁵ The patent owner preliminary response and response (post-institution) are limited to an equal number of pages as the corresponding petition, and oppositions are each limited to an equal number of pages as the corresponding motion.⁸⁶ A challenger's reply to the patent owner response was expanded from fifteen to twenty-five pages and replies to oppositions are limited to five pages.⁸⁷

The PTO's rationale for strict limits is that allowing petitioners to file petitions without page limits would severely burden both the patent owner and the PTAB.⁸⁸ Lengthy petitions, without restrictions, could adversely affect the patent owner's ability to effectively respond to the challenges, and the PTAB's ability to timely complete the proceeding.⁸⁹ In the previous *inter partes* reexamination regime, the PTO did not impose a page limit—requests averaged 246 pages and the PTAB took, on average, thirty-eight months to make a decision.⁹⁰

81. See Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,635 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. §§ 1, 42, 90).

82. See 37 C.F.R. § 42.24 (2014).

83. *Id.* § 42.6(a)(2)(ii)(A).

84. *Id.* § 42.6(a)(2)(iii).

85. *Id.* § 42.24(a); see Director's Forum, *PTAB's Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFFICE (Mar. 27, 2015, 10:18 AM), <http://www.uspto.gov/blog/>.

86. *Id.* § 42.24(b).

87. *Id.* § 42.24(c); see Director's Forum, *PTAB's Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFFICE (Mar. 27, 2015, 10:18 AM), <http://www.uspto.gov/blog/>.

88. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

89. See *id.* at 48,763.

90. Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,634 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. §§ 1, 42, 90).

Based on its reexamination experience, the PTO found that where it imposed page limits, the reexamination proceedings concluded in an average of nine months.⁹¹ According to the PTAB, the page limits assist in effectively managing the proceeding without being unduly restrictive on the parties.⁹² The PTO also provided examples of federal court procedures using page limits to manage motions practice, even in complex patent cases.⁹³

Petitioners first attempted to sidestep the page limits by including citations to appended expert reports, effectively allowing the lengthy expert declarations to include all of the challenger's arguments, while staying within the petition's sixty-page limit.⁹⁴ The PTAB denied several petitions for noncompliance with the page limit because the petitioner's arguments were not contained within the petition.⁹⁵ The PTAB denied one such petition that cited primarily to an expert declaration for failing to contain a "full statement of the reasons for the relief requested, including a

91. See *FY 2011 Performance Measures*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/stats/perform/FY_2011_Performance.jsp (last modified Sept. 14, 2012).

92. See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

93. *Id.*; see also *Spaziano v. Singletary*, 36 F.3d 1028, 1031 n.2 (11th Cir. 1994) ("Attorneys who cannot discipline themselves to write concisely are not effective advocates, and they do a disservice not only to the courts but also to their clients."); *Blackboard, Inc. v. Desire2Learn, Inc.*, 521 F. Supp. 2d 575, 576 (E.D. Tex. 2007) ("[The parties] seem to share the misconception, popular in some circles, that motion practice exists to require Federal judges to shovel through steaming mounds of pleonastic arguments in Herculean effort to uncover a hidden gem of logic that will ineluctably compel a favorable ruling. Nothing could be further from the truth."); *Broadwater v. Heidtman Steel Prods., Inc.*, 182 F. Supp. 2d 705, 710 (S.D. Ill. 2002) ("Counsel are strongly advised, in the future, to not ask this Court for leave to file any memoranda (supporting or opposing dispositive motions) *longer than 15 pages*. The Court has handled complicated patent cases and employment discrimination cases in which the parties were able to limit their briefs supporting and opposing summary judgment to 10 or 15 pages.").

94. See Matthew Cutler, *PTAB Getting Tough on Petitions Seeking to Circumvent Page Limits*, HARNESS DICKEY IP LAW BLOG, <http://blog.hdp.com/interpartesreview/ptab-getting-tough-on-petitions-seeking-to-circumvent-page-limit/> (last updated Oct. 15, 2014).

95. See 35 U.S.C. § 312(a)(3) (2012) ("A petition filed under section 311 may be considered only if . . . (3) the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim . . ."); see, e.g., *Cisco Systems, Inc. v. C-Cation Techs., L.L.C.*, IPR2014-00454, 2014 WL 4352301, Paper No. 12, at *10 (P.T.A.B. Aug. 29, 2014) ("[W]e will not consider arguments that are not made in the Petition, but are instead incorporated by reference to the cited paragraphs and claims charts of [the] Declaration.").

detailed explanation of the significance of the evidence” as required under 37 C.F.R. § 42.22(a)(2).⁹⁶ This petition cited to a 287-page expert declaration that itself cited to an appended 1,003-page single-spaced claim chart.⁹⁷ The PTAB declined to consider arguments or information contained in the declaration that was not also sufficiently discussed in the petition.⁹⁸

2. *Public Comments and PTO Responses*

The PTAB continued its hard stance on page limits, yet at the same time recognized that minor revisions to the rules could ease the burden on practitioners. In response to public comments that the page limits were too strict, the PTO revised its proposed rules to provide flexibility: it no longer requires a statement of material fact in briefing⁹⁹ and no longer requires double spacing in claim charts.¹⁰⁰ The statement of material facts is now optional in a petition or motion, allowing a party to choose whether to include materials facts with citations or allocate that same page space for arguments.¹⁰¹ In addition, the March 27, 2015 announcement nearly doubled the page limits for a motion to amend and the petitioner’s reply.¹⁰²

Several public comments suggested that the page limits should be based on the complexity of the proceeding, such as the number of claims challenged, the number of grounds raised, or the number of proposed rejections in a petition.¹⁰³ The PTO disagreed, responding that allowing additional pages because additional claims are added to a petition would eviscerate the rule, and impair its ability to conclude proceedings within the statutory timeline.¹⁰⁴ Nevertheless, the availability of a motion to waive

96. *See* Fidelity Nat’l Info. Servs., Inc. v. DataTreasury Corp., IPR2014-00489, 2014 WL 40559220, Paper No. 9 (P.T.A.B. Aug. 13, 2014) (internal quotation marks omitted).

97. *Id.*

98. *Id.*

99. 37 C.F.R. § 42.22 (2014).

100. *Id.* § 42.6(a)(2)(iii); *see also* Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,634 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. §§ 1, 42, 90).

101. 37 C.F.R. § 42.22(c) (2014) (stating that a petition or motion *may* include a statement of material fact).

102. *See* Director’s Forum, *PTAB’s Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFFICE (Mar. 27, 2015, 10:18 AM), <http://www.uspto.gov/blog/>.

103. Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,635.

104. *Id.*

page limits, as provided by statute, was thought to offer practitioners with the page flexibility demanded by complex cases.¹⁰⁵

A petition to institute “must comply with the stated page limits but may be accompanied by a motion to waive the page limits.”¹⁰⁶ In the motion, the petitioner must demonstrate how a waiver of the page limits meets the strict “‘interests of justice’ standard, which is a higher standard than merely showing ‘good cause.’”¹⁰⁷ The challenger files two petitions with the motion to waive the page limits; the first petition must meet the page limit and the second petition may exceed the limit. If the PTAB denies the motion, the petition exceeding the page limit may be expunged or returned, and the petition complying with the page limits will be entered.¹⁰⁸ During the proceedings, any other motion to waive page limits must be granted by the PTAB in advance of filing the applicable motion, opposition, or reply.¹⁰⁹

The PTAB has been reluctant to grant page limit waivers, requiring extraordinary reasons to make an exception. The PTAB warned that “[t]his higher standard means that exceptions to the page limits will not be commonly granted for broad or generic reasons.”¹¹⁰ For example, in a recent IPR motion to waive page limits on its petition, the challenger, Illumina, argued that the extra pages were needed to present non-cumulative grounds for unpatentability.¹¹¹ After finding that Illumina did not provide a sufficient basis for the requested relief, the PTAB denied the motion and excluded the proposed petition that was over the sixty-page limit.¹¹² The PTAB noted that Illumina’s motion lacked “supporting evidence or explanation” for why its arguments could not sufficiently have

105. *Id.*

106. 37 C.F.R. § 42.24(a)(2) (2014).

107. Michael Tierney, *Tips for Filing Petitions and Making Successful Arguments Before the Patent Trial and Appeal Board*, U.S. PATENT & TRADEMARK OFFICE (Feb. 25, 2013, 2:50 PM), http://www.uspto.gov/blog/aia/entry/message_from_michael_tierney_lead/.

108. *Id.*

109. 37 C.F.R. § 42.24(a)(2) (2014).

110. Michael Tierney, *Tips for Filing Petitions and Making Successful Arguments Before the Patent Trial and Appeal Board*, U.S. PATENT & TRADEMARK OFFICE (Feb. 25, 2013, 2:50 PM), http://www.uspto.gov/blog/aia/entry/message_from_michael_tierney_lead/.

111. *Illumina v. Trustees of Columbia Univ.*, IPR2012-00006, Paper No. 12, at *2 (P.T.A.B. Nov. 9, 2012).

112. *Id.* at *3 (“It is not the Board’s role to compare the Illumina petition with its proposed petition and attempt to figure out if the Illumina request for waiver of the page limit is in the interests of justice. Instead Illumina has the burden of establishing why it is entitled to the relief sought, 37 CFR 42.20(c).”).

been explained within the sixty-page limit.¹¹³ The PTAB's strict adherence to page limits teaches that practitioners must clearly demonstrate why the waiver is necessary, or if they cannot, they should look to alternative means for circumventing the page limits.

The PTAB has provided guidance on adhering to the strict page limits in complex cases. First, if the challenge involves a large number of claims, the challenger should consider "filing multiple petitions directed to subsets of related claims."¹¹⁴ The PTAB has granted a pair of petitions directed to different subsets of claims of the same patent filed by the same petitioner.¹¹⁵ Second, a challenger may file multiple petitions directed to the same claims, but focused on different grounds for unpatentability.¹¹⁶ This practice has become increasingly popular, especially in CBM, therein allowing a petitioner to assert additional prior art against the same claims. The PTAB has granted, at least in part, multiple petitions for CBM directed at the same claims.¹¹⁷ The patent claims were identical in each pair and the petitioner divided prior art references among the multiple petitions directed at the same claims.

Page or word limits allow the PTAB to make the one-year statutory deadline. PTO reexamination and federal court experience shows that the PTAB's page limits help streamline its proceedings, focusing arguments on the most critical patentability issues. While practitioners have experienced pains in making complex arguments within the strict page limits, the PTO has responded by modifying the rules and recommended alternative filing strategies that provide practitioners with more page space and more petitions in which to make successful arguments.

B. LIMITED DISCOVERY

The short statutory timeline for AIA proceedings mandates limited discovery. Important differences in discovery practices exist between AIA

113. *Id.* at *2.

114. Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. 48,612, 48,634 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. §§ 1, 42, 90).

115. *See, e.g.*, *Innolux Corp. v. Semiconductor Energy Lab. Co., Ltd.*, IPR2013-00064, 2013 WL 8595544, Paper No. 11 (P.T.A.B. Apr. 30, 2013).

116. *See* Rules of Practice for Trials Before the PTAB and Judicial Review of PTAB Decisions, 77 Fed. Reg. at 48,635.

117. *See* *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, CBM2012-00002, 2013 WL 6665053, Paper No. 10 (P.T.A.B. Jan. 25, 2013) (challenging U.S. Patent No. 6,064,970, claims 1 and 3-18); *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, CBM2012-00004, 2013 WL 6665056, Paper No. 10 (P.T.A.B. Jan. 25, 2013) (challenging U.S. Patent No. 6,064,970, claims 1 and 3-18).

trials and district court litigation. The PTAB has published representative decisions and orders, and offered guidance in the form of an AIA blog that provides practitioners with insight into additional discovery at the PTAB.

1. *PTO Rulemaking and PTAB Practices: Routine and Additional Discovery*

The AIA created the PTAB trials as a cost-effective alternative to district court litigation, but also considered the PTO's ability "to timely complete the proceedings instituted," consistent with legislative intent and public policy.¹¹⁸ During PTAB proceedings, parties participate in discovery resembling that of an Article III court; however, the Federal Rules of Civil Procedure ("FRCP") do not apply at the PTAB.¹¹⁹ Limited discovery relative to district court serves to "low[er] costs, minim[ize] complexity, and short[en] the time period for dispute resolution."¹²⁰ Each party has specified time periods to conduct meaningful discovery before submitting motions and oppositions during the proceeding.¹²¹

The statute provides for discovery of relevant evidence, but relevant evidence in an IPR is "limited to the deposition of witnesses submitting affidavits or declarations and what is otherwise necessary in the interest of justice."¹²² In CBM and PGR, relevant evidence is "limited to evidence directly related to factual assertions advanced by either party in the proceeding."¹²³ The PTO interpretation of these provisions resulted in three categories of discovery during PTAB reviews: (1) mandatory initial disclosures, (2) routine discovery, and (3) additional discovery.¹²⁴

a) Mandatory Initial Disclosures

Mandatory initial disclosures are similar to FRCP 26 initial disclosures in civil litigation, allowing parties to agree to submit disclosures before institution of the trial and, upon institution of the trial, to automatically

118. See 35 U.S.C. §§ 316(b), 326(b) (2012).

119. See BlackBerry Corp. et al. v. Wi-Lan USA Inc., IPR2013-00126, Paper No. 15 at *2 (P.T.A.B. Aug. 19, 2013).

120. Jacqueline Bonilla & Sheridan Snedden, *Routine and Additional Discovery in AIA Trial Proceedings: What Is the Difference?*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2014, 10:01 AM), http://www.uspto.gov/blog/aia/entry/message_from_administrative_patent_judges.

121. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42).

122. See 35 U.S.C. §§ 316(a)(5)(A)–(B) (2012).

123. *Id.* § 326(a)(5).

124. See 37 C.F.R. § 42.51 (2014).

take discovery of the information identified in the initial disclosures.¹²⁵ As routine and additional discovery have become the most common categories in practice, mandatory initial disclosures will not be addressed in this Note.

b) Routine Discovery

Because parties have a burden to provide routine discovery to the other side, it does not require a motion or prior authorization from the PTAB.¹²⁶ Routine discovery includes three types of information: (1) “any exhibit cited in a paper or in testimony,” (2) “cross examination of affidavit testimony,” and (3) “relevant information that is inconsistent with a position advanced by a party.”¹²⁷

The first type requires a party to serve cited exhibits at the same time it serves a paper or testimony citing them,¹²⁸ but it has its limitations. Even though exhibits cited in a paper or testimony must be produced, there is no requirement for the parties to provide uncited material that a witness relied on or considered when preparing the paper or testimony.¹²⁹ The second category requires a party relying on expert witness testimony by declaration or affidavit to make that witness available for cross-examination.¹³⁰ The third type of routine discovery relates to information inconsistent with a position advanced.¹³¹ The third category also has limitations—it does not make discoverable anything protected by privilege¹³² and is “narrowly directed to specific information known to the responding party to be inconsistent with a position advanced by that party in the proceeding.”¹³³ This category does not allow broad discovery requests to be used to uncover inconsistent information.¹³⁴ In *Garmin International Inc. v. Cuozzo Speed Technologies, L.L.C.*, a case designated by the PTAB as representative for discovery practice, the PTAB rejected a

125. *See id.* § 42.51(a).

126. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (proposed Aug. 14, 2012) (to be codified at 37 C.F.R. § 42); *see also* BlackBerry Corp. v. Wi-Lan USA Inc., IPR2013-00126, Paper No. 15 at *2 (P.T.A.B. Aug. 19, 2013).

127. 37 C.F.R. §§ 42.51(b)(1)(i)–(iii) (2014).

128. *Id.* § 42.51(b)(1)(i).

129. *See* BlackBerry, IPR2013-00126, Paper No. 15, at *2.

130. *See* 37 C.F.R. § 42.51(b)(1)(ii) (2014); Office Patent Trial Practice Guide, 77 Fed. Reg. at 48,761.

131. 37 C.F.R. § 42.51(b)(1)(iii) (2014).

132. *Id.*

133. *Garmin Int’l Inc. et al. v. Cuozzo Speed Techs. L.L.C.*, IPR2012-00001, Paper No. 26, at *4 (P.T.A.B. Mar. 5, 2013).

134. *Id.*

routine discovery request because it “casts a wide net directed to broad classes of information which may not include anything inconsistent with positions taken by Garmin.”¹³⁵

c) Additional Discovery

Due to limitations in routine discovery, the parties may agree to additional discovery or a party may move for additional discovery if the parties cannot reach an agreement.¹³⁶ In an IPR, the moving party must show that the additional discovery is necessary “in the interest of justice.”¹³⁷ This requirement is limited in scope compared to the “showing of good cause as to why the discovery is needed”¹³⁸ standard in CBM and PGR proceedings where additional discovery is already limited to evidence directly related to factual assertions advanced by either party.¹³⁹ The PTAB has sparingly granted additional discovery.

In *Garmin*, the PTAB outlined a five-factor test to determine whether additional discovery is merited under IPR’s “interest of justice” standard:¹⁴⁰ (1) the requested discovery should be more than a possibility and mere allegation, (2) requests must not be for discovering litigation positions and their underlying basis, (3) the requesting party should not have the ability to generate equivalent information by other means, (4) the request must be accompanied by easily understandable instructions, and (5) the requests must not be overly burdensome to answer.¹⁴¹ Although the standard is lower in PGR and CBM, the same five factors are considered to determine whether additional discovery is necessary for “good cause.”¹⁴²

135. *Id.*

136. *See* 37 C.F.R. § 42.51(b)(2)(i) (2014).

137. *Id.* (creating the “interest of justice” requirement, with limited exceptions pertaining to post-grant review).

138. *Id.* § 42.224(a) (articulating the “good cause” standard).

139. *Compare* (“good cause” standard) *with id.* § 42.51(b)(2)(i) (“interest of justice” standard).

140. *See* *Garmin Int’l Inc. v. Cuozzo Speed Techs. L.L.C.*, IPR 2012-00001, Paper No. 26, at *6–7 (P.T.A.B. Mar. 5, 2013) (reiterating the five factors described in Paper No. 20 at *2–3).

141. *See id.*

142. *See* 37 C.F.R. §§ 42.51(b)(2)(i), 42.224 (2014); *see also* *Bloomberg Inc. v. Markets-Alert Pty Ltd.*, CBM2013-00005, 2013 WL 5947684, Paper No. 32, at *3 (P.T.A.B. May 29, 2013) (“On balance, the interests of justice standard is a slightly higher standard than the good cause standard . . .”).

Under the “interest of justice” standard, the PTAB has granted only twenty-eight percent of motions for additional discovery.¹⁴³ The first *Garmin* factor is the most difficult to overcome—the PTAB routinely denies additional discovery because it is not persuaded that there is more than a possibility or mere allegation that the request would result in evidence.¹⁴⁴ In September 2014, the PTAB provided guidance on the first *Garmin* factor via an AIA blog post, clarifying that “the party requesting discovery already should be in possession of a threshold amount of evidence or reasoning tending to show beyond speculation that something useful will be uncovered.”¹⁴⁵ The PTAB also cited nine additional IPR and CBM representative decisions illustrating how the five *Garmin* factors are evaluated and weighed.¹⁴⁶ Nonetheless, the public commentary criticized the PTAB’s discovery practices as being too restrictive on movants and recommended change.¹⁴⁷

2. PTO Public Comments and Responses: Routine and Additional Discovery

As practitioner concerns mounted regarding the PTAB’s wide discretion in denying additional discovery, the PTO sought public comment on discovery practices. The PTO asked the public if the five factors enumerated in *Garmin* are appropriate, and what additional factors, if any, should be considered.¹⁴⁸ Intellectual property and patent owner

143. Matt Cutler, *Quick Look at a Granted Motion for Additional Discovery in IPR*, HARNESSING PATENT OFFICE LITIGATION (Oct. 30, 2014), <http://ipr-pgr.com/quick-look-at-a-granted-motion-for-additional-discovery-in-ipr/>.

144. *See, e.g.*, Square, Inc. v. REM Holdings 3, IPR2014-00312, Paper No. 23, at *5 (P.T.A.B. Sept. 15, 2014) (“We are not persuaded that Patent Owner has shown more than a possibility or mere allegation that this type of request would result in evidence . . .”).

145. *See* Jacqueline Bonilla & Sheridan Snedden, *Routine and Additional Discovery in AIA Trial Proceedings: What Is the Difference?*, U.S. PATENT & TRADEMARK OFFICE (Sept. 30, 2014, 10:01 AM), http://www.uspto.gov/blog/aia/entry/message_from_administrative_patent_judges/.

146. *See id.*

147. *See, e.g.*, IPO, *Request for Comments on Trial Proceedings Under the American Invents Act*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/ipo_20140916.pdf (last visited Feb. 2, 2015) (noting it is unfair to require a patent owner to prove the existence of commercial success before being able to discover the evidence necessary to make out such a case).

148. *See* Request for Comments on Trial Proceedings Under the America Invents Act, 79 Fed. Reg. 36,476 (June 27, 2014).

organizations asked the PTAB to relax the first *Garmin* factor under certain conditions.¹⁴⁹

When patentability is challenged on § 103 grounds as obvious in view of prior art, the patent owner must often obtain evidence relating to secondary considerations to rebut the challenge. Under *Graham v. John Deere Co. of Kansas City*, the obviousness analysis involves objective indicia, such as commercial success, unexpected results, and licensing.¹⁵⁰ The patent owner bears the burden to prove the existence of commercial success by showing the required nexus between the claimed invention and that commercial success.¹⁵¹ However, this evidence may lie in the hands of the petitioner, who is often an accused infringer in related district court litigation and has possession of financial information, including product sales.¹⁵² The PTAB's strict treatment of the first *Garmin* factor practically requires the patent owner to possess this information before authorizing discovery, when, in reality, it could be in the petitioner's sole possession.¹⁵³

In these situations, patent owners argue that the first *Garmin* factor's burden is too high and should be relaxed to allow additional discovery when the petitioner is "reasonably likely" to possess secondary considerations of nonobviousness.¹⁵⁴ A similar recommendation would

149. See, e.g., The American Bar Association ("ABA") Section of Intellectual Property Law, American Intellectual Property Law Association ("AIPLA"), and Intellectual Property Owners Association ("IPOA"), U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/public_comments_ptab_aia_trial_rfc.jsp (last visited Feb. 2, 2015).

150. See *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966) ("Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.").

151. See *id.*

152. See *id.*

153. See *Schott Gemtron Corp. v. SSW Holding Co.*, IPR2013-00358, Paper No. 43, at *4–7 (P.T.A.B. Feb. 14, 2014) (denying motion for additional discovery regarding commercial success because the request did not provide a threshold amount of evidence of sales allegedly amounting to commercial success, or any alleged nexus between the claimed invention and commercial success); *Microsoft Corp. v. Proxyconn, Inc.*, IPR2012-00026, 2013 WL 6327751, Paper No. 32, at *5–6 (P.T.A.B. Mar. 8, 2013) (denying additional discovery relevant to commercial success, stating that while "a conclusive showing of a nexus is not necessary at this stage, some showing of relevance is necessary," particularly where the claimed feature "is itself not a product but one feature of a complex software product").

154. See, e.g., IPO, *Request for Comments on Trial Proceedings Under the American Invents Act*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/ipo_20140916.pdf (last visited Feb. 2, 2015) ("The PTAB should relax the first *Garmin* factor from 'more than a possibility and mere allegation' to 'a reasonable

allow discovery when there is “a reasonable basis that the non-moving party has evidence relevant to objective indicia of non-obviousness.”¹⁵⁵ A counterargument is that the first *Garmin* factor ensures the additional discovery is restricted to “particular limited situations, such as minor discovery that PTO finds to be routinely useful, or to discovery that is justified by the special circumstances of the case,” consistent with the AIA’s purpose.¹⁵⁶

While the PTAB should and must be conservative in authorizing additional discovery, the fifth *Garmin* factor should serve as the safety valve to deny discovery when the request is overly burdensome. The fifth *Garmin* factor can be used to prevent fishing expeditions and ensure that any requests related to secondary considerations will be limited to documents actually in existence, short discovery timelines, and a limited number of products.¹⁵⁷ Modifying the first *Garmin* factor will allow the patent owner to obtain information relating to nonobviousness and offer a more reasonable opportunity to defend one’s patent against an obviousness challenge. The fifth *Garmin* factor should be used by the PTAB to protect parties from overly burdensome requests, ensuring fairness in discovery practices for both petitioner and patent owner throughout the proceeding.

C. MOTIONS TO AMEND CLAIMS

Since their inception, the AIA reviews have been criticized for the patent owner’s inability to amend claims. Yet, the most recent representative order on motions to amend has incorporated public commentary to improve a practitioner’s ability to make successful arguments within the motion page limits.

1. PTO Rulemaking and PTAB Practices: Motions to Amend Claims

The AIA allows patent owners one opportunity to amend claims by filing a motion to cancel a challenged claim and propose a substitute claim.¹⁵⁸ The proposed amendment is not granted automatically, but only upon the patent owner having demonstrated by a preponderance of the

basis that the non-moving party has evidence relevant to objective indicia of non-obviousness.’”).

155. *See id.*

156. *See* 154 CONG. REC. S9988–89 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (arguing that limited “second-period” discovery would allow the PTO to meet its obligations).

157. *See* IPO, *Request for Comments on Trial Proceedings Under the American Invents Act*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/ipo_20140916.pdf (last accessed Feb. 2, 2015).

158. 35 U.S.C. §§ 316(d) (IPR), § 326(d) (CBM and PGR) (2012).

evidence that the proposed claims are patentable.¹⁵⁹ While the statute clarified that amendments cannot enlarge the scope of the claims,¹⁶⁰ Congress empowered the PTAB to establish the standards and procedures for granting a patent owner's motion to amend.¹⁶¹ The PTAB's initial proposed rules provided little guidance, merely stating that a motion to amend may not be granted where the amendment does not respond to a ground of unpatentability involved in the trial or where the amendment enlarges the claim scope or introduces new matter.¹⁶²

The PTAB provided some transparency by issuing a series of representative orders on motions to amend.¹⁶³ The first order, in *Nichia Corp. v. Emcore Corp.*, was issued in June 2013 and specified the level of written description support for proposing substitute claims.¹⁶⁴ The PTAB explained that the motion to amend must clearly identify the written description support for the proposed substitute claims and "set forth the support in the *original disclosure* of the patent for each proposed substitute claim."¹⁶⁵ The PTAB also specified the written description test as "whether the original disclosure of the application relied upon reasonably conveys to a person of ordinary skill [sic] in the art that the inventor had possession of the claimed subject matter as of the filing date."¹⁶⁶

The second order, in *Idle Free Systems, Inc. v. Bergstrom, Inc.*, was also issued in June 2013. It set the standard for demonstrating the patentability of each proposed amended or substitute claim over the prior art.¹⁶⁷ The PTAB advised patent owners to specifically identify the feature(s) added to each substitute claim and to provide "technical facts and reasoning about those feature(s), including construction of new claim terms, sufficient to persuade the [PTAB] that the proposed substitute claim is patentable over the prior art of record, and over prior art not of record but

159. *See id.* § 42.1(d) (noting that the "default evidentiary standard is a preponderance of the evidence").

160. *See* 35 U.S.C. § 316(d)(3) (2012); *see also* 37 C.F.R. § 42.121(a)(2)(ii) (2014) (implementing rules consistent with 35 U.S.C. § 316(d)(3)).

161. 35 U.S.C. §§ 316(a)(9) (IPR), 326(a)(9) (CBM and PGR) (2012).

162. 37 C.F.R. § 42.221 (2014).

163. *See Representative Orders, Decisions, and Notices*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/representative_orders_and_opinions.jsp (last visited Feb. 2, 2015).

164. *See* *Nichia Corp. v. Emcore Corp.*, IPR2012-00005, 2013 WL 8352845, Paper No. 27 (P.T.A.B. June 3, 2013).

165. *Id.* at *3 (emphasis in original) (citing 37 C.F.R. §42.121(b)(1) (2014)).

166. *Id.*

167. *See* *Idle Free Sys., Inc. v. Bergstrom, Inc.*, IPR2012-00027, 2013 WL 5947697, Paper No. 26 (P.T.A.B. June 11, 2013).

known to the patent owner.”¹⁶⁸ The patent owner should present “the specific technical disclosure of the closest prior art known to the patent owner, and not just a conclusory remark that no prior art known to the patent owner renders obvious the proposed substitute claims.”¹⁶⁹ In January 2014, the PTAB’s resulting final written decision in *Idle Free* issued, with a clarification that the patent owner is “not assumed to be aware of every item of prior art presumed to be known to a hypothetical person of ordinary skill in the art,” but rather is expected to “set forth what it does know about the level of ordinary skill in the art, and what was previously known, regarding each feature it relies and focuses on for establishing patentability of its proposed substitute claims.”¹⁷⁰

The “all prior art known” requirement raised concerns among practitioners, who assumed it required the patent owner to find all relevant prior art; however, these concerns were downplayed at a February 2014 Patent Public Advisory Committee meeting by Administrative Patent Judge J. Lee.¹⁷¹ His response was simple, in theory: “[a]ll the patent owner needs to tell us is what the patent owner itself does know and what it does know about the level of ordinary skill.”¹⁷²

Finally, in May 2014, the PTAB granted-in-part a motion to amend in *International Flavors & Fragrances Inc. v. United States* and the final written decision was designated as an informative decision on a successful motion to amend claims.¹⁷³ The U.S. government, the patent owner, did not file any response to the challenger’s petition but only filed a motion to cancel and amend the patent claims and proposed nineteen substitute claims.¹⁷⁴ In the motion, the patent owner provided several publications, as well as an expert declaration, to demonstrate the level of ordinary skill in the art and the patentability of the features in the proposed substitute

168. *Id.* at *7.

169. *Id.*

170. *Idle Free Sys., Inc. v. Bergstrom, Inc.*, IPR2012-00027, 2014 WL 824156, Paper No. 66, at *33 (P.T.A.B. Jan. 7, 2014).

171. *See Patent Public Advisory Committee Meeting*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/about/advisory/ppac/ppac_transcript_20140212.pdf (last visited Feb. 2, 2015).

172. *Id.*

173. *Int’l Flavors & Fragrances Inc. v. United States*, IPR2013-00124, 2014 WL 2120542, Paper No. 12 (P.T.A.B. May 20, 2014); *see Representative Orders, Decisions, and Notices*, U.S. PATENT & TRADEMARK OFFICE, http://www.uspto.gov/ip/boards/bpai/representative_orders_and_opinions.jsp (last visited Feb. 2, 2015).

174. *Int’l Flavors & Fragrances Inc.*, IPR2013-00124, 2014 WL 2120542, Paper No. 12, at *2.

claims.¹⁷⁵ The petitioner did not file an opposition to the motion to amend, and the PTAB concluded that the patent owner had shown, by a preponderance of the evidence, that all but one of the substitute claims were patentable over the prior art.¹⁷⁶ It was thought that amendments during AIA trials would become more frequent after *International Fragrances*, yet practitioners continue to feel a successful motion is out of reach.

2. Public Comments and PTO Responses: Motions to Amend Claims

The PTO, perhaps realizing that the PTAB had been strictly denying the patent owners' motions to amend claims, published a blog post in May 2014 offering guidance on making a successful claim amendment.¹⁷⁷ A few weeks later, the PTO requested suggestions for changing the PTAB's approach to amendments, signaling an acknowledgement that some corrections to amendment procedures may be necessary to balance the rapid nature of these proceedings.¹⁷⁸

The blog post summarized and further explained guidance provided in the prior representative orders.¹⁷⁹ The PTAB noted that to successfully amend claims, given that the PTAB conducts no prior art search and performs no examination:

[T]he patent owner should explain why the claim feature added by amendment, in combination with all the other features of the claim, would not have been obvious to a person of ordinary skill in the art at the time of the invention, in light of the knowledge and skill level of the person of ordinary skill in the art.¹⁸⁰

The PTAB clarified that the patent owner need not address each prior art reference known or in existence at the time of filing.¹⁸¹ On a final note, the PTAB recommended that "a statement by the patent owner that the closest prior art it knows about was applied by the petitioner . . . can be

175. *Id.* at *12.

176. *Id.* at *18.

177. See PTAB, *How to Make Successful Claim Amendments in an AIA Trial Proceeding*, U.S. PATENT & TRADEMARK OFFICE (May 5, 2014, 3:57 PM), http://www.uspto.gov/blog/aia/entry/uspto_ptab_message_how_to/.

178. *Cf.* Request for Comments on Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 79 Fed. Reg. 36,474, 36,476 (June 27, 2014).

179. See PTAB, *How to Make Successful Claim Amendments in an AIA Trial Proceeding*, U.S. PATENT & TRADEMARK OFFICE (May 5, 2014, 3:57 PM), http://www.uspto.gov/blog/aia/entry/uspto_ptab_message_how_to/.

180. *Id.*

181. *Id.*

helpful if the supporting basis is explained in and established by the motion to amend.”¹⁸²

The PTO received numerous comments in response to this question: “What modifications should be made to the PTAB’s practice regarding motions to amend?”¹⁸³ The strongest criticism came from organizations representing patent owners. One association responded that the patent owner’s burden to establish patentability over all prior art known to the patent owner, to discuss the level of ordinary skill in the art, and what would have been known by one of ordinary skill, all within the page limits, has effectively removed the ability to amend.¹⁸⁴

Echoing those sentiments, other organizations commented that the “current 15-page limit is inadequate for patent owners to properly present a case” and recommended that the PTO modify the rules to expand the page limits (e.g., from fifteen to forty pages) and to allow the proposed amended claims to be included as an appendix, not counting toward any page limits.¹⁸⁵

The PTAB appeared to follow practitioner recommendations by posting the latest representative order, in which the PTAB allowed the proposed claims to be included in an appendix.¹⁸⁶ In *Corning Optical Communications RF, L.L.C. v. PPC Broadband, Inc.*, the PTAB explained the requirements for the patent owner—specifically, that the substitute claim “should not eliminate any feature or element of the original patent claim which it is intended to replace” and that the motion must clearly

182. *Id.*

183. *See* Request for Comments on Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 79 Fed. Reg. 36,474, 36,476 (June 27, 2014); *see also* *Comments on Trial Proceedings Under the American Invents Act Before the Patent Trial and Appeal Board*, U.S. PATENT & TRADEMARK OFFICE, <http://www.uspto.gov/page/comments-trial-proceedings-under-america-invents-act-patent-trial-and-appeal-board/> (last updated Oct. 16, 2014).

184. ABA, *Comments of the American Bar Association Section of Intellectual Property Law*, U.S. PATENT & TRADEMARK OFFICE (Oct. 16, 2014), http://www.uspto.gov/ip/boards/bpai/aba_ipl_20141016.pdf.

185. AIPLA, *Response to the Request for Comments on Trial Proceedings Under the America Invents Act*, U.S. PATENT & TRADEMARK OFFICE (Oct. 16, 2014), http://www.uspto.gov/ip/boards/bpai/aipla_20141016.pdf; *see also* IPO, *Comments on Request for Comments on Trial Proceedings Under the American Invents Act*, U.S. PATENT & TRADEMARK OFFICE (Sept. 16, 2014), http://www.uspto.gov/ip/boards/bpai/ipo_20140916.pdf.

186. *See* *Corning Optical Communications RF, L.L.C. v. PPC Broadband, Inc.*, IPR2014-00441, Paper No. 19 (P.T.A.B. Oct. 30, 2014), *available at* https://ptabtrials.uspto.gov/prweb/PRServlet/HcI5xOSeX_yQRYZAnTXXCg%5B%5B*!STANDARD?

show the changes to the claims, using brackets and underlining to indicate the deleted and inserted text.¹⁸⁷ The PTAB reminded the patent owner of the standards set forth in *Idle Free*—“the patent owner must show patentability over the prior art, in general, and not just over the references applied by the Petitioner.”¹⁸⁸ Most importantly, the PTAB recognized that page limits restrict the ability to make successful arguments in a motion to amend, and authorized the patent owner to attach its proposed substitute claims in an appendix that would not count toward the fifteen-page limit.¹⁸⁹

Although the PTAB historically denied nearly every patent owner motion to amend, practitioners should be encouraged that more amendments will likely be granted post-*Corning*. The PTO’s March 2015 three-part plan to improve the AIA proceedings announced that the page limit for a motion to amend would be expanded, offering up to twenty-five pages to allow patent owners to adequately explain why the amended claims are patentable, along with the addition of a claims appendix as was introduced by *Corning*.¹⁹⁰ Now, with twenty-five pages and an appendix, the patent owner has been afforded more space to successfully argue for patentability in accordance with *Idle Free*.

III. CONSTITUTIONAL, ADMINISTRATIVE, AND POLICY CONCERNS SURROUNDING THE AIA PROCEEDINGS

As Part II chronicled, the PTO and PTAB have confronted many challenges and criticisms in implementing the complex new review system, especially under tight timelines with an unexpectedly large number of petitions. The PTO has been responsive to criticisms to ensure procedural fairness and fidelity to legislative intent by providing guidance via representative orders and decisions, AIA roadshows, and AIA blogs. While scope and usage of this regime is unprecedented, it is not the first time that the PTO has implemented post-grant patent review proceedings. Patent owners faced comparable challenges when the PTO established patent reexamination several decades ago. This Part examines the legal framework that applies to PTO review proceedings, first by

187. *Id.* at *3.

188. *Id.* at *4.

189. *Id.* at *2.

190. See Director’s Forum, *PTAB’s Quick-Fixes for AIA Rules Are to Be Implemented Immediately*, U.S. PATENT & TRADEMARK OFFICE (Mar. 27, 2015, 10:18 AM), <http://www.uspto.gov/blog/>.

analyzing AIA trials under constitutional due process, then by addressing PTO rulemaking under the Administrative Procedure Act (“APA”).

A. CONSTITUTIONAL CONCERNS

It is long established that patents are property receiving constitutional protection. The Constitution provides that the United States shall not deprive any person “of life, liberty, or *property*, without due process of law.”¹⁹¹ Under 35 U.S.C. § 261, patent rights are assignable and “shall have the attributes of personal property.”¹⁹² Moreover, the Supreme Court has affirmed “beyond reasonable debate” that patents are considered a property right within the meaning of the Due Process Clause.¹⁹³ To examine whether administrative action creates serious constitutional concerns, due process requires an individualized analysis of “the particular circumstances of the case.”¹⁹⁴ As defined by *Mathews v. Eldridge*, the “indispensable ingredients” of due process include: (1) notice, (2) an impartial decision maker, and (3) an opportunity for a meaningful hearing.¹⁹⁵ Courts have assessed due process in the context of both *inter partes* and *ex parte* reexamination proceedings, and these cases provide the basis for AIA review constitutionality.

1. Ex Parte Reexamination

Nearly thirty years ago, *ex parte* reexamination was challenged on constitutional grounds in *Patlex I*¹⁹⁶ and *Patlex II*.¹⁹⁷ In *Patlex I*, the Federal Circuit considered whether certain provisions of the reexamination statute and implementing regulations were unconstitutional

191. U.S. CONST. amend. V (emphasis added); *see also* U.S. CONST. amend. XIV (“[N]or shall any State deprive any person of life, liberty or property, without due process of law.”).

192. 35 U.S.C. § 261 (2012).

193. *Patlex Corp. v. Mossinghoff (Patlex I)*, 758 F.2d 594, 599 (Fed. Cir. 1985); *see also* Fla. Prepaid Postsec. Educ. Expense Bd. v. College Sav. Bank, 527 U.S. 627, 642 (1999) (“[Patents] are surely included within the ‘property’ of which no person may be deprived by a State without due process of law.”); *Consolidated Fruit-Jar Co. v. Wright*, 94 U.S. 92, 96 (1876) (“A patent for an invention is as much property as a patent for land. The right rests on the same foundation, and is surrounded and protected by the same sanctions.”).

194. *Abbott Labs. v. Cordis Corp.*, 710 F.3d 1318, 1327–28 (Fed. Cir. 2013) (citing *Patlex Corp. v. Mossinghoff (Patlex II)*, 771 F.2d 480, 485 (Fed. Cir. 1985)).

195. *Abbott Labs. v. Cordis Corp.*, 710 F.3d 1318, 1328 (Fed. Cir. 2013); *see also* *Mathews v. Eldridge*, 424 U.S. 319, 335 (1976).

196. *Patlex I*, 758 F.2d at 598–99.

197. *Patlex II*, 771 F.2d at 481–82.

under the Fifth and Seventh Amendments.¹⁹⁸ While *Patlex I* focused on specific issues arising from the retroactive effect of reexamination for patents granted before enacting the statute, it also laid the foundation for applying a due process analysis to AIA post-grant reviews.

First, in accordance with the modern due process inquiry, the court addressed “whether the legislature used a rational approach to achieve a legitimate end.”¹⁹⁹ The reexamination statute allowed the PTO to regain administrative jurisdiction over a patent to remedy any defects in the initial examination and patent grant.²⁰⁰ The purpose behind reexamination was to restore confidence in the patent system as part of a broader policy effort to reinvigorate the United States’ global competitiveness.²⁰¹ The reexamination benefits were threefold: (1) it could settle patent validity suits faster and less expensively than litigation, (2) patent validity questions could be referred to the PTO’s expertise, and (3) reexamination would reinforce confidence in the certainty of patent rights.²⁰² The court concluded that the overriding policy behind the reexamination statute was entitled to great weight in the due process analysis, and that Congress did not act in an irrational way to achieve its purpose by retroactively applying reexamination to issued patents.²⁰³

In *Patlex II*, the Federal Circuit denied rehearing on the issues affirmed in *Patlex I*, but granted the petition with regards to the patent owner’s challenges to procedures used during PTO reexamination.²⁰⁴ These additional issues were not raised in *Patlex I* because the patent owner lacked standing; a decision regarding the regulation, at that time, would not have affected the patent owner’s situation.²⁰⁵ But in *Patlex II*, the reexamination process was complete and the patent owner could now challenge the PTO’s rule that a patentee cannot participate during the threshold determination for granting reexamination.²⁰⁶ Reexamination is unlike the AIA trials in this regard. In IPR and CBM, the patent owner is

198. *Patlex I*, 758 F.2d at 598–99.

199. *Patlex I*, 758 F.2d at 601 (citing *Usery v. Turner Elkhorn*, 428 U.S. 1, 18–19 (1976)).

200. *Id.*

201. *Id.*

202. *Id.* at 602.

203. *Id.* at 603.

204. *Patlex II*, 771 F.2d at 481–82.

205. *Id.* at 482.

206. *Id.*

allowed to file a preliminary response to the challenger's petition before the PTAB issues its decision on whether to institute trial.²⁰⁷

Although Congress often defers to agencies to establish rules consistent with a statute, the regulations may be administered in a way that violates constitutional guarantees.²⁰⁸ The decision to grant patent reexamination may affect property rights, and the question presented was whether the constitution requires patent owner participation.²⁰⁹ The court conducted the *Mathews* test for due process in administrative procedures where initial agency action affects property rights by evaluating three factors: (1) the private interest that will be affected by the official action; (2) the risk of an erroneous deprivation of that interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and (3) the government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirements would entail.²¹⁰

In addressing the private interest, the court referenced its prior discussion of property interests affected by patent reexamination in *Patlex I*—that patents are in fact property.²¹¹ For the second factor, the Federal Circuit phrased the issue as “the impact of an erroneous decision to reexamine, made because the patentee was silenced during the initial determination.”²¹² The court acknowledged that the PTO's expertise and a patent examiner's experience in making independent decisions are factors that should be given weight when considering the risk of an erroneous decision.²¹³ Finally, for the third factor, the PTO stated that it could not meet its three-month response timeline if the patent owner was allowed to participate. However, the court had no information on the cost for expanding the timeline and did not consider the elongated proceedings impossible to manage. Therefore, this factor was not given “controlling weight.”²¹⁴

The court referenced the general rule that due process does not require a hearing at more than one point in an administrative proceeding,

207. See 37 C.F.R. §§ 42.107(b) (IPR), 42.207(b) (CBM and PGR) (2012).

208. *Patlex II*, 771 F.2d at 482.

209. *Id.* at 483–84.

210. *Id.* (quoting *Mathews v. Eldridge*, 424 U.S. 319, 335 (1976)).

211. *Id.* at 484–85.

212. *Id.* at 485.

213. *Id.*

214. *Id.*

as long as it is held before the decision becomes final.²¹⁵ After evaluating each factor, the court held that “[t]he weight of authority supports the conclusion that the patentee’s opportunity to participate after the threshold determination, and to appeal from final examiner and agency action, affords the patentee due process under the Fifth Amendment.”²¹⁶ The court found that the PTO provision excluding the patent owner from initial participation was “within tolerable limits” of the authority that Congress delegated to the PTO and did not violate due process.²¹⁷

2. *Inter Partes Reexamination*

Inter partes reexamination, the predecessor to the IPR, was recently challenged on constitutional grounds in *Abbott Laboratories v. Cordis Corp.*²¹⁸ The Federal Circuit rejected due process arguments made in regard to the PTO’s practice to exclude subpoena documents or testimony from patent reexamination.²¹⁹ The court reasoned there was “no dispute that *inter partes* reexamination provides the patent owner with notice and an opportunity to be heard by a disinterested decision maker.”²²⁰ Since the basic rights of notice and an opportunity to be heard were afforded, the court went on to determine what additional procedures due process guarantees.²²¹ After balancing the various interests at stake, the court held that because Congress specifically granted the PTO with authority to conduct reexamination, and that reexamination does not involve a patent ownership dispute where depositions are allowed, the need for extra controls in *inter partes* reexamination did not warrant a “serious constitutional problem.”²²²

Interestingly, the court in *Abbott* contrasted the new AIA legislation with *inter partes* reexamination, noting that one of the AIA reviews’ “touted improvements” over reexamination is that it allows for the limited use of depositions and authorizes discovery when in the interest of justice.²²³ *Abbott* confirms that patent reexamination affords the patent owner notice and an opportunity to be heard by an uninterested decision

215. *Id.* (quoting *Opp Cotton Mills, Inc. v. Administrator*, 312 U.S. 126, 152–53 (1941)).

216. *Id.* at 486.

217. *Id.*

218. *Abbott Labs. v. Cordis Corp.*, 710 F.3d 1318 (Fed. Cir. 2013).

219. *Id.* at 1328.

220. *Id.*; *see also Patlex II*, 771 F.2d at 485–86 (noting that PTO determinations are made by “disinterested experts”).

221. *Abbott Labs*, 710 F.3d at 1328.

222. *Id.* (internal quotation marks omitted).

223. *See id.* at 1326 (internal quotation marks omitted).

maker, and, because the new AIA trials similarly provide these due process ingredients, the constitutional analysis of the AIA proceedings should focus on any additional procedures that due process guarantees.

Over the past thirty-five years, the Federal Circuit has twice upheld PTO reexamination as constitutional.²²⁴ The AIA proceedings must be distinguished from the previous regime to show a serious due process issue. While the new AIA trials are groundbreaking, they are based on reexamination proceedings and do not appear fundamentally different. Similar to reexamination, the new AIA reviews include notice and a meaningful hearing before an uninterested decision maker, and they allow for Article III judicial review of the administrative proceedings. Also, the AIA proceedings, like reexamination, do not give patents a presumption of validity and construe the claims using a broadest reasonable interpretation.

Due to the core similarities, a constitutional challenge to the AIA trials must show that additional procedures or safeguards are guaranteed by due process. The three most common practitioner complaints surveyed in Part II involved thorough administrative rule promulgation, including public notice, comment, and modifications. Because the AIA's purpose to create a more efficient process is entitled to great weight in the analysis, and an unfavorable final decision can be appealed, it is unlikely that these challenges rise to the level of due process violations.

B. ADMINISTRATIVE PROCEDURE ACT CONCERNS

The APA provides another view of AIA trial implementation. Congress charged the PTO with interpreting the AIA, where it designed the post-grant rules and established the PTAB trial procedures. In *Patlex I*, the Federal Circuit upheld the PTO's post-issuance jurisdiction over patents;²²⁵ however, the question remains as to whether Congress intended the PTO to be given deference under administrative law principles to interpret the AIA statutes, promulgate rules, and speak with the force of law.

When establishing the AIA trials, the PTO must make its statutory interpretations in accordance with the APA. The *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* standard is the means to determine

224. See *Patlex Corp. v. Mossinghoff (Patlex I)*, 758 F.2d 594, 594 (Fed. Cir. 1985); *Joy Techs., Inc. v. Manbeck*, 959 F.2d 226 (Fed. Cir. 1992) (holding that reexamination proceedings did not deny patent owner of the right to a jury trial, to due process, or result in taking of property rights).

225. *Patlex I*, 758 F.2d at 604.

whether a hearing provided by statute, such as a post-grant review, requires formal or informal adjudication. In *Chevron*, the Supreme Court adopted a two-step process for reviewing an administrative agency's interpretation of a statute: (1) decide whether the statute is ambiguous, and (2) if so, determine whether the agency's construction is permissible.²²⁶ In applying *Chevron* to the AIA, there is no need to proceed beyond the first step because there is little ambiguity in the post-grant review statutes.

The legislative history and statutory language intend the AIA post-grant reviews to be formal procedures. By “convert[ing] inter partes reexamination from an examinational to an adjudicative proceeding,”²²⁷ Congress intended the AIA reviews to “take place in a court-like proceeding” where the patent challenger and patent owner may present evidence regarding the validity of a patent.²²⁸ The statute expressly requires the PTO to provide for depositions, discovery, and oral arguments in AIA proceedings.²²⁹ The AIA changed the name of the PTO review panel from the Patent Board of Appeals and Interferences to the Patent Trial and Appeal Board,²³⁰ and the C.F.R. provisions that implement the AIA consistently refer to the AIA reviews as “trials.”²³¹ The express congressional grant of formal adjudicatory authority for post-grant validity review is “a very good indicator” of *Chevron* delegation, permitting the PTO to speak with the force of law.²³²

The PTO was granted specific and substantive rulemaking authority, and it was required to comply with APA procedures.²³³ The AIA provided the PTO with the power to establish regulations. However, those regulations must be made in accordance with the notice-and-comment provision of the APA.²³⁴ As discussed in Part I, the PTO published a series of proposed rules, requested public comments, and modified certain rules in response.²³⁵ The AIA also authorizes the PTO post-grant review

226. *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984).

227. H.R. REP. NO. 112-98, pt. 1, at 46–47 (2011).

228. *Id.* at 68.

229. *See* 35 U.S.C. §§ 316(a)(5), 316(a)(10), 326(a)(5), 326(a)(10) (2012).

230. *See id.* § 6.

231. *See, e.g.*, 37 C.F.R. 42.20(d) (2014) (“The Board may order briefing on any issue involved in the trial.”).

232. *United States v. Mead Corp.*, 533 U.S. 218, 229 (2001).

233. *See* 35 U.S.C. § 2(b)(2) (2012).

234. *See id.* § 2(b)(2)(B) (requiring compliance with *id.* § 553).

235. *See, e.g.*, Rules of Practice for Trials before the Patent Trial and Appeal Board and Judicial Review of Patent Trial and Appeal Board Decisions, 77 Fed. Reg. 6879

to decide novel or unsettled legal questions that are important to patents and patent applications.²³⁶ Over the past thirty-five years, the Federal Circuit has upheld as within the scope of PTO authority a number of regulations governing *inter partes* and *ex parte* reexamination and interferences.²³⁷ Given the PTO's statutory duty to grant patents²³⁸ and disseminate information to the public,²³⁹ rules that facilitate those duties are comfortably within the authority delegated by Congress.

The AIA's legislative history and statutory language explicitly redesign patent reexamination into a more formal adjudication process, the AIA reviews, and grant authority to the PTO to conduct the required rule-making. In designing these rules, the PTO is currently adhering to the APA notice and comment provision, and making revisions to its rules and practices to improve the balance between a fast and fair resolution of patent validity.

IV. CONCLUSION

In the two years since the AIA was enacted, PTAB trials have become the premier venue for challenging patents. The number of challenges has already surpassed all of those filed in its thirteen-year-old predecessor, *inter partes* reexamination, primarily due to the statutory promise of patent validity resolution within one year from trial institution. Congress authorized the PTO to design the AIA trial rules and procedures consistent with the AIA and APA. Thus far, the PTO has promulgated its rules in accordance with the notice-and-comment provisions of the APA, justifying its proposed rules where a change would compromise the statutory intent for a streamlined process, and modifying its rules based on practitioner criticism to balance the trial speed with a fair hearing. It is unlikely that the common practitioner complaints rise to a level that

(proposed Feb. 9, 2012) (to be codified at 37 C.F.R. §§ 42, 90); Changes to Implement Inter Partes Review Proceedings, 77 Fed. Reg. 7041 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Post-Grant Review Proceedings, 77 Fed. Reg. 7060 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Changes to Implement Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 7080 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42); Transitional Program for Covered Business Method Patents—Definition of Technological Invention, 77 Fed. Reg. 7095 (proposed Feb. 10, 2012) (to be codified at 37 C.F.R. § 42).

236. See 35 U.S.C. § 324(b) (2012).

237. See, e.g., *Cooper Tech. v. Dudas*, 536 F.3d 1330, 1336–38 (Fed. Cir. 2008) (concluding the PTO had authority to interpret the term “original application” in statutory provision that established procedures for *inter partes* reexamination).

238. 35 U.S.C. § 2(a)(1) (2012).

239. *Id.* § 2(a)(2).

violates due process or the AIA. However, it remains to be seen whether the PTO can justify the AIA trial constitutionality based on reexamination precedent, or if the courts believe the AIA trials have become something new that requires taking a fresh look.

STEMMING THE TIDE: STEM CELL INNOVATION IN THE MYRIAD-MAYO-ROSLIN ERA

Eneda Hoxha[†]

This year, one in three seniors will die with Alzheimer or another form of dementia.¹ In 2030, Americans will spend over 800 billion dollars on cardiovascular issues alone,² which is more than the 2013 military budgets of the United States and China combined.³ In their lifetime, 60 to 90 percent of childhood cancer survivors will suffer from health problems resulting from the aggressive cancer therapy they received.⁴ Cardiovascular diseases, cancer, and late onset neurodegenerative disorders are responsible for the highest mortality and morbidity rates in the United States.⁵ It is

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1. See Alzheimer's Ass'n, *2014 Alzheimer's Disease Facts and Figures*, 10 ALZHEIMER'S & DEMENTIA 1, 24–26 (2014).

2. See Paul A. Heidenreich et al., *American Heart Association Policy Statement: Forecasting the Future of Cardiovascular Disease in the United States*, 123 CIRCULATION 933, 934–36 (2011); see also Reuters, *Cost of Heart Disease to Triple in US by 2030; More than \$800 Billion a Year*, NEW YORK DAILY NEWS (Jan. 25, 2011, 4:00 AM), <http://www.nydailynews.com/life-style/health/cost-heart-disease-triple-2030-800-billion-year-article-1.149548>.

3. See Amanda Macias, *This Chart Shows How the Rest of the World Doesn't Even Come Close to US Military Spending*, BUS. INSIDER (Apr. 19, 2014, 8:27 PM), <http://www.businessinsider.com/us-military-spending-chart-2014-4>.

4. Nat'l Cancer Inst., *General Information About Late Effects of Treatment for Childhood Cancer*, NAT'L CANCER INST., <http://www.cancer.gov/cancertopics/pdq/treatment/lateeffects/HealthProfessional/> (last visited Jan. 20, 2015).

5. See Jerome H. Chin & Nirali Vora, *The Global Burden of Neurologic Disease*, 83 NEUROLOGY 349, 350 (2014) (reporting that neurological disorders represent 7.1 percent of the total global burden of disease); Donatus U. Ekwume et al., *Medical Costs and Productivity Losses of Cancer Survivors — United States, 2008–2011*, 63 CTRS. FOR DISEASE CONTROL & PREVENTION MORBIDITY AND MORTALITY WKLY. REP. 505, 507 (2014) (reporting that among male cancer survivors, the per capita mean annual productivity loss was \$3,719, among female survivors, the per capita mean annual productivity loss was \$4,033); Judith A. Finegold et al., *Mortality from Ischemic Heart Disease by Country, Region, and Age: Statistics from World Health Organization and United Nations*, 168 INT'L J. CARDIOLOGY 934, 938 (2013) (reporting that heart disease is the leading cause of death worldwide, causing 445,800 deaths in the United States in 2008).

only natural to ask why science does not yet offer permanent cures to these problems, despite the tremendous advancements that science has made.⁶

The core challenges faced in treating these diseases stem from their complexity. In cancer, cardiovascular disorders, or neurodegenerative disorders, the problem is not a pathogen (i.e., virus or bacteria), but rather the failure of human cells to perform their prescribed function.⁷ These diseases result from alterations of an individual's cells, and thus each patient is unique in the way in which they manifest symptoms and respond to treatment. A diagnosis needs to be fast, before the manifestation of major clinical symptoms.⁸ Optimal treatments require an understanding of how cells work and must be tailored to the individual patient.⁹ Optimal therapies would thus include cells that function in a way similar or identical to cells naturally found in the body.¹⁰

These challenges are why stem cells have sparked much hope among scientists and medical professionals in the last twenty years. Stem cells have been known and accepted for over one hundred years;¹¹ however, their application and potential in curing the major medical challenges of our time has never been more palpable.¹² Stem cells can be used to treat heart disease, neurodegenerative disorders, and cancer, among other¹³

6. Mary Carmichael, *Why Don't More Medical Discoveries Become Cures?*, NEWSWEEK (May 14, 2010, 8:00 PM), <http://www.newsweek.com/why-dont-more-medical-discoveries-become-cures-72475> (describing new needs for therapies as the complexity of disease changes).

7. *Id.*

8. See Vojtech Huser et al., *Developing Genomic Knowledge Bases and Databases to Support Clinical Management: Current Perspectives*, 7 PHARMACOGENOMICS & PERSONALIZED MED. 275, 275–76 (2014).

9. See, e.g., Anuj Garg & Nazem Akoum, *Atrial Fibrillation and Heart Failure: Beyond the Heart Rate*, 28 CURRENT OPINION CARDIOLOGY 332, 335 (2013) (explaining why patients with heart failure require a personalized approach); Paolo Pozzilli et al., *One Size Does Not Fit All Glycemic Targets for Type 2 Diabetes*, 5 J. DIABETES INVESTIGATION 134, 139–40 (2014) (explaining why individually tailored treatments are more effective in managing diabetes).

10. See Steven J. Joggerst & Antonis K. Hatzopoulos, *Stem Cell Therapy for Cardiac Repair: Benefits and Barriers*, 11 EXPERT REV. MOLECULAR MED. e20 (2009); see also Veronique L. Roger, *The Heart Failure Epidemic*, 7 INT'L J. ENVTL. RES. & PUB. HEALTH 1807, 1808–09 (2010) (explaining the increasing epidemic of heart disease and further detailing the need for autologous therapies for cardiovascular disease).

11. Miguel Ramalho-Santos & Holger Willenbring, *On the Origin of the Term "Stem Cell"*, 1 CELL STEM CELL 35, 35 (2007).

12. See Shinya Yamanaka, *The Winding Road to Pluripotency (Nobel Lecture)*, 52 ANGEWANDTE CHEMIE INT'L ED. 13900.

13. Stem cells hold the potential to treat many medical issues and diseases. For a more expansive list of their potential application, see *id.* at 13902–06.

diseases.¹⁴ Their potential lies in their ability to mimic, boost, and recreate the natural ability of cells in the body. In fact, major advantages of stem cell technology are its simplicity, reproducibility, and stem cells' ability to recapitulate the natural development.¹⁵ Academic researchers worldwide have developed promising stem cell-based therapies to all these diseases.¹⁶

However, moving a promising molecule from the bench side to a viable and safe product for the bed side is a very expensive endeavor.¹⁷ Scientists in academic research laboratories are good at discovering preliminary biomarkers for disease;¹⁸ however, academic research labs are not equipped, funded, or incentivized to do the necessary validation to push a promising molecule through to a commercially viable product.¹⁹ Private entities often do product development, relying on revenue streams generated, at least partially, as a direct result of the exclusivity that the patent system allows.²⁰ Private sector investing is necessary for medical and biotechnological innovation, and patentability plays a significant role in strategic decisions made by companies, investors, shareholders, and practitioners.²¹ Patents are thus an important element that determines which treatments make it to the clinic.

14. *Id.* at 13906 (“In Japan and other countries, researchers are conducting preclinical studies to prove the efficacy and safety of iPS cells for treating various diseases and injuries, such as Parkinson’s disease, macular degeneration, cardiac failure, spinal cord injury, and platelet deficiency.”); see also John T. Dimos et al., *Induced Pluripotent Stem Cells Generated from Patients with ALS Can Be Differentiated into Motor Neurons*, 321 SCI. 1218 (2008) (explaining how stem cells may be used to treat ALS); Daniel W. Stuckey & Khalid Shah, *Stem Cell-Based Therapies for Cancer Treatment: Separating Hope from Hype*, 14 NATURE REV. CANCER 683 (2014) (reviewing the most promising stem-cell based treatments for cancer and delineating the rationale for translating the most promising pre-clinical trials into the clinic).

15. Yamanaka, *supra* note 12, at 13906.

16. *Id.*

17. Jeffrey J. Stewart et al., *Putting a Price on Biotechnology*, BIO ENTREPRENEUR, NATURE BIOTECHNOLOGY <http://www.nature.com/bioent/2003/030101/full/nbt0901-813.html> (last visited Jan. 20, 2015).

18. See Leigh Anderson, *Candidate-Based Proteomics in the Search for Biomarkers of Cardiovascular Disease*, 563 J. PHYSIOLOGY 23, 23–24 (2005).

19. Stewart, *supra* note 17.

20. See ERNST & YOUNG, BEYOND BORDERS, GLOBAL BIOTECHNOLOGY REPORT 27, 30 (2012); Stewart, *supra* note 17; see also ROBERT P. MERGES, JUSTIFYING INTELLECTUAL PROPERTY 1–27 (2011); Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761, 762–64 (2002).

21. See GLOBAL INSIGHT & NAT’L VENTURE CAPITAL ASS’N, VENTURE IMPACT: THE ECONOMIC IMPORTANCE OF VENTURE CAPITAL-BACKED COMPANIES TO THE U.S. ECONOMY 9 (2011); ERNST & YOUNG, *supra* note 20, at 30.

Thus, it is not surprising that two recent Supreme Court cases affecting patentability in the life sciences²² have garnered interest, particularly for what some commentators have seen as scientific flaws and inconsistencies between the decisions.²³ The United States Patent and Trademark Office (“PTO”), in its recent guidelines on patent subject matter eligibility²⁴ noted that the *Myriad* and *Mayo* cases derive from a long-standing history of caselaw prohibiting the patentability of natural things.²⁵ However, despite the PTO’s assertion that the commotion that endured following the release of the guidelines is much ado about nothing,²⁶ these decisions will determine patentability of subject matter that is at the forefront of the biotechnology industry in general and specifically the stem cell industry. Furthermore, in a globalized market for innovation, driven in part by IP strength and enforcement, patent strategy depends on the international as much as the domestic patent system.

This Note will analyze the domestic patent subject matter eligibility, particularly as it applies to stem cells, and *Mayo* and *Myriad*’s effect on the stem cell industry. Part I emphasizes stem cells’ potential in treating modern medical challenges and explains the molecular characteristics that bring their patentability into question in light of recent cases.²⁷ Part II gives an overview of patentable subject matter caselaw and the evolution of the “law of nature” and “products of nature” doctrines. Part III examines patent eligibility of stem cells under the new PTO guidelines. Part IV

22. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

23. See Jake Gipson, *Patentable Subject Matter: A Myriad of Problems*, 65 ALA. L. REV. 815, 826–28 (2013); Ethan M. Weiner, Note, *Defining A Natural Phenomenon After Prometheus*, 28 BERKELEY TECH. L.J. 643, 659–70 (2013).

24. USPTO, *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 Fed. Reg. 74618 (Dec. 16, 2014) [hereinafter December 2014 Guidance].

25. *Id.*; see also USPTO, GUIDANCE FOR DETERMINING SUBJECT MATTER ELIGIBILITY OF CLAIMS RECITING OR INVOLVING LAWS OF NATURE, NATURAL PHENOMENA, & NATURAL PRODUCTS (Mar. 4, 2014), <http://www.uspto.gov/patent/patents-announcements/guidance-determining-subject-matter-eligibility-claims-reciting-or> (last accessed Feb. 12, 2015) [hereinafter March 2014 Guidance] (“*Myriad* relied on *Chakrabarty* as ‘central’ to the eligibility inquiry, and re-affirmed the Office’s reliance on *Chakrabarty*’s criterion for eligibility of natural products (i.e., whether the claimed product is a non-naturally occurring product of human ingenuity that is markedly different from naturally occurring products.”)).

26. See Donald Zuhn, *USPTO Provides Update on Status of Revised Myriad-Mayo Guidance*, PATENT DOCS (Nov. 12, 2014), <http://www.patentdocs.org/2014/11/uspto-provides-update-on-status-of-revised-myriad-mayo-guidance.html>.

27. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

analyzes the possible effects of the legal regimes on the development of stem cell technologies, and Part V concludes.

I. THE SCIENCE OF STEM CELLS

Not unlike subject matter eligibility, defining and understanding stem cells is complex and confusing, even for those who deal with them on a daily basis. This Part will explain some characteristics of stem cell molecular biology and physiology that are particularly important when analyzing their current patentability. More specifically, Section I.A will delineate the different types of stem cells and their therapeutic applicability for different diseases. Section I.B will provide important background on the molecular biology of stem cells and explain the scientific flaw of using DNA sequence identity to determine whether two products are “markedly different”²⁸ from one another.

A. STEM CELLS: THE TYPES, THE GENETICS, AND THE POTENTIAL

Stem cells are many different types of cells sharing two functional characteristics: the ability to self-renew, and the ability to give rise to a variety of differentiated and specialized cells in the body.²⁹ Stem cells are most commonly categorized into different types based on their potency: a stem cell can be totipotent, multipotent, or pluripotent.³⁰

A totipotent stem cell is able to differentiate into any adult human tissue or any extra-embryonic tissue, such as the placenta.³¹ The zygote (the first cell post-fertilization) is the best example of a totipotent cell. Shortly after the nuclei of the sperm and the egg fuse to form the zygote, multiple molecular mechanisms activate, resulting in rapidly changing and highly synchronized patterns of gene expression.³² These rapid cell divisions and gene expression ultimately results in the formation of inner cell mass (“ICM”), which is the group of cells that turns into the fetus, at which point none of the cells are truly totipotent anymore.³³

28. *Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980).

29. Nat'l Insts. of Health, Stem Cell Basics, NAT'L INSTS. OF HEALTH <http://stemcells.nih.gov/info/basics/pages/basics3.aspx> (last visited Dec. 17, 2014) [hereinafter Stem Cell Basics].

30. *Id.*

31. *Id.*

32. SCOTT F. GILBERT, DEVELOPMENTAL BIOLOGY 300 (2013) (discussing mechanisms of compaction and the formation of the inner cell mass).

33. *Id.*

What most people picture when referring to stem cells is a pluripotent cell. A pluripotent stem cell can give rise to any adult tissue, but cannot differentiate into extra-embryonic tissue.³⁴ Embryonic stem (“ES”) cells are the best example of a pluripotent cell.³⁵ During embryonic development, by day four post-fertilization, cells have arranged into an outer layer called the trophoblast.³⁶ The trophoblast and ICM are distinct structures with different functions.³⁷ The trophoblast gives rise to all extra-embryonic supportive tissue, and the ICM differentiates into the embryo and ultimately the fetus.³⁸ ES cells are isolated from the ICM at around day four post-fertilization, which is why they are only able to differentiate into embryonic tissue.³⁹ Since ES cells are isolated at such an early stage of development, they still retain the ability to differentiate and divide indefinitely into any adult tissue, and these are the key characteristics for their potential therapeutic uses.⁴⁰

For over a decade, scientists believed that ES cells were the only isolated human cells to be pluripotent and that all other mammalian cells followed linear differentiation patterns—meaning that once a cell differentiated, it could not go back to a pluripotent state.⁴¹ However, in

34. *Id.*

35. Stem Cell Basics, *supra* note 29.

36. GILBERT, *supra* note 32 (discussing mechanisms of compaction and the formation of the inner cell mass).

37. *Id.*

38. *Id.*

39. James A. Thomson et al., *Embryonic Stem Cell Lines Derived from Human Blastocysts*, 282 SCI. 1145, 1145 (1998).

40. *Id.*

41. C.H. Waddington, the father of epigenetics and a key player in the development of systems biology) coined the famous Waddington Epigenetic Landscape, where the differentiating fate of cells is compared to marbles rolling down a hill. As the marble rolls, it chooses a specific path until it comes to a stop, at which point it cannot roll upwards anymore. Another way to explain the Waddington landscape is to imagine skiing downhill, and how at each bifurcation a skier makes a decision of where to go. Once at the bottom of the hill, it is very difficult to go back uphill and choose a different path, unless the skier uses a ski-lift or chair. Similarly as cells differentiate, the gene expression pattern dictates which path the cells take and with each decision, going back to a previous state becomes very difficult. As cells differentiate they reach a critical point of no return, that is, they commit to a specific lineage or cell type. For example, with cardiomyocytes, once a specific transcription factor is turned on (Nkx2.5), the cell will either become a cardiomyocyte or die; there is no more turning back. Scientists believed this to be true until, more than half a century after the Waddington landscape was first published, Yamanaka discovered the “ski-lift” that cells could use to go back to the top of the hill. For further explanation of the Waddington landscape, see Aaron D. Goldberg et al., *Epigenetics: A Landscape Takes Shape*, 128 CELL 635, 635 (2007).

2006 Shinya Yamanaka's lab in Kyoto, Japan showed that a differentiated mouse cell could be reprogrammed back to a pluripotent state by overexpressing (through transgenes⁴²) four key pluripotency genes in the cell.⁴³ The Yamanaka team called these cells induced pluripotent stem cells ("iPS cells").⁴⁴ A year later, James Thomson's lab in Madison, Wisconsin showed that a similar procedure could be followed to reprogram differentiated human cells into iPS cells.⁴⁵ Yamanaka received the Nobel Prize for his work on induced pluripotent stem cells in 2012, as by this time, it was apparent that iPS cells held the potential to revolutionize regenerative medicine.⁴⁶

Subsequent research on iPS cells led to methods giving improved cellular derivation and differentiation.⁴⁷ Initially the four genes required for reprogramming were overexpressed in the differentiated cell through the integration of genetic cassettes (pre-determined sequences of DNA).⁴⁸ Retroviruses integrated these cassettes into the host genome.⁴⁹ This technique proved problematic, however. During differentiation, a cell silences pluripotency genes and activates organ-specific genes.⁵⁰ Failure to fully silence pluripotency genes during differentiation can result in cancer.⁵¹ Thus, in order for iPS cells to be useful therapeutically, reprogramming cassettes had to be removed from iPS cells shortly after

42. A transgene is a "gene that is taken from the genome of one organism and introduced into the genome of another organism by artificial techniques." Merriam-Webster Online Dictionary, <http://www.merriam-webster.com/dictionary/transgene> (last visited Mar. 12, 2015).

43. Kazutoshi Takahashi & Shinya Yamanaka, *Induction of Pluripotent Stem Cells from Mouse Embryonic and Adult Fibroblast Cultures by Defined Factors*, 126 CELL 663 (2006).

44. *Id.*

45. Junying Yu et al., *Induced Pluripotent Stem Cell Lines Derived from Human Somatic Cells*, 318 SCI. 1917 (2007).

46. Nobel Prize in Physiology or Medicine, 2012 Press Release, http://www.nobelprize.org/nobel_prizes/medicine/laureates/2012/press.html (last visited Feb. 12, 2015).

47. See Vimal Selvaraj et al., *Switching Cell Fate: the Remarkable Rise of iPS Cells and Lineage Reprogramming Technologies*, 28 TRENDS IN BIOTECHNOLOGY 214, 214 (2012).

48. *Id.*

49. Takahashi & Yamanaka, *supra* note 43, at 664–65.

50. Eneida Hoxha and Raj Kishore, *Induced Pluripotent Cells in Cardiovascular Biology: Epigenetics, Promises, and Challenges*, in 111 PROGRESS IN MOLECULAR BIOLOGY AND TRANSLATIONAL SCIENCE: GENETICS OF STEM CELLS 1–25, 5 (Y. Tang ed., 2012).

51. *Id.*

reprogramming.⁵² Scientists can now create patient-specific iPS cells from small amounts of peripheral blood. The pluripotency genetic cassettes used during reprogramming are removed shortly after de-differentiation is complete.⁵³ After the transgene is removed from the iPS cell, only a few residual DNA base pairs remain at the site of integration within the host DNA.⁵⁴

Like ES cells, iPS cells are pluripotent and have the ability to differentiate into any tissue type.⁵⁵ They are, however, superior to ES cells for use in regenerative therapy.⁵⁶ Patient-specific iPS cells share the same DNA identity with all other cells in the patient and are not prone to tissue rejection.⁵⁷ Furthermore, the use of iPS cells does not have the same type of ethical issues that the use of ES cells does, since no embryos are destroyed in the process of making iPS cells.⁵⁸

Unlike ES and iPS cells, multipotent stem cells have a much narrower differentiating potential.⁵⁹ Often referred to as adult stem cells, multipotent cells are partially differentiated cells that can only give rise to limited types of cells.⁶⁰ Hematopoietic stem cells, which give rise to different types of blood cells, are an example of a multipotent type of cell.⁶¹

B. DNA IDENTITY AND STEM CELLS

The central dogma of molecular biology is that DNA codes for mRNA that in turn codes for proteins.⁶² While this explanation of how DNA works is well accepted, in reality, biology is far more complex. Adult mammals contain hundreds of cell types distributed among their organs, each with identical DNA content. Studies suggest that much of the molecular basis of tissue-specific gene expression is rooted in the details of chromatin structure.⁶³ In addition to DNA, chromatin comprises proteins

52. Keisuke Okita et al., *Generation of Mouse Induced Pluripotent Stem Cells Without Viral Vectors*, 322 SCI. 949, 949 (2008).

53. See Selvaraj, *supra* note 47, at 217–19.

54. *Id.*

55. *Id.* at 216.

56. *Id.*

57. *Id.*

58. *Id.*

59. See Stem Cell Basics, *supra* note 29.

60. *Id.*

61. *Id.*

62. Francis Crick, *Central Dogma of Molecular Biology*, 227 NATURE 561 (1970).

63. See S. Eden et al., *DNA Methylation Models Histone Acetylation*, 394 NATURE 842 (1998); Patrick Trojer & Danny Reinberg, *Histone Lysine Demethylases and their Impact on Epigenetics*, 125 CELL 213 (2006).

that help the DNA retain its structural integrity while tightly packed within a cell's nucleus.⁶⁴

DNA has a very long length relative to the size of the nucleus in which it is located, and thus requires a complex packing mechanism.⁶⁵ Histone proteins provide a scaffold to guide and maintain the structural integrity of DNA, allowing it to fold and condense into chromatin.⁶⁶ In order for DNA to function, it needs to be accessible to other proteins within the cell. Thus, how tightly or loosely the DNA is folded within the histone scaffold directly determines how accessible it is to other proteins within the cell. Thus, functionally the chromatin status and the DNA sequence are critical to DNA expression. Conversely, epigenetic changes are chemical modifications of DNA or chromatin that do not involve DNA sequence alteration or deletion.⁶⁷

The epigenetics of pluripotent cells, including ES and iPS cells, are extremely complex. During differentiation, the epigenetic structure of the cell changes as genes are continuously silenced and activated. When a fully differentiated cell is reprogrammed back to pluripotency, it retains some epigenetic memory.⁶⁸ Thus, even though both ES and iPS cells are pluripotent, they possess distinct epigenetic structures. Furthermore, the epigenetic state of both of these types of cells is distinct from fully differentiated cells in the human body.

As explained here, gene expression is more complex than pure reliance on DNA sequence. Thus genetic identity and DNA sequence identity are distinct concepts. Reliance on DNA sequence identity alone as a test for determining the patentability of inventions is a gross oversimplification and an inaccurate interpretation of molecular biology. As interpretation of scientific elements is a key aspect of patent law, how the underlying science is defined by courts has important implications on how patent subject matter eligibility is determined. The following section highlights

64. Steven Henikoff and M. Mitchell Smith, *Histone Variants and Epigenetics*, 7 COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY 1 (2015).

65. *Id.*

66. Karolin Luger et al., *Crystal Structure of the Nucleosome Core Particle at 2.8 Å Resolution*, 389 NATURE 251, 251 (1997).

67. Myriam Hemberger et al., *Epigenetic Dynamics of Stem Cells and Cell Lineage Commitment: Digging Waddington's Canal*, 10 NATURE REV. MOLECULAR CELL BIOLOGY 526, 526 (2009); Robert J. Klose & Adrian P. Bird, *Genomic DNA Methylation: the Mark and its Mediators*, 31 TRENDS IN BIOCHEMICAL SCIS. 89, 89 (2006).

68. K. Kim et al., *Epigenetic Memory in Induced Pluripotent Stem Cells*, 467 NATURE 285 (2010).

the evolution of subject matter eligibility in U.S. patent law and the Court's reliance on scientific interpretation to determine what constitutes patentable subject matter.

II. U.S. PATENT LAW AND THE EVOLUTION OF SUBJECT MATTER PATENT ELIGIBILITY

The statutory language of 35 U.S.C. § 101⁶⁹ has remained largely unchanged since the Patent Act of 1952.⁷⁰ In the 1952 Act, Congress intended § 101 to be interpreted broadly and inclusively⁷¹ and fifty years later chose not to change § 101 when the America Invents Act was enacted.⁷² Historically, the courts have largely defined the boundaries of patentable subject matter.⁷³

The current patentability restrictions affecting biotechnology—lack of patentability for “products of nature” or processes that fall under “laws of nature”—date back to the Supreme Court's 1853 decision *Le Roy v. Tatham*, which established that a scientific principle cannot be patented.⁷⁴ The Court in *Le Roy*, however, introduced an exception to this rule, reiterated a year later in *O'Reilly v. Morse*,⁷⁵ that while scientific principles are not patentable, practical applications of such principles are.⁷⁶ Three Patent Acts⁷⁷ and 160 years have passed since these two decisions, science

69. 35 U.S.C. § 101 (2012) (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”).

70. Compare to the statutory language of *id.* (“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”).

71. *Diamond v. Chakrabarty*, 447 U.S. 303, 315–16 (1980).

72. See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 443–47 (2012) (reviewing the America Invents Act's passage through Congress).

73. See, e.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

74. 55 U.S. 156, 174–75 (1853).

75. See *O'Reilly v. Morse*, 56 U.S. 62, 117 (1853) (reasoning that the patentee was entitled to a patent on a specific application of electromagnetism, but that electromagnetic current itself was not patentable subject matter).

76. *Le Roy*, 55 U.S. at 175.

77. Patent Act of 1922, 42 Stat. 392 (1922); Patent Act of 1952, 66 Stat. 797 (1952); and the Leahy-Smith America Invents Act, 125 Stat. 284 (2011). The obviousness requirement (now 35 U.S.C. § 103 (2012)) was not codified until the Patent Act of 1952. Cases preceding the 1952 Act do not always clearly distinguish between subject matter analysis and the obviousness test.

and medicine have changed dramatically, but the rules stated in *Le Roy* and *Morse* continue to guide the determination of patentability in the twenty-first century.

A. THE EVOLUTION OF THE “LAWS OF NATURE” DOCTRINE

Before *Mayo*, the “laws of nature” doctrine was shaped through cases concerning algorithms (including computer-implemented algorithms), and business-method patents. In *Gottschalk v. Benson*, the Court concluded that an algorithm for converting binary-coded decimal numbers into pure binary numbers was not patentable subject matter.⁷⁸ The *Benson* Court concluded that the algorithm was an abstract idea⁷⁹ and that mere implementation of the algorithm on a digital computer was not enough to make it a patentable invention.⁸⁰ A few years later in *Parker v. Flook*, the Court decided that another computer implementation of an algorithm was not patentable, since once the algorithm was assumed to be in the prior art, the rest of the system was anticipated.⁸¹

As the world of technology rapidly evolved in the late 1970s and early 1980s, so did the Court’s attitude toward patents generally, and software patents specifically. Only three years after *Flook*, the Court used the same analysis in *Flook* to hold that the algorithm claimed in *Diamond v. Diehr* was patentable subject matter.⁸² Following *Diehr*, and the expansion of technology and its applications in all sectors of life, there was a drastic increase in business and other algorithm-based patents.⁸³ The Federal Circuit addressed algorithm-based patents again in *In re Bilski*, when it introduced the machine-or-transformation test.⁸⁴ Under this test, an abstract idea was patentable only if it (i) was tied to a particular machine; or (ii) resulted in transformation of an article from one state to another.⁸⁵ The Federal Circuit concluded that the claims in *Bilski* did not fall under either category and rejected them.⁸⁶ The Supreme Court affirmed the Federal

78. 409 U.S. 63, 71–73 (1972).

79. *Id.*

80. *Id.*

81. 437 U.S. 584, 590 (1978).

82. 450 U.S. 175, 188–92 (1981).

83. *See, e.g., State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

84. *In re Bilski*, 545 F.3d 943, 964 (Fed. Cir. 2008).

85. *Id.*

86. *Id.*

Circuit's decision, but rejected the analytical analysis under the machine-or-transformation test used by the Federal Circuit.⁸⁷

In over 150 years since *Le Roy* and *Morse*, the Supreme Court had built a judicial exception to patentability by relying on the definition of algorithms and mathematical formulas as “laws of nature.” That exception changed in 2012 when the Court expanded its definition of “laws of nature” by applying the test to a method patent on therapeutic medical treatments, in *Mayo v. Prometheus*.⁸⁸ The challenged patents in *Mayo*⁸⁹ claimed methods for optimizing therapeutic efficacy for the treatment of a specific disorder, by

- (i) administering a drug;
- (ii) measuring the internal blood levels of the drug standardized by concentration divided by the number of red blood cells;
- and (iii) adjusting the dose of the drug based on the individual patient's blood drug concentration as measured in (ii).⁹⁰

The Supreme Court rejected these claims based on the premise that “laws of nature” are not patentable subject matter.⁹¹ The Court stated that the method claimed merely set forth laws of nature⁹² without adding any significant additional step.⁹³ According to the Court, each step, taken separately, referred to either a routine practice in the medical profession, or simply reminded medical personnel to consider relevant “natural laws” when treating a patient.⁹⁴ The court then added that even when taken together, the claimed steps do nothing more than tell doctors to gather data from which they may draw an inference in light of correlations that exist purely because of laws of nature.⁹⁵

87. *Bilski v. Kappos*, 561 U.S. 593, 603–04 (2010). For an analysis and explanation of the machine-or-transformation-test, see Stefania Fusco, *Is In re Bilski a Déjà Vu?*, 2009 STAN. TECH. L. REV. P1 (2009).

88. See Rebecca S. Eisenberg, *Prometheus Rebound: Diagnostics, Nature, and Mathematical Algorithms*, 122 YALE L.J. ONLINE 341, 342–43 (2013).

89. U.S. Patent No. 6,355,623 (filed Apr. 8, 1999); U.S. Patent No. 6,680,302 (filed Dec. 27, 2001).

90. Claim 1 of US 6,355,623 is representative of this treatment process.

91. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1305 (2012).

92. *Id.* at 1297.

93. *Id.* at 1297–98.

94. *Id.* at 1297.

95. See *id.*

B. THE EVOLUTION OF THE “PRODUCTS OF NATURE” DOCTRINE

The “products of nature” doctrine has evolved through the Supreme Court’s struggle to incentivize innovation without monopolizing nature.⁹⁶ Some believe that products of nature are a common heritage of all humans, so no one should have exclusive rights to them. In *American Wood-Paper v. The Fibre Disintegrating Co.*, the Court stated that a pulp mixture for use in papermaking was not patentable subject matter.⁹⁷ Similarly in *Cochrane v. Badische Anilin & Soda Fabrik*, the Court concluded that a dye isolated from an herb was not patentable subject matter.⁹⁸ The “product of nature” doctrine first appears in *Ex Parte Latimer*.⁹⁹ In *Latimer* the patent in question was a fibrous material isolated from pine needles.¹⁰⁰ The patent was rejected because the fiber and its characteristics derived from the plant itself (*Pinus australis*) and were thus a product of nature.¹⁰¹

The upshot is that the three steps simply tell doctors to gather data from which they may draw an inference in light of the correlations. To put the matter more succinctly, the claims inform a relevant audience about certain laws of nature; any additional steps consist of well-understood, routine, conventional activity already engaged in by the scientific community; and those steps, when viewed as a whole, add nothing significant beyond the sum of their parts taken separately. For these reasons we believe that the steps are not sufficient to transform unpatentable natural correlations into patentable applications of those regularities.

Id. at 1297–99.

96. See *The Am. Wood-Paper Co. v. The Fibre Disintegrating Co.*, 90 U.S. 566, 596 (1874) (determining patentability of paper-pulp obtained from various vegetables); *Cochrane v. Badische Anilin & Soda Fabrik*, 111 U.S. 293, 311 (1884) (determining patentability of alizarine of madder, which was similar to that found in nature, but was made artificially for the first time). It is important to note that in both cases the patents were rejected on questions of novelty. Neither of the two early cases references a “product of nature” as unpatentable subject matter.

97. 90 U.S. at 596.

98. 111 U.S. at 311–13.

99. *Ex parte Latimer*, 1889 Dec. Comm’r Pat. 123 (1889).

100. *Id.* at 124–25.

101. See *id.* at 125–26:

Nature made them so and not the process by which they are taken from the leaf or the needle. It cannot be said that the applicant in this case has made any discovery, or is entitled to patent the idea, or fact, rather, that fiber can be found in the needle of the *Pinus australis* . . . that grow in the forest and the construction of the woody fiber and tissue of which they are composed is not a patentable invention, recognized by the statute, any more than to find a new gem or jewel in the earth

Judge Learned Hand, in one of the most referenced district court patent cases ever published, used a more flexible approach in determining whether isolated and concentrated adrenaline could be patented.¹⁰² The court in *Parke-Davis* decided that a product, isolated and concentrated from what was found in nature, was patentable subject matter.¹⁰³ Despite the decision in *Latimer*, the court concluded that there are no rules against patenting a product that is new both commercially and therapeutically.¹⁰⁴ The *Parke-Davis* decision has become common knowledge among patent law scholars, and it is frequently cited¹⁰⁵ and relied upon,¹⁰⁶ despite its friction with several other contemporary and subsequent decisions.

The “natural product” doctrine was fully endorsed by the Supreme Court in *Funk Brothers Seed v. Kalo Inoculant Co.*¹⁰⁷ The patent claimed a mixture of nitrogen-fixing bacteria that could be used to fertilize a wide

would entitle the discoverer to patent all gems which should be subsequently found. . . . Otherwise it would be possible for an element or a principle to be secured by patent, and the patentee would obtain the right, to the exclusion of all other men...the fiber which nature has produced and which nature has intended to be equally for the use of all men.

Id.

102. *Parke-Davis & Co v. H.K. Mulford Co.*, 189 F. 95, 97 (C.C.S.D.N.Y. 1911).

103. *Id.* at 103:

[E]ven if it were merely an extracted product without change, there is no rule that such products are not patentable. Takamine [the inventor] was the first to make it available for any use by removing it from the other gland-tissue in which it was found, and, while it is of course possible logically to call this a purification of the principle, it became for every practical purpose a new thing commercially and therapeutically. That was a good ground for a patent.

Id.

104. *Id.*

105. The *Parke-Davis* decision is included in several casebooks, hornbooks and treatises. See, e.g., ROBERT P. MERGES & JOHN F. DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 158 (2013); ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 139, 142 (2012). The decision even made it into the guidelines issued by the PTO on patentable subject matter. See *Utility Examination Guidelines*, 66 FED. REG. 1092, 1093 (2001) (“Patenting compositions or compounds isolated from nature follows well-established principles, and is not a new practice.”).

106. See *In re Merz*, 97 F.2d 599, 601 (C.C.P.A. 1938) (expanding on *Parke-Davis* by stating that the isolated product must be different “in kind,” not just in “degree,” from the substance that occurs in nature); see also *In re King*, 107 F.2d 618, 620 (C.C.P.A. 1939).

107. 333 U.S. 127 (1948).

array of plants.¹⁰⁸ The Court rejected the patent on the grounds that it claimed a property of natural phenomena.¹⁰⁹ The Court reasoned that both the nitrogen fixing abilities of the bacteria and the non-inhibitory effects against other nitrogen-fixing bacteria existed in nature.¹¹⁰ The Court reasoned that such abilities were “part of the storehouse of knowledge . . . free to all men and reserved exclusively to none.”¹¹¹ The Court in *Funk Brothers* was sensitive to patents that would preclude innovation and purely exploit inherent laws of nature.¹¹²

However, in *Chakrabarty*,¹¹³ the Court stated that a transgenic organism “had markedly different characteristics from any found in nature” and was a product of human ingenuity.¹¹⁴ The “markedly different characteristics from any found in nature” language has been adopted by the PTO in the Manual of Patent Examining Procedure (“MPEP”) guidelines and remains a staple in § 101 patentability analysis today.¹¹⁵

The Supreme Court revisited what it means to have “markedly different characteristics” thirty years after *Chakrabarty* in *Association for Molecular Pathology v. Myriad*.¹¹⁶ In *Myriad*, the Court stated that isolated DNA was not patentable.¹¹⁷ The bacterium in *Chakrabarty* was non-naturally occurring and a product of human ingenuity.¹¹⁸ *Myriad*, on the other hand, the Court stated, had not made anything by merely isolating

108. *Id.* at 128. The mixture was an important advancement in agricultural biology and commercially successful since it was the first time that scientists had succeeded in creating a mixture of oxygen fixing bacteria that did not inhibit each other’s growth.

109. *Id.* at 130.

110. *Id.*

111. *Id.* at 130.

112. It is important to note that *Le Roy*, *Morse* and *Funk Brothers* were adjudicated before Congress included a non-obviousness provision in the Patent Act of 1952. The “synergy test” derived from *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152 (1950), required that patents claiming a combination of known elements must have unusual characteristics whereby the whole exceeds the sum of its parts. Subject matter patentability and non-obviousness are separate requirements of patentability encoded in separate sections of the America Invents Act. That was not the case when the *Funk Brothers* decision was made.

113. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

114. *Id.*

115. *See* MPEP § 2106.01 (9th ed., Mar. 2014) (“Composition of matter—all compositions of two or more substances and all composite articles, whether they be the results of chemical union, or of mechanical mixture, or whether they be gases, fluids, powders or solids, for example. *Chakrabarty*, 447 U.S. at 308.”).

116. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

117. *Id.* at 2111.

118. 447 U.S. at 309.

the DNA.¹¹⁹ However, the Court found cDNA to be patentable subject matter as it was different from the native DNA found in nature.¹²⁰ *Myriad* makes clear (and possibly silently overturns *Parke-Davis*)¹²¹ that mere isolation is not enough to render a composition of matter patent eligible.¹²² The Court in *Myriad* relied on chemical differences between native DNA and cDNA to allow for the patentability of cDNA.¹²³

As anticipated, *Myriad* was quickly applied outside the field of nucleic acid sequences. The Federal Circuit, in a recent ruling, denied a patent to the Roslin Research Institute for Dolly, the first mammal to be cloned through nuclear transfer.¹²⁴

C. *IN RE ROSLIN INSTITUTE*

1. *Procedural History*

Dr. Keith H.S. Campbell and Sir Ian Wilmut were the first scientists to clone a mammal, Dolly the sheep, from an adult somatic cell.¹²⁵ In doing so, they proved that a fully differentiated nucleus could be reprogrammed,¹²⁶ and influenced research that gave rise to the first induced pluripotent stem cells a decade later.¹²⁷ As explained earlier, almost all cells in the human body share the same DNA sequence.¹²⁸ Different portions of the DNA are expressed and silenced in different cells, which results in different cells having different identities.¹²⁹ The process to create Dolly involved three main steps: (i) inserting a nucleus of a quiescent differentiated cell into an oocyte, (ii) culturing the reconstructed embryo, and (iii) isolating and culturing the inner cell mass cells obtained from the culture in step (ii).¹³⁰ Because of this process, Dolly shared the same nuclear DNA with her somatic cell donor and the same mitochondrial DNA with her oocyte donor.

119. 133 S. Ct. at 2111.

120. *Id.* at 2119–2120.

121. *United States v. Parke, Davis & Co.*, 362 U.S. 29 (1960).

122. 133 S. Ct. at 2111.

123. *Id.* at 2119–20.

124. *In re Roslin Inst.*, 750 F.3d 1333, 1336 (Fed. Cir. 2014).

125. K. H. Campbell et al., *Sheep Cloned by Nuclear Transfer from a Cultured Cell Line*, 380 NATURE 64 (1996).

126. K. Takahashi et al., *Induction of Pluripotent Stem Cells From Adult Human Fibroblasts by Defined Factors*, 131 CELL 861, 861 (2007).

127. *Id.* at 869–71.

128. *See supra* Part I.

129. *Id.*

130. U.S. Patent No. 7,514,258 Claim 1 (filed Nov. 3, 2005).

The Roslin Institute filed for patents on both the cloning method used to create Dolly, and the cloned animal itself,¹³¹ which the Examiner rejected¹³² as non-patentable subject matter under 35 U.S.C. § 101, and as anticipated and obvious under §§ 102 and 103.¹³³ The Roslin Institute filed an appeal brief before the Board of Patent Appeals and Interferences (“BPAI”) in September 2009.¹³⁴ The Board affirmed the Examiner’s rejections determining that the claims in question were not patentable subject matter as delineated by § 101.¹³⁵ The Board further affirmed the Examiner’s rejections under §§ 102 and 103, stating that the claims were anticipated and obvious from prior art clones produced from embryonic mammals.¹³⁶ Following the rejection by the Board, the Roslin Institute appealed the decision to the Federal Circuit.

2. Federal Circuit Decision

The Federal Circuit affirmed the Board’s decision, stating that the claims in question in the patent application are not patentable subject matter.¹³⁷ In affirming the decision the court explained that even before the Supreme Court’s decision in *Myriad*,¹³⁸ the Court’s opinions in *Chakrabarty*¹³⁹ and *Funk Brothers*¹⁴⁰ made clear that naturally occurring

131. A patent for the invention was first filed in Great Britain in August 1995. G.B. Patent No. 9517780.4 (Aug. 31, 1995). Less than a year later PCT/GB96/02099 was filed, that claimed priority to the 80.4 patent. G.B. Patent No. 96/02099 (Aug. 30, 1996). A continuation on PCT/GB96/02099, application 08/802,282, was first filed in the U.S. in 1997 (“the `282 patent application”). U.S. Patent Application No. 08/802,282 (Feb. 19, 1997). The `282 patent application contained both method and composition claims. *Id.* Application 09/225,233 (1999) was filed as divisional application of 08/802,282 with compositions claims. U.S. Patent Application No. 09/225,233 (Jan. 4, 1999). The method claims describing the nuclear transfer process were granted by the PTO and are not in dispute. U.S. Patent No. 6147276A.

132. Notice of Non-Final Rejection, Nov. 10, 2008. More specifically, the claims rejected are 155–159 and 164, of which claims 155 and 164 are representative:

155. A live-born clone of a pre-existing, non-embryonic, donor mammal, wherein the mammal is selected from cattle, sheep, pigs, and goats.

164. The clone of any of claims 155–159, wherein the donor mammal is non-foetal.

133. *Id.* at 6, 13, 18.

134. *In re Roslin Inst.*, 750 F.3d 1333, 1333 (Fed. Cir. 2014).

135. *Ex parte Roslin Inst.*, No. 2010-006828, 20 (B.P.A.I. Feb. 7, 2013).

136. *Id.* at 22–23.

137. *Roslin*, 750 F.3d at 1334.

138. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

139. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

140. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948).

organisms are not patentable.¹⁴¹ The Federal Circuit relied substantially on all three opinions in rejecting the claims at issue as ineligible patentable subject matter.

On appeal, the Roslin Institute argued that unlike other sheep, Dolly is eligible for protection as it is a product of human ingenuity and not nature's handiwork.¹⁴² The court rejected this proposition under *Chakrabarty*, as "Dolly herself is an exact genetic replica of another sheep and does not possess 'markedly different characteristics from any [farm animals] found in nature."¹⁴³ Relying on *Myriad*, the court further noted that the Roslin Institute did not create or alter the genetic structure used to make the clones, and that such a copy of the genetic material is not eligible for patent protection.¹⁴⁴ However, the court also stated that "having the same nuclear DNA as the donor mammal may not necessarily result in patent ineligibility in every case. Here, however, the claims do not describe clones that have markedly different characteristics from the donor animals of which they are copies."¹⁴⁵

Roslin further argued that the clones were patent eligible because they were distinguishable from the donor mammals in at least two ways: (i) environmental factors led to phenotypic differences between the animals, and (ii) the nuclear DNA belonged to the donor somatic cell but the mitochondrial DNA belonged to the oocyte, leading to differences in DNA between the clone and the somatic cell donor.¹⁴⁶ The Federal Circuit rejected both these arguments, noting that neither the phenotypic differences nor the mitochondrial DNA differences were claimed in the '233 patent application.¹⁴⁷ The court further noted that any phenotypic differences between the cloned animal and the donor are the result of environmental factors and came about independently of the invention.¹⁴⁸ Relying on *Funk Brothers* and *Chakrabarty*, the court elaborated that "any phenotypic differences came about or were produced 'quite independently of any effort of the patentee.'"¹⁴⁹ The court reasoned that when "qualities

141. *Roslin*, 750 F.3d 1333, 1336 (Fed. Cir. 2014).

142. *Id.* at 1337.

143. *Id.* (quoting *Chakrabarty*, 447 U.S. at 310).

144. *Id.*

145. *Id.* at 1339.

146. *Id.* at 1338.

147. *Id.*

148. *Id.*

149. *Id.* (quoting *Funk Bros.*, 333 U.S. at 131).

are the work of nature . . . [t]hose qualities are of course not patentable.”¹⁵⁰ The court further rejected Roslin’s arguments regarding differences resulting from mitochondrial DNA,¹⁵¹ as such differences were not initially claimed, and the patentee did not initially explain how the mitochondrial DNA could influence the characteristics of the cloned mammal.¹⁵²

In regard to Roslin’s argument that the clones are patent eligible because they are time-delayed versions of their donor mammals, the court stated that such a distinction cannot confer patentability.¹⁵³ Any copy of an original is a time-delayed version of the original.¹⁵⁴ Because the court rejected all pending claims on subject matter ineligibility, it did not evaluate the novelty or obviousness rejections issued by the Board.

3. *The Scientific and Legal Inconsistencies in Roslin*

Roslin did not just apply *Myriad*; it took the reasoning much further by using identity to DNA as a test to measure whether a claimed product falls under the “product of nature” eligibility exemption.¹⁵⁵ By using this test, the *Roslin* court determined that a product—a cloned animal—that would not exist if not for human intervention was a product of nature. Besides the logical inconsistency of determining that something that could never exist in nature—such as a cloned mammal—is a product of nature, the *Roslin* decision contains multiple scientific flaws. As explained in Part II of this Note,¹⁵⁶ DNA sequence is only one component of genetic identity. By using DNA sequence identity as a test to measure identity between a product found in nature and one created in the lab, the Federal Circuit grossly simplified the molecular biology at hand and failed to recognize the elements in Dolly that are a direct result of human intervention. These elements were as much a product of human ingenuity in 1996 as the transgene used in *Chakrabarty* was in 1980. Furthermore, even if we consider DNA sequence identity as the proper test, Dolly differed from its nuclear donor as it included a different sequence of mitochondrial DNA. Similarly to the transgene in *Chakrabarty*, the mitochondrial DNA was present in Dolly as a direct result of human intervention through cloning.

150. *Id.* (quoting *Diamond v Chakrabarty*, 447 U.S. 303, 310 (1980)).

151. *Id.*

152. *Id.*

153. *Id.* at 1339.

154. *Id.* (citing *Ex parte Roslin Inst.*, No. 2010-006828, 20 (B.P.A.I. Feb. 7, 2013)).

155. *See id.* at 1338–39.

156. *See supra* Part II.

Scientists have known about the presence of DNA in mitochondria for more than half a century,¹⁵⁷ and the presence of mitochondrial DNA in Dolly, distinct from that of its nuclear donor, would have been obvious to a person of ordinary skill in the art. The Federal Circuit rejected the presence of mitochondrial DNA as a characteristic that made Dolly distinct from a product of nature, because such a difference was not claimed.

The Federal Circuit rejected arguments that highlighted the differences between a cloned animal and an animal found in the wild, by noting that the genetic and phenotypic differences were not claimed in the patent application.¹⁵⁸ This is a rather interesting argument, since it is not within the purpose of the claim as traditionally interpreted by the courts, to define differences between elements of the claim outside of what is required during prosecution.¹⁵⁹ Courts interpret the claim as written, and assume that “[t]he patentee seeks the broadest claim he can get.”¹⁶⁰ So it is the claim that defines the boundaries, and the written description cannot broaden the reach of what is claimed.¹⁶¹ Thus the claim as written would determine the broadest possible reach of the claim, including the method limitation. Elements of the claim cannot be broadened by the specifications. A product claim is still valid and infringed if the same product or composition is made through a different method. It is a long-standing interpretation of United States courts that claims define the boundaries of an invention, not describe it.¹⁶² “Claims define and circumscribe,” whereas the “written description discloses and teaches.”¹⁶³ In *Ariad*, the court stated that the principal function of a claim is to “provide notice of the boundaries of the right to exclude and to define

157. Mitochondrial DNA was first described in 1963, less than ten years after the structure of DNA had been published. Margit M. K. Nass & Sylvan Nass, *Intramitochondrial fibers with DNA characteristics*, 19 J. CELL BIOLOGY 593 (1963).

158. *Roslin*, 750 F.3d at 1338.

159. See *Ex parte Sinai-Zingde*, No. 94-0377, 1995 WL 1747988 (B.P.A.I. July 31, 1995), (stating that “it is not the purpose of the claims to include every detail of an applicant's invention. That function is left to the specification.”). But see *In re Johnson*, 558 F.2d 1008 (C.C.P.A. 1977) (stating that “[c]laim language must be read in light of the specification as it would be interpreted by one of ordinary skill in the art”).

160. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1054 (Fed. Cir. 1988).

161. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996); see also *McClain v. Ortmyer*, 141 U.S. 419, 424 (1891) (“The claim is the measure of his right to relief, and, while the specification may be referred to limit the claim, it can never be made available to expand it.”).

162. See, e.g., *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336 (Fed. Cir. 2010).

163. *Id.* at 1334.

limits; it is not to describe the invention.”¹⁶⁴ Support for a composition claim does not need to provide any additional methods of making the composition. The Federal Circuit has stated that a “patentee need only describe the invention as claimed, and need not describe an unclaimed method of making the claimed product;” thus, a court “cannot invalidate a patent for failure to describe a method of producing the claimed compositions that is not itself claimed.”¹⁶⁵ In fact, in *Amgen*, the court determined that a composition claim for an erythropoietin (“EPO”) was valid and infringed, regardless of differences in the method used to produce the infringing EPO.¹⁶⁶ The general interpretation by the courts is that an old product is not patentable even if made by a new method.

Thus, by rejecting epigenetic, genetic, and phenotypic differences that made Dolly distinct from the sheep that served as the nuclear donor, the Federal Circuit rejected well-established scientific principles of molecular biology, and legal principles of the degree of information required to be claimed in a patent.

D. NEW PTO GUIDELINES POST-*ROSLIN*

On December 16, 2014, the PTO announced its interim guidance on subject matter eligibility.¹⁶⁷ The December guidelines included more detail and expanded guidance on examination procedures after the decision in *Alice Corp. v. CLS Bank*.¹⁶⁸ In addition, the guidelines addressed and clarified several issues based on some of the concerns that practitioners had expressed over the *Myriad–Mayo* guidelines released in March.¹⁶⁹ Specifically, the PTO noted that the analysis outlined in the interim guidance differed from the *Myriad–Mayo* guidance in several ways.¹⁷⁰ The

164. *Id.*

165. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1332 (Fed. Cir. 2003).

166. *Id.* at 1358.

167. USPTO DECEMBER 2014 GUIDANCE, *supra* note 24.

168. The USPTO released preliminary examination instructions regarding *Alice Corp. v. CLS Bank International* in June 2014. USPTO, PRELIMINARY EXAMINATION INSTRUCTIONS IN VIEW OF THE SUPREME COURT DECISION IN *ALICE CORPORATION PTY. LTD. V. CLS BANK INTERNATIONAL, ET AL.* (June 25, 2014). <http://www.uspto.gov/patent/patents-announcements/preliminary-examination-instructions-determining-subject-matter> (last accessed Feb. 12, 2015).

169. USPTO MARCH 2014 GUIDANCE, *supra* note 25.

170. The PTO stated that the December 2014 interim guidance differed from the *Myriad/Mayo* March 2014 guidelines in several ways. Note, for example, the test for determining whether a claim is directed to a “product of nature” exception is separated from the analysis of whether the claim includes significantly more than the exception.

office also notes that the interim guide “offers a comprehensive view of subject matter eligibility in line with *Alice Corp, Myriad, Mayo*, and the related body of case law,” and “promotes examination efficiency and consistency across all technologies.”¹⁷¹

According to the interim guidance, examiners will use a two-step analysis to determine subject matter eligibility.¹⁷² The first step is determining whether the claimed invention falls within the statutory requirements for subject matter patentability (i.e., process, machine, manufacture or composition of matter).¹⁷³ The second step involves determining whether the claim is directed at a judicially determined exception to patentability¹⁷⁴ (i.e., laws of nature, products of nature) and whether “any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to significantly more than the judicial exception.”¹⁷⁵ However, the December guidelines also note that they differ from the prior *Myriad–Mayo* guidelines because “changes in functional characteristics and other non-structural properties can evidence markedly different characteristics, whereas in the [*Myriad–Mayo* guidance] only structural changes were sufficient to show a marked difference.”¹⁷⁶ The guidelines further note that “[m]arkedly different characteristics can be expressed as the product’s structure, function, and/or other properties,” noting that “even a small change can result in markedly different characteristics from the product’s naturally occurring counterpart.”¹⁷⁷ Thus, based on the new guidelines,¹⁷⁸ if a claim includes a nature-based

Also, the application of the overall analysis is based on claims directed to judicial exceptions (defined as claims reciting the exception, i.e., set forth or described), rather than claims merely “involving” an exception. For instance, process claims that merely use a nature-based product are not necessarily subject to an analysis for markedly different characteristics. Additionally, the markedly different analysis focuses on characteristics that can include a product’s structure, function, and/or other properties as compared to its naturally occurring counterpart in its natural state. *See generally* USPTO DECEMBER 2014 GUIDANCE, *supra* note 24.

171. *Id.* at 74619–20.

172. *Id.* at 74621–22; *see also* MPEP § 2106 (9th ed., Mar. 2014).

173. *Id.* at 74622.

174. The guidelines clarify that “[l]aws of nature and natural phenomena, as identified by the courts include naturally occurring principles/substances and substances that do not have markedly different characteristics compared to what occurs in nature.” *Id.* at 74622.

175. *Id.* at 74624.

176. *Id.* at 74623, n.27.

177. *Id.* at 74623.

178. *See id.*

product that has markedly different characteristics, the claim would be eligible for patentability. In giving examples of what the courts have determined to constitute markedly different characteristics, the guidelines explain that biological, pharmacological, physical, genetic, and chemical differences in structure, form or function could be construed as providing markedly different characteristics.¹⁷⁹ However, the guidelines point out that differences that resulted independently of any effort or influence by the applicant cannot be construed as markedly different.¹⁸⁰

The new guidelines on their face seem more clear and lenient to the patentability of products of nature than the March guidelines. However, interpreting what construes a marked difference is still very challenging, especially after *Roslin*, which indicates that the differences that resulted independently of the effort or influence by the applicant cannot be patented. Showing that differences resulted directly because of the effort of the applicant, requires that the scientists not only know the end result they are trying to achieve, but also the molecular and genetic details that result in the process, at the time of patent application. In a field where the cost of research and development is already very high, it is unclear how much additional claiming and “scientifically unnecessary experimentation” inventors need to do in order to show “markedly different” characteristics so as to procure a patent.

In accordance with this analysis, a product that is purified or isolated, for example, will be eligible when there is a resultant change in characteristics sufficient to show a marked difference from the product's naturally occurring counterpart. If the claim recites a nature-based product limitation that does not exhibit markedly different characteristics, the claim is directed to a “product of nature” exception (a law of nature or naturally occurring phenomenon), and the claim will require further analysis to determine eligibility based on whether additional elements add significantly more to the exception.

Id.

179. *See id.* at 74623 (enumerating examples of what constitutes a markedly different characteristic: biological or pharmacological functions or activities (citing *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, *Diamond v. Chakrabarty*, *In re King*, and *Myriad*); chemical and physical properties (citing *Parke-Davis & Co. v. H.K. Mulford Co.* and *Funk Bros.*); phenotype, including functional and structural characteristics (citing *In re Roslin Inst.*); and structure and form, whether chemical, genetic or physical (citing *Chakrabarty*, *Parke-Davis*, and *Myriad*)). For examples of the analysis on nature-based products, see USPTO, NATURE-BASED PRODUCTS, http://www.uspto.gov/patents/law/exam/mdc_examples_nature-based_products.pdf (last visited Dec. 18, 2014).

180. USPTO DECEMBER 2014 GUIDANCE, *supra* note 24, at 74623–24.

III. DETERMINING THE CURRENT STATE OF PATENTABILITY OF STEM CELLS

Subject matter patentability is the first hurdle to obtain a patent. As such, any test for patentable subject matter should be viewed as an act of promoting the progress of science¹⁸¹ by balancing the need to incentivize innovation on the one hand, and retain an open reservoir of ideas and scientific tools that other scientists can benefit from on the other hand. While fears that patents will slow down research are common,¹⁸² patent holders rarely enforce their patents against academic research labs.¹⁸³

As noted in Part I, the biggest challenges faced in modern medicine require fast and personalized diagnostics, treatments, and therapies that mimic natural processes or cells in the human body. Following *Mayo* and *Myriad*, patenting these processes and compositions will be more difficult, and these patents will be more challenging to defend.

A. COMPOUND/COMPOSITION CLAIMS

1. *Embryonic Stem Cells and Adult Stem Cells*

Despite their utility and scientific importance, embryonic stem cell patents have been scrutinized since their early years. In 1998, James Thomson became the first scientist to successfully isolate and maintain human embryonic stem cells (“hESCs”).¹⁸⁴ The invention encompassed three key features: (i) the process for isolating embryonic stem cells, (ii) the embryonic stem cells isolated, and (iii) the process of maintaining these pluripotent cells.¹⁸⁵ The key features of this invention¹⁸⁶ were covered in three foundational U.S. patents for his work (the “WARF patents”) assigned to the Wisconsin Alumni Research Foundation (“WARF”) and its subsidiary WiCell Research Institute (“WiCell”).¹⁸⁷ Some of these

181. U.S. CONST. art. I, § 8, cl. 8.

182. Dan L. Burk, *The Problem of Process in Biotechnology*, 43 HOUS. L. REV. 561, 564–565 (2006).

183. For example, despite its aggressive assertion of patent rights in the market place, *Myriad* did not assert any of its patents against academic labs, as evidenced by over 10,000 publications on PubMed on research using isolated BRCA DNA. See Christopher M. Holman, *Trends in Human Gene Patent Litigation*, 322 SCI. 198 (2008).

184. James A. Thomson et al., *Embryonic Stem Cell Lines Derived from Human Blastocysts*, 282 SCI. 1145 (1998).

185. *Id.*

186. *Id.*

187. U.S. Patent No. 5,843,780 (filed Jan. 18, 1996); U.S. Patent No. 6,200,806 (filed June 26, 1998); U.S. Patent No. 7,029,913 (filed Oct. 18, 2001).

patents are currently licensed to Cellular Dynamics International.¹⁸⁸ The WARF patents have gone through exceptional scrutiny at the PTO, and have received several re-examination requests.¹⁸⁹ Many of the initial claims have been invalidated as anticipated or obvious.¹⁹⁰ However, some of the original claims still stand.¹⁹¹ Following the *Myriad* decision, Consumers Watchdog filed an appeal to the Patent Board's decision, in which it asked the court to invalidate the remaining WARF patents on hESCs.¹⁹² Consumer Watchdog claims that hESCs are products of nature since they are "not markedly different from naturally occurring hESCs."¹⁹³ However, other scholars have argued that isolated stem cells are different from those naturally found in a day four embryo due to the process and human directed environment in which they are maintained.¹⁹⁴ Thus, several

188. Cellular Dynamics International ("CDI") is the leading biotechnology company in the development of cells and tissue through stem cell technologies. CDI's current products have revolutionized how drugs are tested. CDI is currently collaborating with CERM to produce and market patient-specific stem cells. *See Cellular Dynamics: Cells to Order*, LIFE SCIS. INTELLECTUAL PROP. REV. (Jan. 13, 2014), <http://www.lifesciencesipreview.com/article/cells-to-order>; *see also* Cellular Dynamics International, Inc. Patent Applications, PATENTDOCS (Nov. 27, 2014), <http://www.faqs.org/patents/assignee/cellular-dynamics-international-inc/>; *Cellular Dynamics International In-Licenses Key Patent Portfolio for Using Stem Cell-Derived Cells in Drug Testing*, CELLULAR DYNAMICS INT'L (July 15, 2009), http://www.cellulardynamics.com/news/pr/2009_07_15.html. In March 2015 it was announced that Fujifilm Holdings will acquire CDI via an all-cash tender offer to be followed by a second-step merger. *See Fujifilm Holdings to Acquire Cellular Dynamics International, Inc.*, CELLULAR DYNAMICS INT'L (Mar. 30, 2015), <http://investors.cellulardynamics.com/releasedetail.cfm?ReleaseID=903900>; (PMZN) *Fujifilm Holdings to Acquire Cellular Dynamics International, Inc.*, WALL STREET JOURNAL (Mar. 30, 2015), <http://www.wsj.com/articles/PR-CO-20150330-903128>.

189. *See* John M. Golden, *WARF stem cell patents and tensions between public and private sector approaches to research*, 38 J.L. MED. & ETHICS 314, 315-16 (2010).

190. *See* Action Closing Prosecution from *Inter Partes*, Reexamination No. 95/000,154; *Ex Parte* Reexamination, Reexamination No. 90/008,139; *Ex Parte* Reexamination, Reexamination No. 90/008,102; *Found. for Taxpayer & Consumer Rights v. Wisconsin Alumni Research Found.*, No. 2010-001854, 2010 Pat. App. LEXIS 15017 (B.P.A.I. Apr. 28, 2010).

191. *See, e.g.*, U.S. Patent No. 5,843,780 Claim 1 (filed Jan. 18, 1996).

192. *Consumer Watchdog v. Wisconsin Alumni Research Found.*, 753 F.3d 1258 (Fed. Cir. 2013).

193. Ari Haque, *Human Embryonic Stem Cell Patent Challenged*, CONSUMER WATCHDOG (July 8, 2013), <http://www.consumerwatchdog.org/story/human-embryonic-stem-cell-patent-challenged>.

194. Due to their nature, stem cells have an inherent tendency to differentiate rather than remain pluripotent. Differentiation and tissue development occur as a cascade of events that is very hard to curtail and control, since it is not fully understood. Thus, the factors used in stem cell culture result isolated ESCs with slightly different epigenetic

arguments could be made that these cells are different from native embryonic stem cells, despite *Myriad's* holding. Their expressed protein profile is slightly different, their epigenetic status is different and ultimately, their functionality is different. These characteristics would have allowed patentability under *Parke-Davis*¹⁹⁵ and are a product of human ingenuity.¹⁹⁶ It is not clear if the “human ingenuity” involved in isolating stem cells is the same type the court in *Chakrabarty* found to be a key step toward patentability.¹⁹⁷

However, none of these arguments are persuasive in light of *Roslin*. In *Roslin* the Federal Circuit stated that since the DNA identity between Dolly and its parental nuclear donor were the same; Dolly was a product of nature.¹⁹⁸ Isolated ES cells also share the same DNA identity with their parental donor. Furthermore, unlike Dolly, isolated embryonic stem cells share both the nuclear and mitochondrial DNA with their donor embryo. The Federal Circuit also rejected the argument that non-DNA differences could be enough to confer patentability.¹⁹⁹ However, the decision to dismiss epigenetic differences relied on such differences not being claimed in the original patent.²⁰⁰ Such differences are also not claimed in the WARF patents either,²⁰¹ and would thus be rejected under *Roslin*. Furthermore, any arguments that rely on the premise that ESCs are time-delayed versions of the original embryo they were derived from, would be unpersuasive, since the Federal Circuit considered and rejected the same

imprint and protein expression profiles than cells at day four of embryonic development have. ROBERT LANZA & ANTHONY ATALA, *ESSENTIALS OF STEM CELL BIOLOGY* 537 (2013).

195. *Parke-Davis & Co. v. H.K. Mulford Co.*, 189 F. 95, 103 (C.C.S.D.N.Y. 1911):

[E]ven if it were merely an extracted product without change, there is no rule that such products are not patentable. Takamine [the inventor] was the first to make it available for any use by removing it from the other gland-tissue in which it was found, and, while it is of course possible logically to call this a purification of the principle, it became for every practical purpose a new thing commercially and therapeutically. That was a good ground for a patent.

Id.

196. The isolation of human embryonic stem cells is considered a landmark in cell biology and is recognized by the scientific community as a highlight in modern cell and molecular biology. Frederic Golden, *Cellular Biology: Stem Winder*, *TIME* (Aug. 20, 2001), <http://content.time.com/time/magazine/article/0,9171,1000598,00.html>.

197. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

198. *In re Roslin Inst.*, 750 F.3d 1333, 1337 (Fed. Cir. 2014).

199. *Id.*

200. *Id.* at 1338.

201. *See, e.g.*, U.S. Patent No. 5,843,780.

argument in *Roslin*.²⁰² Thus, if the Federal Circuit follows the *Roslin* analysis to evaluate the remaining composition claims of the WARF patents, such claims would likely be found invalid as products of nature.

On the other end of the spectrum are adult derived stem cells. These cells would also be difficult to patent under *Myriad/Roslin*. Hematopoietic stem cells, ePS cells and other multipotent cells are isolated and purified from blood or tissue by using a distinct receptor.²⁰³ These cells share the same DNA with other cells found in the body. Differences in protein expression profiles or the epigenome between the isolated and native cells, are likely not to be persuasive in light of *Roslin* for the same reasons explained above.

2. Induced Pluripotent Stem Cells

Induced pluripotent stem cells (“iPSCs”) differ in one key aspect when it comes to patentability from ESCs and other adult derived stem cells. iPSCs are generated through transgenic expression of two to four key pluripotency genes. Thus, under *Chakrabarty*, claims to iPSCs should be valid.²⁰⁴

However, there is one important caveat to this analysis. Expression of these pluripotency genes is one of the major problems and limitations of iPSC therapy.²⁰⁵ The ability to differentiate into any cell type and divide indefinitely is both the blessing and the curse of iPSC therapy, because indefinite cell division and differentiation also result in cancer.²⁰⁶ Thus, it is important that the exogenous genetic cassettes are fully silenced or ideally fully excised from the resulting iPSCs genome, before they are transplanted into a patient.²⁰⁷ Labs (both academic and industrial) use methods that excise exogenous genetic cassettes from iPSCs after the cells have been de-differentiated into a pluripotent state. Thus, these cells do not pose a transgene post-differentiation and share the same sequence

202. *Roslin*, 750 F.3d at 1339.

203. Hematopoietic cells are isolated by using CD34/CD31 receptors. *See, e.g.,* Reema Jain and Daniel H.D. Gray, *UNIT 3.26 Isolation of Thymic Epithelial Cells and Analysis by Flow Cytometry*, 107 *CURRENT PROTOCOLS IN IMMUNOLOGY* 3.26 (2014); Masahiro Yoa et al., *Fucci-Guided Purification of Hematopoietic Stem Cells with High Repopulating Activity*, 457 *BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUN* 7 (2015).

204. *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980) (supporting a broad interpretation of the term “composition of matter”).

205. Hoxha & Kishore, *supra* note 50, at 5.

206. *Id.*

207. *Id.*

identity with the rest of the cells found in the patient they were derived from, with the exception (if any) of a very short sequence flanking the insertion site. For iPS cells that retain the short flanking sequence, it is unclear whether such a short sequence is enough to distinguish these cells from nature products.²⁰⁸ That is, it is unclear whether such an invention is more like that in *Chakrabarty* or *Roslin*. Furthermore, if scientists are able to fully excise the exogenous gene expression cassette, leaving a cell that shares complete DNA identity with other cells native to the patient, that cell then, under *Roslin*, would not be patentable. The question then becomes: Should a dozen base-pairs with obsolete functionality in the fully reprogrammed cell determine the fate of its patentability?

On the other hand, epigenetic differences between iPS cells and ESCs, or fully differentiated cells, are well accepted in the scientific community.²⁰⁹ Epigenetic differences were not discussed in *Myriad* and they were rejected in *Roslin* because they were not claimed in the original patent.²¹⁰ The question then remains whether epigenetic differences if claimed, would allow the patent to pass the subject matter eligibility hurdle. That in turn creates a lot of uncertainty of how much and what epigenetic changes need to be claimed, which would frustrate invention disclosure and prosecution practices.

B. METHOD CLAIMS UNDER *MAYO*

Stem cells used in diagnosis and therapies are a great example through which personalized medicine can help with the complex medical challenges described in Part I. The goal of personalized medicine is to optimize diagnosis and treatment by combining a person's genetic data with information about personal lifestyle, and correlating it to pre-determined expression outcomes.²¹¹ The utility of personalized medicine starts with prenatal genomics and continues through fetal development and throughout a person's life.²¹² The field relies largely on the expression of individual genes, biomarkers, and metabolites to determine diagnosis

208. See *In re Roslin Inst.*, 750 F.3d 1333, 1336 (Fed. Cir. 2014).

209. See, e.g., Kim et al., *supra* note 68 (describing epigenetic memory in iPS cells when compared to ES cells).

210. *Roslin*, 750 F.3d at 1337.

211. Diana W. Bianchi, *From Prenatal Genomic Diagnosis to Fetal Personalized Medicine: Progress and Challenges*, 18 NATURE MED. 1041, 1041 (2012); see also Muin J. Khoury et al., *The Scientific Foundation for Personal Genomics: Recommendations from a National Institutes of Health-Centers for Disease Control and Prevention Multidisciplinary Workshop*, 11 GENETIC MED. 559, 560-61 (2009).

212. Bianchi, *supra* note 211, at 1041.

and treatment regimens.²¹³ These correlations exist because the principles of molecular biology apply—the laws of nature.²¹⁴ Under *Mayo*, a claim to a diagnostic method that derives from rigorous scientific inquisition, but ultimately relies in the understanding and application of such laws of nature, will be more challenging to patent.²¹⁵ Similarly, claims to methods of adjusting treatment protocols by analyzing gene expression profiles will be challenged²¹⁶ during prosecution and litigation.

With the development of next generation sequencing and improvement of isolation and amplification protocols,²¹⁷ scientists and medical personnel can diagnose and treat a patient from information gathered from a very small amount of peripheral blood.²¹⁸ Medical professionals can diagnose problems by classifying patients based on the genetic expression imprint at any given point. That is, scientists can measure and classify expression levels of genes and diagnose a patient, even before the patient has shown any clinical signs or problems. Even though under *Myriad* cDNA can be patented,²¹⁹ it is unclear that under *Mayo*, methods that compare a patient's gene expression profile to a pre-determined dataset to diagnose disease would be patentable. The laws of nature control how and when genes are expressed. However, decoding such genes and recognizing patterns in expression profiles so as to best “apply” nature to cure disease, requires the same type of human ingenuity that the Court found sufficient to distinguish between “products of nature” and patentable subject matter in *Chakrabarty*.²²⁰

While *Mayo* will be challenging for method patents, *Myriad* will not be as challenging to overcome for composition claims. Despite the magnitude of concern that *Myriad* generated, the Supreme Court decision

213. *Id.*

214. Khoury, *supra* note 211.

215. *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297–98 (2012).

216. *See id.* at 1297 (“The relation is a consequence of the ways in which [drug] compounds are metabolized by the body—entirely natural processes. And so a patent that simply describes that relation sets forth a natural law.”).

217. *See, e.g.,* Michael L. Metzker, *Sequencing Technologies—The Next Generation*, 11 NATURE REV. GENETICS 31 (2010).

218. *See, e.g.,* James S. Ware et al., *Next Generation Sequencing for Clinical Diagnostics and Personalised Medicine: Implications for the Next Generation Cardiologist*, 98 HEART 276 (2012) (explaining how genomics can aid in the diagnosis and treatment of patients with cardiovascular disease).

219. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2119 (2013).

220. *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980).

had minimal effects on the BRCA1/2 test itself.²²¹ Furthermore, next-generation sequencing techniques use universal primers,²²² which do not rely on any specific DNA sequence, and are thus unlikely to be affected by the decision. Additionally, the sequence of the human genome is largely available online, and thus part of prior art, which would likely trigger rejections on novelty for any future patents on a DNA sequence. What *Myriad* does not bar are applications of the knowledge derived from correlating a mutation to a disease. Such claims were not challenged during the *Myriad* litigation.²²³ It is *Mayo* that poses a significant challenge to such uses of genetic information.

IV. PATENTS, INNOVATION AND THE BIOTECHNOLOGY INDUSTRY

A. THE COST OF STEM CELLS AND PATENT PROTECTION

Developing a promising biotechnological or medical breakthrough into a viable clinically useful product is an expensive and long journey, subject to multiple regulatory hurdles.²²⁴ It is estimated that commercializing a biotechnological innovation (up to the point of bringing it to the market) costs over \$1.2 billion and requires about ten to fifteen years for pre-market validation and approval.²²⁵ In industries developing biological products such as cells, besides funding necessary for product development, additional costs include recruiting and maintaining a highly skilled workforce in a competitive market concentrated in three small geographic regions.²²⁶

221. *Ambry Genetics Countersues Myriad Genetics in BRCA Testing Fight*, THE PATHOLOGY BLAWG (Aug. 12, 2013), <http://pathologyblawg.com/pathology-news/pathology-vendors/myriad-genetics/ambry-genetics-countersues-myriad-genetics-brca-testing-fight/> (last accessed Feb. 13, 2015); Kevin E. Noonan, *Myriad Throws the Towel*, PATENT DOCS (Jan. 27, 2015), <http://www.patentdocs.org/2015/01/myriad-throws-in-the-towel.html> (last accessed Mar. 12, 2015).

222. See Metzker, *supra* note 217, at 32–33.

223. *Myriad*, 133 S. Ct. at 2120 (quoting Ass’n for Molecular Pathology v. USPTO, 689 F.3d 1303, 1349 (Fed. Cir. 2012)).

224. BIOTECHNOLOGY INDUSTRY ORGANIZATION, GUIDE TO BIOTECHNOLOGY 38–42, 77 (Roxanna Guilford-Blake & Debbie Strickland eds., 2008) [hereinafter BIO GUIDE].

225. Henry Grabowski, *Follow-on Biologics: Data Exclusivity and the Balance Between Innovation and Competition*, 7 NATURE REV. DRUG DISCOVERY 479, 482 (2008); see also BIO GUIDE, *supra* note 224, at 38 (“It typically takes 10 to 15 years and an average of more than \$800 million (including the cost of failures) to develop a new therapy.”).

226. See YALI FRIEDMAN, BUILDING BIOTECHNOLOGY 3–9 (3d ed. 2014).

The cost of stem cell technologies comes from five sources: (i) research and development; (ii) process engineering; (iii) production and scaling, including licensing fees; (iv) efficiency and safety testing; and, (v) marketing, technology support, and management.²²⁷ It is important to note that the process engineering and production steps in stem cell technologies require skilled workers with at least a bachelor's degree and experience in cell culture and other laboratory techniques. This monetary cost is different from most drugs, which cost very little to produce once the Research & Development phase has concluded.²²⁸ Furthermore, the mode of operation and revenue stream in biotechnology companies is such that for these companies, patent protection is critical to attract the necessary capital to fund such high-risk investment.²²⁹ Heart attacks and the underlying health problems that precede and follow a heart attack are a great example illustrating the need for stem cell therapies and the cost to develop such therapies.

B. DEVELOPING STEM CELL THERAPY FOR CARDIOVASCULAR DISEASE: GETTING TO THE HEART OF THE MATTER

Generally, cardiovascular diseases, and specifically ischemic heart disease, are the leading cause of death worldwide.²³⁰ About one in three deaths in the US is a result of cardiovascular disease.²³¹ In fact more than twice as many women die from a heart attack, or myocardial infarction ("MI"), than from all other cancers combined.²³² Recent medical advancements have resulted in approximately 90–95% of patients surviving their first MI.²³³ The high first heart attack survival rate has contributed to the current epidemic of heart failure, placing an enormous burden on the healthcare system.²³⁴ After an MI, local cardiac mechanisms are activated

227. *Id.* at 163–74, 209–223.

228. Grabowski, *supra* note 225.

229. See FTC, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY, A REPORT BY THE FEDERAL TRADE COMMISSION, ch.3, 1, 17–18 (2003) ("Biotech representatives emphasized that patent protection is critical to attract the capital necessary to fund this high-risk investment.").

230. Alan S. Go et al., *Heart Disease and Stroke Statistics—2014 Update: A Report from the American Heart Association*, 129 CIRCULATION e28, e30 (2014).

231. *Id.*

232. *Id.* at 116.

233. See Wayne D. Rosamond et al., *Twenty-two Year Trends in Incidence of Myocardial Infarction, Coronary Heart Disease Mortality, and Case Fatality in Four US Communities, 1987 to 2008*, 125 CIRCULATION 1848 (2012).

234. Veronique L. Roger et al., *Heart Disease and Stroke Statistics—2011 Update: A Report from the American Heart Association*, 123 CIRCULATION e18, e20 (2011).

that result in a vicious cycle of metabolic insufficiency and tissue death.²³⁵ After a patient survives the first heart attack, there are no therapies that are able to reverse the tissue loss and the inevitable decline in cardiac function, which puts the patient at increased risk for a second heart attack.²³⁶ Typically, the first heart attack does not kill a patient; the second does.²³⁷ Since the underlying trigger of this process is the loss of cardiomyocytes and microvasculature in the infarcted wall, it is important that new cardiomyocytes replace the ones lost after the attack. One way to replenish the lost cardiomyocytes in the heart is through implantation of stem cells or their derivatives directly into the heart.²³⁸ Ideally, the cardiomyocytes would be derived from an autologous source and share the same DNA identity with the other natural resident heart cells.

As explained in Part II, scientists are able to isolate peripheral blood cells from a patient and reprogram them into iPS cells. Assume that a scientist has found a way to differentiate these patient derived iPS cells into cardiomyocytes, which can be used to treat and regenerate lost tissue after a heart attack.²³⁹ Before the treatment can be available to a patient several milestones need to be achieved. The scientist has shown that a standard iPS cell line can be differentiated into cardiomyocytes. However, because different patients have accumulated different mutations in their lifetime, their iPS cells behave differently in the re-differentiation process. Thus, multiple experiments are required to show that functional cardiomyocytes can be derived from the patient that suffered from the heart attack. After the applicability of such an invention has been tested, a

235. See, e.g., Stein Orn et al., *Effect of Left Ventricular Scar Size, Location, and Transmurality on Left Ventricular Remodeling with Healed Myocardial Infarction*, 99 AM. J. CARDIOLOGY 1109 (2007).

236. See Patrick T. O'Gara et al., *2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines*, 127 CIRCULATION e362, e392 (2013) (describing that roughly twenty percent of patients that suffered from a heart attack and survived, die within the year).

237. Go et al., *supra* note 230, at e30.

238. See Michael A. Laflamme & Charles E. Murry, *Heart Regeneration*, 473 NATURE 326, 326 (2011); Doris A. Taylor, *From Stem Cells and Cadaveric Matrix to Engineered Organs*, 20 CURRENT OPINION BIOTECHNOLOGY 598, 598 (2009).

239. This example is to illustrate the path to redifferentiating patient-specific cells to be used in regenerative therapy following a heart attack. Scientists have already developed ways to re-differentiate patient-specific cells into cardiomyocytes. See *Cellular Dynamics International Launches iCell Cardiomyocytes*, NEWS MED. (Dec. 16, 2009, 3:21 AM). <http://www.news-medical.net/news/20091216/Cellular-Dynamics-International-launches-iCell-Cardiomyocytes.aspx>.

process must be engineered through which cells from different patients can be differentiated into heart cells.²⁴⁰ After a process has been engineered, the protocol is passed on to the production team that must consistently and safely differentiate different patient cells. The next step is then to obtain necessary FDA approval through rigorous clinical testing.²⁴¹ The last step of the process is to optimize and tweak cell differentiation to each patient based on the feedback from the transplanted cells. Each step is costly. In fact, leading companies in the field, such as Cellular Dynamics International and NeoStem, still operate at a deficit despite launching very successful and innovative products over six years ago.²⁴² Thus, in order to commercialize the innovation described above, scientists need a large amount of funding for each step.

C. THE IMPORTANCE OF PATENTS

The value of patents on scientific innovation has been widely debated.²⁴³ Essentially, the patent system operates under the assumption that “market knows best” and incentivizes entities to both innovate and share information by providing temporary exclusivity.²⁴⁴ These incentives are particularly important in the biotechnology and pharmaceutical industries, where the cost of R&D is high, but the barrier of entry for an established working product is low.²⁴⁵ Stem cell technologies, however, have both high R&D costs and high production costs, making it harder for new competitors to enter the market. So the question then becomes,

240. It would be prohibitively expensive and long if a different process had to be engineered for each patient.

241. For the cost and financial demands of FDA approval in the stem cell field, see Heidi Ledford, *Stem Cell Company in Crisis: Financial Woes Threatened Advanced Cell Technology*, NATURE NEWS (Jan. 25, 2014), <http://www.nature.com/news/stem-cell-company-in-crisis-1.14591>.

242. CDI brings in over twelve million dollars in revenue each year, and spends over forty-four million, most of which are in R&D, production and marketing costs. See Cellular Dynamics Int'l, Inc., Quarterly Report (Form 10-Q) (Aug. 29, 2013); Cellular Dynamics Int'l, Inc., Quarterly Report (Form 10-Q) (Nov. 12, 2013); Cellular Dynamics Int'l, Inc., Quarterly Report (Form 10-Q) (May 5, 2014); Cellular Dynamics Int'l, Inc., Quarterly Report (Form 10-Q) (Aug. 11, 2014).

243. See, e.g., Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHIC. L. REV. 129 (2004).

244. See *id.*

245. For most synthetic chemicals, the cost of production is actually very low, and thus the barrier of entry for a competitor easy to overcome. On the other hand, in a technology where significant infrastructure is necessary, the barrier of entry would be high, offsetting the need for a patent. See Rebecca S. Eisenberg, *The Problem of New Uses*, 5 YALE J. HEALTH POL'Y, L. & ETHICS 717, 725–27 (2005).

how much exclusivity is needed to allow for the necessary investment to push stem cell innovation through the commercialization process? The answer to this depends on several factors, which include company size, venture capital reliance, and investor sophistication.

1. *IP Protection and Company Size*

The biggest innovators in stem cell technologies are small companies,²⁴⁶ for which venture capital investment is particularly important.²⁴⁷ Arora and Merges²⁴⁸ formulate a game between two identities that are working on a contract where one identity, which holds intellectual property, would provide highly customized products to another identity. In the vast majority of cases, it is shown that independence creates higher net surplus, and furthermore, the stronger the intellectual portfolio, the larger the difference between the surplus created by independent integration versus vertical integration.²⁴⁹ And thus, a conclusion that one can form is that when firms hold strong intellectual properties, they tend to stay independent.²⁵⁰

Following this logic, strong IP rights within the stem cell industry would result in a higher number of smaller companies, more collaboration between large and small companies, and less vertical integration. Since this is the current state of the stem cell space,²⁵¹ this theory seems to apply.

246. Karl Bergman & Gregory D. Graff, *The Global Stem Cell Patent Landscape: Implications for Efficient Technology Transfer and Commercial Development*, 25 NATURE BIOTECHNOLOGY 419, 421 (2007).

247. See NAT'L VENTURE CAPITAL ASS'N, PATIENT CAPITAL: HOW VENTURE CAPITAL INVESTMENT DRIVES REVOLUTIONARY MEDICAL INNOVATION, 3, 7 (2007) (emphasizing that the biotechnology industry would not exist without venture capital financing and stating that "[b]ecause their capital needs are so large and their path to market is so long and risky, it is difficult for life sciences startups to access bank financing or other more traditional sources of capital").

248. See Ashish Arora & Robert P. Merges, *Specialized Supply Firms, Property Rights and Firm Boundaries*, 13 INDUS. & CORP. CHANGE 451, 461–62 (2004).

249. *Id.* at 468–70.

250. *Id.* at 471–72.

251. Bergman & Graff, *supra* note 246:

No single company, even after accounting for mergers and acquisitions, held more than 3 percent of US granted stem cell patents. The top eight companies together owned just 13 percent of the total. Interestingly, the top eight public sector institutions likewise owned 13 percent, and half of these were located in California. The strong showing of large biotech and pharmaceutical companies was somewhat surprising. Amgen, Novartis, Pfizer and GlaxoSmithKline are rarely mentioned by market analysts as prominent players in stem cell

However, weaker IP rights stemming from recent court decisions might lead to more vertical integration that could in turn lead to less innovation and higher R&D costs. Due to their size, stem cell companies rely on venture capital investment. As IP rights weaken, and venture capital funding gets sparser, stem cell innovation would shift to bigger companies, which—considering the way that biotechnology currently operates—is not optimal.²⁵²

As explained above, investment in small biotechnology companies is tied closely to the strength of its patents.²⁵³ However, investors evaluate different factors when considering investment.²⁵⁴ Investment is tied to company valuation,²⁵⁵ and company valuation depends on many factors,

research. Instead, it is the smaller companies with a specific focus on stem cells, such as Geron, that are more frequently cited.

Id. at 421.

252. See Avik Roy, *How Big Pharma Undermined Medical Innovation for Financial Gain*, FORBES: PHARMA AND HEALTHCARE (Feb. 15, 2012, 7:22 PM) <http://www.forbes.com/sites/aroy/2012/02/15/how-big-pharma-undermined-medical-innovation-for-financial-gain/> (explaining how big pharma opposed FDA reforms that would bring innovative medicines to market more quickly); see also Mike Wokasch, *Biotech: A Source for Big Pharma Innovative New Products*, PHARMA REFORM (May 11, 2010), <http://www.pharmareform.com/2010/05/11/biotech-a-source-for-big-pharma-innovative-new-products/> (“Big Pharma has never been renowned for innovation. Rather, large pharmaceutical companies have traditionally focused on developing and testing conventional therapeutics, such as small molecule drugs and monoclonal antibodies, building and investing in the substantial infrastructure required to support these efforts.”).

253. See Dan L. Burk & Mark A. Lemley, *Biotechnology’s Uncertainty Principle*, 54 CASE W. RES. L. REV. 691, 724–26 (2004); see also PRESIDENT’S COUNCIL OF ADVISORS ON SCIENCE AND TECHNOLOGY, PRIORITIES FOR PERSONALIZED MEDICINE 21 (2008) (“The ability to obtain strong intellectual property protection through patents has been, and will continue to be, essential for pharmaceutical and biotechnology companies to make the large, high-risk R&D investments required to develop novel medical products”).

254. For a detailed analysis on economic theories of investments and patents, see ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY 727–28 (6th ed. 2013) (discussing the different effects that §§ 101, 102, and 103 have on determining which innovations to pursue and which to commercialize); Mark A. Lemley, *Reconceiving Patents in the Age of Venture Capital*, 4 J. SMALL & EMERGING BUS. L. 137 (2000).

255. Jerry X. Cao & Po-Hsuan Hsu, *The Informational Role of Patents in Venture Capital Financing*, 1–2 (June 8, 2011) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1678809; see also Carolin Häussler et al., *To Be Financed or Not . . . —The Role of Patents for Venture Capital-Financing*, 32–33 (Feb. 28, 2008) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1393725.

including venture capital (“VC”) sophistication,²⁵⁶ or how much VCs value patent strength.²⁵⁷ Patent strength relies not only on the patents the company has, but rather on the patents owned, compared to those owned by others. Furthermore, while the decision of whether to invest or not is based on possession of key patents that cover the technology, how much to invest depends on the strength of such patents against other patents. Generally there is a strong positive correlation on patent applications, patents, and VC financing.²⁵⁸ In stem cell technologies, most investors are specialized in such technologies. Thus, it is more likely that patent strength plays an important role in the valuation of the company as a whole.

2. *Other Effects of Weaker Patent Protection*

Stem cell companies can protect their intellectual property in two ways: trade secrets or patents. Several scholars have argued that a decrease in patent rights could lead to increased secrecy in research and decreased collaboration²⁵⁹ Myriad, for example, created an extensive database of

256. For a detailed analysis on economic theories of investments and patents, see ROBERT P. MERGES AND JOHN F. DUFFY, *PATENT LAW AND POLICY* 727–28 (6th ed. 2013) (discussing the different effects that §§ 101, 102, and 103 have on determining which innovations to pursue and which to commercialize); Mark A. Lemley, *Reconceiving Patents in the Age of Venture Capital*, 4 J. SMALL & EMERGING BUS. L. 137 (2000).

257. See Dan L. Burk & Mark A. Lemley, *Biotechnology’s Uncertainty Principle*, 54 CASE W. RES. L. REV. 691, 724–26 (2004); President’s Council of Advisors on Science and Technology, *Priorities for Personalized Medicine* 21 (2008) (“The ability to obtain strong intellectual property protection through patents has been, and will continue to be, essential for pharmaceutical and biotechnology companies to make the large, high-risk R&D investments required to develop novel medical products”).

258. See Brownlynn H. Hall et al., *Market Value and Patent Citations*, 36 RAND J. ECON. 16 (2005); Sebastian Hoenena et al., *The diminishing signaling value of patents between early rounds of venture capital financing*, 43 RESEARCH POLY 956, 956–57, 986–87 (stating that “a handful of empirical studies has documented that patents attract prominent VCFs, prompt VCFs to invest faster and generally increase the amounts invested in firms that own them” and finding a particularly strong correlation for early investment.).

259. See Robert Cook-Deegan et al., *The next controversy in genetic testing: clinical data as trade secrets?*, 21 EUR. J HUM. GENET. 585–88 (2013), Chris Palmer, *The Myriad Decision: A move towards trade secrets?*, 22 NIH CATALYST 2:1, 8–10 (stating that “Without genomic DNA being patentable, it may throw into question protection for important technology that’s critical to improving public health. The decision may even backfire on its proponents, leading to increased secrecy in research and reduced collaboration.”).

genetic variants, which it made public.²⁶⁰ Some fear that such databases, which are very important to third party researchers, would not exist if a company did not enjoy patent protection.²⁶¹ Similarly, stem cell companies often publish relevant data on cell culture techniques and optimal differentiation.²⁶² This data is particularly valuable, since academic labs do not possess the resources to test cell culture protocols across multiple lines at the same rate that a commercial company does. An inability to patent a technology might lead these companies to greater trade secret protection, reduced workforce fluidity, and result in less cumulative innovation.²⁶³

Furthermore, biotechnology is not only an important component of our medical system, but also an important part of our entrepreneurial structure and economy as a whole.²⁶⁴ Despite being a fairly new industry,²⁶⁵ biotechnology is a multi-billion industry that accounts for over 400,000 jobs,²⁶⁶ and is a key contributor to U.S. economic stability.²⁶⁷ Stem cell industries are a rapidly growing subset within the biotechnology field.²⁶⁸ The ripple effect of diminished patent protection within these fields, especially considering the importance of patent protection to the existence of these companies, would not only have an effect on the medical industry, but to some extent on the economy as a whole.

D. U.S.-INTERNATIONAL COMPETITION

Patent applications are one indicator of commercialization activity within a field. Between 1970 and 2005, thirty-five percent of patents on

260. *Id.*

261. *Id.*

262. *See, e.g.,* Faye M. Drawnel et al., *Disease Modeling and Phenotypic Drug Screening for Diabetic Cardiomyopathy Using Human Induced Pluripotent Stem Cells*, 9 CELL REP. 810 (2014); Praful Aggarwal et al., *RNA Expression Profiling of Human iPSC-Derived Cardiomyocytes in a Cardiac Hypertrophy Model*, PLOS ONE 9:e108051 (2014).

263. *See* Arti K. Rai, *Fostering Cumulative Innovation in the Biopharmaceutical Industry: The Role of Patents and Antitrust*, 16 BERK. TECH L.J. 813, 834–35, 842–43 (2001) (arguing that patents can facilitate cumulative innovation where trade secrets hamper it).

264. *See* ERNST & YOUNG, *supra* note 20, at 37; GLOBAL INSIGHT & NAT'L VENTURE CAPITAL ASS'N, *supra* note 21, at 9.

265. *See* FRIEDMAN, *supra* note 226, at 3–5.

266. NAT'L VENTURE CAPITAL ASS'N, *supra* note 247, at 8.

267. *See id.* at 6–8.

268. Alexander van Servellen & Ikuko Oba, *Stem cell research: Trends in and perspectives on the evolving international landscape*, 36 RESEARCH TRENDS 1 (2014) (reporting that stem cell research is growing at a very fast rate, with iPS research showing an explosive growth).

stem cells were filed with the PTO and the European Patent Office (“EPO”).²⁶⁹ Besides the United States and Europe, the most active countries for stem cell filings were Australia, Canada, Japan, Germany, China, the United Kingdom and Israel.²⁷⁰ Stem cells, genes, and products of nature are internationally controversial topics. However, different international patent regimes have dealt with them differently.

In a globalized market, with a myriad of international commercialization opportunities, patentability plays a key role in determining where investors decide to commercialize a product. In order to incentivize globalization, the World Trade Agreement (“WTA”) became operative in 1995 and established the World Trade Organization. The Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”)²⁷¹ is one of many international agreements in the WTA. TRIPS is one of the most important milestones in intellectual property harmonization, and it gave new life to the previous attempts for harmonized international intellectual property rights.²⁷² It provides the international legal framework (applicable to the countries that are signatories) for addressing patentability generally and patentable subject matter specifically.²⁷³

269. Bergman & Graff, *supra* note 246, at 420.

270. *Id.*

271. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299 [hereinafter TRIPS].

272. DANIEL GERVAIS, *THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS* 3, 24–25 (3d ed. 2003) (describing TRIPS as “the most comprehensive international agreement on intellectual property protection ever established”, and explains that TRIPS is distinguishable from both the Berne and Paris Conventions of the 19th century because of its IP provisions); *see also* SUSAN K. SELL, *PRIVATE POWER, PUBLIC LAW: THE GLOBALIZATION OF INTELLECTUAL PROPERTY RIGHTS* 7–9 (2003) (explaining that TRIPS is a dramatic expansion of the rights of IP owners which is far-reaching with important implications for innovation, research and development, economic development, the future location of industry, and the global division of labor).

273. *See* TRIPS, *supra* note 271:

Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

Id. at art. 27.1.

However, it is important to note that TRIPS only provides a framework for regulations,²⁷⁴ and the signatory countries have some leeway in how they incorporate such guidelines into national law.²⁷⁵ In other words, TRIPS provides guidelines that serve as a floor to what needs to be protected, and each country—so long as they do not discriminate between citizens and non-citizens—can determine their own ceiling. Under Article 27(1) “patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.”²⁷⁶ Thus for a member state to grant a patent, the “invention” must at least satisfy these requirements, or the signatory country would be in violation of the agreement.²⁷⁷ In the United States, for example, these requirements are satisfied through the novelty, obviousness and utility requirements of the Patent Act.²⁷⁸

The United States and Europe had in place patent requirements that complied with the Paris Convention for the Protection of Industrial Property of 1883 (which preceded TRIPS), so there are shared similarities between the regimes, the evolution of the doctrines surrounding patentability, and the definition of the word “invention.”²⁷⁹ Furthermore, many countries have closely incorporated TRIPS guidelines into their patent law.²⁸⁰ Despite this, several differences exist between different patent regimes that affect the patentability of stem cells.

274. Marrakesh Agreement Establishing the World Trade Organization, art. 16.4, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter WTA] (“Each Member shall ensure the conformity of its laws, regulations and administrative procedures with its obligations as provided in the annexed Agreements.”).

275. See Paul Cole, *Myriad-Mayo Guidance — Consistency with International Harmonization and TRIPS*, PATENT DOCS (Aug. 26, 2014), <http://www.patentdocs.org/2014/08/guest-post-myriad-mayo-guidance-consistency-with-international-harmonization-and-trips.html>.

276. TRIPS, *supra* note 271, at art. 27.1; Agreement on Trade-Related Aspects of Intellectual Property Rights, 1869 U.N.T.S. 299 (1994).

277. WTA, *supra* note 274 (“Each Member shall ensure the conformity of its laws, regulations and administrative procedures with its obligations as provided in the annexed Agreements.”).

278. See generally 35 U.S.C. §§ 101–112 (2012).

279. The common principles are: 1) that there is a distinction between an ‘invention’ and a ‘patentable invention,’ 2) that an ‘invention’ per se must be new and useful, 3) that an ‘invention’ which is not novel, which lacks an ‘inventive step and which is not industrially applicable is not a ‘patentable invention,’ and 4) that laws of nature, physical phenomena, and abstract ideas per se are prohibited as ‘inventions.’

280. Compare TRIPS, *supra* note 271, at art. 27.1 (proclaiming that “patents shall be available for any inventions, whether products or processes, in all fields of technology,

When faced with the challenges of the patentability of purified natural products, such as purified DNA in 1998, the PTO, EPO, and Japan Patent Office (“JPO”), seemed to agree on the fact that isolated molecules are patentable since they do not exist in nature in their isolated form.²⁸¹ The Supreme Court Decision in *Myriad* shows that in the United States, this view is no longer applicable.

While different countries have limitations on the patentability of stem cells, they approach such limitations differently. For example, the EPO relies heavily on the “ordre public” exemption, which provides that subject matter can be exempt from patentability as necessary in order to protect human, animal, or plant life.²⁸² The question of whether or not embryonic stem cells violated the “ordre public” provision was decided on October 2011, when the European Court of Justice, decided in *Brüstle v. Greenpeace* that a process which involves the destruction of a human embryo, or uses a derivative of base material, derived from a process that destroys a human embryo, cannot be patented.²⁸³ On the other hand, iPSCs have been patented in the EU.²⁸⁴

provided that they are new, involve an inventive step and are capable of industrial application”), *with* European Patent Convention art 52(2), Oct. 5, 1973, 1065 U.N.T.S. 199 (establishing that “European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application”), *and* Patents Act, 1977, § 1.1 (Eng.) (describing that “A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say (a) the invention is new; (b) it involves an inventive step; (c) it is capable of industrial application; . . .”).

281. In 1988 the PTO, the EPO and the JPO issued a joint communication explaining their position regarding the patentability of Directive technologies. The communication provides:

Purified natural products are not regarded under any of the three laws as products of nature or discoveries because they do not in fact exist in nature in an isolated form. Rather, they are regarded for patent purposes as biologically active substances or chemical compounds and eligible for patenting on the same basis as other chemical compounds.

NUFFIELD COUNCIL ON BIOETHICS, THE ETHICS OF PATENTING DNA: A DISCUSSION PAPER 26 (2002); *see also* Anita Varma and David Abraham, *DNA Is Different: Legal Obviousness and the Balance between Biotech Inventors and the Market*, 9 HARV. J. L. & TECH. 53 (1996).

282. TRIPS, *supra* note 271, at arts. 27.2, 27.3.

283. Oliver Brüstle v Greenpeace e.V., Case C-34/10, EUR-Lex CELEX LEXIS 62010CJ0034, 52 (Oct. 18, 2011) (Belg.).

284. The United Kingdom Intellectual Property Office (“UKIPO”) and EPO have granted iPSC patents. *See, e.g.*, G.B. Patent No. 2,450,603 (Jun. 13, 2008); E.P.O. Patent No. 1970446 (Dec. 6, 2006).

Australian patent law does not explicitly include an exemption to the patentability of products of nature.²⁸⁵ This doctrine is defined differently in Australia than in the United States. The High Court of Australia defined this doctrine in *National Research and Development Corp. v. Commissioner of Patents* (“NRDC”).²⁸⁶ In *NRDC*, the Court explained that any distinction by the courts of “discovery” and “invention” is not precise enough to be useful but would rather be misleading and confusing to the discussion governing subject matter eligibility.²⁸⁷ Rather than focusing on the distinction between “discovery” and “invention” in terms of what is a natural phenomenon, law of nature, or abstract idea, subject matter eligibility in Australia focuses on the end result of the intellectual process involved.²⁸⁸ The disparity in the reliance on the distinction between “discovery” and “invention” in the United States vs. Australia is best observed in the *Myriad* cases in which the U.S. and Australian courts reached different conclusions when evaluating the same patents. The Federal Court of Australia, unlike the U.S. Supreme Court, concluded that both isolated DNA and cDNA are patentable subject matter under Australian law.²⁸⁹ The Australian court noted, that it is not within the role of the court to decide “whether, for policy or moral or social reasons, patents for gene sequences should be excluded from patentability,”²⁹⁰ noting that the Australian Parliament had considered the subject matter patentability question and decided on the codification of the law.²⁹¹ The Australian court’s decision is not only prudent in giving credit to the deliberations of parliament, but also scientifically correct in interpreting distinctions between cDNA, isolated DNA, and genomic DNA. The Australian Parliament passed legislation that restricted embryonic stem cell research to embryos that are less than fifteen days old and that have

285. See *D'Arcy v. Myriad Genetics, Inc.* (2014) 224 FCR 479, 115 FCAFC ¶ 114 (Austl.) (stating that “There is no requirement for: a consideration of whether the composition of matter is a “product of nature”; or whether a microorganism is “markedly different” from something that already exists in nature.”).

286. *Nat'l Res. Dev. Corp. v. Comm'r* (1959) 102.CLR 252 (Austl.).

287. *Id.* at ¶ 8.

288. See *id.* at ¶¶ 25–26.

289. See *D'Arcy v. Myriad Genetics, Inc.*, (2014) 115 FCAFC ¶ 92, ¶¶ 212–218 (Austl.).

290. *Id.* at ¶ 205.

291. *Id.*

been obtained with proper consent.²⁹² Thus, Australia is one of the more accommodating patent regimes for stem cell innovation and patentability, as applied to all types of stem cells currently known.

Similar to the patent regimes in Australia and most developed Asian countries (such as those of China, India, South Korea, Singapore, and Taiwan), Japan's patent regime has limited or no regulations regarding the patentability of stem cells²⁹³ and allows greater flexibility to scientists in the area of stem cell research.²⁹⁴ Japan grants patents for iPS and ES cells.²⁹⁵ Similar to the European Union, Japan excludes from patentable subject matter inventions that are likely to "contravene public order, morality, or public health."²⁹⁶ However, these restrictions are implemented differently. ESTs, SNPs and smaller DNA fragments that are not patentable in the United States have been patented in Japan. One key way in which Japan differs from the United States is in its reliance on novelty and obviousness rather than patentable subject matter, which is where most applications fail.²⁹⁷ Japan, which generally grants a smaller portion out of the total number of applications, has granted iPS cell patents in the past that remain unchallenged.²⁹⁸

When comparing the United States to these regimes, it is worth noting that unlike the United States, Europe, Japan, and Australia take a targeted approach in banning only specific products, which for either moral or other reasons, they deem to be unpatentable. Changes in IP protection in a field that relies on such protection for funding could have an impact that is larger than their intended scope. The EPO's 2004 decision that human ES cells were not patentable resulted in a significant drop in patent applications and scientific publications on all types of stem

292. Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Act, 2006, sched. 2 (Act No. 172, 2006) (Austl.) (amending Research Involving Human Embryos Act 2002).

293. Kenneth C. Cheney, *Patentability of Stem Cell Research under TRIPS: Can Morality-Based Exclusions Be Better Defined by Emerging Customary International Law?* 29 LOY. L.A. INT'L & COMP. L. REV. 503, 512 (2007).

294. *Id.*

295. *Id.*

296. Patent Law, Law No. 121 of 1959, amended by Law No. 220 of 1999, art. 32 (Japan).

297. See Katherine Dover, *Epigenetics and the Patentability of Methylation Patterns in Japan*, 10 ASIAN-PAC. L. & POL'Y J. 434, 443-45 (2009).

298. See David Cyranoski, *Japan Fast Tracks Stem-Cell Patent*, 455 NATURE 269 (2008) (commenting on fast-tracking iPS patents from Yamanaka).

cells in Europe between 2002–2012.²⁹⁹ The short-term ban on federal funding for ES research in the United States had similar effects.³⁰⁰ On the other hand, Japan saw a rise in stem cell research as evidenced by stem cell related publications, stem cell patents, and the successful reprogramming of the first iPS cell, granted the Nobel Prize in 2012.³⁰¹ The recent shift in IP protection granted to stem cells in the United States can have a similar chilling effect on stem cell research, innovation, and shift such innovation to countries with patent systems that are more receptive to stem cell innovations.

V. CONCLUSION

Recent developments in subject matter patentability have made it more challenging to obtain patent protection for stem cell innovations in the United States. Weaker patent protection for stem cell technologies in the United States could have a chilling effect on stem cell innovation and successful clinical commercialization.

Since the first isolation of human embryonic stem cells less than twenty years ago, the field has grown at a very rapid pace. Stem cells, by definition, hold the potency to differentiation into most or all cell types. This inherent potency, makes them not only incredibly interesting to study scientifically, but also confers unparalleled utility potential in treating the most pressing medical issues of our time. However, it is not enough for scientists to discover and perfect these useful treatments. The treatments also need to get to patients, and the road from the bench side to the bed side is long and expensive.

Stem cell technologies, like most other medical and biotechnology fields, are under great regulation and require long and extensive testing before a final product is approved. This process takes time and substantial investment with long-term returns. This is an important reason why patents have been particularly important in the development of the pharmaceutical and biotechnology industries. This is particularly true in fields with both big and small industry players in them, such as stem cell

299. Yael Bregman-Eschet et al., *The Ripple Effect of Intellectual Property Policy: Empirical Evidence from Stem Cell Research and Development*, 20 J. TECH. L. & POLY (forthcoming 2015) (manuscript at 7, 35) (on file with the author).

300. *Id.* at 30.

301. Nobel Prize in Physiology or Medicine, 2012 Press Release, http://www.nobelprize.org/nobel_prizes/medicine/laureates/2012/press.html (last visited Feb. 12, 2015).

technologies. Patents are particularly important for small companies, which rely heavily on third party investors and do not have the resources to be entirely self-sufficient and produce everything in-house.

The recent developments in subject matter patentability provide scientifically unclear guidelines at best, and possibly little to no patent protection at all. A diminished or total lack of patent protection is likely to push big companies into increased secrecy and further complicate the struggle of small companies to acquire funding and survive. Neither decreased competition, nor decreased collaboration, is likely to incentivize or sustain innovation in this promising medical field.

In the past century and a half, the United States has emerged as a leading player in the pharmaceutical and biotechnology fields. Other countries might have cheaper drugs, but they do not necessarily have better drugs. While the EPO has liberalized its position towards stem cell technologies and their patentability, Japan and Australia continue to maintain a patent landscape that greatly favors these industries. In an increasingly globalized market, which allows scientific mobility, countries that provide the most advantageous collaborative and innovative environments, are more likely to sustain growth in a particular field. Most Americans die of cardiovascular disorders, neurodegenerative disorders, or cancer. Based on the current review, modern and scientific needs and patent law are at odds with each other. It is the responsibility of Congress and the courts to fix these legal disparities, leading to a more harmonized system that prioritizes medical innovation and commercialization and benefits patients.

FEE-SHIFTING AND *OCTANE FITNESS*: AN EMPIRICAL APPROACH TOWARD UNDERSTANDING “EXCEPTIONAL”

Hannah Jiam[†]

*“However much men may honestly endeavor to limit the exercise of their discretion by definite rule, there must always be room for idiosyncrasy; and idiosyncrasy, as the word expresses, varies with the man.”*¹

John Coleridge’s words capture the struggle many courts face when interpreting a statute with subjective language. Often, the ambiguity is necessary because it is difficult to write a one-size-fits-all rule that can be accurately and fairly utilized in every case as cases rarely present the same facts, litigation strategies, and parties. As a result, subjectivity keeps judgments flexible, allowing district courts to consider the circumstances unique to each case before issuing a holding. Unfortunately, it makes the legal process less predictable, and parties often have difficulty relying on caselaw to clarify the ambiguous language.

In *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*,² the Supreme Court rejected the Federal Circuit’s standard for fee-shifting in patent cases under the Patent Act’s provision in § 285.³ Moving away from the high standard set by the Federal Circuit, the Supreme Court defined an exceptional case based on the ordinary meaning of the word “exceptional.”⁴ The Court held that an “exceptional” case was a case that stood out from others with respect to the substantive strength of a party’s litigating position or the unreasonable manner in which the case was litigated.⁵

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1. *Libel of the Dead—Prosecutor a Foreigner*, 5 THE CRIM. LAW MAG. & REP.: A BI-MONTHLY PERIODICAL 834, 838 (1884) (citing *Regina v. Labouchere*, 12 Q.B.D. 330 (1884)).

2. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014).

3. 35 U.S.C. § 285 (2012).

4. *Octane Fitness*, 134 S. Ct. at 1756 (citing *Bilski v. Kappos*, 561 U.S. 593 (2010)).

5. *Id.*

The Court's decision in *Octane Fitness* increases a litigant's chances of winning a motion for fee-shifting under § 285.⁶ However, the Supreme Court's discussion of exceptionality does not provide significantly more clarity than the dictionary definition.⁷ Patent owners, alleged infringers, counsel, and lower courts are left to assess what "uncommon," "rare," or "not ordinary" mean in patent litigation.⁸ Stated differently, these parties must divine the markers that indicate when a litigant's position "stands out" from others.⁹

This Note assesses these issues through empirical analysis of the first wave of cases applying the Supreme Court's decision in *Octane Fitness*. This analysis considers the parties involved, the amount of attorneys' fees granted, the percentage of § 285 motions granted, and what "exceptionality" really means, in light of *Octane Fitness*. Part I describes the background and legislative history of fee-shifting, focusing on the fee-shifting provision in the 1952 Patent Act as well as recent legislative proposals in Congress for patent reform and fee-shifting. Part II explores the *Octane* case, examining the distinctions between the higher standard of "exceptional" as established in *Brooks Furniture Manufacturing, Inc. v. Dutailier International, Inc.* by the Federal Circuit and the new standard of "exceptional" in the Supreme Court's holding in *Octane Fitness*.¹⁰ Part III considers the emerging trends post-*Octane Fitness* based on an empirical analysis of attorneys' fees granted under § 285 post-*Octane Fitness*, a discussion of district court determinations of "exceptional," and other potential repercussions of the Supreme Court's holding.

I. THE DEVELOPMENT OF FEE-SHIFTING

The English and American Rules represent the outer-bounds of the wide spectrum of fee-shifting rules. Under the English Rule, the losing party is required to pay for the attorneys' fees of both parties, whether the defeated party is the plaintiff or the defendant.¹¹ Therefore, the additional

6. See discussion *infra* Section IV.A. (Part IV looks at emerging results of trends in fee-shifting post-*Octane Fitness*).

7. Merriam-Webster's Collegiate Dictionary (11th ed. 2008) (defining "exceptional" as "rare").

8. *Octane Fitness*, 134 S. Ct. at 1756.

9. *Id.*

10. 393 F.3d 1378, 1381 (Fed. Cir. 2005).

11. Werner Pfennigstorf, *The European Experience with Attorney Fee Shifting*, 47 LAW & CONTEMP. PROBS. 37, 46 (1984), available at <http://scholarship.law.duke.edu/lcp/vol47/iss1/3/>. <http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1596&context=aulr>.

burden of paying the prevailing party's attorneys' fees is thought to have a chilling effect on unmeritorious, or "nuisance" suits.¹²

However, under the American Rule a prevailing party is typically not awarded attorneys' fees.¹³ As early as 1796, American courts generally opposed the award of attorneys' fees, unless the opportunity was explicitly stated by statute.¹⁴ Furthermore, during this period of time, Congress voiced multiple concerns of abuse or gamesmanship, including the need to prevent attorneys from reaping excessive rewards.¹⁵

Prior to 1946, patent cases in the United States generally followed the American Rule.¹⁶ In *Teese v. Huntingdon*, the Supreme Court noted that "[c]ounsel fees are not a proper element for the consideration of the jury in the estimation of damages in actions for the infringement of a patent right."¹⁷ However, the 79th Congress enacted a fee-shifting provision which allowed for fee-shifting in patent law, where "[t]he court may in its discretion award reasonable attorneys' fees to the prevailing party upon the entry of judgment on any patent case."¹⁸ This provision would later be included in 35 U.S.C. § 285, which states "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party."¹⁹ While Congress expressly authorized discretionary fee-shifting for exceptional cases in the 1946 Patent Act, the Senate Report of this Act indicated it

12. *See id.*

13. *Alyeska Pipeline Serv. Co. v. Wilderness Soc'y*, 421 U.S. 240, 249–50 (1975).

14. *Arcambel v. Wiseman*, 3 U.S. (3 Dall.) 306 (1796) (stating "[t]he general practice of the United States is in opposition to [allowance for attorney fees]; and even if that practice were not strictly correct in principle, it is entitled to the respect of the court, till it is changed, or modified, by statute."). For example, Congress could make explicit provisions for the allowance of attorneys' fees in statutes such as the Clayton Act and the Civil Rights Acts. Clayton Act, 15 U.S.C. § 15(a) (2012) ("Whenever the United States is hereafter injured in its business or property by reason of anything forbidden in the antitrust laws may sue therefor . . . and shall recover threefold the damages by his sustained, and the cost of suit, including a reasonable attorney's fee."); Civil Rights Act, 42 U.S.C. § 2000(a)–(e) (2006) ("In any action commenced pursuant to this subchapter, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs, and the United States shall be liable for costs the same as a private person.").

15. John Leubsdorf, *Toward a History of the American Rule on Attorney Fee Recovery*, 47 LAW & CONTEMP. PROBS. 9, 22 (1984).

16. Emily H. Chen, Note, *Making Abusers Pay: Detering Patent Litigation by Shifting Attorneys' Fees*, 28 BERKELEY TECH. L.J. 351, 362 (2013) ("[T]he Patent Act of 1790 did not include any provisions for the award of attorneys' fees to the prevailing party.").

17. 64 U.S. (23 How.) 2 (1859).

18. 35 U.S.C. § 70 (1946 ed.).

19. 35 U.S.C. § 285 (1952).

was “not contemplated that the recovery of attorney’s fees will become an ordinary thing in patent suits.”²⁰ The report stated that the provision was intended to reserve these fee awards for “gross injustice” to an alleged infringer.²¹

With the 1952 Patent Act, § 285 was recodified to the modern text with a few changes. The 1946 Act expressly gave the court “discretion” to award attorney fees to the prevailing party, while the amendment in the 1952 Patent Act removed the court’s “discretion” and instead stated, “the fee may be awarded in exceptional cases.”²² The House Committee Report on the 1952 Patent Act mentioned that the “exceptional” case amendment was added to clarify the intention of the 1952 statute as shown by its legislative history and as interpreted by the courts.²³ By instituting an “exceptional” requirement, Congress effectively raised the fee-shifting requirement and brought § 285 closer to the American Rule by limiting the district courts’ discretion to award attorneys’ fees in patent litigation.²⁴

In the patent context however, the American Rule may have led to frivolous lawsuits by non-practicing entities (“NPEs,” also known as “patent assertion entities” (“PAEs”)).²⁵ Because NPEs generally do not produce end products or services and often use contingent-fee based legal services, they do not face potential counterclaim liability for infringing another patent and thus can defer significant legal costs.²⁶ NPEs therefore benefit from the American Rule regime, as NPEs can leverage substantial defense costs to encourage defendants, who generally pay high hourly legal

20. S. REP. NO. 1503, 79th Cong., 2d Sess. (1946) (“It is not contemplated that the recovery of attorney’s fees will become an ordinary thing in patent suits [. . .] The provision is also made general so as to enable the court to prevent a gross injustice to an alleged infringer.”).

21. *Id.*

22. *Id.*; see also Dennis Crouch, *What is an Exceptional Case Such that Court Should Award Attorney Fees?*, PATENTLYO (Oct. 3, 2014), <http://patentlyo.com/patent/2013/10/what-is-an-exceptional-case-such-that-court-should-award-attorney-fees.html>.

23. Crouch, *supra* note 22.

24. Compare § 1, 60 Stat. 778, 35 U.S.C. § 70 (1946 ed.) with 35 U.S.C. § 285.

25. This Note defines non-practicing entities as “individuals and firms who own patents but do not directly use their patented technology to produce goods or services” but instead assert the patents “against companies that do produce goods and services.” James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387 (2014), available at <http://ssrn.com/abstract=2091210>; see also John M. Golden, *Patent Trolls and Patent Remedies*, 85 TEX. L. REV. 2111, 2112 (2007).

26. Randall R. Rader et al, *Make Patent Trolls Pay in Court*, N.Y. TIMES (June 4, 2013), available at http://www.nytimes.com/2013/06/05/opinion/make-patent-trolls-pay-in-court.html?_r=0.

fees, into settling before trial.²⁷ As high hourly legal fees can cause patent cases to be extremely expensive, many defendants determine that economic considerations favor settlement, even in frivolous suits.²⁸

Fee-shifting could curb abusive practices by encouraging parties to thoroughly research their allegations before bringing suit and avoid bringing frivolous claims.²⁹ While a change to the English Rule would require a fundamental change in the statutory framework of § 285, many feel in light of the direct costs of NPE litigation, such a change is called for.³⁰ For example, in 2011, the direct costs of NPE cases were estimated at around \$29 billion.³¹ Additionally, NPEs initiated sixty-two percent of all patent litigation in 2012, growing from forty-five percent in 2011.³²

Legislative action has provided opportunities to lower the costs of NPE litigation. During the early development stages of the America Invents Act (“AIA”) in the 109th Congress, Senators Orrin Hatch and

27. Jane P. Mallor, *Punitive Attorneys’ Fees for Abuses of the Judicial System*, 61 N.C. L. REV. 613 (1983). Mallor notes that:

[A] defendant might choose not to challenge a disputed claim, or even a groundless claim, if the costs of defending the claim would exceed the plaintiff’s demands [T]he American rule may function as a ‘legalized form of blackmail’ that encourages frivolous claims and adds to the congestion of courts.

Id. at 617.

28. See *Abusive Patent Litigation: The Issues Impacting American Competitiveness and Job Creation at the International Trade Commission and Beyond: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. 85 (2013) [hereinafter, *Abusive Patent Litigation*]. Statement of Kevin H. Rhodes:

It is an unfortunate reality that some patent owners have abused the litigation system by making overly-broad infringement assertions, often against an entire industry or against many different participants in a manufacturing/supply/distribution/retailer/end-user chain, intending to extract windfall settlements from multiple defendants seeking to avoid the cost and disruption of litigation.

Id. at 14.

29. *Abusive Patent Litigation*, *supra* note 28, at 14 (statement of Kevin H. Rhodes).

30. *Amendment in the Nature of a Substitute to H.R. 2795, the “Patent Act of 2005”*: *Hearing on H.R. 2795 Before the Subcomm. on Courts, the Internet, & Intellectual Property of the H. Comm. on the Judiciary*, 109th Cong. 47–48 (2005), available at <http://www.gpo.gov/fdsys/pkg/CHRG-109hhr23434/pdf/CHRG-109hhr23434.pdf> (statement of Philip S. Johnson, designee of the Pharmaceutical Research and Manufacturers of America).

31. Bessen & Meurer, *supra* note 25, at 389.

32. Colleen Chien, *Patent Trolls by the Numbers*, SANTA CLARA LAW DIGITAL COMMONS at 1 (Mar. 13, 2013), available at <http://digitalcommons.law.scu.edu/facpubs/609>.

Patrick Leahy introduced a similar bill known as the 2006 Hatch-Leahy Bill.³³ The 2006 Hatch-Leahy Bill had a provision affecting 35 U.S.C. § 285, by requiring the prevailing party in a patent-infringement suit to be awarded its attorneys' fees and costs, unless "the position of the nonprevailing party . . . was substantially justified."³⁴ Although not included in the AIA, the fee-shifting provision's creation reflects the growing concern over so-called "patent trolls" and frivolous patent lawsuits unfairly burdening an innocent defendant.³⁵

Post-AIA, Congress has responded to concerns over NPE litigation by introducing legislation containing various fee-shifting provisions. On May 22, 2013, the Senate proposed the Patent Abuse Reduction Act.³⁶ The fee-shifting provision in the Patent Abuse Reduction Act moved towards the English Rule, awarding attorneys' fees to the prevailing party, "unless—(1) the position and conduct of the non-prevailing party were objectively reasonable and substantially justified; or (2) exceptional circumstances make such an award unjust."³⁷ This provision is a dramatic inversion from the current fee-shifting provision of § 285 where attorneys' fees are only awarded in "exceptional" cases.

On October 23, 2013, the House of Representatives introduced the Innovation Act, which would also move the fee-shifting provision closer to the English Rule. Under the Innovation Act, a "court shall award, to a prevailing party, reasonable fees and other expenses . . . unless the court finds the position and conduct of the nonprevailing party or parties were reasonably justified in law and fact or that special circumstances (such as severe economic hardship to a named inventor) make an award unjust."³⁸ The Innovation Act passed the House on December 5, 2013 and was

33. H.R. 2795, 109th Cong. (2005); S. 3818, 109th Cong. § 5(b) (2006).

34. S. 3818, 109th Cong. § 5(b) (2006) (amending 35 U.S.C. § 285 to read: "(a) The court shall award, to a prevailing party, fees and other expenses incurred by that party in connection with that proceeding, unless the court finds that the position of the nonprevailing party or parties was substantially justified or that special circumstances make an award unjust."), *available at* <http://www.gpo.gov/fdsys/pkg/BILLS-109s3818is/pdf/BILLS-109s3818is.pdf>.

35. Bill Summary & Status 109th Congress (2005–2006) H.R. 2795, <http://thomas.loc.gov/cgi-bin/bdquery/z?d109:H.R.2795>: (last visited Jan. 12, 2015); Bill Summary & Status 109th Congress (2005–2006) S. 3818, <http://thomas.loc.gov/cgi-bin/bdquery/z?d109:S3818>: (last visited Jan. 12, 2015).

36. Bill Summary & Status 113th Congress (2013–2014) S.R. 1013, <http://thomas.loc.gov/cgi-bin/bdquery/z?d113:s.01013>: (last visited Jan. 12, 2015).

37. S.R. 1013 § 5(a), *available at* <http://thomas.loc.gov/cgi-bin/query/z?c113:S.1013>.

38. Bill Summary & Status 113th Congress (2013–2014) H.R. 3309, <http://thomas.loc.gov/cgi-bin/bdquery/z?d113:h.r.3309>: (last visited Jan. 12, 2015).

received by the Senate a few days later.³⁹ However, there has been no action on the Innovation Act since December 2013.⁴⁰ On July 17, 2014, House Judiciary Committee Chairman Bob Goodlatte and House Energy Commerce Committee's Subcommittee on Communications and Technology Ranking member Anna Eshoo sent a letter to the Senate Majority Leader Harry Reid and the Senate Judiciary Committee Chairman Patrick Leahy urging Senate action on the Innovation Act.⁴¹ The letter addressed "an exponential increase in the use of weak or poorly granted patents by 'patent trolls' to file numerous patent infringement lawsuits against American businesses with the hopes of securing a quick payday."⁴² Despite Goodlatte and Eshoo's advocacy for patent reform, there have not yet been any substantive steps towards further legislative action. As of March 1, 2015, neither the Patent Abuse Reduction Act nor the Innovation Act has passed both the House of Representatives and the Senate.⁴³

The next Part will discuss how courts have consulted this legal background in an attempt to fairly and accurately interpret 35 U.S.C. § 285. In light of the growing concern over NPEs and patent litigation abuse, fee-shifting serves as a significant remedy and deterrent.

II. *OCTANE FITNESS*: LOWERING THE BAR AND RESTORING JUDICIAL DISCRETION IN FEE AWARDS

The Supreme Court's decision in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* is significant because it overturned the Federal Circuit's existing higher standard for exceptionality and reinforced a district court's ability to use its discretion when deciding whether or not to award attorneys' fees in "exceptional" cases.⁴⁴ This Part will first explore the

39. Innovation Act, H.R. 3309, 113th Cong. (2013), available at <https://www.congress.gov/bill/113th-congress/house-bill/3309>.

40. *Id.*

41. *Goodlatte and Eshoo Call on the Senate to Pass Innovation Act*, H.R. JUDICIARY COMMITTEE (July 17, 2014), <http://judiciary.house.gov/index.cfm/press-releases?ID=1F8AF0DB-E1DD-4A38-AE29-BB3F097746DE>.

42. *Id.*; see also Bob Goodlatte & Anna G. Eshoo, *Letter to the Honorable Harry Reid and the Honorable Patrick Leahy*, available at http://judiciary.house.gov/index.cfm?a=Files.Serve&File_id=6029ABD3-551C-461A-B3F8-A952A57C93DC.

43. Bill Summary & Status 113th Congress (2013–2014) H.R. 3309, <http://thomas.loc.gov/cgi-bin/bdquery/z?d113:h.r.3309>: (last visited Mar. 17, 2015); Innovation Act, H.R. 3309, 113th Cong. (2013), available at <https://www.congress.gov/bill/113th-congress/house-bill/3309>.

44. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014).

Federal Circuit's higher standard for exceptionality as defined in *Brooks Furniture Manufacturing, Inc. v. Dutailier International, Inc.* This Part will then discuss the procedural history and the facts of the *Octane Fitness* case. Finally, this Part will examine the Supreme Court's decision and its interpretation of an "exceptional" case.

A. THE FEDERAL CIRCUIT STANDARD PRE-*OCTANE FITNESS*

As defined by *Brooks Furniture Manufacturing, Inc. v. Dutailier International, Inc.*,⁴⁵ an "exceptional case" involved "material inappropriate conduct" or was both "objectively baseless" and "brought in subjective bad faith."⁴⁶ Examples of "material inappropriate conduct" included willful infringement; fraud or inequitable conduct in patent procurement; misconduct during litigation; vexatious or unjustified litigation; and conduct violating Rule 11 of the Federal Rules of Civil Procedure ("FRCP").⁴⁷ The court could independently sanction behavior that violates Rule 11 of the FRCP.⁴⁸ Furthermore, in order for litigation to be "objectively baseless," the litigation had to be "so unreasonable that no reasonable litigant could believe it would succeed," and the litigation would be considered to have been "brought in subjective bad faith" only if the plaintiff actually knew that the claim was objectively baseless.⁴⁹ Under this standard, there was a presumption that the assertion of infringement of a duly granted patent is made in good faith.⁵⁰ As a result, the Federal Circuit concluded that "clear and convincing evidence" was required to establish an exceptional case.⁵¹

Under the Federal Circuit's interpretation of § 285, determining exceptionality became a two-step process: first, the court needed to determine whether the case was exceptional under the definition established in *Brooks Furniture*, and second, if the parties provided "clear and convincing" evidence of the exceptional conduct.⁵² The Federal Circuit ruled that the exceptional case standard was the same for both

45. 393 F.3d 1378, 1381 (Fed. Cir. 2005).

46. *Id.* at 1381 (citing *Profl Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49 (1993)).

47. *Id.*

48. FED. R. CIV. P. 11(c).

49. *Brooks Furniture*, 393 F.3d at 1381; *see also* *iLOR, LLC v. Google, Inc.*, 631 F.3d 1372, 1378 (2011).

50. *Brooks Furniture*, 393 F.3d at 1382; *see also* *Springs Window Fashions, LP v. Novo Indus., LP*, 323 F.3d 989, 999 (Fed. Cir. 2003).

51. *Brooks Furniture*, 393 F.3d at 1382.

52. *Wedgetail Ltd. v. Huddleston Deluxe, Inc.*, 576 F.3d 1302, 1304 (Fed. Cir. 2009).

prevailing plaintiffs and for prevailing defendants.⁵³ Unsurprisingly, courts rarely awarded attorneys' fees under the Federal Circuit's standard for § 285.⁵⁴

B. *OCTANE FITNESS*—SEEKING FEDERAL CIRCUIT
EXCEPTIONALITY IN THE DISTRICT COURT

In *Octane Fitness*, ICON Health & Fitness, Inc. owned a patent disclosing an elliptical exercise machine that allowed the user to adjust the machine to fit his stride path.⁵⁵ ICON sued Octane Fitness, alleging that some of the elliptical machines it manufactured infringed ICON's patent. After the district court granted Octane's motion for summary judgment, Octane moved for attorneys' fees under § 285, arguing that ICON's claim was objectively baseless because the judgment of non-infringement should have been a "foregone conclusion to anyone who visually inspected" Octane's elliptical machines.⁵⁶ Following the Federal Circuit's standard of exceptionality, the district court ruled that the respondent's infringement claims were neither "frivolous" nor "objectively baseless."⁵⁷ Although there was evidence that ICON never commercialized its patent, and an email exchange between two ICON sales executives indicated that ICON had brought the infringement action as "a matter of commercial strategy," the district court held that the case was not "exceptional."⁵⁸ The Federal Circuit affirmed the district court's order, rejecting Octane's argument that the district court had "applied an overly restrictive standard in refusing to find the case exceptional under § 285."⁵⁹

53. See *Eltech Sys. Corp. v. PPG Indus., Inc.*, 903 F.2d 805, 810 n.9 (Fed. Cir. 1990).

54. Colleen V. Chien, *Reforming Software Patents*, 50 HOU L. REV. 323, 380 n.355 (2012) ("Based on a search in Westlaw, in 2011, approximately twenty awards were made [on the basis of the exceptional cases rule of 35 U.S.C. § 285], and in 2002, ten awards were made. They were sought in eighty-six and fifty cases[, respectively]."); see also Rader et al., *supra* note 26 (finding that fees were shifted only twenty times in nearly three thousand patent cases in 2011).

55. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1754 (2014).

56. *ICON Health & Fitness, Inc. v. Octane Fitness, LLC*, No. 09-319 ADM/SER, 2011 WL 2457914 at *2 (D. Minn. Sept. 6, 2011).

57. *Id.* at *2-4; see also *iLOR, LLC v. Google, Inc.*, 631 F.3d 1372, 1378 (2011); *Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

58. *ICON Health*, 2011 WL 2457914, at *4.

59. 496 Fed. Appx. 57, 65 (2012).

C. THE SUPREME COURT DECISION

After the Federal Circuit's decision, Octane Fitness challenged the Federal Circuit's standard of § 285 as overly restrictive in light of the statutory language of 35 U.S.C. § 285.⁶⁰ Looking at § 285, the Court used ordinary tools of statutory interpretation and construed the definition of an "exceptional" case under § 285 in accordance with the term's ordinary meaning.⁶¹ The Court held that an "exceptional" case was simply a case that stood out from others with "respect to the substantive strength of a party's litigating position or the unreasonable manner in which the case was litigated."⁶²

This "ordinary meaning" interpretation differs drastically from the Federal Circuit's definition of "exceptional" under *Brooks Furniture*. The Supreme Court found the Federal Circuit's interpretation of § 285 to be "overly rigid" and stated that the formulation impermissibly placed an "inflexible framework onto statutory text that is inherently flexible."⁶³ The Federal Circuit's first category of cases that allowed for fee-shifting under the *Brooks Furniture* formulation, "material inappropriate conduct," appeared to be independently sanctionable conduct.⁶⁴ However, the Court stated that sanctionable conduct is not the appropriate benchmark for fee awards under § 285, and that a district court may award fees in rare cases where a party's unreasonable conduct is "exceptional" enough to justify an award of attorneys' fees but may not necessarily be independently sanctionable.⁶⁵

It is important to note that while the Supreme Court lowered the standard established by the Federal Circuit, it did not redefine "exceptional" as originally proposed by Congress under the 1952 Patent Act.⁶⁶ The Court found that the dictionary definition of "exceptional" at the time of the 1952 amendment meant "uncommon," "rare," or "not ordinary."⁶⁷ When determining a "stand out" case, the Court stated that district courts may exercise their discretion on a case-by-case basis, considering the "totality of the circumstances."⁶⁸

60. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014) (citing *Bilski v. Kappos*, 561 U.S. 593 (2010)).

61. *Id.*

62. *Id.*

63. *Id.*

64. *Id.*

65. *Id.* at 1757.

66. *Id.* at 1756.

67. *Id.*

68. *Id.* at 1751 (citing *Fogerty v. Fantasy, Inc.*, 510 U.S. 517 (1994)).

According to the Court, the Federal Circuit was too restrictive in awarding attorneys' fees under the second category of cases, those that were "objectively baseless" and "brought in subjective bad faith."⁶⁹ The Supreme Court stated that a plaintiff could have acted in a way that was less than "bad faith," but which still sufficiently marked a case as "exceptional."⁷⁰ The Court rejected ICON's argument that the dual requirement of "subjective bad faith" and "objective baselessness" followed the Supreme Court's decision in *Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, Inc.* ("PRE"), which involved a "sham exception" to the *Noerr-Pennington* doctrine of antitrust law.⁷¹ In *PRE*, the Court held that to qualify as a "sham," a lawsuit must be "objectively baseless" and must "conceal 'an attempt to interfere directly with the business relationships of a competitor.'"⁷² In *Octane*, the Supreme Court stated that the standard established in *PRE* had "no roots in the text of § 285," and should not have been used in the context of determining whether a case was so "exceptional" as to justify an award of attorneys' fees in patent litigation.⁷³ The Court consequently rejected the Federal Circuit's ruling on § 285 in *Brooks Furniture* because the rule was "so demanding that it would appear to render § 285 largely superfluous."⁷⁴

Furthermore, the Supreme Court rejected the Federal Circuit's requirement that litigants had to establish an entitlement to fees under § 285 by "clear and convincing evidence."⁷⁵ The Supreme Court stated that there was no indication in § 285 that justified such a high standard of proof; rather, § 285 merely demanded a "preponderance of the evidence" standard.⁷⁶

Notably, any appeals to the Federal Circuit on the determination of exceptionality in a case can only be reviewed for "abuse of discretion."⁷⁷ The Supreme Court's decision in *Octane Fitness* was issued on the same day as *Highmark Inc. v. Allcare Health Mgmt. Systems*, which overturned the Federal Circuit's reversal of a fee award issued by the District Court

69. *Id.* at 1757.

70. *Id.*

71. *Id.*; see also *Prof'l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49 (1992).

72. *Prof'l Real Estate Investors, Inc.*, 508 U.S. at 51.

73. *Octane Fitness*, 134 S. Ct. at 1757 (quoting *Prof'l Real Estate Investors, Inc.*, 508 U.S. at 49).

74. *Id.* at 1758.

75. *Id.*

76. *Id.*

77. *Highmark Inc. v. Allcare Health Mgmt. Sys.*, 134 S. Ct. 1744, 1747 (2014).

for the Northern District of Texas.⁷⁸ The opinion referred to the *Octane Fitness* decision, stating that a § 285 award is a “matter of discretion” and that the exceptional-case determination should be reviewed only for abuse of discretion.⁷⁹ This decision effectively changed how the Federal Circuit will review appeals of § 285 motions—instead of a de novo review, all aspects of a district court’s exceptional-case determination would be reviewed for abuse of discretion.⁸⁰

In summary, the Supreme Court overruled the Federal Circuit’s two-step process in determining exceptionality: first, the exceptionality determination using the standard established in *Brooks Furniture*, and second, the “clear and convincing” evidence requirement.⁸¹ Furthermore, after *Highmark*, the Federal Circuit could only review appeals of § 285 motions for an abuse of discretion.⁸²

The Supreme Court lowered the “exceptional case” standard in *Octane Fitness*.⁸³ However, the actual definition of “exceptional” is still unclear. Guidelines to consider the “totality of the circumstances” when determining the substantive strength of a party’s litigating position do not provide much direction. Part IV of this Note will address this ambiguity and shed more light on what really is an “exceptional” case.

III. EMPIRICAL ANALYSIS OF EXCEPTIONALITY

This Part presents data on the first wave of fee award decisions following the *Octane* decision. Section III.A examines overall fee award patterns. Section III.B delves into district court determinations of what cases are “exceptional,” as well as factors that may increase the likelihood of a finding of exceptionality. Section III.C discusses broader ramifications that might affect litigation behavior and whether legislative reform is warranted.

78. *Id.*

79. *Id.* at 1749.

80. *Id.* at 1746.

81. *Brooks Furniture Mfg., Inc. v. Dutailier Int’l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

82. *Highmark*, 134 S. Ct. at 1749.

83. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014).

A. THE POST-*OCTANE FITNESS* LANDSCAPE

This Section consists of the empirical research analyzing the post-*Octane* landscape.⁸⁴ While this is a developing landscape, recent cases allow a glimpse into early data on the number of fees awarded under § 285, possible trends in determinations compared among districts, and over time, the amount awarded under § 285 motions, and the apportionment of these awards. Finally, early data on cases in which an NPE was involved is presented. This data is then placed into context and specific district court decisions discussing the “exceptional” case standard are explored.

In the nine months following the Supreme Court’s holding in *Octane Fitness*, there has been a significant increase in the number of motions made for attorneys’ fees under § 285,⁸⁵ as well as the number of attorneys’ fees awarded to prevailing parties under §285. Table 1 below summarizes the number of cases in which fees were awarded in 2002, 2011, and post-*Octane Fitness*.⁸⁶

Table 1 – Attorneys’ Fees Under § 285 post-*Octane Fitness*

	Fees Awarded	Fees Not Awarded	Total	Remanded
2002 ⁸⁷	10	40	50	N/A
2011 ⁸⁸	20	66	86	N/A
post- <i>Octane Fitness</i>	27	36	63	4

84. The following numbers were determined using LexisNexis and Westlaw to consolidate all cases from April 29, 2014 to March 1, 2015 involving a 35 U.S.C. § 285 motion. The cases retrieved were checked against a list on the blog Patently-O.com that consolidated several fee-shifting motions post-*Octane Fitness*. The analysis considered factors such as whether fees were awarded, the district, the court’s reasoning, and the award amount. More detailed information about the cases can be found in the appendix of this Note.

85. See Table 1. The total number of § 285 motions made within the first seven months post-*Octane Fitness* is greater in proportion to the number of motions made in 2002 and 2011.

86. This Note relied on Professor Colleen Chien’s study to compare the proportion of attorneys’ fees awarded before the Supreme Court’s decision in *Octane Fitness*. Therefore, the two years analyzed (2002 and 2011) in Chien’s paper were used to illustrate the differences post-*Octane Fitness*. The following tables and figures utilized the information found in Table 3 in the appendix.

87. Chien, *supra* note 54, at 380–81 n.329.

88. *Id.*

Compared to the number of attorneys' fees awarded under the Federal Circuit standard, the percentage of § 285 motions granted has substantially changed.⁸⁹ In 2011, approximately twenty awards were granted out of eighty-six cases, while in 2002, approximately ten awards were granted out of fifty cases.⁹⁰ After *Octane Fitness*, the proportion of fee awards granted under § 285 has more than doubled. Furthermore, the Federal Circuit has remanded four cases in which the court originally denied a § 285 motion to be reheard under the new standard established by *Octane Fitness*.

89. *Cf. id.* (Compare twenty awards granted out of eighty-six cases in 2011 and ten awards granted out of fifty cases in 2002 with twenty-six awards granted out of fifty-nine cases post-*Octane Fitness*.)

90. *Id.*

Figure 1 – § 285 Motions Granted/Denied by District

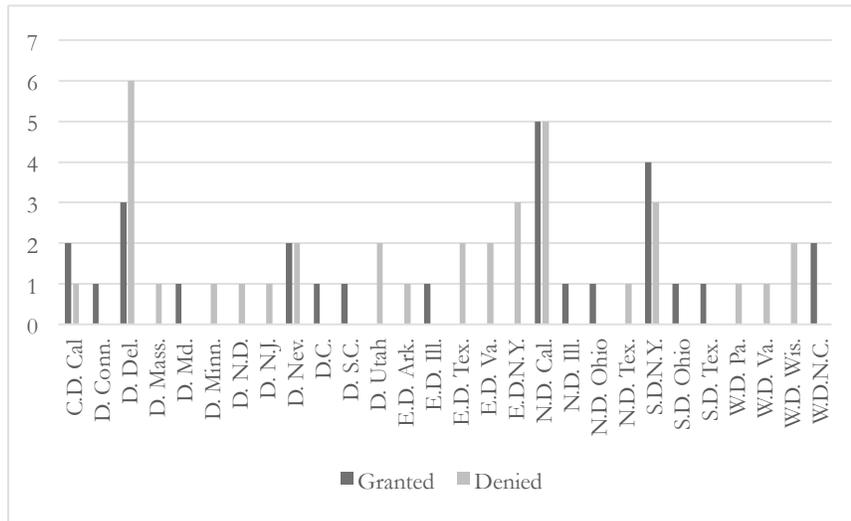


Figure 1 above compares the number of § 285 motions granted or denied by district. An initial analysis shows that there are certain districts with a higher proportion of cases in which attorneys' fees were granted than cases where they were not. Although there is not enough data at the moment to make any conclusive determinations, Figure 1 shows that the Northern District of California and the Southern District of New York have ratios of fees granted similar to the overall proportion of fees granted post-*Octane Fitness*.

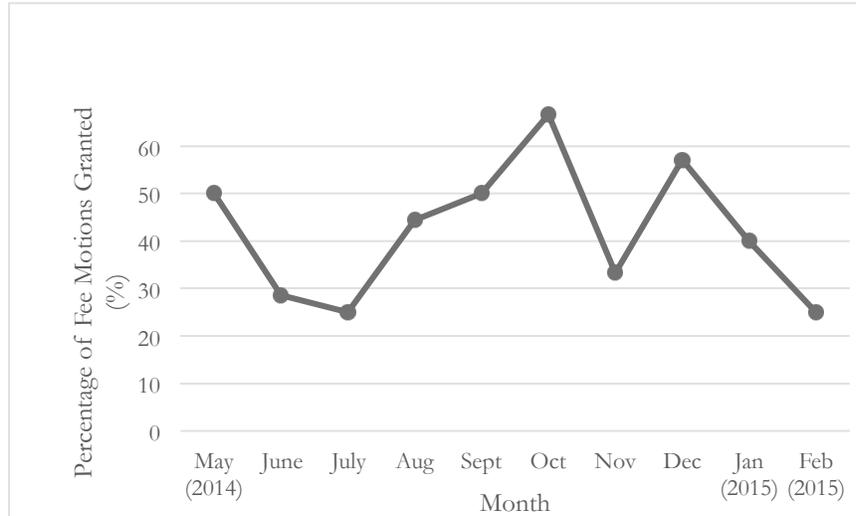
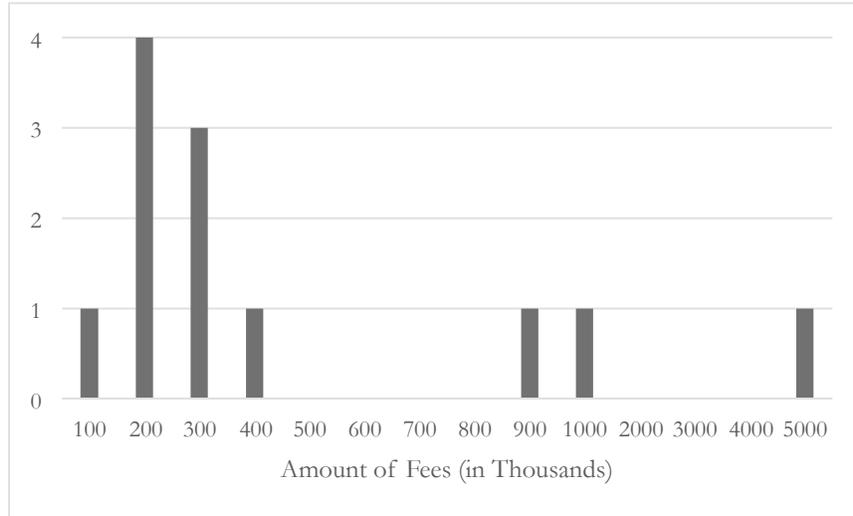
Figure 2 – Proportion of § 285 Motions Granted Over Time Post-*Octane Fitness*

Figure 2 examines the percentage of § 285 motions granted over time after *Octane Fitness*. Each month, the percentage of § 285 motions granted has stayed above the twenty percent yearly average in 2002 and 2011, as calculated in the discussion of Table 1. However, there is still not enough data to make any statistically significant determinations. The proportion of § 285 motions brought each month may be affected by other variables: a district judge's availability, the load of a district court's docket, and the status of the litigation.

Figure 3 – Histogram of § 285 Fees Awarded



Finally, Figure 3 shows the distribution of attorneys' fees with respect to the total amount awarded for post-*Octane Fitness* cases where fees have been granted. Most of the cases in which § 285 motions have been granted have not yet determined the amount of attorneys' fees to be awarded to the prevailing party. As of March 1, 2015, courts have determined the actual fee award in only twelve cases. Although there have been a few outlier cases resulting in judgments awarding over one million dollars, the majority of § 285 awards thus far have ranged from \$200,000 to \$300,000.

Figure 4 – Apportionment of § 285 Attorneys' Fees

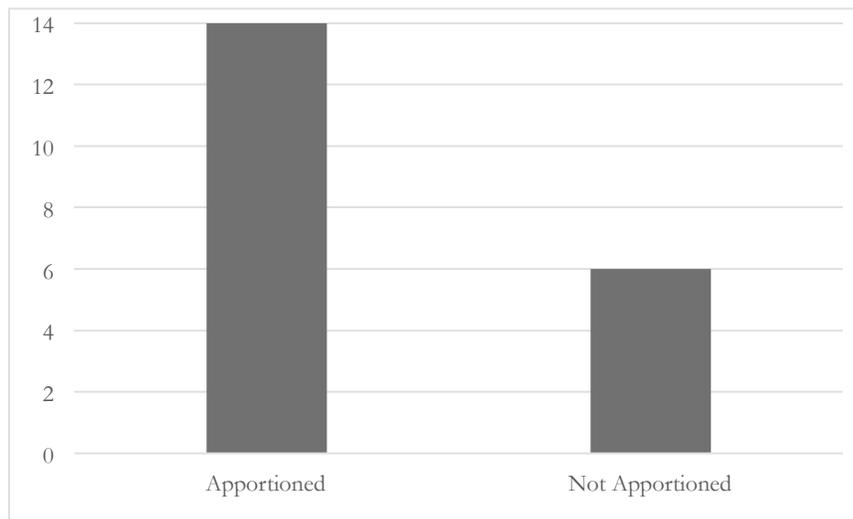


Figure 4 shows the number of cases where the court specifically limited attorneys' fees awards to remedy litigation misconduct ("apportioned") and the number of cases where the court granted attorneys' fees for the entire case without any apportionment specifically to the "exceptional" behavior. A fee award was considered "apportioned" or "not apportioned" if a court stated in its holding whether or not the fee award would be for the entire case or for the specific time period when the exceptional conduct occurred, even if the actual amount awarded was not determined. There are a limited number of cases in which the district courts have determined the extent to which attorneys' fees will be awarded after granting a § 285 motion. Therefore, no conclusive inferences can be made about Figure 4.

Table 2 below summarizes the cases in which an NPE was involved and whether a court awarded attorneys' fees under § 285.⁹¹ Although courts have specifically discussed how a party's status as an NPE can influence an "exceptional" case finding,⁹² it does not appear to be an automatic determination of an "exceptional" case.

Table 2 – Fee-Shifting Against NPE Parties

Case	Date	Court	Fees Awarded?	Type of NPE
EON Corp. IP Holdings, LLC v. FLO TV Inc. ⁹³	27-May-14	D. Del.	No	EON - Patent holding co.
EON Corp. IP Holdings, LLC v. Cisco Sys. Inc. ⁹⁴	25-Jul-14	N.D. Cal.	No	EON - Patent holding co.
Gametek LLC v. Zynga, Inc. ⁹⁵	2-Sep-14	N.D. Cal.	No	Gametek - Large aggregator

91. Whether or not a party was considered a patent-assertion entity or "NPE" was determined by comparing each party to a dataset compiled by Christopher A. Cotropia et al., 2010 Patent Holder and Litigation Dataset, *available at* <http://npedata.com> (last updated May 28, 2014). The dataset consists of all patent litigation cases during 2010 and 2011. *Id.* Using the definitions given in the Cotropia paper *Unpacking Patent Assertion Entities (PAEs)*, a party was considered a PAE or NPE if it was categorized as a patent holding company or a large aggregator. *See* Christopher A. Cotropia et al., *Unpacking Patent Assertion Entities (PAEs)*, 99 MINN. L. REV. 649 (2014).

92. *See* discussion *infra* Section IV.B.

93. EON Corp. IP Holdings, LLC v. FLO TV Inc., No. 10-812-RGA, 2014 U.S. Dist. LEXIS 71753 (D. Del. May 27, 2014).

94. EON Corp. IP Holdings, LLC v. Cisco Sys. Inc., No. 12-cv-01011-JST, 2014 U.S. Dist. LEXIS 101923 (N.D. Cal. July 25, 2014).

Case	Date	Court	Fees Awarded?	Type of NPE
Stragent LLC v. Intel Corp. ⁹⁶	6-Aug-14	E.D. Tex.	No	Stragent - Patent holding co.
H-W Tech., L.C. v. Overstock.com, Inc. ⁹⁷	15-Aug-14	N.D. Tex.	No	H-W Tech. - Patent holding co.
Intellect Wireless, Inc. v. Sharp Corp. ⁹⁸	30-May-14	N.D. Ill.	Yes	Intellect Wireless - Patent holding co.
Inventio AG v. Thyssenkrupp Elevator Corp. ⁹⁹	6-Nov-14	D. Del.	No	Inventio AG - Patent holding co.
Lumen View Tech, LLC v. Findthebest.com, Inc. ¹⁰⁰	23-Oct-14	S.D.N.Y.	Yes	Lumen View - Patent holding co.
Parallel Iron LLC v. NetApp Inc. ¹⁰¹	12-Sep-14	D. Del.	No	Parallel Iron LLC - Patent holding co.
Pragmatus Telecom LLC v. Newegg Inc. ¹⁰²	25-Jul-14	D. Del.	No	Pragmatus Telecom LLC - Patent holding co.
Site Update Solutions, LLC v. Accor North America, Inc. ¹⁰³	11-Feb-15	N.D. Cal.	No	Site Update Solutions - Large aggregator

95. Gametek LLC v. Zynga, Inc., No. CV 13-2546, 2014 U.S. Dist. LEXIS 122834 (N.D. Cal. Sept. 2, 2014).

96. Stragent LLC v. Intel Corp., No. 6:11-cv-421, 2014 U.S. Dist. LEXIS 169080 (E.D. Tex. Aug. 6, 2014).

97. H-W Tech., L.C. v. Overstock.com, Inc., No. 3:12-CV-636-G, 2014 U.S. Dist. LEXIS 122667 (N.D. Tex. Aug. 15, 2014).

98. Intellect Wireless, Inc. v. Sharp Corp., No. 10 C 6763, 2014 U.S. Dist. LEXIS 73653 (N.D. Ill. May 30, 2014).

99. Inventio AG v. Thyssenkrupp Elevator Corp., No. 08-00874-RGA, 2014 U.S. Dist. LEXIS 157448 (D. Del. Nov. 6, 2014).

100. Lumen View Tech, LLC v. Findthebest.com, Inc., No. 13cv3599, 2014 U.S. Dist. LEXIS 150444 (S.D.N.Y. Oct. 23, 2014).

101. Parallel Iron LLC v. NetApp Inc., No. 12-769-RGA, 2014 U.S. Dist. LEXIS 127850 (D. Del. Sept. 12, 2014).

102. Pragmatus Telecom LLC v. Newegg Inc., No. 12-1533-RGA, 2014 WL 3724138 (D. Del. July 25, 2014).

103. Site Update Solutions, LLC v. Accor N. Am., Inc., No. 5:11-cv-3306-PSG, 2015 U.S. Dist LEXIS 17603 (N.D. Cal. Feb. 11, 2015).

The data presented above is only an early glimpse of the results and trends in the post-*Octane* landscape. Although there is not enough information to draw any conclusive determinations, courts overall appear to be more willing to grant § 285 motions after *Octane Fitness*. The variability in award amounts, apportionment, and district determinations is potentially a result of the discretion afforded to district courts in an “exceptional” case determination. It is helpful to examine how district courts have responded to *Octane Fitness* and possible ramifications of these variable results.

B. WHAT IS AN “EXCEPTIONAL” CASE?

Although the Supreme Court in *Octane Fitness* stated that the Federal Circuit’s standard was too stringent and inflexible, the Court did not define the standard for an “exceptional” case.¹⁰⁴ As a result, district courts now know that an “exceptional” case is not limited to circumstances where there has been “material inappropriate conduct,” or where the litigation is both “brought in subjective bad faith” and is “objectively baseless.”¹⁰⁵ Courts have found widely varying cases fit the “totality of the circumstances” for determining whether a case is exceptional.¹⁰⁶

This Section will first discuss the wide range of interpretations of exceptionality. Additionally, the possibility of certain factors increasing the likelihood of an “exceptional” case finding is considered, and apportionment of attorney’s fees in the event of an “exceptional” case determination is discussed.

1. *Wide Range of Interpretations of “Exceptional”*

Following the Supreme Court’s ruling, several district courts have reconsidered rejections of fee-shifting motions made previously under the Federal Circuit’s higher standard. For example, in *Medtrica Solutions Ltd. v. Cygnus Medical, LLC*, the court found that “under the discretionary, flexible framework endorsed by the Supreme Court,” the case was exceptional within the context of § 285.¹⁰⁷ Although there was no evidence of bad faith or litigation misconduct, the case was nonetheless uncommon

104. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1755 (2014).

105. *Brooks Furniture Mfg., Inc. v. Dutailier Int’l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

106. *Octane Fitness*, 134 S. Ct. at 1756.

107. Order Granting Motion for Reconsideration, No. 2-12-cv-00538-RSL, at *3 (W.D. Wash. July 11, 2014).

because of an “absence of evidence supporting [the Defendant]’s theories of infringement at summary judgment.”¹⁰⁸

Similarly, in *Cognex Corp. v. Microscan Systems*, the court partially granted the plaintiffs’ motion for attorneys’ fees because the defenses offered at trial were “particularly weak and lacked support in the evidence presented to the jury and to the Court.”¹⁰⁹ The defendants made post-trial motions that sought to relitigate issues already decided during trial.¹¹⁰ Furthermore, the defendants engaged in “unreasonable litigation tactics” that wasted the court’s time and increased the plaintiff’s costs.¹¹¹ The court specifically noted that *Octane Fitness* “emphasized that district courts should determine whether a case is exceptional ‘in the case-by-case exercise of their discretion, considering the totality of the circumstances.’”¹¹²

By contrast, the court in *GameTek LLC v. Zynga, Inc.* denied a motion for attorneys’ fees under § 285.¹¹³ In this case, the complainant’s patent was found to be invalid under § 101¹¹⁴ on a judgment on the pleadings, after the district court noted in support of the Federal Circuit’s holding that “it will be rare that a patent infringement suit can be dismissed at the pleading state for lack of patentable subject matter.”¹¹⁵ The defendants argued that the “rare” case in which invalidity was determined on the pleadings ipso facto constituted an “exceptional case.”¹¹⁶ On the § 285 motion, the court found that the substantive arguments did not descend “to the level of frivolous argument or objective unreasonableness.”¹¹⁷ The district court in this case stated that nowhere in *Octane Fitness* did the Supreme Court suggest a shift to the English Rule, and that although the complainant’s conduct suggested an “aggressive litigation strategy,” it fell short of conduct found to justify fee-shifting even post-*Octane Fitness*.¹¹⁸

108. *Id.* at *3–4.

109. *Cognex Corp. v. Microscan Sys.*, No. 13-CV-2027, 2014 U.S. Dist. LEXIS 91203, at *10 (S.D.N.Y. June 30, 2014).

110. *Id.* at *11.

111. *Id.*

112. *Id.* at *10 (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

113. *Gametek LLC v. Zynga, Inc.*, No. CV 13-2546 RS, 2014 U.S. Dist. LEXIS 122834, at *17 (N.D. Cal. Sep. 2, 2014).

114. 35 U.S.C. § 101 (2012).

115. *Gametek*, 2014 U.S. Dist. LEXIS 122834, at *17 (quoting *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1338 (Fed. Cir. 2013)).

116. *Id.* at *10.

117. *Id.* at *12.

118. *Id.* at *10–13.

Furthermore, district courts have ruled that a case is not “exceptional” even in circumstances where the court held that a party asserted some frivolous arguments and motions during litigation.¹¹⁹ For example, in *TransPerfect Global, Inc. v. Motionpoint Corp.*, the district court acknowledged that defendant MotionPoint “asserted some frivolous arguments and filed some frivolous motions” during the litigation.¹²⁰ Nevertheless, the court exercised its discretion and denied the § 285 motion.¹²¹ The district court noted that MotionPoint’s alleged discovery abuses did not appear to have been committed in bad faith and “its alleged mis-statements of fact and disclosures of confidential information were relatively minor.”¹²²

The wide variation in exceptionality determinations makes the legal process more unpredictable and may weaken the ability of § 285 to deter certain abusive practices. For example, an NPE may not be discouraged from bringing frivolous arguments if it knows that there is a greater possibility that certain district courts or judges will not rule that a case is “exceptional.” However, the advantages of giving courts greater flexibility and discretion may outweigh the disadvantage of unpredictable outcomes because district courts can award fees on a case-by-case basis, without being limited to a set of standards that may not fit all situations.

In light of this wide variation in interpreting *Octane Fitness*, it would be reasonable to see if an appeal at the Federal Circuit clarifies the “exceptional” standard. Unfortunately, the Federal Circuit’s ability to review a determination of “exceptionality” is limited by the *Highmark* decision. In *Highmark*, the Supreme Court stated that a § 285 decision was a “matter of discretion” and that the exceptional-case determination should be reviewed only for abuse of discretion.¹²³ This decision severely limits the Federal Circuit’s power to review appeals of § 285 fee awards. The Federal Circuit cannot elucidate the “exceptional” standard because *Highmark* makes it clear that the appellate court should only review § 285 district court determinations for an abuse of discretion.

119. *TransPerfect Global, Inc. v. Motionpoint Corp.*, No. C 10-2590 CW, 2014 U.S. Dist. LEXIS 159805, at *25 (N.D. Cal. Nov. 13, 2014).

120. *Id.*

121. *Id.*

122. *Id.* at *24.

123. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014) (citing *Highmark Inc. v. Allcare Health Mgmt. Sys.*, 134 S. Ct. 1744, 1747 (2014)).

2. *Do Certain Outcomes Associated with the Case Increase the Likelihood of an “Exceptional” Case Finding Under § 285?*

Octane Fitness has led to multiple questions on what factors may lead a court to find that a case is exceptional. As the post-*Octane Fitness* caselaw develops, it is becoming increasingly apparent that there is still significant uncertainty about whether particular motions must be made before a case is considered exceptional, or if there are certain cases that automatically qualify for attorneys’ fees under § 285.

a) Motion for Summary Judgment

For example, in *Stragent LLC v. Intel Corp.*, Federal Circuit Judge Timothy B. Dyk, sitting by designation in Texas federal court, declined to award attorneys’ fees to Intel Corp. after a jury found the patent asserted by Stragent invalid and did not infringe.¹²⁴ Dyk stated that Stragent’s argument was “certainly a weak one,” but added that Intel could have pursued summary judgment to reduce litigation efforts and costs.¹²⁵ This leads to an inevitable question about where it is necessary to use a motion for summary judgment in order to build a case for exceptionality.

However, other cases have indicated that certain factors such as a defendant’s summary judgment win may not be sufficient alone to render a case exceptional.¹²⁶ For example, in *Gevo, Inc. v. Butamax Advanced Biofuels LLC*, the district court did not award attorneys’ fees to the plaintiffs even though the court granted the plaintiffs’ motion for summary judgment of non-infringement of the patents at issue and even found certain claims of one of the patents invalid.¹²⁷ The district court stated that the defendant’s conduct in the case was not unreasonable and there was no evidence of subjective bad faith.¹²⁸ Although the defendant did not prevail on summary judgment, the district court stated that the defendant’s claims were not “exceptionally meritless.”¹²⁹

While summary judgment may be an indication of how a defendant views the strength of a plaintiff’s allegations, a party should not be required to pursue summary judgment in order to qualify for attorneys’

124. *Stragent LLC v. Intel Corp.*, No. 11-421, 2014 U.S. Dist. LEXIS 169080, at *16 (E.D. Tex. Aug. 6, 2014).

125. *Id.*

126. *CreAgri Inc. v. Pinnaclife Inc.*, No. 11-cv-06635-LHK-PSG, 2014 WL 2508386 (N.D. Cal. June 3, 2014).

127. *Gevo, Inc. v. Butamax Advanced Biofuels LLC*, No. 13-576-SLR, 2014 WL 4247735, at *1 (D. Del. Aug. 26, 2014).

128. *Id.* at *2.

129. *Id.*

fees under § 285. Additional factors irrelevant to the § 285 analysis influence a litigator's decision to file a motion for summary judgment. For example, parties may feel more or less inclined to make summary judgment motions depending on the likelihood of the motion being granted. Studies have shown that the proportion of summary judgment motions granted vary from district to district, and a party may choose not to waste time and resources on a motion that will most likely fail.¹³⁰ Additionally, "exceptional" case determinations are issued at the court's discretion, and a local Eastern District of Texas judge may not look at the same factors when considering a § 285 award as a visiting Federal Circuit judge.

b) Factors Previously Considered Sufficient for an "Exceptional" Case Ruling under the *Brooks Furniture* Standard

Based on the district court to-date rulings post-*Octane Fitness*, any factors that were considered sufficient for an "exceptional" case finding under the Federal Circuit's standard are still sufficient under the new standard established in *Octane Fitness*. For example, district courts have held that a case is "exceptional" if the losing party willfully infringed the patent or if there was inequitable conduct during prosecution of the patent, both of which were considered "material inappropriate conduct" under the Federal Circuit standard in *Brooks Furniture*.¹³¹

i) Willfulness

In *Keystone Global LLC v. Auto Essentials Inc.*, the district court found that one of the defendants, Décor Essentials, willfully infringed the patents-in-suit after they continued to distribute the infringing product despite being notified of its infringing conduct on two separate occasions.¹³² The district court awarded Keystone Global's motion for attorneys' fees under § 285 because "an express finding of willful infringement is a sufficient basis for classifying a case as 'exceptional,' and

130. See generally Joe S. Cecil et al., *A Quarter-Century of Summary Judgment Practice in Six Federal District Courts*, 4 J. OF EMPIRICAL LEGAL STUD. 861 (2007), available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1740-1461.2007.00109.x/full>; see generally Stephen B. Burbank, *Vanishing Trials and Summary Judgment in Federal Civil Cases: Drifting Toward Bethlehem or Gomorrah?*, 1 J. OF EMPIRICAL LEGAL STUD. 591 (2004), available at <http://onlinelibrary.wiley.com/doi/10.1111/j.1740-1461.2004.00016.x/full>.

131. *Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

132. *Keystone Global LLC v. Auto Essentials Inc.*, No. 12 Civ. 9077, 2014 U.S. Dist. LEXIS 141044, at *11-12 (S.D.N.Y. Oct. 1, 2014).

indeed, when a trial court denies attorney fees in spite of a finding of willful infringement, the court must explain why the case is not ‘exceptional’ within the meaning of the statute.”¹³³

On the other hand, in *IPVX Patent Holdings v. Taridium, LLC*, the district court declined to award attorneys’ fees to the plaintiff, specifically noting that there were no allegations of willful infringement though the defendant was liable because of a default judgment.¹³⁴ Although the district court cited *Octane Fitness* and the “totality of the circumstances” holding, the court also referenced another district court in the Second Circuit that considered the jury’s willful infringement finding in its decision to award attorneys’ fees when applying the *Octane Fitness* standard.¹³⁵ The district court then stated that the plaintiff did not extend any argument as to why the case should be designated “exceptional.”¹³⁶ However, willfulness is just one of the factors considered to be “material inappropriate conduct” under *Brooks Furniture* that has also been factored into district courts’ “exceptional” case determinations post-*Octane Fitness*.

ii) Inequitable Conduct

For cases involving § 285 motions since *Octane Fitness*, inequitable conduct appears to be another factor in the “totality of the circumstances” considered by courts in an “exceptional” case determination. For example, in *Intellect Wireless, Inc. v. Sharp Corp.*, the district court agreed with defendants Sharp Corp. that the plaintiff’s inequitable conduct before the PTO made the case exceptional under § 285.¹³⁷ The court clarified that although inequitable conduct may serve as grounds for finding a case exceptional, it was not a *per se* rule of exceptionality.¹³⁸ However, the court stated that there were circumstances in which a patentee’s inequitable conduct was sufficient to support a finding of an exceptional case.¹³⁹

133. *Id.* (quoting *BIC Corp. v. First Prominence Co.*, No. 00 Civ. 7155, 2001 U.S. Dist. LEXIS 20734, at *4 (S.D.N.Y. Dec. 10, 2001)); *see also* *Rubbermaid Commercial Prods., LLC v. Trust Commercial Prods.*, 2014 U.S. Dist. LEXIS 142745, at *15 (D. Nev. Aug. 22, 2014) (finding that the plaintiff was eligible for attorneys’ fees under § 285 after a default judgment found that the infringement was willful).

134. *IPVX Patent Holdings, Inc. v. Taridium, LLC*, No. 12-CV-5251, 2014 U.S. Dist. LEXIS 127550, at *14 (E.D.N.Y. Aug. 6, 2014).

135. *Id.* (citing *Cognex Corp. v. Microscan Sys., Inc.*, No. 13-CV-2027, 2014 U.S. Dist. LEXIS 91203 (S.D.N.Y. June 30, 2014)).

136. *Id.*

137. *Intellect Wireless, Inc. v. Sharp Corp.*, No. 10 C 6763, 2014 U.S. Dist. LEXIS 73653, at *24 (N.D. Ill. May 30, 2014).

138. *Id.* at *25.

139. *Id.* at *26.

Similarly, in *Ohio Willow Wood Co. v. ALPS South, LLC*, the district court held that the defendant was entitled to attorneys' fees because the plaintiff obtained or preserved several unwarranted patents by engaging in inequitable conduct, and the defendant prevailed on the defendant's infringement cross-claims.¹⁴⁰

While it is reasonable to assume that certain factors sufficient for an "exceptional" case finding under the Federal Circuit's "overly rigid" standard would also be sufficient under the new standard established by *Octane Fitness*, courts should be cautious about inadvertently returning to the Federal Circuit's standard. In fact, some courts appear to be sticking to the Federal Circuit's stricter standard despite the *Octane Fitness* holding. In *Technology Advancement Group, Inc. v. IvySkin, LLC*, the Eastern District of Virginia failed to cite *Octane Fitness* at all, and held that "only a limited universe of circumstances warrant a finding of exceptionality in a patent case: inequitable conduct before the PTO; litigation misconduct; vexatious, unjustified, and otherwise bad faith litigation; a frivolous suit[;] or willful infringement."¹⁴¹ The above examples listed by the court are the same as the independently sanctionable conduct described in the Federal Circuit's holding in *Brooks Furniture*.¹⁴² However, the Supreme Court explicitly stated that independently sanctionable conduct was not an appropriate benchmark for fee awards, and that a party's unreasonable conduct need only be "exceptional" to justify an award of attorneys' fees even where that conduct may not have been independently sanctionable.¹⁴³

c) Party

Finally, recent cases have suggested that courts consider the party's litigating behavior, as well as the size of the party, when making a § 285 determination. Notably, courts have considered whether the losing party has a history of "NPE" behavior, the experience of the litigants, and the litigation misconduct of the party.

140. *Ohio Willow Wood Co. v. ALPS South, LLC*, No. 2:04-cv-1223, 2014 U.S. Dist. LEXIS 137485, at *125 (E.D. Ohio Sept. 24, 2014). *Cf.* *Inventio AG v. Thyssenkrupp Elevator Corp.*, No. 08-00874-RGA, 2014 U.S. Dist. LEXIS 157448, at *40 (D. Del. Nov. 6, 2014) (holding that the case was not exceptional because the defendant's only basis for an exceptional finding was inequitable conduct, and the court found no inequitable conduct in this case).

141. *Tech. Advancement Grp., Inc. v. IvySkin, LLC*, No. 2:13cv89, 2014 U.S. Dist. LEXIS 96257, at *16-17 (E.D. Va. July 14, 2014) (quoting *Wedgetail Ltd. v. Huddleston Deluxe, Inc.*, 576 F.3d 1302, 1304-05 (Fed. Cir. 2009)).

142. *Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

143. *See* discussion Section IV.A *supra*.

i) An NPE or Patent-Assertion Entity Case

Although Table 2 in Section IV.A does not show a positive correlation between NPE status and § 285 awards, district courts have directly addressed how a party's status as an NPE or "patent troll" may influence a court's "exceptional" case determination.¹⁴⁴ Certain district courts have noted that "[t]he need for the deterrent impact of a fee award is greater where there is evidence that the plaintiff is a 'patent troll' or has engaged in extortive litigation."¹⁴⁵ If the plaintiff's conduct was "part of a predatory strategy aimed at reaping financial advantage from the inability or unwillingness of defendants to engage in litigation against even frivolous patent lawsuits," a judge may be more likely to award attorneys' fees under § 285.¹⁴⁶ In *LendingTree, LLC v. Zillow, Inc.*, the district court stated that the case was "readily distinguishable from those cases involving non-practicing entities whose sole business model is to acquire patents and litigate rights associated with the patents, usually in an attempt to obtain a settlement or license with the allegedly infringing company."¹⁴⁷

ii) Litigation Experience of the Non-Motioning Party

Courts also look at the litigation experience of the losing party in a § 285 motion. If a party is an experienced litigant but fails to conduct an "adequate pre-filing investigation," a court may factor this into an "exceptional" case determination.¹⁴⁸ Furthermore, if the opposing parties are direct competitors, courts may find that the litigation experience is a "legitimate fight" over the breadth of the patents and not an "exceptional" case.¹⁴⁹

iii) Litigation Misconduct

Finally, courts consider whether the losing party engaged in litigation misconduct during the case. If a party's "entire litigation strategy" is devoted to "stringing out the case," a court may rule that the case is

144. *Small v. Implant Direct Mfg., LLC*, No. 06 Civ. 683 (NRB), 2014 U.S. Dist. LEXIS 154468, at *9–10 (S.D.N.Y. Oct. 22, 2014).

145. *Id.*; see also *Lumen View Tech., LLC v. Findthebest.com, Inc.*, 24 F. Supp. 3d 329, 336 (S.D.N.Y. 2014).

146. *Lumen View Tech.*, 24 F. Supp. 3d at 336.

147. *LendingTree, LLC v. Zillow, Inc.*, No. 3:10-cv-00439-FDW-DCK, 2014 U.S. Dist. LEXIS 146336, at *36–37 (W.D.N.C. Oct. 9, 2014).

148. *Yufa v. TSI Inc.*, No. 09-cv-01315-KAW, 2014 U.S. Dist. LEXIS 113148, at *7–8 (N.D. Cal. Aug. 14, 2014).

149. *LendingTree*, 2014 U.S. Dist. LEXIS 146336, at *36–37.

“exceptional.”¹⁵⁰ If a plaintiff knows or should have known that its claims are meritless, then “continuing to hold these groundless claims over [d]efendants’ heads to increase potential settlement amounts” can warrant an award of attorneys’ fees.¹⁵¹ Furthermore, attorneys’ fees may be granted not only for the litigation misconduct itself but also as deterrence for such “reckless and wasteful litigation in the future.”¹⁵²

It is apparent that there are a myriad of factors that district courts appear to consider when making an “exceptional” case determination. These factors include, but are not limited to, whether a motion for summary judgment was made before the § 285 motion, if the case would be considered “exceptional” under the overturned Federal Circuit standard, and the litigating behavior and experience of the parties involved. Additionally, there is no dispositive factor that clarifies the ambiguous “exceptional” standard under *Octane Fitness*. Unsurprisingly, courts have varied not only in their “exceptional” case determinations, but also in the amount of their § 285 attorneys’ fees awards.

3. *Fee Apportionment*

In the number of cases in which attorneys’ fees have actually been determined,¹⁵³ courts have varied on how much of the award is apportioned specifically towards the misconduct or abusive behavior itself. Although there is not enough data at the moment to make any conclusive determinations on fee apportionment, some courts appear to be much more flexible on how much of the attorneys’ fee award has to be limited specifically to the litigation misconduct or behavior. In *Homeland Housewares, LLC v. Sorensen Research & Development Trust*, the Federal Circuit held that a district court was not required to limit the award to the costs that the prevailing party incurred in responding to specific acts of litigation misconduct because it was the “totality of the circumstances,” and not just discrete acts of litigation conduct, that justify the court’s

150. *Chalumeau Power Sys. LLC v. Alcatel-Lucent Holding Inc.*, No. 11-1175-RGA, 2014 WL 4675002, at *3 (D. Del. Sept. 12, 2014).

151. *Linex Techs., Inc. v. Hewlett-Packard Co.*, No. C 13-159 CW, 2014 U.S. Dist. LEXIS 129717, at *18 (N.D. Cal. Sept 15, 2014).

152. *Summit Data Sys., LLC v. EMC Corp.*, No. 10-749-GMS, 2014 U.S. Dist. LEXIS 138248, at *14 (D. Del. Sept. 25, 2014).

153. *See* Figure 3, *supra* Section IV.A (several of the cases in which attorneys’ fees have been granted have not yet determined the exact amount of attorneys’ fees awarded to the prevailing party).

award of fees.”¹⁵⁴ The Southern District of New York held that the attorneys’ fees and non-taxable expenses that a prevailing party could collect were limited to the fees and expenses that were “causally-related to the misconduct or frivolous arguments” leading to the “exceptional” case determination.¹⁵⁵

C. RAMIFICATIONS

As is evident from the wide range of district court approaches to fee award determinations, the consequences of *Octane Fitness* are still developing.¹⁵⁶ However, based on the data to date, *Octane Fitness* could significantly affect litigation behavior and patent reform. This Section first considers how the variability in the § 285 granted awards will affect forum shopping and will increase the importance of declaratory motions and the forum in which they are brought. It then discusses how NPEs may change their litigation tactics in light of *Octane Fitness*. It concludes by assessing the potential effects of the *Octane Fitness* decision on patent reform legislation.

1. *Forum Shopping*

Studies have shown that “patent cases are not dispersed evenly throughout the ninety-four judicial districts, nor dispersed according to the relative size of the court’s civil docket generally, but rather consolidated in a few selecting particular forums.”¹⁵⁷ The lack of uniformity suggests that patent holders are actively selecting particular forums to bring claims.¹⁵⁸ Unfortunately, forum shopping may reflect inequity in the legal system, and can be an inefficient use of legal resources.¹⁵⁹ Commentators argue that forum shopping overburdens

154. *Homeland Housewares, LLC v. Sorensen Research & Dev. Trust*, No. 2013-1537, 2014 U.S. App. LEXIS 17300, at *9 (Fed. Cir. Sept. 9, 2014) (quoting *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014)).

155. *TNS Media Research, LLC v. TiVo Research & Analytics, Inc.*, No. 11 Civ. 4039, 2014 U.S. App. LEXIS 155914, at *38–39 (S.D.N.Y. Nov. 4, 2014).

156. Sean Murray, *Why Patent Defendants Shouldn’t Litigate Too Aggressively*, LAW360 (Sept. 24, 2014, 9:51 AM), http://www.law360.com/ip/articles/576313?nl_pk=2dbdccc-dc-ef40-4b65-8b1d-5337bb6be39e&utm_source=newsletter&utm_medium=email&utm_campaign=ip.

157. Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation*, 83 J. PAT. & TRADEMARK OFF. SOC’Y 558, 561 (2001); see generally Megan Woodhouse, *Shop ‘til You Drop: Implementing Federal Rules of Patent Litigation Procedure to Wear Out Forum Shopping Patent Plaintiffs*, 99 GEO. L.J. 227 (2010).

158. Moore, *supra* note 157, at 589.

159. *Id.*

preferred courts with a flood of patent cases.¹⁶⁰ However, there is a very strong perception that there is an advantage to filing a declaratory judgment against the patentee, rather than waiting for the patentee to file an infringement suit. In fact, empirical evidence has substantiated the advantage forum selection has for parties.¹⁶¹ In cases in which the defendant was able to choose the forum (as with declaratory judgment actions) rather than the patent holder (as in infringement suits), the defendant was much more likely to win.¹⁶²

Although there is not enough data to make any conclusive inferences about a specific district's § 285 grant rate, the variation among districts in § 285 determinations will likely encourage forum shopping for both accused infringers and patent holders.¹⁶³ For accused infringers, a declaratory judgment case may be stronger if a patent holder's potential claims against the accused infringer would be considered frivolous and "exceptional" under § 285. If certain districts exhibit a stronger propensity to grant § 285 motions, accused infringers would benefit from selecting forums that are more likely to award attorneys' fees when filing a declaratory judgment case. On the other hand, patent holders utilizing aggressive litigation strategies or behaviors that could factor into an "exceptional" case determination may prefer districts that are less likely to grant § 285 motions.

2. *Non-Practicing Entities in Litigation*

Unintentional consequences of *Octane Fitness* such as forum shopping will likely affect how NPEs pursue certain cases. The Supreme Court's decision made it easier for courts to affirm or grant fee awards in light of frivolous claims with cost of defense settlements. *Octane Fitness* may encourage defendants to litigate rather than settle if they thought they had a better chance of recouping their fees. Furthermore, as discussed earlier in this Note, courts do consider the NPE status of a party as well as prior litigation behavior when determining whether or not a case is exceptional.¹⁶⁴

160. Harvard Law Review Association, *Forum Shopping Reconsidered*, 103 HARV. L. REV. 1677, 1684 (1990).

161. Moore, *supra* note 157, at 585.

162. *Id.* at 586 ("When the patent holder selects the forum, the patent holder wins 58% of the claims. When the accused infringer brings a declaratory judgment action and thereby chooses the forum, the patent holder win rate drops to 44%.")

163. See Figure 1, *supra* Section IV.A.

164. See discussion *supra* Section IV.B.2.

However, this does not mean that parties are automatically entitled to attorneys' fees if they prevail against a non-practicing entity. Courts still look at the substantive strength of a party's litigation position and the manner in which the case was litigated.¹⁶⁵ As a result, there still may be a lot of pressure on accused infringers to settle for well under the cost of litigation if the NPE does not engage in litigation misconduct or assert claims that are extremely weak or baseless. The willingness of NPEs to avoid bringing suit and the willingness of defendants to litigate rather than settle may only change at the margins.

3. *The Octane Fitness Decision May Influence Reform Legislation Proposed by Congress*

The political background of the *Octane Fitness* holding is significant because the decision was issued during a time where the push for patent reform to discourage frivolous patent litigation and curb NPE litigation behavior was high.¹⁶⁶ A common criticism of the patent system is that NPEs do not have to worry about counter-suits for infringement, and therefore, will not settle on reasonable terms.¹⁶⁷ Multiple congressional proposals addressing fee-shifting in patent litigation indicate the growing concern of litigation abuse in an area where the median patent infringement litigation costs increase every year.¹⁶⁸ Congressional subcommittees in both the House of Representatives and the Senate have advocated for patent reform, seeking to relieve the pressure many corporations experience from non-practicing entities and litigation

165. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014).

166. *Goodlatte and Eshoo Call on the Senate to Pass Innovation Act*, *supra* note 41. Goodlatte and Eshoo stated:

At its core, abusive patent litigation is a drag on our economy and stifles innovation . . . The time is now, and the Innovation Act has helped set a clear bipartisan road map toward eliminating the abuses of our patent system, discouraging frivolous patent litigation and keeping U.S. patent laws up to date.

Id.

167. Michael Risch, *Patent Portfolios as Securities*, 63 DUKE L.J. 89, 96 (2013); Daniel Roth, *Patent Litigation Attorneys' Fees: Shifting from Status to Conduct*, 13 CHI. -KENT J. INTELL. PROP. 257, 261 (2013).

168. Bessen & Meurer, *supra* note 25, at 399. The direct costs of NPE patent litigation are "substantial, totaling about \$29 billion accrued cost in 2011." *Id.* at 422. A substantial portion of the stated \$29 billion is a "deadweight loss to society." *Id.* at 400; *see also* Am. Intell. Prop. Law Ass'n, Report of the Economic Survey 34 (2013); H.R. 6245, 112th Cong. (2012); H.R. 3309, 113th Cong. (as referred to the S. Comm. on the Judiciary, Dec. 9, 2013); S. 1013, 113th Cong. (2013).

misconduct.¹⁶⁹ Former Federal Circuit Chief Judge Rader has urged judges to use their authority from § 285 of the Patent Act and Rule 11 of the Federal Rules of Civil Procedure to “make trolls pay for abusive litigation.”¹⁷⁰ Because many non-practicing entities use lawyers to represent them on a contingent-fee basis, a greater risk of fee-shifting in the event of abusive litigation may deter these parties from filing abusive patent-infringement lawsuits with frivolous demands.¹⁷¹ If legislators believe that fee-shifting is a deterrent to these abusive practices, the Supreme Court’s holding in *Octane Fitness* could reduce reform legislation proposed by Congress.

For the time being, Congress appears to have paused its efforts on patent reform legislation.¹⁷² In a press release issued May 21, 2014, Senator Patrick Leahy announced that he was taking the patent bill off the Senate Judiciary Committee agenda until stakeholders were “able to reach a more targeted agreement that focuses on the problem of patent trolls.”¹⁷³ Although the Innovation Act passed the House on December 5, 2013, the momentum for patent reform legislation seems to have halted.¹⁷⁴ However, political expediency in the face of midterm elections may also have had an impact on the decision to pull patent reform from the Judiciary Committee agenda.¹⁷⁵ Critics have argued that the Court may have seen *Octane Fitness* as an opportunity to fix the statute, give district

169. *Promoting Small Businesses and Promoting Innovation by Limiting Patent Troll Abuse*, United States Senate Comm. on the Judiciary (Dec. 17, 2013, 10:00 AM), <http://www.judiciary.senate.gov/meetings/protecting-small-businesses-and-promoting-innovation-by-limiting-patent-troll-abuse>; *Trolling for a Solution: Ending Abusive Patent Demand Letters*, United States House of Representatives Energy & Commerce Comm. (Apr. 8, 2014, 10:00 AM), <http://energycommerce.house.gov/hearing/hearing-notice-subcommittee-commerce-manufacturing-and-trade>.

170. Rader et al., *supra* note 26.

171. *Id.*

172. Senator Patrick Leahy, *Comment of Senator Patrick Leahy (D-Vt.), Chairman, Senate Judiciary Committee, On Patent Legislation*, PATRICK LEAHY UNITED STATES SENATOR FOR VERMONT (May 21, 2014) available at http://www.leahy.senate.gov/press/comment-of-senator-patrick-leahy-d-vt_chairman-senate-judiciary-committee-on-patent-legislation.

173. *Id.*

174. Bill Summary & Status 113th Congress (2013–2014) H.R. 3309 – Innovation Act, available at <https://www.congress.gov/bill/113th-congress/house-bill/3309> (last visited Jan. 12, 2015) (The latest action was in December 2013, where the bill was read in the Senate and referred to the Committee on the Judiciary).

175. Erin Mershon and Tony Romm, *Patent reform hits dead end in Senate*, POLITICO (May 21, 2014), <http://www.politico.com/story/2014/05/patent-reform-senate-106968.html>.

courts more discretion, and alleviate the need for legislation.¹⁷⁶ They argue that Congress may view this decision as a solution to the problem, and that consequently, patent reform in general may not be brought back to the table at least for a few years.

After the midterm elections and the resulting emergence of a Republican Senate in 2014, conversations about patent reform resurfaced, and congressional representatives have championed strong legislative patent reforms that include a presumption of attorney fee-shifting.¹⁷⁷ Commentators are optimistic that legislation to block “patent trolls” will be one of the first issues the Senate takes up this year.¹⁷⁸ At the moment, the Innovation Act as passed by the House will create a presumption of fee-shifting and the ability to join “interested” parties to pay fees when a losing-patentee is undercapitalized. On February 5, 2015, Representative Goodlatte reintroduced the Innovation Act to the House, retaining the requirement to award attorney fees to the prevailing party unless the judge finds reasonable justification or special circumstances that would make the award unjust.¹⁷⁹ *Octane Fitness* is just one of a few positions taken by the Supreme Court that have strengthened defendant positions in patent infringement cases.¹⁸⁰

Because the meaning of “exceptional” is still ambiguous and discretion may lead to forum shopping in districts where fee awards are more or less likely under *Octane Fitness*, the “exceptional” case standard could benefit from further explanation. However, due to the abuse of discretion standard of review imposed by the Supreme Court in *Hibmark*, the Federal Circuit may not be able to substantively clarify the meaning of exceptionality. Any steps towards further patent reform would be most effective through legislation—Congress can clarify the fee-shifting

176. *Supreme Court IP Review (SCIPR)*, IIT CHICAGO-KENT COLLEGE OF LAW (Sept. 12, 2014), <http://www.kentlaw.iit.edu/scipr> (describing a panel where David Clough, Dominic Perella, Rudolph Telscher, Constantine Trela, Jr., & Professor David Schwartz discussed when a case is “exceptional” for an award of fees.)

177. Crouch, *What is an Exceptional Case*, *supra* note 175.

178. Julian Hattem, *Senate primed to act on ‘patent trolls’ in 2015*, THE HILL (Nov. 13, 2014, 04:30 PM) <http://thehill.com/policy/technology/224092-patent-reform-primed-for-early-2015>.

179. Dennis Crouch, *Patent Reform: Innovation Act of 2015*, PATENTLYO (Feb. 5, 2015), <http://patentlyo.com/patent/2015/02/patent-reform-innovation.html>.

180. *See also* Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 134 S. Ct. 2347 (2014) (holding that implementing abstract claims on a computer was not enough to transform an idea to a patentable invention) *and* *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014) (holding that to be valid, patent claims must provide reasonable certainty regarding the claim scope).

provision and provide a standard of exceptionality. Furthermore, the Supreme Court's interpretation of an "exceptional" case places a strong emphasis on the discretion of the district courts despite the removal of the "discretion" element in the 1952 Act. If Congress wants to elucidate or maintain the Supreme Court's reintroduction of discretion, it should not wait for litigation; Congress can correct or support the decision with further legislative action.

IV. CONCLUSION

The Supreme Court's recent decision in *Octane Fitness* signals a new era in the granting of attorneys' fees in patent litigation. District courts now possess substantially greater discretion in shifting attorneys' fees. Although we are still in the early days of seeing how that discretion will be exercised, the first wave of post-*Octane* cases indicates that there has been a significant increase in the proportion of fees awarded under § 285, that district courts vary in their interpretation of exceptionality as well as award amount determinations, and that the status of a party does not directly correlate with a § 285 award. There are certain factors that may lead to more favorable outcomes in a § 285 motion, but the wide range of interpretations demonstrates that there is still a significant amount of uncertainty remaining in the exceptionality standard.

While affording district courts greater discretion awarding attorneys' fees in patent cases, the Supreme Court's *Octane Fitness* decision should not be viewed as a panacea for addressing serious concerns about abusive patent litigation or a substitute for legislative consideration of other ways to clarify and improve the patent system.

APPENDIX

Table 3 - All Cases Involving § 285 Motions as of March 1, 2015

Case	Court	Fees Awarded?	Reasoning for Outcome	Cases Cited for Standard	Award?	NPE Involvement? ¹
<i>Kaneka Corp. v. Zheyang Med. Co.</i> ¹	C.D. Cal.	No	The court held that an adverse claim construction issued apart from a case-dispositive motion would not only create an intolerable bargaining position between parties, but was issued in a majority of patent cases, and this situation could not be considered rare, unusual, or extraordinary under <i>Octane</i> and 35 U.S.C. § 285.	<i>Inland Steel Co. v. LTV Steel Co.</i> , 364 F.3d 1318, 1321 (Fed. Cir. 2004); <i>Octane Fitness, LLC v. ICON Health & Fitness, Inc.</i> , 134 S. Ct. 1749 (2014)	N/A	No (Kaneka - Operating company)
<i>Cena Logic Inc. v. Frame Media Inc.</i> [#]	C.D. Cal.	Yes	The court found that the case was exceptional because the plaintiff established that the defendants willfully infringed on the patent.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Derek Andrew, Inc. v. Poof Apparel Corp.</i> , 528 F.3d 696, 702 (9th Cir. 2008);	Not determined yet	N/R

1. As discussed earlier in this Note, a party was considered an “NPE” if it was categorized as a patent holding company or a large aggregator in a dataset compiled by Christopher A. Cotropia et al., 2010 Patent Holder and Litigation Dataset, *available at* <http://npedata.com> (last updated May 28, 2014). The dataset consists of all patent litigation cases during 2010 and 2011. If the database did not contain a categorization for either party in a case, it was labeled as “N/R” for “no record.”

				<p><i>Rabernuid Commercial Prods, LLC v. Trust Commer. Prods</i>, No. 2:13-cv-02144-GMN-GWF, 2014 U.S. Dist. LEXIS 142745 (D. Nev. Aug. 22, 2014)</p>		
<p><i>Cambrian Sci. Corp. v. Cox Commc'ns, Inc.</i>ⁱⁱⁱ</p>	<p>C.D. Cal.</p>	<p>Yes</p>	<p>The plaintiff's litigating position, while unpersuasive, was not so meritless as to "stand out from others," but the plaintiff's claims on two of the devices were exceptionally lacking in substantive strength after claim construction. Furthermore, the plaintiff's litigation behavior was uncommon and rare such that its case against the defendant was exceptional.</p>	<p><i>Octane Fitness</i>, 134 S. Ct. at 1749; <i>Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.</i>, 134 S. Ct. 1744 (2014)</p>	<p>Not determined yet²</p>	<p>No (Cox - Operating company)</p>
<p><i>Romag</i></p>	<p>D.</p>	<p>Yes</p>	<p>The court concluded that the defendant's</p>	<p><i>Octane Fitness</i>, 134 S.</p>	<p>Not</p>	<p>No (Romag -</p>

2. Although the actual award has not been determined yet, the court specifically stated that fees should only be granted for the time spent on Cambrian's continued inclusion of two of the products after June 17, 2013, as well as a reasonable award of fees for the defendant's defense of the entire case.

<i>Fastereris, Inc. v. Fossil, Inc.</i> ^{iv}	Conn.		pursuit of its indefiniteness invalidity defense, and its failure to formally withdraw its remaining invalidity defenses until after the close of evidence weighed in favor of an award of fees in this case.	Ct. at 1749	determined yet ³	Operating company)
<i>EON Corp. IP Holdings LLC v. FLO TV Inc.</i> ^v	D. Del.	No	The court stated, “The substantive strength of EON’s case was not so conspicuously deficient as to justify the award of attorney’s fees, and although the court eventually found all asserted claims to be invalid as indefinite, the decision was not an easy one. Therefore, the plaintiff did not litigate the case unreasonably.”	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	Yes (EON - Patent holding company)
<i>Pragmatix Telecom LLC v. Newegg Inc.</i> ^{vi}	D. Del.	No	The defendant was not considered a prevailing party because dismissal for a license obtained by a third party that protected Newegg did not settle a dispute in favor of Newegg.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Buckhannon Bd. & Care Home, Inc. v. W. Virginia Dep’t of Health & Human Res.</i> , 532 U.S. 598, 603 (2001)	N/A	Yes (Pragmatix Telecom LLC - Patent holding company)

3. Although the fee award has not yet been determined, the court stated that the plaintiff’s awarded fees may not include costs and fees related to pursuit of a TRO, non-taxable costs under CUPTA, and fees incurred solely in pursuit of Plaintiff’s Lanham Act claim for an award of Defendant’s profits.

<i>Gevo, Inc. v. Butamax Advanced Biofuels, LLC</i> ^{viii}	D.	No	The plaintiff's conduct in the case at bar was not considered unreasonable, nor was there evidence of "subjective bad faith." Although Gevo did not prevail on summary judgment, the court's opinion was delivered after hearing oral arguments on the issues and was based on the parties' briefing and the expert reports. Therefore, the claims were not "exceptionally meritless."	<i>Ottane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Gevo - Operating company, Butamax - Operating company)
<i>Parallel Iron LLC v. NetApp Inc.</i> ^{viii}	D. Del.	No	The court held that there must be a dispute that was settled in favor of the party seeking to be declared the prevailing party that materially alters the legal relationship between the parties. There was no settlement agreement, the court made no findings on the merits, and the case was not resolved via a consent decree. Therefore, the defendant was not a prevailing party under § 285.	<i>Inland Steel</i> , 364 F.3d at 1321; <i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Bucklannon Bd. of Care Home, Inc.</i> , 532 U.S. at 603	N/A	Yes (Parallel Iron LLC - Parent holding company)
<i>Chalumeau Power Sys. LLC v.</i>	D. Del.	Yes	Plaintiff Chalumeau's infringement theories and claim construction positions were frivolous. The plaintiff only put forth a	<i>Ottane Fitness</i> , 134 S. Ct. at 1749	\$799,096.02 ⁴	N/R

4. Attorney's fees for defense of the case using Delaware rates.

<i>Akarel-Larentz</i> ⁶			"meager effort" in the pre-suit investigation, and as a whole, the plaintiff's positions were frivolous.			
<i>Summit Data Sys., LLC v. EMC Corp.</i> ^x	D. Del.	Yes	Despite having no other evidence that NetApp's (defendant) product could infringe the asserted patents in a system not running the Microsoft software, Summit (plaintiff) brought suit against NetApp and took eighteen months to disclose the existence of a licensing agreement to NetApp.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Em-Nel LP v. Flagstar Bancorp</i> , 653 F.3d 1314 (Fed. Cir. 2011)	\$1,395,514.62 ⁵	No (EMC Corp - Operating company)
<i>Inventio AG v. ThyssenKrupp Elevator Corp.</i> ^{xi}	D. Del.	No	The defendant offered no basis for an "exceptional" finding other than inequitable conduct based on the best mode violation. However, the court found no inequitable conduct and the defendant did not identify, nor did the court find, any other reason that the case "stood out" from the others.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Therzense, Inc. v. Becton, Dickinson and Co.</i> , 649 F.3d 1276 (Fed. Cir. 2011)	N/A	Yes (Inventio AG - Patent holding company)
<i>Poly-America, L.P. v. API Indus., Inc.</i> ^{xii}	D. Del.	No	The court held that the case was not exceptional when considering the parties' shifting contentions (e.g. the defendant API's initial "ordinary observer" contention that was rejected by the court) and the	No citation to a case	N/A	N/R

5. Attorney's fees incurred in this case plus any additional expenses incurred in filing the present motion.

			efforts expended by the court in reaching its conclusions.			
<i>Bayer CropsScience AG v. Dow AgroSciences, LLC</i> ^{xiii}	D. Del.	Yes	The plaintiff's (Bayer) case was exceptionally weak because the arguments were built upon "contorted theories" and "conjectural conclusions" that "[d]id not trump ... reality" and "amount[ed] to distraction."	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Higdon</i> , 134 S. Ct. at 1744	\$5,761,936.79 ⁶	No (Bayer - Operating company)
<i>Momenta Pharms, Inc. v. Teva Pharms. USA, Inc.</i> ^{xiv}	D. Mass.	No	The plaintiff (Momenta) may have had an objective basis to file suit for infringement because it was plausible that at the outset, the defendant (Teva) used the claimed methods, even if it was possible to use a non-infringing method. Furthermore, it was not unreasonable for the plaintiff to continue litigating its claims under the '886 patent after the Federal Circuit vacated the injunction entered in its favor in a related case. The plaintiff notified the defendant that it would no longer assert the claims related to the '466 patent shortly after completing discovery. Finally, there was	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Teva Pharms - Operating company)

6. Magistrate judge's recommendation; apportioned for the cost of defending plaintiff's appeal and preparing its fee petition, the work from August 2011 through the oral argument on the present motion, but deducts the time expended in the case where fees were not incurred defending the present litigation, updated fees in January 5, 2015.

			insufficient evidence that the plaintiff acted in bad faith or that its conduct with respect to the Pharmacopeia's standard-setting process tainted the instant litigation.			
<i>Classen Immunothera pies, Inc. v. Biogen Idec</i> ^{xv}	D. Md.	Yes	The plaintiffs (Classen) infringement claims against the defendant (Biogen) were objectively baseless.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Samsung Elec. Co., Ltd. v. Rambus, Inc.</i> , 440 F. Supp. 2d 495 (E.D. Va. 2006)	Not determined yet ⁷	N/R
<i>Avina Sports v. Fingerhut Direct Mktg.</i> ^{xvi}	D. Minn.	No	Despite the new standard, there was nothing that stood out from others with respect to the substantive strength of the plaintiffs' litigating position or the manner in which the plaintiff litigated the case.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Higginark</i> , 134 S. Ct. at 1744	N/A	N/R
<i>Univ. of Manitoba v. Dräger Med, Inc.</i> ^{xvii}	D. N.D.	No	The case did not stand out as being frivolous and it was not prosecuted in an unreasonable manner.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Dräger - Operating company)
<i>Shire LLC v. Amneal</i>	D. N.J.	No	The case was a fairly typical Hatch-Waxman case because the defendants behaved the	<i>Octane Fitness</i> , 134 S. Ct. at 1749;	N/A	No (Shire - Operating

7. Attorneys' fees and expenses incurred after Biogen offered unrefuted evidence that Classen knew from January 26, 2005 that its claims were objectively baseless.

<i>Pharmv</i> , ^{xviii}			way most defendants typically do when they seeking to market a generic version of a pharmaceutical protected by patents.	<i>Yamanouchi Pharm. Co. v. Danbury Pharnacal, Inc.</i> , 231 F.3d 1339, 1347 (Fed. Cir. 2000)		company)
<i>Home Gambling Network, Inc. v. Piche</i> ^{xix}	D. Nev.	Yes	The court found that the case was exceptional based on the totality of the circumstances: the plaintiffs alleged in their amended complaint that live casinos were located outside the United States in Costa Rica despite controlling federal circuit law holding that an infringement of a method patent could not lie unless all steps were performed in the US; the plaintiffs attempted to sue for infringement of a patent they did not own and voluntarily relinquished years earlier; the plaintiffs engaged in patent misuse by purposefully attempting to limit the defendants' usage of subject matter that was beyond the scope of the method patent from the license granted.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Higdonmark</i> , 134 S. Ct. at 1744	Not determined yet	N/R
<i>Rimlinger v. Shenyang 245 Factory</i> ^{xx}	D. Nev.	No	The plaintiffs provided no indication that the case was "exceptional."	No citation to a case	N/A	N/R
<i>Rubbermaid</i>	D.	Yes	The court found that the infringement was	<i>Octane Fitness</i> , 134 S.	\$272,523.7	No

<i>Commer. Prods., LLC v. Trust Commer. Prods.</i> ^{xxi}	Nev.		willful.	Ct. at 1749; <i>Highbark</i> , 134 S. Ct. at 1744	6 ⁸	(Rubbermaid - Operating company)
<i>JS Prods. V. Kabo Tool Co.</i> ^{xxii}	D. Nev.	No	The defendant's (Kabo) manner of litigation was not exceptional – there was no "smoking-gun" type evidence that the defendant acted with the sole intent to disrupt the plaintiff's (JSP) business.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Highbark</i> , 134 S. Ct. at 1744	N/A	No (Kabo - Operating company)
<i>Pure Fishing Inc. v. Normark Corp.</i> ^{xxiii}	D. S.C.	Yes	The plaintiffs (Pure Fishing) shifting positions as to claim construction and the ultimate dependence of the claim on the plaintiff's "one-molecule theory of claim construction" was objectively baseless. The plaintiff should have recognized the extreme weakness of the Kelley Claim prior to the date the defendant (Normark) filed its answer.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	\$283,127.09 ⁹	No (Pure Fishing - Operating company)

8. The number of hours reasonably expended in the litigation, but considering a myriad of factors such as the time and labor required; the novelty and difficulty of the issues; the skill required to perform the legal service properly; etc.

9. Additional award of fees because plaintiff should have recognized the extreme weakness of the Kelley Claim prior to the date defendant filed its answer and the need for compensation and deterrence in light of the degree to which the claim was pursued in an unreasonable manner.

<i>Western Holdings, LLC v. Summers</i> ^{xxv}	D. Utah	No	In this case, the plaintiff filed its complaint, the defendant filed a motion to dismiss based on FRCP Rules 12(b)(2) 12(b)(3), and 12(b)(6), and the plaintiff voluntarily dismissed its claim. The court held that there was nothing in the record indicated that there case stood out from the others.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749	N/A	N/R
<i>Cabotier Connections, Inc. v. Ivera Med. Corp.</i> ^{xxv}	D. Utah	No	An award of the defendant's attorney's fees was not warranted because it was not an "extraordinary case," and in the dismissal in October 2013, the parties agreed that each party would bear its own costs and attorneys' fees.	35 U.S.C. § 285 (2012)	N/A	No (Ivera - Operating company)
<i>Intex Rec. Corp. v. Team Worldwide Corp.</i> ^{xxvi}	D.C.	Yes	The defendant's (Team Worldwide Corporation) arguments in view of claim construction were exceptionally meritless because the arguments could not be reasonably described as argued at summary judgment.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Small v. Implant Direct Mfg., LLC</i> , No. 06 Civ. 683, 2014 U.S. Dist. LEXIS 154468 (S.D.N.Y. Oct. 23, 2014); <i>Cognex Corp. v.</i>	Not determined yet ¹⁰	N/R

10. Fees requested are specific to those incurred since November 1, 2013 when TWW insisted on proceeding to summary judgment despite having received an adverse claim construction.

				<i>Microscan Sys.</i> , No. 13-CV-2027, 2014 U.S. Dist. LEXIS 91203 (S.D.N.Y. June 29, 2014)		
<i>Wiley v. RockTenn CP, LLC</i> ^{xxvii}	E.D. Ark.	No	The theory of post-terminations sales of the product used to bring and maintain a lawsuit was not exceptional. The court also noted that even if the case was considered exceptional, the court was exercising its discretion not to award fees.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Fagerly v. Fantasy, Inc.</i> , 510 U.S. 517, 534 n.19 (1994)	N/A	No (Wiley - Individual)
<i>Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC</i> ^{xxviii}	E.D. Ill.	Yes	The plaintiffs (ISE) litigation conduct in the face of the weakness of its infringement claims stood out from most other patent cases to which the court had been assigned.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	Not determined yet	No (International Securities Exchange - Operating company)
<i>Bianco v. Global Med, Inc.</i> ^{xxix}	E.D. Tex.	No	The court held that the defendant failed to show the plaintiffs inventorship claim was either baseless or pursued in bad faith. (The plaintiffs request for relief in the form of correction of inventorship on any patents that might emerge from applications was not unreasonable.) Therefore, the case did not present either subjective bad faith or	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	N/R

			exceptionally meritless claims that may sufficiently set it apart from mine-run claims to warrant a fee award.			
<i>Strigent LLC v. Intel Corp.</i> ^{xxx}	E.D. Tex.	No	The defendant did not seek summary judgment of non-infringement.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749	N/A	Yes (Strigent - Patent holding company)
<i>Tech. Advancement Group, Inc. v. IpySkin, LLC</i> ^{xxxi}	E.D. Va.	No	The defendant's infringement was not willful and the court found that "simply failing to respond to a lawsuit" did not rise to the standard of exceptional.	<i>Wedgetail Ltd. v. Huddleston Deluxe, Inc.</i> , 576 F.3d 1302, 1304-05 (Fed. Cir. 2009); <i>Deekers Outdoor Corp. v. ShoeScandal.com, LLC</i> , No. CV 12-7382, 2013 U.S. Dist. LEXIS 168545, at *4 (C.D. Cal. Nov. 25, 2013)	N/A	No (Technology Advancement Group - Operating company)
<i>Stretchline Intellectual Props. v. H&M Hennes & Mauritz LP</i> ^{xxxi}	E.D. Va.	No	The plaintiff's decision to "remain silent" was an insufficient foundation for a finding of inequitable conduct, and therefore, there was no basis for attorneys' fees under § 285.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Highmark</i> , 134 S. Ct. at 1744	N/A	No (Stretchline - Operating company)

IPVX <i>Patent Holdings, Inc. v. Taridium, LLC</i> ^{xxviii}	E.D.N.Y.	No	There were no allegations of willful infringement and Taridium defaulted; therefore, there was no determination of an "exceptional" case.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Larman View Tech, LLC v. Findthebest.com, Inc.</i> , 24 F. Supp. 3d 329 (S.D.N.Y. 2014); <i>Cognex Corp. v. Microscan Sys., Inc.</i> , 2014 U.S. Dist. LEXIS 91203	N/A	No (IPVX - Individual/family trust)
<i>SmartWater, Ltd. v. Applied DNA Sci., Inc.</i> ^{xxvix}	E.D.N.Y.	No	The defendant (SmartWater) did not display bad faith in the course of the litigation and its claims were not "exceptional" in their weakness such that a fee award was considered appropriate.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Smartwater - Operating company)
<i>SmartWater, Ltd. v. Applied DNA Sci., Inc.</i> ^{xxvix}	E.D.N.Y.	No	The defendant (SmartWater) did not display bad faith in the course of the litigation and its claims were not "exceptional" in their weakness such that a fee award was considered appropriate.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Smartwater - Operating company)
<i>CreAgri, Inc. v. Pinnacle, Inc.</i> ^{xxvxi}	N.D. Cal.	No	"The totality of the circumstances" did not render the case exceptional. The court stated that nothing about the plaintiffs' (CreAgri) pleadings suggested bad faith obstructionism and that the record did not suggest that	<i>Octane Fitness</i> , 134 S. Ct. at 1749, <i>Hightower</i> , 134 S. Ct. at 1744.	N/A	N/R

			CreAgri litigated this case so unreasonably as to render it exceptional.			
<i>EON Corp. IP Holdings LLC v. Cisco Sys. Inc.</i> ^{xxviii}	N.D. Cal.	No	The court stated that "no bright-line rules define the parameters of what is exceptional, and no single element (such as baselessness or sanctionability) is dispositive." The court agreed that the plaintiffs infringement contentions lacked merit but that by themselves they were not enough to render a case "extraordinary."	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>CreAgri, Inc. v. Pinnacle, Inc.</i> , No. 11-CV-6635-LHK, 2014 U.S. Dist. LEXIS 77484 (N.D. Cal. June 3, 2014)	N/A	Yes (EON - Patent holding company)
<i>Kilopass Tech. Inc. v. Sidense Corp.</i> ^{xxviii}	N.D. Cal.	Yes	The plaintiffs failure to conduct an adequate pre-filing investigation prior to filing the present action theories of infringement was objectively baseless, and the claims for literal infringement were exceptionally meritless. The plaintiff litigated the action in an unreasonable manner including shifting theories of infringement late in litigation and without following proper procedures for the amendment of contentions.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>ManTEC, LLC v. Johnson & Johnson</i> , 664 F.3d 907, 915 (Fed. Cir. 2012)	Not determined yet	No (Kilopass- Operating company)
<i>Yufa v. TSI</i>	N.D.	Yes	The plaintiff did not conduct an adequate	<i>Octane Fitness</i> , 134 S.	\$154702.7	No (Yufa -

<i>Inc.</i> ^{xxix}	Cal.		pre-filing investigation, should have known the claim was meritless, and the plaintiff was an experienced pro se litigant.	Ct. at 1749; <i>Hightmark</i> , 134 S. Ct. at 1744; <i>Comora v. Thermo Cardiosystems, Inc.</i> , CV 91-5620-WMB, 1992 U.S. Dist. LEXIS 11677 (C.D. Cal. May 5, 1992)	5 ¹¹	Individual, TSI Inc. - Operating company)
<i>Gametek LLC v. Zynga, Inc.</i> ^{xi}	N.D. Cal.	No	Despite a judgment of invalidity on the Rule 12(c) motion, the plaintiff's argument did not descend to the level of frivolous argument or objective unreasonableness.	<i>Ottane Fitness</i> , 134 S. Ct. at 1749	N/A	Yes (Gametek - Large aggregator)
<i>Linex Techs, Inc. v. Hewlett-Packard Co.</i> ^{xii}	N.D. Cal.	Yes	The plaintiff (Linex) should have known that its spread spectrum claims would not succeed against OFDM technology, and its actions suggested that it knew the claims were frivolous. The plaintiff exhibited "an overall vexatious litigation strategy" by continuing to hold the groundless claims over the defendants' heads to increase	<i>Ottane Fitness</i> , 134 S. Ct. at 1749; <i>Hightmark</i> , 134 S. Ct. at 1744	Not determined yet ¹²	N/R

11. Attorney's fees limited to after the patent tutorial so plaintiff obligated to pay reasonable attorney's fees and costs from September 9, 2013 through March 7, 2014.
12. Defendants can only recover the fees fairly attributable to the spread spectrum claims.

			potential settlement amounts and attempted to broaden the reach of its patents to capture technology it knew it did not invent.			
<i>IPVX Patent Holdings, Inc. v. Voxernet, LLC</i> ⁱⁱⁱ	N.D. Cal.	Yes	The plaintiffs (IPVX) position on infringement was objectively baseless at the inception of the lawsuit, and the plaintiff proceeded in this litigation without developing any factual record to support its infringement contentions, either on literal infringement or on infringement under the doctrine of equivalents.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Modine Mfg. Co. v. Allen Group, Inc.</i> , 917 F.2d 538, 543 (Fed. Cir. 1990); <i>S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc.</i> , 781 F.2d 198, 201 (Fed. Cir. 1986).	\$820,642.00 ¹³	No (IPVX - Individual/family trust)
<i>TransPerfect Global, Inc. v. Motionpoint Corp.</i> ^{xiii}	N.D. Cal.	No	The defendant's (MotionPoint) alleged discovery abuses did not appear to have been committed in bad faith, and its alleged misstatements of fact and disclosures of confidential information were relatively minor. Furthermore, defendant's opposition to the plaintiffs' (TransPerfect) disqualification motion was not entirely	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (TransPerfect - Operating company)

13. Total number of hours billed by attorneys involved in the case including recovery of paralegal and discovery management and review department hours but not including non-taxable costs, library, and IT hours.

			without merit, and its alleged failure to comply with the Court's order on motions in limine appeared to have been inadvertent. Although the defendant asserted some frivolous arguments and filed some frivolous motions during the litigation, the court exercised its discretion to deny the motion for attorneys' fees.			
<i>Logic Devices, Inc. v. Apple Inc.</i> ^{xlv}	N.D. Cal.	Yes	The plaintiff's validity position was unsupported by the record, took zero depositions and "little discovery," and the defendant repeatedly warned the plaintiff about the invalidity of the only timely-asserted claim.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	Not determined yet	N/R
<i>Site Update Solutions, LLC v. Aacor North America, Inc.</i> ^{xlv}	N.D. Cal.	No	Considering the "totality of the circumstances," the case was not one that "stood out from others."	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	Yes (Site Update Solutions - Large aggregator)
<i>Intellect Wireless, Inc. v. Sharp Corp.</i> ^{xlv}	N.D. Ill.	Yes	The patentee plaintiff acquired the patent at issue by engaging in inequitable conduct before the PTO that involved filing materially false declarations about reducing the invention to practice.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Nilsen v. Oryon Sylvania, Inc.</i> , 528 F.3d 1352, 1358 (Fed. Cir. 2008);	Not determined yet	Yes (Intellect Wireless - Parent holding company)

				<i>Fogerty v. Fantasy, Inc.</i> , 510 U.S. 517, 534 n.19 (1994); <i>Agfa Corp. v. Creo Prods. Inc.</i> , 451 F.3d 1366 (2006); <i>Torin Corp. v. Philips Indus., Inc.</i> , 625 F. Supp. 1077 (S.D. Ohio 1985); <i>Dodge- Reynold Inc. v. RB Rubber Prods., Inc.</i> , No. 3:06-CV-236, 2010 U.S. Dist. LEXIS 31838 (M.D. Pa. 2010)		
<i>Falana v. Kent State Univ.</i> , ^{xviii}	N.D. Ohio	Yes	The case was exceptional because the testimony of the defendants' witnesses at trial was not credible and lacked veracity; the witness and party in case altered and falsified original documents in a case that was highly relevant to the Court's inventorship	<i>Ostane Fitness</i> , 134 S. Ct. at 1749; <i>Nilsen</i> , 528 F.3d at 1359	\$207,181.2 1 st	N/R

14. Fees incurred by all the attorney's, disallowing hours solely related to dismissed defendants and 25% of the costs incurred during the defendant's appeal of the case allowed because 25% of the appeal was exceptional.

			determination, and the litigation misconduct of the party and witnesses in the case warranted a conclusion that the case was exceptional.			
<i>H-W Tech, L.C. v. Overstock.com, Inc.</i> ^{xviii}	N.D. Tex.	No	Because there was a mechanism for correction, and the plaintiff's argument was not unreasonable on its face, its substantive position was "for the most part, meritorious, [and] not frivolous." The plaintiff's argument may have been overbroad, but it did not amount to a material misrepresentation. The losing arguments did not "stand out" from others with respect to the substantive strength of a party's litigating position.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Kilopass Tech, Inc. v. Sidense Corp.</i> , 738 F.3d 1302, 1313 (Fed. Cir. 2013); <i>Motorola, Inc. v. Interdigital Tech. Corp.</i> , 121 F.3d 1461, 1467–68 (Fed. Cir. 1997)	N/A	Yes (H-W Tech. - Patent holding company)
<i>Ohio Willow Wood Co. v. Alps South, LLC</i> ^{xix}	S.D. Ohio	Yes	There was a finding of inequitable conduct and the defendant (Alps) prevailed on the plaintiff's (OWW) infringement claims.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Theravene</i> , 649 F.3d at 1285	Not determined yet ¹⁵	N/R
<i>Cogency Corp. v.</i>	S.D.N.Y.	Yes	The defenses offered at trial were particularly weak and lacked support in the	<i>Octane Fitness</i> , 134 S. Ct. at 1749	Not determined	N/R

15. Fees incurred litigating this case after the BPAI issued its September 30, 2011 decision on the second reexamination.

<i>Mirvian Sys, Inc.</i> ¹			evidence presented to the jury and to the court. The defendants engaged in unreasonable litigation tactics that wasted the Court's time and required the plaintiffs to expend significant resources. The defendants' post-trial motions simply re-litigated issues that had already been decided by the Court during trial.		yet ¹⁶	
<i>Realtime Data, LLC n. CME Group, Inc.</i> ¹¹	S.D.N.Y.	No	While the plaintiff ultimately did not prevail in the underlying litigation, its conduct was not so extreme or unreasonable that the case "[stood] out from others." Not giving up a case following disfavorable claim construction did not itself amount to unreasonable or baseless conduct.	<i>Otane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Realtime - Operating company)
<i>Keystone Global LLC n. Auto Essentials Inc.</i> ¹¹¹	S.D.N.Y.	Yes	The defendant (Décor Essentials) willfully infringed the Patents-In-Suit so the plaintiff (Keystone Global) was entitled to reasonable attorney's fees. An express finding of willful infringement was a sufficient basis for classifying a case as "exceptional."	<i>BIC Corp. n. First Prominence Co.</i> , No. 00 Civ. 7155, 2001 U.S. Dist. LEXIS 20734, at *4 (S.D.N.Y. Dec. 10,	\$124,080	No (Keystone - Operating company)

16. The court noted, however, that plaintiffs will receive at a minimum the attorney's fees for contesting any motions brought by defendants that have sought to reargue what was already decided by the Court previously.

				2001); <i>Arbor Hill Concerned Citizens Neighborhood Ass'n v. Cnty. of Albany</i> , 522 F.3d 182 (2d Cir. 2008)		
<i>Rates Tech, Inc. v. Broadvox Holding Co., LLC</i> [™]	S.D.N.Y.	No	The plaintiff (RTT) did not commit any wrongdoing that resulted in needless attorneys' fees or costs to the defendant (Broadvox). Furthermore, without a merits determination in this litigation and without evidence of non-infringement in the record, the court could not find that RTT's suit had no merit. Regarding RTT's claim construction positions, the court did not find them baseless. Finally, RTT's status as a hyper-litigious non-practicing entity should not prevent it from bringing suit if the claims had merit.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	No (Rates Technology - Operating company)
<i>Small v. Implant Direct Mfg. LLC</i> [™]	S.D.N.Y.	No	Although the plaintiff's arguments were insufficient to save the patent from invalidity, they were not objectively baseless. That the majority of defendants opted to settle rather than litigate, and that the plaintiff's (Small) case was not determined	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Lamven Vtep Tech, LLC v. Finthebest.com, Inc.</i> , 24 F. Supp. 3d 329 (S.D.N.Y. 2014);	N/A	N/R

			on the pleadings but proceeded through discovery to summary judgment served as further indication that the plaintiff's defense of her patent was not without any good faith basis. There was no evidence that the plaintiff brought the case in bad faith or that she engaged in any misconduct in the course of the litigation.	<i>Kilopass Tech. Inc. v. Silense Corp.</i> , No. C 10-02066, 2014 U.S. Dist. LEXIS 112321 (N.D. Cal. Aug. 12, 2014)		
<i>Lumen View Tech, LLC v. Findthebest.com, Inc.</i> ¹⁶	S.D.N.Y.	Yes	The plaintiff's (Lumen View Tech) lawsuit against the defendant (FTB) was "frivolous" and "objectively unreasonable." The court held that "no reasonable litigant could have expected success on the merits in Lumen's patent infringement lawsuit against FTB because the '073 Patent claimed a bilateral matchmaking process requiring multiple parties to input preference information, while FTB's "AssistME" feature utilized the preference data of only one party."	<i>Octane Fitness</i> , 134 S. Ct. at 1749	\$302,083.63 ¹⁷	Yes (Lumen View - Patent holding company)
<i>TNS Media</i>	S.D.N.Y.	Yes	The defendant's (TRA) "Marched and	<i>Octane Fitness</i> , 134 S.	Not	N/R

17. All of the attorneys' fees and costs, as well as an enhancement multiplying the attorney's fees by two to deter similar conduct in the future.

<i>Research, LLC n. Tivo Research & Analytics, Inc.</i> ¹⁶¹	Y.		Stored" argument lacked merit and was frivolous, and the defendant's decision to "flout" the court's claim construction was further evidence that the case was "exceptional."	Cr. at 1749	determined yet ¹⁸	
<i>Techradium, Inc. n. Firnstall Network</i> ¹⁶¹	S.D. Tex.	Yes	The plaintiff was objectively unreasonable in bringing its lawsuit against the two defendants such a short time after losing the same claim-construction arguments it made in a different case, arguments essential to its success in the present lawsuit as well.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Cognex Corp. n. Microscan Sys., Inc.</i> , No. 13-CV-2027 JSR, 2014 WL 2989975, at *4 (S.D.N.Y. June 30, 2014); <i>Precision Linker Inc. n. USA Prods. Gpb, Inc.</i> , No. 08-576, 2014 U.S. Dist. LEXIS 85694, at *3 (W.D.N.C. June 24, 2014)	\$96,396.12 (to First Call) and \$16,476.00 (to City of Friendswo od) ¹⁹	No (Techradium, Inc. - Operating company)
<i>In re Maxim</i>	W.D.	No	The plaintiff's (Maxim) claims were not	<i>Octane Fitness</i> , 134 S.	N/A	No (Maxim -

18. Only fees incurred for the defense of the patent-related claims, and must demonstrate that it incurred those fees and expenses as a direct result of TRA's litigation misconduct or frivolous arguments.
19. Court awarded all attorney's fees accrued during the case.

<i>Integrated Prods.</i> ^{viii}	Pa.		"substantively weak" and the defendant (BOTW) could not assert that Maxim's entire case against BOTW was weak.	Ct. at 1749		Operating company)
<i>Robinson v. Bartlow</i> ^{ix}	W.D. Va.	No	The defendants' success in obtaining the dismissal against the individual defendants for lack of personal jurisdiction failed to render them as a prevailing party.	<i>Otane Fitness</i> , 134 S. Ct. at 1749; <i>Inland Steel</i> , 364 F.3d at 1321.	N/A	No (Robinson - Individual)
<i>Douglas Dynamics, LLC v. Buyers Prods. Co.</i> ^{ix}	W.D. Wis.	No	The mere fact that the defendant chose not to appeal the infringement findings was not enough to render a case "exceptional,"	<i>Otane Fitness</i> , 134 S. Ct. at 1749	N/A	N/R
<i>Alpha Tech. U.S.A. Corp. v. MILSN4 Dairy Supply, Inc.</i> ^{ix}	W.D. Wis.	No	The defendant had limited evidence in support of its assertion that the case was "exceptional."	<i>Otane Fitness</i> , 134 S. Ct. at 1749	N/A	N/R
<i>Precision Links, Inc. v. USA Prods.</i>	W.D. N.C.	Yes	The plaintiff's litigating position with respect to certain claims was clearly frivolous and objectively baseless. Furthermore, the case	<i>Otane Fitness</i> , 134 S. Ct. at 1749; <i>Higburn</i> , 134 S. Ct.	\$165,260.70 ²⁰	N/R

20. Two-thirds of the original fee awarded to adequately compensate the Defendants for the extra legal effort expended as a result of the Plaintiff's assertion of baseless claims and assorted litigation misconduct.

<i>Grp, Inc.</i> ^{ksii}			<p>"stood out" from others because of the "unreasonable manner" in which the case was litigated. The plaintiff sought a preliminary injunction based in large part on a theory that the court concluded was frivolous. The plaintiff engaged in litigation misconduct, such as frivolous and baseless efforts to circumvent a dismissal of its untimely appeal.</p>	at 1744		
<i>LendingTree</i> <i>v. Zillow,</i> <i>Inc.</i> ^{ksii}	W.D. N.C.	Yes	<p>(Both parties made motions for attorney's fees, one was partially awarded while the other was denied.) Despite the apparent strength of Defendant Zillow's case, the court repeatedly rejected Zillow's dispositive motions at the summary judgment stage, during trial at the close of Plaintiff Lending Tree's evidence, and at the close of all evidence, instead leaving the jury to resolve the merits. Therefore, LendingTree's pursuit of its infringement claims was not so frivolous or groundless so as to justify an award of attorneys' fees. Furthermore, "being a sore loser" did not make a case exceptional, and the litigation strategy was not uniquely aggressive. However, the court</p>	<p><i>Ottane Fitness</i>, 134 S. Ct. at 1749; <i>Precision Links, Inc. v. USA Prods. Grp, Inc.</i>, No. 08-576, 2014 U.S. Dist. LEXIS 85694 (W.D.N.C. June 24, 2014); <i>Chalman v. Power Sys. LLC v. Akate-Laurent</i>, CV 11-1175-RGA, 2014 U.S. Dist. LEXIS 127645 (D. Del. Sept. 12, 2014).</p>	N/A	No (Zillow - Operating company)

			awarded Defendant NextTag all reasonable attorneys' fees incurred from the day the court issued its written order denying summary judgment because LendingTree should have realized the strength of NextTag's defenses at summary judgment.			
<i>ICON Health & Fitness, Inc. v. Octane Fitness, LLC</i> ¹⁰⁵	C.A.F. C.	Vacated and remanded	The appellate court vacated the district's court judgment denying Octane's motion both to find the case exceptional and to award attorney fees under § 285. The issue was remanded to the district court for application in the first instance of the new standard whether, under the totality of the circumstances, the case was exceptional.	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Higbark</i> , 134 S. Ct. at 1744	N/A	No (ICON - Operating company)
<i>Checkpoint Sys, Inc. v. All-Tag Sec. S.A.</i> ¹⁰⁶	C.A.F. C.	Vacated and remanded	The case was remanded in light of the <i>Octane</i> and <i>Higbark</i> decisions.	<i>Octane Fitness</i> , 134 S. Ct. at 1749	N/A	N/R
<i>Higbark, Inc. v. Allcare Health Mgmt. Sys.</i> ¹⁰⁷	C.A.F. C.	Vacated and remanded	The appellate court vacated the district court's award of attorney fees and remanded the case for reconsideration under the new standard articulated in <i>Octane</i> .	<i>Octane Fitness</i> , 134 S. Ct. at 1749; <i>Higbark</i> , 134 S. Ct. at 1744	N/A	N/R
<i>Homeland</i> ¹⁰⁸	C.A.F. C.A.F.	Yes	There was no abuse of discretion in the	<i>Octane Fitness</i> , 134 S.	\$253,777.3	No (Homeland

<i>Hansen, LLC n. Sorenson Research & Dev. Trust</i> ^{ix}	C.	(Affirmed)	district court decision to factor in Sorenson's (the patent holder) repetitive and unsolicited filings to find an exceptional case.	Ct. at 1749	7 ^{xi}	- Operating company, Sorenson - Individual)
<i>SSL Servs, LLC n. Citrix Sys.</i> ^{ixviii}	C.A.F. C.	Vacated and remanded	The appellate court ruled that district court erred in holding that SSL was not the prevailing party, and therefore, the district court's finding was vacated and remanded.	<i>Inland Steel</i> , 364 F.3d at 1321; <i>Mamithra Milling Corp. n. Ogilvie Mills, Inc.</i> , 76 F.3d 1178, 1182 (Fed. Cir. 1996)	N/A	N/R
<i>Biax Corp. n. Nivitha Corp.</i> ^{ixix}	C.A.F. C.	No (Affirmed denial of fees and reversed award of fees)	Neither the expert testimony nor the claim construction orders foreclosed Biax's position, and there was nothing unreasonable about Biax's infringement position, so the defendant's motion for fees was denied.	<i>Octane Fitness</i> , 134 S. Ct. at 1749, <i>Checkpoint Sys, Inc. n. All-Tug Sec. S.A.</i> , 572 F. App'x 988 (Fed. Cir. 2014)	N/A	No (Biax - Failed operating company)

ⁱ Kaneka Corp. v. Zhejiang Med. Co., No. 2:11-cv-02389-MRP-SS, 2014 U.S. Dist. LEXIS 91659 (C.D. Cal. May 23, 2014).
ⁱⁱ Ceiva Logic Inc. v. Frame Media Inc., No. SACV 08-00636-JVS, 2014 U.S. Dist. LEXIS 176328 (C.D. Cal. Dec. 19, 2014).

21. Where the Federal Circuit affirmed the Central District of California's determination.

- iii Cambrian Sci. Corp. v. Cox Commc'ns, Inc., No. CV-13-00627-PHX-NVW, 2014 U.S. Dist. LEXIS 4415 (C.D. Cal. Jan. 6, 2015).
- iv Romag Fasteners, Inc. v. Fossil, Inc., No. 3:10cv1827, 2014 U.S. Dist. LEXIS 113061 (D. Conn. Aug. 14, 2014).
- v EON Corp. IP Holdings, LLC v. FLO TV Inc., No. 10-812-RGA, 2014 U.S. Dist. LEXIS 71753 (D. Del. May 27, 2014).
- vi Pragmatus Telecom LLC v. Newegg Inc., No. 12-1533-RGA, 2014 WL 3724138 (D. Del. July 25, 2014).
- vii Gevo, Inc. v. Butamax Advanced Biofields, LLC, No. 13-576-SLR, 2014 WL 4247735 (D. Del. Aug. 26, 2014).
- viii Parallell Iron LLC v. NetApp Inc., No. 12-769-RGA, 2014 U.S. Dist. LEXIS 127850 (D. Del. Sept. 12, 2014).
- ix Chalumneau Power Sys. LLC v. Alcatel-Lucent, No. 11-1175-RGA, 2014 U.S. Dist. LEXIS 127645 (D. Del. Sept. 12, 2014).
- x Summit Data Sys., LLC v. EMC Corp., No. 10-749-GMS, 2014 U.S. Dist. LEXIS 138248 (D. Del. Sept. 25, 2014).
- xi Inventio AG v. Thyssenkrupp Elevator Corp., No. 08-00874-RGA, 2014 U.S. Dist. LEXIS 157448 (D. Del. Nov. 6, 2014).
- xii Poly-America, L.P. v. API Indus., Inc., No. 13-693-SLR, 2014 U.S. Dist. LEXIS 165135 (D. Del. Nov. 25, 2014).
- xiii Bayer CropScience AG v. Dow AgroSciences, LLC, No. 12-256, 2014 U.S. Dist. LEXIS 176010 (D. Del. Dec. 22, 2014).
- xiv Momenta Pharms, Inc. v. Teva Pharms. USA, Inc., No. 10-12079-NMG, 2014 U.S. Dist. LEXIS 162926 (D. Mass. Nov. 20, 2014).
- xv Classen Immunotherapies, Inc. v. Biogen Idec, No. WDO-04-2607, 2014 U.S. Dist. LEXIS 67169 (D. Md. May 14, 2014).
- xvi Avira Sports v. Fingerhut Direct Mktg., No. 09-1091, 2015 U.S. Dist. LEXIS 9108 (D. Minn. Jan. 27, 2015).
- xvii Univ. of Manitoba v. Draeger Med., Inc., No. 2:13-cv-48, 2014 U.S. Dist. LEXIS 174113 (D. N.D. Dec. 17, 2014).
- xviii Shire LLC v. Amneal Pharms., No. 11-3781, 2014 U.S. Dist. LEXIS 85369 (D. N.J. June 23, 2014).
- xix Home Gambling Network, Inc. v. Piche, No. 2:05-CV-610-DAE, 2014 U.S. Dist. LEXIS 71071 (D. Nev. May 22, 2014).
- xx Rimlinger v. Shenyang 245 Factory, No: 2:13-cv-2051-JAD-NJK, 2014 U.S. Dist. LEXIS 76099 (D. Nev. June 4, 2014).
- xxi Rubbermaid Commer. Prods, LLC v. Trust Commercial Prods., No. 2:13-cv-02144-GMN-GWF, 2014 U.S. Dist. LEXIS 142745 (D. Nev. Aug. 22, 2014).
- xxii JS Prods. v. Kabo Tool Co., 2:11-cv-01856-RJ-GWF, 2014 U.S. Dist. LEXIS 176275 (D. Nev. Dec. 22, 2014).
- xxiii Pure Fishing, Inc. v. Normark Corp., No. 10-cv-2140-CMC, 2014 U.S. Dist. LEXIS 153272 (D. S.C. Oct. 28, 2014).
- xxiv Western Holdings, LLC v. Summers, No. 2:13-CV-144 TS, 2014 U.S. Dist. LEXIS 141129 (D. Utah Sept. 30, 2014).
- xxv Catheter Connections, Inc. v. Ivera Med. Corp., No. 2:12-cv-531-DN, 2015 U.S. Dist. LEXIS 8144 (D. Utah Jan. 15, 2015).
- xxvi Intex Rec. Corp. v. Team Worldwide Corp., No. 04-1785, 2015 U.S. Dist. LEXIS 2847 (D. D.C. Jan. 9, 2015).
- xxvii Wiley v. RockTenn CP, LLC, No. 4:12-cv-00226-KGB, 2014 U.S. Dist. LEXIS 138399 (E.D. Ark. Sept. 30, 2014).
- xxviii Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC, No. 07 C 623, 2014 U.S. Dist. LEXIS 170651 (E.D. Ill. Dec. 10, 2014).
- xxix Bianco v. Globus Med., Inc., No. 2:12-CV-00147-WCB, 2014 U.S. Dist. LEXIS 64805 (E.D. Tex. May, 12, 2014).
- xxx Strangel LLC v. Intel Corp., No. 6:11-cv-421, 2014 U.S. Dist. LEXIS 169080 (E.D. Tex. Aug. 6, 2014).
- xxxi Tech. Advancement Grp, Inc. v. IvySkin, LLC, No. 2:13cv89, 2014 U.S. Dist. LEXIS 96257 (E.D. Va. July 14, 2014).

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- ^{xxxii} *Stretchline Intellectual Props. v. H&M Hennes & Mauritz LP*, NO. 2:10-cv-371, 2015 U.S. Dist. LEXIS 21999 (E.D. Va. Feb. 24, 2015).
- ^{xxxiii} *IPVX Patent Holdings, Inc. v. Taridium, LLC*, No. 12-CV-5251, 2014 U.S. Dist. LEXIS 127550 (E.D.N.Y. Aug. 6, 2014).
- ^{xxxiv} *SmartWater, Ltd. v. Applied DNA Scis, Inc.*, No. 12-cv-05731, 2014 U.S. Dist. LEXIS 120401 (E.D.N.Y. Aug. 27, 2014).
- ^{xxxv} *SmartWater, Ltd. v. Applied DNA Scis, Inc.*, No. 12-cv-05731, 2014 U.S. Dist. LEXIS 137679 (E.D.N.Y. Sept. 29, 2014).
- ^{xxxvi} *CreAgri, Inc. v. Pinnacle, Inc.*, No.: 11-CV-6635-LHK, 2014 U.S. Dist. LEXIS 77484 (N.D. Cal. June 3, 2014).
- ^{xxxvii} *EON Corp. IP Holdings, LLC v. Cisco Sys. Inc.*, No. 12-cv-01011-JST, 2014 U.S. Dist. LEXIS 101923 (N.D. Cal. July 25, 2014).
- ^{xxxviii} *Kilopass Tech. Inc. v. Sidense Corp.*, No. C 10-02066, 2014 U.S. Dist. LEXIS 112321 (N.D. Cal. Aug. 12, 2014).
- ^{xxxix} *Yufa v. TSI Inc.*, No. 09-cv-01315-KAW, 2014 U.S. Dist. LEXIS 113148 (N.D. Cal. Aug. 14, 2014).
- ^{xl} *Gannetek LLC v. Zynga, Inc.*, No. CV 13-2546, 2014 U.S. Dist. LEXIS 122834 (N.D. Cal. Sept. 2, 2014).
- ^{xli} *Linex Techs., Inc. v. Hewlett-Packard Co.*, No. C 13-159, 2014 U.S. Dist. LEXIS 129717 (N.D. Cal. Sept. 15, 2014).
- ^{xlii} *IPVX Patent Holdings, Inc. v. Voxernet, LLC*, No. 5:13-cv-01708 HRL, 2014 U.S. Dist. LEXIS 158037 (N.D. Cal. Nov. 6, 2014).
- ^{xliiii} *TransPerfect Global, Inc. v. Motionpoint Corp.*, No. C 10-2590, 2014 U.S. Dist. LEXIS 159805 (N.D. Cal. Nov. 13, 2014).
- ^{xliiv} *Logic Devices, Inc. v. Apple Inc.*, No. C 13-02943, 2014 U.S. Dist. LEXIS 168380 (N.D. Cal. Dec. 4, 2014).
- ^{xliv} *Site Update Solutions, LLC v. Accor N. Am., Inc.*, No. 5:11-cv-3306-PSG, 2015 U.S. Dist. LEXIS 17603 (N.D. Cal. Feb. 11, 2015).
- ^{xlivi} *Intellect Wireless, Inc. v. Sharp Corp.*, No. 10 C 6763, 2014 U.S. Dist. LEXIS 73653 (N.D. Ill. May 30, 2014).
- ^{xliiii} *Falana v. Kent State Univ.*, No. 5:08 CV 720, 2014 U.S. Dist. LEXIS 105777 (N.D. Ohio July 31, 2014).
- ^{xliiii} *H-W Tech, L.C. v. Overstock.com, Inc.*, No. 3:12-CV-636-G, 2014 U.S. Dist. LEXIS 122667 (N.D. Tex. Aug. 15, 2014).
- ^{xliii} *Ohio Willow Wood Co. v. ALPS South, LLC*, No. 2:04-cv-1223, 2014 U.S. Dist. LEXIS 137485 (S.D. Ohio Sept. 24, 2014).
- ¹ *Techradium, Inc. v. Firstcall Network*, Nos. H-13-2487; 13-2641, 2015 U.S. Dist. LEXIS 23796 (S.D. Tex. Feb. 27, 2015).
- ⁱⁱ *Cognex Corp. v. Microscan Sys, Inc.*, No. 13-CV-2027, 2014 U.S. Dist. LEXIS 91203 (S.D.N.Y. June 29, 2014).
- ⁱⁱⁱ *Realtime Data, LLC v. CME Grp, Inc.*, Nos. 11-cv-6697-KBF; 11-cv-6699-KBF; 11-cv-6702-KBF, 2014 U.S. Dist. LEXIS 91051 (S.D.N.Y. June 24, 2014).
- ⁱⁱⁱⁱ *Keystone Global LLC v. Auto Essentials Inc.*, No. 12 Civ. 9077, 2014 U.S. Dist. LEXIS 141044 (S.D.N.Y. Oct. 1, 2014).
- ^{lv} *Rates Tech, Inc. v. Broadvox Holding Co., LLC*, No. 13 Civ. 0152, 2014 U.S. Dist. LEXIS 142998 (S.D.N.Y. Oct. 7, 2014).
- ^{lv} *Small v. Implant Direct Mfg. LLC*, No. 06 Civ. 683, 2014 U.S. Dist. LEXIS 154468 (S.D.N.Y. Oct. 23, 2014).
- ^{lvi} *Lumen View Tech, LLC v. Findthebest.com, Inc.*, 63 F. Supp. 3d 321 (S.D.N.Y. 2014).
- ^{lvii} *TNS Media Research, LLC v. TiVo Research & Analytics, Inc.*, No. 11 Civ. 4039, 2014 U.S. Dist. LEXIS 155914 (S.D.N.Y. Nov. 4, 2014).
- ^{lviii} *In re Maxim Integrated Prods.*, Nos. 12-244; MDL No. 2354; 12-880; 12-945, 2015 U.S. Dist. LEXIS 24032 (W.D. Pa. Feb. 27, 2015).
- ^{lix} *Robinson v. Bartlow*, No. 3:12-cv-00024, 2014 U.S. Dist. LEXIS 75105 (W.D. Va. June 3, 2014).

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- ^k Douglas Dynamics, LLC v. Buyers Prods. Co., No. 09-cv-261-wmc, 2014 U.S. Dist. LEXIS 178641 (W.D. Wis. Dec. 31, 2014).
- ^{ki} Alpha Tech. U.S.A. Corp. v. MILSNA Dairy Supply, Inc., No. 13-cv-870-wmc, 2015 U.S. Dist. LEXIS 2748 (W.D. Wis. Jan. 8, 2015).
- ^{kii} Precision Links, Inc. v. USA Prods. Grp., Inc., No. 3:08-cv-00576-MR, 2014 U.S. Dist. LEXIS 85694 (W.D.N.C. June 24, 2014).
- ^{kiii} LendingTree v. Zillow, Inc., No. 3:10-cv-00439-FDW-DCK, 2014 U.S. Dist. LEXIS 146336 (W.D.N.C. Oct. 9, 2014).
- ^{kiv} ICON Health & Fitness, Inc. v. Octane Fitness, LLC, Nos. 2011-1521, 2011-1636, 2014 U.S. App. LEXIS 16411 (Fed. Cir. Aug. 26, 2014).
- ^{kiv} Checkpoint Sys., Inc. v. All-Tag Sec. S.A., 572 Fed. Appx. 988 (Mem) (Fed. Cir. Sept. 4, 2014).
- ^{kvi} Highmark, Inc. v. Allcare Health Mgmt. Sys., No. 2011-1219, 2014 U.S. App. LEXIS 17194 (Fed. Cir. Sept. 5, 2014).
- ^{kvii} Homeland Housewares, LLC v. Sorensen Research & Dev. Trust, No. 2013-1537, 2014 U.S. App. LEXIS 17300 (Fed. Cir. Sept. 8, 2014).
- ^{kviii} SSL Servs., LLC v. Citrix Sys., Nos. 2013-1419, 2013-1420, 2014 U.S. App. LEXIS 19672 (Fed. Cir. Oct. 14, 2014).
- ^{kix} Bix Corp. v. Nvidia Corp., Nos. 2013-1649, 2013-1653, 2013-1654, 2015 U.S. App. LEXIS 3082 (Fed. Cir. Feb. 24, 2015).

SHINING THE *LIMELIGHT* ON DIVIDED INFRINGEMENT: EMERGING TECHNOLOGIES AND THE LIABILITY LOOPHOLE

Jingyuan Luo[†]

The Supreme Court's recent decision in *Limelight Networks, Inc. v. Akamai Technologies, Inc.*¹ leaves a loophole in patent infringement law open with respect to divided infringement and multi-actor patents. Reversing the Federal Circuit's earlier *en banc* decision, the Court concluded that an initial finding that a single party is responsible for direct infringement under 35 U.S.C. § 271(a) is necessary for a finding of induced infringement under 35 U.S.C. § 271(b).² Citing the Federal Circuit's previous decision in *Muniauction Inc. v. Thomson Corp.*, the Court reinforced the single-entity rule when interpreting the definition of infringement set in § 271(a), noting that a "method's steps have not all been performed as claimed by the patent unless they are all attributable to the same defendant, either because the defendant actually performed those steps or because he directed or controlled others who performed them."³ Thus, if there is no direct infringement under § 271(a), there can be no inducement of infringement under § 271(b).⁴

However, the Court acknowledged that its interpretation of § 271(b) may permit a possible infringer to evade liability by dividing the performance of a method patent with a party it neither knows nor controls, thus rendering it more difficult for owners of multi-actor patents

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1. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014).

2. 35 U.S.C. § 271 (2012). Section 271(a) provides the definition of direct infringement: "Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent." *Id.* § 271(a). And 35 U.S.C § 271(b) describes one type of indirect infringement, induced infringement, under which "[w]hoever actively induces infringement of a patent . . . [is] liable as an infringer." *Id.* § 271(b).

3. *Akamai*, 134 S. Ct. at 2117 (citing *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–1330 (Fed. Cir. 2008)).

4. *Id.*

to defend their intellectual property.⁵ The unanimous decision authored by Justice Alito indicated that the Court may be receptive to imposing liability on multiple actors in patent infringement through a divided infringement⁶ rule but refused to interpret § 271(b) to do so.⁷ Instead, the Court in *Akamai* hinted that the Federal Circuit had previously erred in *Muniauction* by too narrowly defining the scope of § 271(a) and left the possibility of a divided infringement rule grounded in § 271(a) for the Federal Circuit to address upon remand.⁸

Although *Akamai* involved patents covering internet and computer technology,⁹ the decision has broader implications for the doctrine of divided infringement in other contexts involving interactive technologies, particularly in the field of biotechnology but also in electronics and entertainment. As the lack of a clear rule may increase uncertainty in these fields and hamper their development, it is imperative that the Federal Circuit on remand establish a clear divided infringement rule broad enough to close the current loophole for evading liability but narrow enough to protect the inadvertent, non-infringing acts of innocent third parties. But because the Federal Circuit's interpretation will be limited by the current statutory language in § 271, a truly ideal solution for divided infringement of multi-actor patents is likely to require congressional action. However, in the meantime the Federal Circuit should take the opportunity on remand to relax the relationship requirement for divided infringement under § 271(a) in order to narrow the current gap in the law. Part I of this Note will first explore the evolution of divided infringement

5. *Id.* at 2120.

6. "Divided infringement" and "joint infringement" are often used in the literature to describe circumstances in which two or more individuals divide performance of the steps of a method patent, absent a mastermind or agency/contractual agreement. This Note will exclusively use the term "divided infringement" to avoid any confusion.

7. *Akamai*, 134 S. Ct at 2119. The Court interpreted the en banc Federal Circuit's use of § 271(b) as adopting the view that the steps Limelight and its customer performed would infringe Akamai's patent if all performed by the same person. *See id.* at 2118. This theory of infringement under altered circumstances effectively created an odd hybrid of direct infringement under § 271(a) and induced infringement under § 271(b). The Court referred to the earlier case of *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972), to demonstrate that it had already rejected such an approach with respect to contributory infringement, and it saw no reason to apply a different rule to induced infringement. *See id.* In *Deepsouth*, the Court established that "there can be no contributory infringement without the fact or intention of a direct infringement." *Id.* at 526.

8. *Id.* at 2120.

9. *Id.* at 2115 (describing the "content delivery network" ("CDN") technology that the patent-in-suit covers).

law from its roots in contributory infringement to the cases leading up to *Akamai*. Part II explains the Federal Circuit en banc and Supreme Court decisions in the *Akamai* case, and Part III urges the Federal Circuit, in light of the Supreme Court's recent decisions in *Mayo Collaborative Services v. Prometheus Labs*¹⁰ and *Alice Corp. v. CLS Bank International*,¹¹ to relax the current relationship requirement for a finding of divided infringement under § 271(a). Finally, Part IV examines potential alternatives to the current law of divided infringement and offers suggestions for moving forward.

I. EVOLUTION OF DIVIDED INFRINGEMENT

Divided infringement law stems from the common law doctrine of contributory infringement. This Part examines the origins of divided infringement law, its codification in 35 U.S.C. § 271, and the recent Federal Circuit decisions that have largely shaped this area of patent law.

A. COMMON LAW OF CONTRIBUTORY LIABILITY FOR MULTI-ACTOR INFRINGEMENT

The Patent Act of 1836 did not explicitly define infringement, but granted patent owners “the full and exclusive right and liberty of making, using, and vending to others to be used” their intellectual property.¹² Prior to the statutory codification of patent infringement in the Patent Act of 1952, lower courts addressed multi-actor infringement using an analogy to joint tortfeasor liability under the doctrine of contributory infringement.¹³ As patent law evolved, courts varied in their application of the doctrine of contributory infringement to multi-actor infringement, often grappling with the effects of the doctrine on the scope of patent protection.

In 1871, one of the earliest cases in this area, *Wallace v. Holmes*, recognized that a defendant could be liable for contributory infringement by selling a component that was substantially similar to a patented one and

10. See *Mayo Collaborative v. Prometheus Labs*, 132 S. Ct. 1289 (2012).

11. See *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

12. Ch. 357, § 5, 5 Stat. 117 (1836).

13. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990) (noting that prior to the Patent Act of 1952 “liability was under a theory of joint tortfeasance, wherein one who intentionally caused, or aided and abetted, the commission of a tort by another was jointly and severally liable with the primary tortfeasor”). It is important to note that this doctrine of contributory infringement is not the same as the one codified in § 271(c). Both forms of indirect infringement, § 271(b) (induced) and § 271(c) (contributory), stem from this common law doctrine of contributory infringement, which has been interpreted in various ways by different courts.

that had no other use except in an infringing combination.¹⁴ In *Wallace*, the patent in question claimed an improved lamp with a chimney and a burner, the latter of which was the distinguishing feature.¹⁵ The defendant sold the burner as disclosed in the plaintiff's patent by itself, leaving its customers to purchase a chimney.¹⁶ The defendant then attempted to rely on two earlier Supreme Court decisions to disclaim liability for infringement. It pointed to *Prouty v. Ruggles* for the proposition that a defendant did not infringe a patent if he used fewer than all elements of the patent.¹⁷ And it turned to *Keplinger v. De Young* to support the premise that there could be no infringement if the defendant had "no other connection" with the actual user other than a purchase contract.¹⁸ The court, however, held that these cases did not protect the defendant from liability for infringement, in view of the common law principles of joint tortfeasance, and particularly when the defendant's burners had no other non-infringing uses.¹⁹

Following *Wallace*, the Supreme Court initially began expanding the scope of patent protection, particularly to unpatented components that functioned together with patented ones. In *Leeds & Caitlin v. Victor Talking Machine Co.* in 1909, the Court affirmed the legality of tying²⁰ the sale of unpatented disc sound-records to the sale of patented phonograph machines; this allowed the patentee to block the use of unauthorized disc sound-records on its machine.²¹ Consequently, the Court held the

14. See generally *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871).

15. See *id.* at 79.

16. *Id.*

17. See generally *Prouty v. Ruggles*, 41 U.S. (16 Pet.) 336 (1842) (referring to a patented plow with multiple components and holding a defendant not liable for infringement when he used a combination of fewer components in his plow).

18. See *Keplinger v. De Young*, 23 U.S. (10 Wheat.) 358, 365 (1825) (finding a purchase contract for watch chains insufficient for holding a defendant liable for infringement, as such a construction would be "highly inconvenient and unjust to the rest of the community, since it might subject any man who might innocently contract with a manufacturer to purchase all the articles which he might be able to make within a limited period, to the heavy penalty inflicted by the act, although he might have been ignorant of the plaintiff's patent, or that a violation of it would be the necessary consequence of the contract.").

19. See *Wallace*, 29 F. Cas. at 80.

20. A tying arrangement is one in which a party sells one product, "but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier." *N. Pac. R. Co. v. United States*, 356 U.S. 1, 5-6 (1958).

21. See generally *Leeds & Caitlin v. Victor Talking Mach. Co.*, 213 U.S. 325 (1909) (extending patent protection to unpatented phonograph records by tying them to patented phonograph players).

defendant who sold such disc sound-records liable for contributory infringement.²² Similarly in *Henry v. A.B. Dick Co.* in 1912, the Court approved a tying arrangement that required purchasers of a mimeograph device to use only ink sold by the patentee, holding a defendant selling ink for the mimeograph liable for contributory infringement.²³

To address some of the antitrust concerns arising from this expansion of patent rights, the Supreme Court quickly set off on a path to limit the scope of patentees' rights, overruling tying arrangements in *Motion Pictures Patents Co. v. Universal Film Manufacturing Co.* in 1917.²⁴ In *Motion Pictures Patents*, the patentee owned a projector film feeding mechanism that it licensed to projector makers under the condition that the projectors would be used solely for playing films licensed by the patentee.²⁵ The Court concluded that the patent owner could not extend his monopoly by mandating the use of non-patented items with the patented one.²⁶ While not a case explicitly concerned with contributory infringement, *Motion Pictures Patents* set a strong policy against extending a patent monopoly to unpatented components.²⁷ Some lower courts continued to find contributory infringement when the sale of the unpatented product was accompanied by active inducement,²⁸ while other courts used the policy from *Motion Pictures Patents* to tighten up the law of contributory infringement.²⁹

22. *See id.* at 332–33.

23. *See Henry v. A.B. Dick Co.*, 224 U.S. 1, 32 (1912).

24. *See Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 510–11 (1917).

25. *Id.* at 505–07.

26. *Id.* at 516–17.

27. 5 DONALD S. CHISUM, CHISUM ON PATENTS § 17.02[3] (2014).

28. For example, the Second Circuit in *Westinghouse Electric Manufacturing Co. v. Precise Manufacturing Corp.* upheld a patentee's tying arrangement when it found that the defendant intended for its product to be used in an infringing device, even when there were non-infringing uses for its product. *See Westinghouse Elec. & Mfg. Co. v. Precise Mfg. Corp.*, 11 F.2d 209, 211–12 (2d Cir. 1926). In *Westinghouse*, the defendant sold transformers that could be used in infringing radio receivers. *Id.* at 211. While the transformers had non-infringing uses, the defendant advertised them to be used in an infringing combination and provided instructions on how to do so, leading the court to conclude that the defendant was liable for contributory infringement. *Id.* at 211–12.

29. In *Chas. H. Lilly Co. v. I.F. Laucks, Inc.*, the Ninth Circuit held that the sale of a standard article of commerce (one with infringing and non-infringing uses) could not constitute contributory infringement, even if the seller knew that it would be used in an infringing combination. *See Chas. H. Lilly Co. v. I.F. Laucks, Inc.*, 68 F.2d 175 (9th Cir. 1933). There, the plaintiff's patents concerned a soya bean flour-based glue. *Id.* at 176. The defendant manufactured the soya bean flour for a variety of uses and reached out to a glue manufacturer, Kaseno Products Company. *Id.* at 177. Plaintiffs alleged that the

The Supreme Court further limited rights of patentees in *Cabrice Corp. v. American Patents Development Corp.*, where it established the doctrine of “patent misuse” as a further restriction on tying arrangements.³⁰ In *Cabrice*, the patent covered a refrigerated transportation container using dry ice with a notice specifying that the container only be used with dry ice sold by the patentee.³¹ The Court held the notice an improper means of expanding the patent to cover an unpatented article and withheld a remedy for contributory infringement on grounds of misuse.³² Following *Cabrice*, the Court continued to withhold remedies for contributory infringement on the basis of patent misuse³³ and even extended the misuse doctrine to deny a patentee relief against a defendant who directly infringed a patent because the patentee attempted to use an impermissible tying arrangement.³⁴

And in *Mercoïd Corp. v. Mid-Continent Investment Co.*, the Court not only reaffirmed the doctrine of misuse but cast doubt on the entire law of contributory infringement.³⁵ In *Mercoïd*, the patentee (Mid-Continent) claimed a domestic heating system consisting of three main elements, one of which was unpatented and exclusively licensed to a third party (Minneapolis-Honeywell) for sale.³⁶ The third party, in advertising its product—a switch—tried using a tying arrangement by informing its customers that the patented heating system could only be used with its switch.³⁷ The defendant (Mercoïd) sold a switch that had no non-infringing uses.³⁸ Even though the Court acknowledged that the defendant was a contributory infringer, it refused to grant the patentee injunctive relief because the patentee’s licensing scheme with a third party constituted an inappropriate extension of the patent to unpatented devices.³⁹ In holding that the patentee “could have enjoined the infringement had [it] not misused the patent for the purpose of

defendant’s act of selling flour to the glue manufacturer constituted contributory infringement. *Id.* The court, however, concluded that Plaintiffs could not enjoin the sale of the soya bean flour and did not find the defendant liable for contributory infringement. *Id.* at 179.

30. See *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931).

31. See *id.* at 29.

32. *Id.* at 33–34.

33. See *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458, 463 (1938).

34. See *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 494 (1942).

35. See *Mercoïd Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661 (1944).

36. *Id.* at 664.

37. *Id.* at 663.

38. *Id.* at 664.

39. *Id.* at 668–69.

monopolizing unpatented material,” the majority observed that the result of the decision was to “limit substantially the doctrine of contributory infringement.”⁴⁰ Thus where the doctrines of contributory infringement and patent misuse were in conflict, the Court gave deference to the latter. Shortly after the *Mercoïd* decision, a lower court even used this decision to question contributory infringement where no evidence of a tying arrangement existed.⁴¹ The majority of courts, however, continued using the doctrine of contributory infringement to provide relief to patentees for multi-actor violations of their intellectual property rights.⁴²

Consequently, despite various attempts to define boundaries on the use of contributory infringement in imposing liability in cases of divided infringement, this area of law remained uncertain leading up to the codification of infringement law in 1952.

B. THE PATENT ACT OF 1952

The Patent Act of 1952 codified American patent law and provided for two categories of infringement: direct and indirect.⁴³

1. *Direct Infringement*

Section 271(a) holds a party liable for direct infringement when he performs all of the elements of another’s patent. For method patents, an accused infringer must perform every step of the method.⁴⁴ Because direct infringement is a strict-liability offense, an alleged direct infringer need not be aware of the patent in order for the patentee to obtain a remedy.⁴⁵ Courts have also interpreted § 271(a) to address the doctrine of divided infringement, where a relationship status between two or more parties can

40. *Id.* While the third party initiated the tying arrangement, its misuse was inputted to the patentee since the third party was a licensee.

41. *See Stroco Prods. Inc. v. Mullenbach*, 67 U.S.P.Q. 168, 170 (S.D. Cal. 1944) (holding that “[p]laintiff is, by its action against defendant for contributory infringement[,] attempting to use its patent to secure a monopoly on unpatented portions of complete combination”).

42. *See Florence-Mayo Nuway Co. v. Hardy*, 168 F.2d 778, 785 (4th Cir. 1948) (limiting *Mercoïd* to the proposition that a combination patent may not be used to protect an unpatented part of the invention from competition and holding a defendant liable for selling machinery with knowledge, purpose, and intent that it would be used in an infringing combination).

43. 35 U.S.C. § 271 (1952).

44. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378 (Fed. Cir. 2007) (“Direct infringement requires a party to perform or use each and every step or element of a claimed method or product.”) (citing *Warner-Jenkinson Co. v. Hilton Davis Corp.*, 520 U.S. 17, 40 (1997)).

45. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007).

lead to a finding of divided infringement.⁴⁶ This relationship status standard is in flux, however, as courts debate which standard to apply and how to interpret the facts of each infringement scenario.⁴⁷

2. *Indirect Infringement*

Section 271 also sets forth two forms of indirect infringement, codifying the previous contributory infringement caselaw in subsections (b), addressing induced infringement, and (c), addressing contributory infringement.⁴⁸ Under § 271(b), a party is liable for induced infringement if it actively induces another actor to infringe a patent.⁴⁹ To obtain a remedy under induced infringement, a patentee must show that: (1) another person actually infringed, (2) the alleged inducer knew of the patent, and nevertheless (3) knowingly induced the infringing acts with a specific intent to encourage infringement by that person.⁵⁰ And under § 271(c), a party who sells, offers to sell, or imports to the United States a material part of an invention, knowing that it is not a staple article or commodity of commerce suitable for substantial non-infringing uses, is liable for contributory infringement.⁵¹ Alongside actual infringement, a patentee seeking to establish contributory infringement must prove that (1) an accused indirect infringer sold or supplied a component of a patented invention, (2) that was material to the invention, (3) while knowing that the component was specially made or adapted for infringing use, and (4) is not a staple article suitable for substantial non-infringing uses, in order to win a claim of contributory infringement.⁵²

In both induced and contributory infringement, the patent owner has the burden of not only proving the existence of underlying direct infringement,⁵³ but also demonstrating that the accused indirect infringer had knowledge of the patent's existence.⁵⁴ This intent standard itself has

46. *See infra* Section I.C.

47. *See id.*

48. 35 U.S.C. § 271.

49. § 271(b).

50. *See Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1328 (Fed. Cir. 2009).

51. § 271(c).

52. Alice Juvon Abn, *Finding Vicarious Liability in U.S. Patent Law: The Control of Direction Standard for Joint Infringement*, 24 BERKELEY TECH. L.J. 149, 151 (2009).

53. *See Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

54. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488–91 (1964) (finding that contributory infringement requires both knowledge of the patent's existence and that the component produced is infringing).

been the subject of much debate,⁵⁵ which the Supreme Court attempted to settle in *Global-Tech Appliances Inc. v. SEB S.A.* in 2011.⁵⁶ The Court held that in order to be liable for infringement, a defendant must have had knowledge both of the patent and that his acts infringed the patent.⁵⁷ But the Court did reaffirm the Federal Circuit's rule that the knowledge standard could be met by a showing of willful blindness, when a defendant "acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."⁵⁸

C. EVOLUTION OF DIVIDED INFRINGEMENT AND THE RELATIONAL STANDARD

For fear of ensnaring innocent parties unaware that their actions contributed to the infringement of a patent, courts were traditionally reluctant to recognize divided infringement when two or more parties divided performance of claims in a patent.⁵⁹ Prior to 2007, the Federal Circuit issued no decision squarely on the issue of liability for divided infringement.⁶⁰ Lower courts, however, sometimes found liability based on a different range of relationships between parties.

1. *District Courts Apply a Patchwork of Relational Standards*

In early cases, courts often protected patent owners from defendants who attempted to escape infringement by coordinating with third parties. For example, a court in the Southern District of New York in *Metal Film Co. v. Metlon Corp.* held a defendant liable for infringement when it hired an outside contractor to perform one step of the patent.⁶¹ Likewise, a

55. Prior to *Global-Tech*, the mental state required by the Federal Circuit to assign liability under induced patent infringement was largely undetermined. The Federal Circuit primarily oscillated between two standards; one only required that the defendant have had the intent to induce the acts that later constituted patent infringement. *See* *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990). The other, more stringent, standard required the defendant to have had knowledge that his actions would induce infringement of the patent-in-suit. *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 553 (Fed. Cir. 1990) ("The plaintiff has the burden of showing that the alleged infringer's actions induced infringing acts and that he knew or should have known his actions would induce actual infringements.").

56. *See* *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060 (2011).

57. *See id.* at 2068.

58. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007).

59. *See, e.g., Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1571 (Fed. Cir. 1983).

60. 5 Donald S. Chisum, *CHISUM ON PATENTS* § 16.02[6][a] (2014).

61. While not discussing the issue in depth in its decision, the court in *Metal Film* viewed the two companies as acting like one such that the "infringing acts of one can be deemed the infringing acts of the other on the basis that one has induced the

judge in the Western District of Louisiana in *Shields v. Halliburton Co.* reaffirmed the notion that a defendant could not escape liability for infringement by “having another [party] perform one step of the process or patent.”⁶² In *Shields*, three different companies collectively carried out a patent for offshore drilling; although no single company completed every step of the patented process, the court held all three jointly liable for their combined action.⁶³

In another line of cases, an agency relationship requirement standard slowly emerged for a finding of divided infringement, requiring that the defendant have had a relationship with other actors such that he exerted direction or control over their activities. Courts were not explicit whether the relationship standard applied to direct or indirect infringement, however. In *Crowell v. Baker Oil Tools*, the Ninth Circuit observed that “one may infringe a patent if he employs an agent for that purpose or [has] the offending articles manufactured for him by an independent contractor.”⁶⁴ Following this logic in *Free Standing Stuffer, Inc. v. Holly Development Co.*, the District Court of the Northern District of Illinois held a defendant sales company liable for jointly infringing a patented method of inserting advertisement cards in newspapers because it directed the printer and newspaper to carry out the steps of the patent.⁶⁵ And even in an instance where there was no explicit agency relationship, in *Mobil Oil Corp. v. W.R. Grace & Co.*, the District Court of Connecticut found infringement where the defendant performed all the steps of a patented method except the last step—which consisted merely of heating a catalyst—which was intended to be completed by the defendant’s customers.⁶⁶ There, the court reasoned that the defendant had effectively made each of its customers its agents because it knew that they would perform the last step.⁶⁷

Other courts applied a less stringent standard, only requiring “some connection” between the actors to find divided infringement. In *Faroudja*

infringement of the other” under § 271(b). *Metal Film Co. v. Melton Corp.*, 316 F. Supp. 96, 109 n.11 (S.D.N.Y. 1970). The patent-in-suit involved a method for making yarn, and the defendant contracted the vacuum metalizing step (a very common procedure at this time) to an outside contractor. *Id.* at 110 n.12.

62. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980).

63. *See id.* at 1380–81.

64. *See Crowell v. Baker Oil Tools, Inc.*, 143 F.2d 1003, 1004 (9th Cir. 1944).

65. *Free Standing Stuffer, Inc. v. Holly Dev. Co.*, 187 U.S.P.Q. 323, 333 (N.D. Ill. 1974).

66. *See Mobil Oil Corp. v. W.R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973).

67. *Id.*

Laboratories, Inc. v. Dwin Electronics, Inc., the patent in question concerned a method for improving image quality in televisions through a series of signal conversions and multiplications.⁶⁸ The defendant sold products that allowed consumers to take television transmissions and improve the image quality on their screens.⁶⁹ Rather than require an agency relationship, the court concluded that divided infringement required only a showing of “some connection” between the various entities.⁷⁰ This connection could be established where the parties “worked in concert” or were in “direct contact.”⁷¹ Following *Faroudja*, several district courts employed the “some connection” requirement.⁷²

2. *The Federal Circuit Steps In and Adopts a “Control or Direction” Standard*

When the Federal Circuit finally addressed the issue of multi-actor infringements in 2005, it appeared to adopt the aforementioned agency standard for divided infringement. In *Cross Medical Products v. Medtronic Sofamor Danek*, the court found that the defendant medical device manufacturer did not infringe patents covering implants used by orthopedic surgeons to stabilize the spine during surgery.⁷³ Even though the defendant’s personnel regularly appeared in an operating room with surgeons and directed surgeons in the assembly of the apparatus, the Federal Circuit refused to find liability for divided infringement as the defendant and surgeons were not in an explicit agency relationship.⁷⁴

However, a different panel of the Federal Circuit just one year later appeared to adopt a looser standard in the dicta of *On Demand Machine Corp. v. Ingram Industries, Inc.*⁷⁵ In *On Demand Machine*, patentees accused Amazon.com along with others of infringing a patent covering on-

68. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *1 (N.D. Cal. Feb. 24, 1999).

69. *Id.* at *2.

70. *Id.* at *5.

71. *Id.* at *6.

72. *See Cordis Corp. v. Medtronic AVE, Inc.*, 194 F. Supp. 2d 323 (D. Del 2002); *Marley Mouldings Ltd. v. Mikron Indus.*, No. 02-2855, 2003 WL 1989640 (N.D. Ill. Apr. 30, 2003); *Hill v. Amazon.com, Inc.*, No. Civ.A.2:02-CV-186, 2006 WL 151911 (E.D. Tex. Jan. 19, 2006).

73. *See Cross Med. Prods. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1311 (Fed. Cir. 2005).

74. *See id.*

75. *See On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1345 (Fed. Cir. 2006).

demand book printing.⁷⁶ While the Federal Circuit reversed the lower court's findings of infringement on a claim construction issue, it issued dicta suggesting that it approved the "some connection" standard when it found no error in jury instructions: "[i]t is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement."⁷⁷

In 2007, the Federal Circuit finally addressed these inconsistent decisions in *BMC Resources v. Paymentech, L.P.*, establishing a "control or direction" requirement for divided infringement that has largely remained the standard today.⁷⁸ *BMC* involved a method patent for processing banking transactions that required multiple actors—a bank account holder, a third-party billing processor, and a financial institution.⁷⁹ A single party, thus, could not carry out the method. In affirming the district court's grant of summary judgment on the grounds that the parties were not in an agency relationship and that none of the parties controlled or directed the activities of the others, the Federal Circuit held that in order to find joint liability, one party must exhibit "control or direction" over the others' actions.⁸⁰ In justifying its decision, the court pointed to its concern that a more relaxed relationship requirement under § 271(a) would encourage patentees to forgo filing indirect infringement cases—which require both direct infringement and knowledge of the patent—and seek relief under a strict liability theory of divided infringement under § 271(a) instead.⁸¹ While it acknowledged that this control or direction standard might allow some infringers to enter into arms-length agreements to avoid liability, the Federal Circuit believed that the negative ramifications from expanding the rules for direct infringement far outweighed these concerns.⁸² Because both forms of indirect liability require evidence of "specific intent" to induce or contribute to infringement, it is more work for plaintiffs to prove indirect infringement; if patentees could reach the independent conduct of multiple actors through direct infringement, then a patentee would rarely ever need to bring a claim for indirect

76. *Id.*

77. *Id.* at 1344–45.

78. *See BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1379–81 (Fed. Cir. 2007).

79. *See id.* at 1375–76.

80. *Id.* at 1380–81.

81. *Id.* at 1381.

82. *Id.*

infringement.⁸³ Any relationship standard lower than control or direction would subvert the statutory scheme for indirect infringement.⁸⁴ Furthermore, according to the *BMC* court, proper claim drafting could offset the concerns in their entirety.⁸⁵

Shortly after *BMC*, the Federal Circuit further elevated the relationship status standard in *Muniauction, Inc. v. Thomson Corp.* by requiring the control or direction exerted by one entity to exist to such a degree that the entity itself “can be said to have performed every step of the asserted claims.”⁸⁶ *Muniauction* involved a method patent for auctioning municipal bonds where an issuer offers the bonds to a bidder who then purchases the entire bond offering on an “integrated system” permitting issuers and bidders to run the auction using conventional web browsers without separate software.⁸⁷ The court held that the defendant Thomson, who ran a similar online bidding platform using a web browser rather than a proprietary computer network, did not perform every step of the claimed method, as the “inputting data associated with at least one bid . . . into said bidder’s computer” was performed by the bidder.⁸⁸ Citing *BMC*, the court noted that control or direction required a mastermind to whom every step in the method is attributable.⁸⁹ The court held that Thomson’s control over its system and instruction to bidders did not constitute the control or direction necessary to incur liability for direct infringement, as Thomson did not have another party perform steps on its behalf.⁹⁰

Post-*BMC* and *Muniauction*, patentees in lower courts applying the control or direction standard have found it difficult to prevail on infringement claims. Absent proof that defendants had either an agency relationship or contractual obligations with another party performing some of the infringing steps, courts are reluctant to find liability for divided infringement. In *Global Point Holdings, LLC v. Panthers BRHC LLC*, for example, the patentee sued for infringement of a patent for

83. *Id.*

84. *Id.*

85. *Id.*

86. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008).

87. *Id.* at 1322.

88. *Id.*

89. *Id.* at 1329 (citing *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380–81 (Fed. Cir. 2007)).

90. *Id.* at 1330.

downloading material from a remote server in response to a query.⁹¹ The patentee argued that the defendant had asserted control over a website user by supplying the user with programs and web materials that allowed the user's machine to execute the defendant's program.⁹² The court found that this relationship failed to meet the control or direction requirement because the user was not contractually obligated to visit the website and submit queries.⁹³ Similarly, in *Emtel, Inc. v. LipidLabs, Inc.*, a court held that a defendant providing telemedicine through videoconferences did not infringe on a patent that required (1) an entity to provide and operate a videoconferencing system, (2) a physician, and (3) a remote medical care facility where there is a caregiver and a patient.⁹⁴ The patentee claimed that defendants contracted with individual doctors to perform the medical activities, thus meeting the control or direction requirement from *BMC* and *Muniauction*.⁹⁵ But the court found that simply "[c]ontrolling access to a system and providing instructions on using that system" failed to meet the control or direction requirement, as the physicians still retained discretion in diagnosis and treatment.⁹⁶

II. *LIMELIGHT V. AKAMAI*

The Federal Circuit once again found itself wrestling with the required relationship standard between accused parties under the doctrine of divided infringement in a consolidated case—*Akamai Technologies v. Limelight Networks* and *McKesson Technologies v. Epic Systems*—in its 2012 *en banc* decision.⁹⁷ The Federal Circuit *en banc* reversed prior panel opinions and introduced the "inducement-only" approach whereby a court can find a defendant liable for induced infringement under § 271(b) when the defendant carries out some steps in a method patent and then

91. *Global Patent Holdings, LLC v. Panthers BRHC LLC*, 586 F. Supp. 2d 1331 (S.D. Fla. 2008).

92. *See id.* at 1333.

93. *See id.* at 1335.

94. *See Emtel, Inc. v. Lipidlabs, Inc.*, 583 F. Supp. 2d 811, 827 (S.D. Tex. 2008).

95. *See id.* at 828.

96. *Id.* at 831.

97. *See generally* *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012), *rev'd*, 132 S. Ct. 2111 (2014). The Federal Circuit panels for the two cases affirmed the district courts' respective opinions and reinforced the agency requirement. *See* *McKesson Techs. Inc. v. Epic Sys. Corp.*, No. 2010-1291, 2011 U.S. App. LEXIS 7531, at *1-2 (Fed. Cir. Apr. 12, 2011); *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1319 (Fed. Cir. 2010).

encourages others to carry out the remaining steps, without first needing to hold a party liable for direct infringement under § 271(a).⁹⁸

A. FACTS AND PROCEDURAL HISTORY

In the late 1990s, Professors Tom Leighton and Daniel Lewin at the Massachusetts Institute of Technology conceived of a content delivery network (“CDN”) that would provide stable internet services to users during periods of high traffic.⁹⁹ They eventually founded Akamai Technologies (“Akamai”), an internet company utilizing thousands of servers to provide users access to files stored on its servers at increased speeds.¹⁰⁰ With thousands of servers distributed around the world, Akamai’s CDN reduces the time it takes to load a webpage by bringing the content of the webpage geographically closer to internet users.¹⁰¹ The patented method requires two parties, a CDN (Akamai) and a website owner, to work together.¹⁰² In order to move an object to a CDN, the website owner must first modify the object’s internet address through a process known as “tagging.”¹⁰³ This tagging identifies the content that the website owner wants the CDN to deliver to consumers.¹⁰⁴

Limelight Networks (“Limelight”), like Akamai, also maintains a CDN, and its content delivery service depends on performance of every step of the process disclosed in Akamai’s patent-in-suit. Similarly to Akamai, Limelight performs nearly every step of the process but requires its customers do their own tagging and provides technical assistance and necessary instructions regarding how to tag.¹⁰⁵

In 2006, Akamai sued Limelight for direct and induced infringement, and a jury in Massachusetts awarded Akamai over \$45 million in damages.¹⁰⁶ Shortly after this victory, however, the Federal Circuit decided *Muniauction, Inc. v. Thomson Corp.*, holding that a defendant was not liable for direct infringement because he did not exercise control or

98. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1306 (Fed. Cir. 2012), *rev’d*, 132 S. Ct. 2111 (2014).

99. Brief for Respondents Akamai Techs., Inc. on Writ of Certiorari to the United States Court of Appeals for the Federal Circuit at 4–5, *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014).

100. *Limelight Networks, Inc. v. Akamai Techs.*, 134 S. Ct. 2111, 2115 (2014).

101. *Id.* at 2115.

102. *See* Brief for Respondents (Akamai Techs, Inc.), *supra* note 99, at 7.

103. *See id.*

104. *See id.*

105. *See Akamai*, 134 S. Ct. at 2115.

106. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 614 F. Supp. 2d 90, 95 (D. Mass. 2009).

direction over his customers who performed the last step of the patent.¹⁰⁷ As a result of *Muniauction*, Limelight moved for reconsideration; the Massachusetts District Court granted the motion and then ruled in Limelight's favor.¹⁰⁸ The Federal Circuit panel affirmed, explaining that a defendant can be liable for direct infringement only "when there is an agency relationship between the parties who perform the method steps or when one party is contractually obligated to the other to perform the steps."¹⁰⁹ Akamai tried arguing that Limelight's customers were contractually obligated to tag files in order to implement Limelight's content delivery mechanism, but both courts found the argument unconvincing.¹¹⁰ Finding no material difference between Limelight's interactions with its customers and Thomson's interactions with its customers in *Muniauction*, the district court characterized the agreements between Limelight and its customers as a result of an arms-length cooperation, which does not give rise to direct infringement by any party.¹¹¹ Furthermore, the Federal Circuit reiterated that there is no indication that an agency relationship arises when one party merely provides another party with directions, even explicit ones.¹¹²

Before moving to the Federal Circuit's *en banc* decision, it is worth noting that the decision consolidated the case between Akamai Technologies and Limelight Networks with another case between McKesson Information Solutions and Epic Systems.¹¹³ In that case, McKesson patented a method of electronic communication between healthcare providers and their patients.¹¹⁴ Epic licensed similar software to healthcare providers and organizations, allowing healthcare providers to communicate electronically with their patients.¹¹⁵ Epic did not perform any steps of McKesson's patented method; instead, patients and their

107. *See* *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008).

108. *Akamai* (D. Mass.), 614 F. Supp. 2d at 122.

109. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1319 (Fed. Cir. 2010).

110. *Akamai* (D. Mass.), 614 F. Supp. 2d at 120–122.

111. *Id.* (citing *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007)).

112. *Akamai* (Fed. Cir.), 629 F.3d. 1311 at 1321 (citing *Meyer v. Holley*, 537 U.S. 280, 286 (2003) to illustrate that the agency relationship requires not only the right to direct or control but also consent by one entity to another that the other shall act on his behalf).

113. *See generally* *Akamai, Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012), *rev'd*, 132 S. Ct. 2111 (2014).

114. *See id.* at 1306.

115. *Id.*

physicians each completed a portion of the patented method, with patients initiating conversations and physicians responding.¹¹⁶ Relying on *Muniauction* and *BMC*, the District Court for the Northern District of Georgia granted summary judgment of noninfringement on the grounds that the patients, who were not Epic's direct customers, initiated the first steps of infringement.¹¹⁷ A split panel at the Federal Circuit affirmed this decision.¹¹⁸ As this case has since settled, this Note will not further discuss *McKesson Information Solutions LLC v. Epic Systems Corp.*¹¹⁹

B. FEDERAL CIRCUIT DECISION *EN BANC*

Upon rehearing the case *en banc*, the Federal Circuit reversed and remanded the district court's decision in *Akamai*, writing that liability under § 271(b) can arise when a defendant carries out some steps of a method patent and then encourages others to carry out the remaining steps, even if no one party would be liable as a direct infringer, and even when the parties performing the steps are not the agents of or under the control or direction of the defendant.¹²⁰

In its decision, the Federal Circuit considered statutory interpretation, precedent, and patent policy to conclude that the previous interpretation of § 271(b) in *BMC* was incorrect. It first noted that its decision would not be predicated on the doctrine of direct infringement under § 271(a), where one party must commit all the necessary acts to infringe the patent, either personally or vicariously, in order to be liable for direct infringement.¹²¹ Because direct infringement is a strict liability tort, the court observed that direct infringement had not been extended to cases in which multiple independent parties share the steps of the method claim for fear of ensnaring actors who had no way of knowing that others acted in a way such that their collective conduct infringed a patent, and who did

116. *Id.*

117. *McKesson Info. Solutions LLC v. Epic Sys. Corp.*, No. 1:06-CV-2965-JTC, 2009 U.S. Dist. LEXIS 881582009 WL 2915778, at *1 (N.D. Ga. Sept. 8, 2009).

118. *McKesson Techs. Inc. v. Epic Sys. Corp.*, 2011 U.S. App. LEXIS 7531, at *1 (Fed. Cir. Apr. 12, 2011).

119. Kris Fortner, *McKesson and Epic Settle Patent Infringement Litigation*, MCKESSON (Mar. 4, 2013), <http://www.mckesson.com/about-mckesson/newsroom/press-releases/2013/mckesson-and-epic-settle-patent-infringement-litigation/>. McKesson agreed to grant Epic a license to the patent for the benefit of Epic and its customers. In exchange, Epic agreed that it would no longer contest the validity of the patent. *Id.*

120. *See Akamai*, 692 F.3d at 1306.

121. *Id.* at 1307 (citing *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek*, 424 F.3d 1293, 1311 (Fed. Cir. 2005)).

not commit all necessary acts to constitute infringement.¹²² And because no agency relationship between Limelight and its customers existed, the *en banc* court decided that the application of § 271(b)—which extends liability to those who advise, encourage, or otherwise induce others to engage in infringing conduct and is not a strict liability tort—¹²³ was better suited to resolve the case.¹²⁴

Turning to statutory analysis, the Federal Circuit noted that the legislative history of the Patent Act of 1952 demonstrated intent for divided infringement to be addressed under the broad scope of § 271(b) in cases where no single entity is liable for direct infringement.¹²⁵ Section 271(b), according to the Federal Circuit, set forth a type of infringement separate from that defined in § 271(a) and “nothing in the text of either subsection suggest[ed] that the act of ‘infringement’ required for inducement under section 271(b) must qualify as an act that would make a person liable as an infringer under section 271(a).”¹²⁶ Furthermore, nothing in the text of § 271(b), the court concluded, indicated “that the term ‘infringement’ in section 271(b) is limited to ‘infringement’ by a single entity.”¹²⁷ The court further reasoned that it would be bizarre to hold someone liable for inducing another to perform all the steps of a method claim but to hold another harmless when he goes further by actually performing some of the steps himself.¹²⁸ If anything, the party who actually participated in performing the infringing method was more culpable than one who did not perform any of the steps at all.¹²⁹

The Federal Circuit *en banc* also referred both to the Federal Criminal Code’s provisions for aiding and abetting as well as to tort law to illustrate that holding an inducing party liable for an innocent party’s underlying acts is not a concept unique to patent law.¹³⁰ In criminal law, a defendant can be liable for causing an intermediary to commit a criminal act, even

122. *Id.* (citing *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (*en banc*) (“Because patent infringement is a strict liability offense, the nature of the offense is only relevant in determining whether enhanced damages are warranted.”)).

123. *See Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068 (2011) (noting that inducement requires intent).

124. *See Akamai*, 692 F.3d at 1307.

125. *Contributory Infringement in Patents: Hearings Before the Subcomm. On Patents, Trade-marks, and Copyrights of the H. Comm. on Judiciary*, 80th Cong. 5 (1948) (statement of Giles Rich on behalf of the New York Patent Law Association).

126. *See Akamai*, 692 F.3d at 1314.

127. *Id.* at 1309.

128. *Id.*

129. *Id.*

130. *Id.* at 1311.

though the intermediary committing the act has no criminal intent and thus cannot be charged with the substantive crime.¹³¹ And in tort law, a defendant can be found liable for tortious conduct if he orders or induces the conduct, provided that he knows or should have known of circumstances that would make the conduct tortious if it were his own.¹³² Because the principle of indirect infringement in the Patent Act of 1952 was based on the principles of joint tortfeasance, the Federal Circuit placed great weight on these parallels.¹³³ The implication of the principle of joint tortfeasance, as applied in a divided infringement context, was that a party could be liable for inducing infringement even if none of the individuals whose actions constituted infringement would be liable as direct infringers.¹³⁴

And finally, the *en banc* court addressed the dissent's reliance on precedent in *BMC* and the Supreme Court decision *Aro Manufacturing Co. v. Convertible Top Replacement Co.*¹³⁵ to support the single-entity rule, concluding that these cases do not in fact support the proposition that a single actor must commit all the acts necessary to constitute infringement before there can be a finding of induced infringement.¹³⁶ In reaching the proposition that indirect infringement first requires a single entity to have committed direct infringement, the Federal Circuit in *BMC* cited its prior decision in *Dynacore Holdings Corp. v. U.S. Philips Corp.*¹³⁷ The decision in *Dynacore* only supported the proposition that indirect infringement first requires direct infringement.¹³⁸ It did not, however, enhance the burden of showing direct infringement to prove that a single entity had infringed.¹³⁹ The Supreme Court's decision in *Aro* likewise also required a finding of direct infringement as a prerequisite for a finding of indirect infringement but never expressly or implicitly imposed a single entity requirement.¹⁴⁰ In

131. *Id.* (citing *United States v. Tobon-Builes*, 706 F.2d 1092, 1099 (11th Cir. 1983)).

132. *Id.* at 1312 (citing RESTATEMENT (SECOND) OF TORTS § 877(a) (1979)).

133. *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1469 (Fed. Cir. 1990).

134. *See Akamai*, 692 F.3d at 1313.

135. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961).

136. *See Akamai*, 692 F.3d at 1315–16.

137. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

138. *See id.* at 1272. The *Dynacore* patent-in-suit dealt with a local area network. *Id.* at 1266. The court addressed whether manufacturers of networking equipment capable of infringing the network were liable for indirect infringement when there was no proof of actual indirect infringement. *Id.* at 1272.

139. *See Akamai*, 692 F.3d at 1315 n.6.

140. *See Aro Mfg.*, 365 U.S. at 341.

fact, the *Aro* decision involved a product claim that did not even implicate the same divided infringement issue raised in *Akamai*.¹⁴¹ Unlike with method claims, whenever a product is made, there is always the potential for a direct infringer.¹⁴² Furthermore, in *Aro*, the Court concluded that there was no contributory infringement because the elements of the patent had not all been performed in an infringing manner, whether by one actor or by multiple actors.¹⁴³ Therefore the *Aro* decision did not stand for the proposition that a single entity must be responsible for infringing conduct in order for a finding of induced infringement.¹⁴⁴

In summary, based on legislative history, general tort principles, and prior caselaw, the Federal Circuit's *en banc* majority explicitly overturned the 2007 *BMC* decision, noting that while all the steps of a claimed method must be performed, it is not necessary that they all be committed by a single entity in order for the court to find induced infringement.¹⁴⁵ The court then remanded *Akamai* back to the district court for a determination on the merits of the case under the newly revised doctrine of induced infringement.¹⁴⁶

C. SUPREME COURT

The Supreme Court, disapproving of the Federal Circuit's analysis as "fundamentally misunderstanding what it means to infringe a method patent," reversed the decision and remanded it for further proceedings.¹⁴⁷ Writing for the unanimous Court, Justice Alito first noted that there was no dispute with the Federal Circuit that there must be direct infringement in order to find liability for inducement.¹⁴⁸ Instead the disagreement concerned the definition of direct infringement, specifically whether one actor must carry out all the steps of a method patent in order for a court to find direct infringement. Citing the Federal Circuit's decision in *Muniauction*, the Court disagreed with the Federal Circuit's premise that

141. *Akamai*, 692 F.3d at 1315.

142. *Id.*

143. *Id.* The *Aro* claim involved convertible tops on cars, and the Court held that replacing fabric on a convertible car was permissible repair and not an act of infringing reconstruction. *Id.*

144. *Id.*

145. *Id.* at 1306.

146. *Id.* at 1318–19.

147. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2117 (2014).

148. *See id.*

direct infringement could even be found if no single entity were liable under § 271(a).¹⁴⁹ The Court repeatedly pointed to the Federal Circuit's own holding in *Muniauction* that a "method's steps have not all been performed as claimed by the patent unless they are all attributable to the same defendant, either because the defendant actually performed those steps or because he directed or controlled others who performed them."¹⁵⁰ Thus if there is no direct infringement by a single entity under § 271(a), then there can be no inducement of infringement under § 271(b).¹⁵¹

Any other position regarding inducement, the Court observed, "would deprive § 271(b) of ascertainable standards."¹⁵² Justice Alito understood the Federal Circuit's *en banc* decision in *Akamai* to hold a defendant liable for conduct that by itself does not constitute infringement, and he reasoned that this standard would make it difficult for courts to assess whether a patent holder's rights have been violated or not in future cases.¹⁵³ Justice Alito raised a hypothetical example wherein a defendant pays another to perform just one step, albeit the most important step, of a twelve-step method claim, and no one performs the other eleven steps.¹⁵⁴ In that scenario, while the defendant had not induced infringement and no infringement had occurred, Justice Alito noted that "no principled reason prevents him [the defendant] from being held liable for inducement under the Federal Circuit's reasoning, which permits inducement liability when fewer than all of the method's steps have been performed."¹⁵⁵ Even in the situation, as in *Akamai*, where all of the claimed method steps were completed, the Court still held that the standard set forth in *Muniauction* applied.¹⁵⁶

Moreover, parallels with tort law and the criminal code failed to persuade the Court to accept the Federal Circuit's inducement-only approach. Under tort law, a defendant could be found liable for harming another through a third party, even if the third party himself would not be liable.¹⁵⁷ But the Court reasoned in *Akamai* that there was no induced infringement because no direct infringement occurred; thus it was

149. *Id.*

150. *Id.* (citing *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–1330 (Fed. Cir. 2008)).

151. *Id.*

152. *Id.*

153. *Id.* at 2118.

154. *Id.*

155. *Id.*

156. *Id.*

157. RESTATEMENT (FIRST) OF TORTS § 876 (1939).

unnecessary to broach the topic of third-party liability.¹⁵⁸ The Court pointed out that the attorneys for Akamai had failed to identify a single tort case holding a defendant liable for causing a third party to undertake an action that did not violate the legal rights of another.¹⁵⁹ In torts, the rationale for imposing liability when two or more defendants inflict injury on another stems from the principle that both defendants collectively violated the interests of another.¹⁶⁰ In the current case, the actions of Limelight and of its customers, each on their own, did not infringe the patent-in-suit and thus violate the interests of a patent holder.¹⁶¹ Likewise, the Court also deemed the analogy to the aiding and abetting statute in the criminal code unpersuasive, as the statute holds both abettors in and perpetrators of crimes liable as principals, which is unlikely something Congress relied upon when drafting § 271(b).¹⁶²

The Court's decision, however, did indicate that the Federal Circuit possibly erred in "too narrowly circumscribing the scope of § 271(a)" in its previous *Muniauction* decision but refused to interpret § 271(b) to impose liability for inducing infringement where direct infringement did not occur in order to correct the error.¹⁶³ Instead, it left the interpretation of § 271(a) for the Federal Circuit to address upon remand.¹⁶⁴

III. CHALLENGES FLOWING FROM THE SUPREME COURT DECISION

The Supreme Court's decision creates a loophole for would-be infringers to escape liability for patent infringement by dividing the performance of method patents with a party it neither directs nor controls.¹⁶⁵ This Part first discusses this loophole and then examines the effects of this gap in divided infringement law on three categories of interactive technologies: internet businesses and software, personalized medicine, and the Internet of Things (such as smart devices). It then urges the Federal Circuit, in light of the Supreme Court's recent decisions in *Mayo* and *Alice*, to broaden the current relationship requirement for a finding of divided infringement under § 271(a). This current requirement

158. See *Akamai*, 134 S. Ct. at 2119.

159. *Id.*

160. *Id.*

161. *Id.*

162. *Id.*

163. *Id.*

164. *Id.* at 2120.

165. *Id.* at 2119.

of an agency relationship or active inducement¹⁶⁶ poses a particular challenge for the field of personalized medicine in view of *Mayo*, as diagnostic tests now face both a patent eligibility challenge from *Mayo* and an enforcement bar from the Supreme Court's decision in *Akamai*. While the issue of divided infringement is becoming a more prominent concern in biotechnology, the decision in *Alice* has rendered it less relevant for software and business method patents. In raising the bar for patent eligibility for these types of patents, *Alice* has resolved some of the underlying policy concerns that have driven the evolution of divided infringement law. While it is still early, the immediate aftermath of the *Alice* decision indicates that courts may be able to dismiss business-method and low-quality software patents in litigation on 35 U.S.C. § 101 grounds, thus possibly discouraging owners of these patents from bringing suit.

A. DIVIDED INFRINGEMENT: DIFFICULTIES FACING § 271

Doctrinal problems with § 271 arise when two or more actors share the necessary acts to give rise to liability for direct infringement but do not have a close enough relationship for the acts of one to be attributable to the other. This is particularly problematic with method patents in two primary fact patterns: (1) a company performs all but the last step of a patented method and end users perform the last step, and (2) a company performs some of the steps a patented method and sells the resulting product to a buying company that performs the remaining steps.¹⁶⁷ In these scenarios, the law of indirect infringement under § 271(b) also fails to offer patent owners a remedy because a finding of indirect infringement is predicated upon first finding a single entity—under the standard set forth in *Muniauction*—responsible for direct infringement.¹⁶⁸ This opens up a loophole in the law of divided infringement whereby an actor can evade liability for infringement of a method patent by dividing up the performance of the steps of the method with another party it does not control or direct.

The Federal Circuit has two primary potential means of closing the loophole: § 271(a) or § 271(b). The Federal Circuit *en banc* in *Akamai* attempted to use the latter by holding that a party can be liable for induced infringement under § 271(b) even when no single party has committed

166. See *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–30 (Fed. Cir. 2008).

167. See Kristin E. Gerdeman, *Subsequent Performance of Process Steps by Different Entities: Time to Close Another Loophole in U.S. Patent Law*, 53 EMORY L.J. 1987, 1987–88 (2004).

168. See *Akamai*, 132 S. Ct. at 2119.

direct infringement under § 271(a).¹⁶⁹ Despite legislative history indicating that Congress may have intended courts to address cases of divided infringement under § 271(b),¹⁷⁰ the Supreme Court's response clearly indicated that such an interpretation misconstrued § 271(b) and would result in problematic consequences, namely a "free-floating concept of 'infringement' both untethered to the statutory text and difficult for the lower courts to apply consistently" under § 271(b).¹⁷¹ Critics have also chimed in to note that such a free-floating § 271(b), untethered from the territorial limitations under § 271(a), runs contrary to both Congress's and the Supreme Court's long recognition of the strict territorial limits of patent law.¹⁷² While it refused to review the merits of *Muniauction* and its interpretation of § 271(a), the Court left the interpretation of § 271(a) to the Federal Circuit upon remand, indicating that relaxing the standards for divided infringement under § 271(a) may be a more appropriate means of closing the divided infringement loophole.¹⁷³

B. POTENTIAL EFFECT OF THE *AKAMAI* DECISION ON HIGH TECHNOLOGY

The absence of a more expansive divided infringement rule may render it more difficult for companies with patents that involve multiple actors to protect their technology. Two recent Supreme Court cases on the scope of

169. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1306 (Fed. Cir. 2012), *rev'd*, 132 S. Ct. 2111 (2014).

170. See H.R. REP. NO. 82-1923, 9 (1952).

171. *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111, 2120 (2014).

172. See Timothy R. Holbrook, Brief of Ten Intellectual Property Law Professors as Amici Curiae in Support of Petitioner on the Issue of Extraterritoriality, *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 132 S. Ct. 2111 (2014), (No. 12-786). There is an express territorial limit for acts of direct infringement under § 271(a) but none for induced infringement under § 271(b). *Id.* at 3-4. Prior to the Federal Circuit's en banc decision, the absence of a territorial limit under § 271(b) was not an issue because an act of direct infringement under § 271(a) was a prerequisite for finding inducement infringement under § 271(b). *Id.* at 4. The territorial scope of § 271(a) thus also limited § 271(b). See, e.g., *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005). The en banc decision in *Akamai* effectively severs § 271(b) from § 271(a), thus removing the territorial limitation on § 271(b). See Holbrook, *supra*, at 4. This goes against the strong presumption against the extraterritorial application of U.S. patent law. See *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 527 (1972) (holding that it is not an infringement to make or use a patented product outside of the United States); *Brown v. Duchesne*, 60 U.S. 183, 195 (1856) (noting that rights granted to a patent owner are confined within the borders of the United States); *Microsoft Corp. v. AT & T Corp.*, 550 U.S. 437, 454-55 (2007) (interpreting Congress's answer to *Deepsouth*, 35 U.S.C. § 271(f), narrowly and finding in favor of the defendant who sold master copies of discs containing plaintiff's patented technology abroad).

173. See *Akamai*, 134 S. Ct. at 2120.

patentable subject matter, *Mayo* and *Alice*, further underscore the potential negative effects of the current divided infringement law on such companies. While amicus briefs in the *Akamai* case outlined the disparate positions the software and biotechnology industries held regarding the merits of the case, they also clearly demonstrated each industry's strong interest in this area of law.

Thus far, the cases from which the divided infringement standard has evolved have primarily centered on internet technologies, as evident in *BMC*, *Muniauction*, and *Akamai*. But in light of the nature of these technologies and the Supreme Court's recent decision in *Alice*, a divided infringement rule allowing for more types of potentially infringing conduct, based on the needs of industries in emerging technologies, would be more aligned with the goals of the patent system.¹⁷⁴ While there are many theories justifying the existence of a patent system, the primary justification for patent protection under U.S. law is utilitarian in nature. Namely, patents provide inventors with the incentive of a limited monopoly, thereby promoting research and development of beneficial technologies.¹⁷⁵ Patents can encourage innovation by providing ex-post incentives for inventors to maximize the value of their inventions¹⁷⁶ and ex-ante incentives that eliminate the free-rider problem, thereby enabling inventors to recoup their investment in research and development.¹⁷⁷

Because core industries likely to be affected by divided infringement include internet-based businesses and software, biotechnology, and the Internet of Things (smart devices), this Section first provides a brief description of these industries. It then argues that, in light of the recent Supreme Court decisions on § 101 patentable subject matter and the fundamental goals of patent law, the Federal Circuit should take the opportunity on remand to remedy the current loophole in divided infringement law.

174. See Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1630–31 (2003).

175. *Id.* at 1597.

176. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 265–271 (1977); Christopher A. Cotropia, *Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms*, 47 WM. & MARY L. REV. 49, 117–24 (2005).

177. See Burk & Lemley, *supra* note 173, at 1605; Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 680–85 (2004).

1. *Internet-Based Businesses and Software Patents*

Divided infringement is a particular concern for internet-based businesses and software due to the interactive nature¹⁷⁸ of the technologies involved—ranging from internet retail and banking services to wireless technologies—and the frequency with which patent holders in these fields find themselves targets of infringement suits.¹⁷⁹ Internet businesses and software programs often require the participation of multiple entities. For instance, a credit card transaction today can involve multiple actors, including the online retailer, merchant processing providers, banks, and consumers,¹⁸⁰ while software programs involve the patent holder and at the very least one end user. Because partnering is often more efficient in this field, allowing each company to specialize and provide higher quality services to their customers, internet-based services will likely continue to involve multiple actors.¹⁸¹ Alongside the explosive growth that these industries have experienced in the past decade as they continue to become an increasingly integral part of the global economy, litigation has skyrocketed.¹⁸² Wireless carriers have been sued based on the methods that they use in operating their networks.¹⁸³ And internet retailers have faced liability for infringement based in part on their customers' activities.¹⁸⁴

178. W. Keith Robinson, *Economic Theory, Divided Infringement and Enforcing Interactive Patents*, __ FLA. L. REV. __ (forthcoming 2015).

179. Brief of the Clearing House and the Financial Services Roundtable as Amici Curiae in Support of Limelight Networks, Inc. at 12, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), *cert. granted*, 134 S. Ct. 895 (U.S. Jan. 10, 2014) (No. 12-786) (No. 2009-1372), 2011 WL 7730148.

180. *Id.*

181. Brief of CTIA—the Wireless Association and MetroPCS Wireless, Inc. as Amici Curiae Supporting Petitioner at 5, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), *cert. granted*, 134 S. Ct. 895 (U.S. Jan. 10, 2014) (No. 12-786) (No. 2010-1291), 2011 WL4071472.

182. *See* Brief of the Clearing House and the Financial Services Roundtable, *supra* note 179, at 12.

183. *See* Brief of CTIA, *supra* note 181, at 6.

184. Brief of Internet Retailers as Amici Curiae in Support of Defendant/Cross-Appellant's En Banc Response Brief at 2, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), *cert. granted*, 134 S. Ct. 895 (U.S. Jan. 10, 2014) (No. 12-786) (No. 2009-1372), 2011 WL 3796786. In response to the patent troll problem, where companies or individuals use patents to "extort money" through litigation, multiple pieces of legislation have been proposed at both the federal and state level. Federal initiatives include the Innovation Act, H.R. 3309, 113th Cong. (2013); Patent Transparency and Improvements Act of 2013, S.1720, 113th Cong. (2013); and the Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013 (SHIELD Act of 2013), H.R. 845 §2(d), 113th Cong. (2013). State legislations include Vermont's Bad Faith Assertions of Patent Infringements law, 9 V.S.A. §§ 4195–

Requiring patent owners to show an agency relationship or active inducement, and therefore construing patent rights narrowly, as in *BMC*, *Muniauction*, and *Akamai*, may have been a valid response to the concern that innocent parties (particularly customers performing the last step of a method patent) could be found liable for infringement. Innocent third-party liability and patent-troll concerns, however, may have been diminished by recent Supreme Court decisions, particularly *Alice*.¹⁸⁵ In that case, Alice Corporation owned several patents covering a computerized trading platform wherein trades between two parties are settled by a third party in a manner that eliminates “settlement risk,” the risk that only one party will pay its obligation.¹⁸⁶ CLS, a consortium of banks operating a global currency exchange network, sought to invalidate three of Alice’s patents.¹⁸⁷ The Supreme Court found for CLS, holding unanimously that Alice’s claims were ineligible for patent protection under § 101 because they constituted abstract ideas.¹⁸⁸ The Court found that the concept of using a third party to eliminate settlement risk is “a fundamental economic practice long prevalent in our system of commerce,” and that using generic computer functions to implement the idea was not enough to transform it into a patent-eligible invention.¹⁸⁹

In its decision, the Court announced a two-part framework for determining patent eligibility under § 101, adapted from its prior decision in *Mayo v. Prometheus*.¹⁹⁰ The inquiry involves first determining if the claim involves an abstract idea, and then examining the elements of the

4199 (2013), and Oregon’s Senate Bill 1540 (Ore. 2014). Thus far, however, no comprehensive federal legislation has been passed.

185. See *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014). Additionally, two cases relaxing the standard for fee shifting under § 285, *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014), and *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), may also alleviate some of the patent troll problems. While some district courts have applied the relaxed standards from these cases to award attorneys’ fees, it is still too early to tell what effects the decision will ultimately have on the patent troll problem. See, e.g., *Intellect Wireless, Inc. v. Sharp Corp.*, No. 10 C 6763, 2014 WL 2443871 (N.D. Ill. May 30, 2014); *Precision Links Inc. v. USA Prods. Grp., Inc.*, No. 3:08-CV-00576-MR, 2014 WL 2861759 (W.D.N.C. June 24, 2014); *Classen Immunotherapies Inc. v. Biogen Idec*, No. CIV. WDQ-04-2607, 2014 WL 2069653 (D. Md. May 14, 2014); *AGSouth Genetics, LLC v. Georgia Farm Servs. LLC*, No. 1:09-CV-186 WLS, 2014 WL 2117451 (M.D. Ga. May 21, 2014).

186. See *Alice*, 134 S. Ct. at 2352–53.

187. See *id.* at 2353.

188. See *id.* at 2355.

189. *Id.* at 2356.

190. See *id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012)).

claim to determine whether it contains an inventive concept sufficient to transform the abstract idea into a patent-eligible application.¹⁹¹ Claims that are broad and cover well-known practices will fail to pass muster under the first element, and the “inventive concept” element may now require new hardware or a non-conventional use of generic computer functions.¹⁹² The patents in the very cases establishing the current law of divided infringement, *BMC*, *Muniauction*, and *Akamai*, may now be invalid after *Alice*, thus signaling the need for a divided infringement rule that is more compatible with the interests of industries like biotechnology and the Internet of Things, in which actionable divided infringement is more prevalent.

While *Alice* does not render software in general unpatentable¹⁹³ and sets forth a heavily-debated framework, the latest United States Patent and Trademark Office (“PTO”) rejections and the line of Federal Circuit cases following *Alice*, with the exception of *DDR Holdings LLC v. National Leisure Group*,¹⁹⁴ forecast a fundamental change in software

191. *Id.*

192. See Robert Merges, *Symposium: Go ask Alice—what can you patent after Alice v. CLS Bank?*, SCOTUSBLOG (June 20, 2014, 12:04 PM), available at <http://www.scotusblog.com/2014/06/symposium-go-ask-alice-what-can-you-patent-after-alice-v-cls-bank/>.

193. The most recent USPTO guidelines on subject matter patentability post-*Alice*, published December 16, 2014, indicates that software can still be patented. *Alice* did not create a per se excluded category of subject matter. See *2014 Interim Guidance on Patent Subject Matter Eligibility*, 79 (241) FED. REGISTER 74619 (2014), available at <https://www.federalregister.gov/articles/2014/12/16/2014-29414/2014-interim-guidance-on-patent-subject-matter-eligibility>. And on January 27, 2015, the USPTO released eight examples of patents involving abstract ideas: four patent-eligible under *Alice* and four patent-ineligible under *Alice*, to provide additional guidance for the legal community. See *Examples: Abstract Ideas*, United States Patent and Trademark Office, available at http://www.uspto.gov/patents/law/exam/abstract_idea_examples.pdf (last visited Jan. 29, 2015). These examples illustrated that, in order to qualify as eligible subject matter, an invention will likely need to have a component that improves the function of a computer, rather than simply using a computer to make an existing process—such as long-standing business practices—run more efficiently. Ryan Davis, *USPTO Examples Show What Passes Muster Under Alice*, LAW360 (Jan. 27, 2015, 8:18PM), available at http://www.law360.com/ip/articles/615550?nL_pk=c1c9ba92-f918-4983-9ceb-91bf74b3e5f1&utm_source=newsletter&utm_medium=email&utm_campaign=ip.

194. See *DDR Holdings, LLC v. Hotels.com, L.P.*, No. 2013–1505, 2014 WL 6845152, at *10 (Fed. Cir. Dec. 5, 2014) (distinguishing an e-commerce system and method of providing hosts with transparent, context sensitive e-commerce supported pages from the unpatentable technology in *Alice*). The court in *DDR Holdings* noted that

[T]he technology does not merely recite the performance of some business practice known from the pre-Internet world along with the

patentability.¹⁹⁵ For example, in *buySAFE, Inc. v. Google, Inc.*, the Federal Circuit invalidated a patent for safe online commercial transactions as an abstract idea.¹⁹⁶ And in *Digitech Image Technologies, LLC v. Electronics for Imaging*, a case with a large number of defendants including digital camera manufacturers, retailers, and laptop manufacturers, the Federal Circuit dismissed the case on summary judgment after declaring the plaintiff's patent for generating an "improved device profile" within a digital image processing program invalid under § 101.¹⁹⁷ Lower courts have also joined the Federal Circuit in invalidating business method and software patents,¹⁹⁸ with very few instances where a court has questioned or distinguished *Alice*.¹⁹⁹ One particularly notable district court case, *McRO, Inc. v. Activision Publishing, Inc.*, is one of the first major rejections of a non-business method case under *Alice*.²⁰⁰ The patent in *Activision*

requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.

Id. Some commentators have tried to reconcile *DDR Holdings* with another e-commerce case, *Ultramercial v. Hulu*, which concerns a patent involving a business method for allowing consumers to access copyrighted content on the internet after watching an advertisement. 772 F.3d 709, 712 (Fed. Cir. 2014). One primary difference between the patent in *Ultramercial* and that in *DDR Holdings* is that the *Ultramercial* patent disclosed no software or computer technology and simply described a business method. See Bart Eppenauer, *DDR Holdings—Federal Circuit Forges a Sensible Path on Software Patents*, PATENTLY-O (Dec. 14, 2014), available at <http://patentlyo.com/patent/2014/12/holdings-sensible-software.html>.

195. Gene Quinn, *The Ramifications of Alice: A Conversation with Mark Lemley*, IPWATCHDOG (Sept. 4, 2014), <http://www.ipwatchdog.com/2014/09/04/the-ramifications-of-alice-a-conversation-with-mark-lemley/id=51023/>.

196. See *buySAFE Inc., v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014).

197. See *Digitech Image Techs, LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014).

198. See *Walker Digital, LLC v. Google, Inc.*, C.A. No. 11-318-LPS, 2014 WL 4365245, at *10 (D. Del. Sept. 3, 2014) (finding a data processing patent invalid as an abstract idea under § 101); see also *Ex parte Cote*, No. NTI-747CON6-1C1D (P.T.A.B. Sept. 3, 2014) (holding a computer method for 'phase shifting' design data invalid under 101).

199. See also *Genetic Techs. Ltd. v. Glaxosmithkline, LLC*, No. 1:12-CV-299, 2014 U.S. Dist. Lexis 156473, at *2 (M.D.N.C. Aug. 22, 2014) (denying a motion to dismiss because *Alice* concerned the computer implementation of an abstract idea, a completely different factual context, and arose under a different procedural context than the case in point).

200. *McRO, Inc. v. Activision Pub., Inc.*, No. CV 14-336-GW(FFMx), 2014 U.S. Dist. LEXIS 135152 (C.D. Cal. Sept. 22, 2014). In light of the more recent decision in *DDR Holdings*, it is very likely that this decision will be overturned on appeal. See *DDR Holdings, LLC v. Hotels.com, L.P.*, No. 2013-1505, 2014 WL 6845152, at *10 (Fed. Cir. Dec. 5, 2014).

concerned animation of lip synchronization and facial expression in video game characters.²⁰¹ While Judge Wu noted that the technology in suit resolved a long-standing problem in the video game industry, the solution as claimed in the patent remained ineligible for protection under § 101.²⁰²

Although the nebulous *Alice* framework will continue to be debated, the immediate aftermath of the decision indicates that courts may be able to dismiss business methods and low-quality software patents in litigation on § 101 grounds, thus possibly discouraging owners of these patents from bringing suit. As many of these technologies are no longer eligible for patent protection, *Alice* may have diminished the relevance of divided infringement in internet-based business method and software patents.

2. *Biotechnology*

Biotechnology involves the use of a broad range of techniques and procedures for modifying living organisms with applications in engineering, manufacturing, food sciences, and most prominently medicine.²⁰³ The current divided infringement law, requiring either an agency relationship or active inducement,²⁰⁴ poses a particular challenge for the field of personalized medicine, which relies on diagnostic tests to obtain specific information about patients.²⁰⁵ Patentees wishing to protect their intellectual property in medical processes and diagnostics now face a barrier to patentability in light of the Supreme Court's recent decision in *Mayo* and, after the Court's decision in *Akamai*, a second barrier in enforcing their patents should they overcome the bar for patentability.²⁰⁶

In *Mayo*, the claims at issue covered a medical process for optimizing the therapeutic efficiency of the drug thiopurine based on the amount of the drug present in the patient's bloodstream.²⁰⁷ Prometheus's claims covered a method of: (1) administering a drug to a patient, (2) determining the metabolite levels of the drug in the patient's blood, and

201. *Id.* at *1.

202. *Id.* at *32–39.

203. *What is Biotechnology?*, BIOTECHNOLOGY INDUS. ORG. (June 20, 2012), <http://www.bio.org/node/517>.

204. *See* *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–1330 (Fed. Cir. 2008).

205. Brief of Myriad Genetics, Inc. as Amicus Curiae in Support of Neither Party at 4, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) *cert. granted*, 134 S. Ct. 895 (U.S. Jan. 10, 2014) (No. 12-786) (2009-1372), 2011 WL 3281836.

206. *See* *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

207. *Id.* at 1297–1298.

(3) informing a physician whether the metabolite levels indicated a need to increase or decrease the drug dosage.²⁰⁸ The Mayo Clinic initially bought a diagnostic test embodying the claims from Prometheus but decided in 2004 that it would begin using and selling a variation of the test.²⁰⁹ The Court found Prometheus's claims patent ineligible because they claimed a law of nature and did not contain an inventive application of that law.²¹⁰ The Court held that Prometheus's claims merely instructed doctors to gather data and draw inferences in light of a naturally occurring correlation and thus were not inventive.²¹¹

After *Mayo*, the purely diagnostic components of diagnostic tests, such as those that analyze a patient's DNA for the presence of a molecular variant using conventional DNA-analysis techniques, are no longer patent-eligible.²¹² The Federal Circuit's recent decision regarding the patent ineligibility of primers, single-stranded synthetic DNA molecules commonly used in diagnostic tests, further erodes patent protection for diagnostics, as the tools used in tests (the composition of matter) may no longer be patentable.²¹³ The PTO guidelines still permit diagnostic patents, provided that the claims significantly differ from laws of nature.²¹⁴ This requirement can be met by demonstrating that the claims include elements or steps in addition to a law of nature, ones that practically apply the law of nature.²¹⁵ Inventors wishing to patent diagnostic tests thus need to claim specific applications of these tests, which often involves dividing steps between several parties, including lab technicians and physicians, such that no single party is claimed to perform all of the steps alone.²¹⁶ A case illustrating this post-*Mayo* state of affairs is *Classen Immunotherapies*,

208. *Id.* at 1295.

209. *Id.* at 1296.

210. *Id.* at 1297.

211. *Id.* at 1288.

212. *Id.* at 1297.

213. *See* *In re BRCA1- and BRCA2-Based Hereditary Cancer Test Patent Litigation*, Nos. 2014-1361, 2014-1366, 2014 WL 7156722, at *1 (Fed. Cir. Dec. 17, 2014).

214. Memorandum of Andrew H. Hirshfeld, Deputy Commissioner for Patent Examination Policy, March 2014 Procedure For Subject Matter Eligibility Analysis Of Claims Reciting Or Involving Laws Of Nature/Natural Principles, Natural Phenomena, And/Or Natural Products at 3, *available at* http://www.uspto.gov/patents/law/exam/myriad-mayo_guidance.pdf.

215. *Id.*

216. Press Release, *Mayo Clinic and SV Bio Enter Strategic Relationship on Genome Diagnostics and Interpretation*, MAYO CLINIC (Jan. 21, 2013), *available at* <http://newsnetwork.mayoclinic.org/discussion/mayo-clinic-and-sv-bio-enter-strategic-relationship-on-genome-diagnostics-and-interpretation/>.

Inc. v. Biogen Idec, where the patent involved an infant immunization schedule that reduced the likelihood of causing immune-related disorders.²¹⁷ The patent contained three steps: (1) selecting two particular different immunization schedules, (2) comparing the effectiveness of the two schedules, and (3) immunizing more infants under the lower-risk schedule.²¹⁸ The District Court of Maryland distinguished *Classen* from *Mayo*, by pointing to the data gathering (comparing) step and the mandatory application (immunization) step as specific applications, in finding the claim patent eligible.²¹⁹ Under these circumstances, even though the patentable feature is a diagnostic itself, because neither the diagnostic testing party nor the physician is under the control or direction of the other party, the patent may be rendered unenforceable.²²⁰ In the method at issue in *Classen*, although research scientists are likely to complete the comparing step, physicians, nurses, and even possibly pharmacists could be responsible for the immunization step.

And while patent prosecutors will certainly explore creative claim-drafting strategies to avoid multiple actors, the *Mayo* decision has made their task significantly more challenging and uncertain.²²¹ A recent Bloomberg BNA survey into PTO examiner actions post-*Mayo* illustrates this fact.²²² The survey reviewed the prosecution histories of approximately one thousand biotechnology patents and found that 35 percent of the applications contained § 101 rejections based on *Mayo*.²²³ Furthermore, the applications rejected based on *Mayo* most often related the correlation of a health condition with a biological molecule, and when applicants followed the PTO examiner's suggestions to amend claims by adding practical steps, those amendments often imposed key limitations on enforcement.²²⁴

In personalized medicine, where research involves a substantial

217. See *Classen Immunotherapies, Inc. v. Biogen Idec*, No. CIV. WDQ-04-2607, 2012 WL 3264941, at *2 (D. Md. Aug. 9, 2012).

218. *Id.* at *1.

219. *Id.* at *5.

220. See Erik P. Harmon, Note, *Promoting the Progress of Personalized Medicine: Redefining Infringement Liability for Divided Performance of Patented Methods*, 42 HOFSTRA L. REV. 967, 970 (2014).

221. Joanna Liebes, *Akamai: A Cure for Medical Process Patent's Prometheus Ailment?*, 5 HASTINGS SCI. & TECH. L. J. 309, 309–10 (2013).

222. Matthew B. McFarlane, Tara Guffrey Sharp and John T. Aquino, *Stopped at the Threshold: The Practical Impact of the Supreme Court's Mayo and Myriad Decisions on Biotechnology Patent Practices*, BNA BLOOMBERG (BUREAU OF NAT'L AFFAIRS) (2014).

223. *Id.* at S-16.

224. *Id.* at S-5.

investment of capital and thus entails considerable financial risk, such uncertainty is likely to hamper progress.²²⁵ Molecular diagnostics are extremely costly to develop,²²⁶ due to the difficulty of performing research in the field and the complexity of molecular interactions.²²⁷ Additionally, even once a discovery is made and patented, there is a lengthy FDA approval process that increases development costs and decreases the inventor's monopoly period.²²⁸ The free-riding concern in personalized medicine and biotechnology generally is high because there is a larger gap between innovator and imitator costs in this industry than in others.²²⁹ Consequently, the industry has little incentive to invest without strong patent protections, which a more relaxed relationship standard in divided infringement law could confer on patent owners.

3. *Internet of Things (Smart Devices)*

The Internet of Things ("IoT") refers to the connection of physical things with the internet to give rise to synergistic services allowing individuals to access remote sensor data and control physical objects from afar.²³⁰ Divided infringement law is of particular interest for this industry, as the technology in the IoT is fundamentally interactive in nature.²³¹ A typical application of this technology involves using a smart device to collect data and transmit it to other devices or humans, thus forming a

225. See Jerel C. Davis et al., *The Microeconomics of Personalized Medicine: Today's Challenge and Tomorrow's Promise*, 8 NATURE REVIEWS DRUG DISCOVERY 279 (2009).

226. *Id.* at 282.

227. Geoffrey S. Ginsburg & Jeanette J. McCarthy, *Personalized Medicine: Revolutionizing Drug Discovery and Patient Care*, 19 TRENDS IN BIOTECHNOLOGY 491, 494–495 (2001).

228. See Davis, *supra* note 225, at 282–83.

229. By contrast, internet businesses and software firms do not require such strong monopoly protections to maintain adequate incentives to develop new technologies. Because business methods offer companies a competitive advantage, they will arguably be developed even in the absence of patent protection. See Burk & Lemley, *supra* note 174, at 1618. And due to the low research and development costs associated with internet business methods and software, these industries do not require strong patent rights to incentivize potential investors. See *id.* at 1617–19. While patentability of software varies worldwide, some legal regimes, such as the European Patent Office, have placed higher barriers on patentability. The European Patent Office does not grant patents for computer programs or computer-implemented business methods unless they make a technical contribution beyond the ordinary technical interactions between software and hardware. See *Patents for Software, European Law and Practice*, European Patent Office, <http://www.epo.org/news-issues/issues/software.html> (last visited Dec. 24, 2014).

230. Luigi Atzori, Anotnio Iera & Giacomo Morabito, *The Internet of Things: A Survey*, 54 COMPUTER NETWORKS 2787 (2010).

231. See Robinson, *supra* note 178, at 18.

complex interconnected web of physical objects and human beings, making it impossible to identify just one entity as an infringer when the network technology connecting various devices is replicated.²³² These smart devices are extremely versatile and can be used in many fields including nanotechnology, digital electronics, and electromechanical systems.²³³ Today, early applications are developing in e-health, enhanced learning, and home automation.²³⁴ Because of the astronomical number of possible applications, the IoT is poised to experience tremendous growth in the coming years. The number of connected devices already outnumbers the number of human beings on Earth and is projected to reach twenty-five billion by 2015.²³⁵ Stakeholders in these technologies, particularly network providers and service providers, will undoubtedly seek patent protection for their network innovations.²³⁶ And as these stakeholders make substantial investments in the hardware underlying the network of connected smart devices, much like the investments stakeholders in the biotechnology industry make, they would benefit from a stronger divided infringement rule offering protection against would-be infringers dividing performance of method claims.

IV. ALTERNATIVE APPROACHES TO DIVIDED INFRINGEMENT

In order to encourage continued innovation and offer stakeholders in high technology legal certainty, the Federal Circuit should expand the doctrine of divided infringement to cover patents that inherently involve multiple actors. The Federal Circuit's majority en banc decision generated two dissents by Judge Newman and Judge Linn, each advocating an alternative divided infringement rule from that set forth by the majority. Scholars have also proposed novel approaches, including the Last Step Rule and the "flexible," bifurcated divided infringement rule. This Part examines and evaluates these approaches, concluding with recommendations moving forward.

232. See Oladayo Bello & Sherali Zeadally, *Intelligent Device-to-Device Communication in the Internet of Things*, IEEE SYSTEMS JOURNAL 1, 1 (2014).

233. See *id.* at 2.

234. See Atzori, *supra* note 230, at 2787.

235. See Oladayo, *supra* note 232, at 1.

236. See Peng-fei Fan & Guang-zhao Zhou, *Analysis of the Business Model Innovation of the Technology of Internet of Things in Postal Logistics*, IEEE 532 (2011).

A. JUDGE NEWMAN'S ALL-STEPS RULE

In her dissent to the Federal Circuit's en banc decision, Judge Newman criticized both the majority's "inducement-only" rule and Judge Linn's dissent upholding the single-entity rule, concluding that neither approach is in accord with reasonable infringement policy and the language of § 271.²³⁷ The majority's rule, Judge Newman argued, greatly enlarged liability grounds for an "inducer" since it held him solely liable for divided infringement even though two or more actors violated the patent rights in joint conduct.²³⁸ This approach was not only a significant departure from precedent but also contained vast potential for abuses and gamesmanship, allowing otherwise responsible parties to escape liability.²³⁹ Furthermore, the rule was inherently inconsistent because there could have been indirect infringement without any direct infringers.²⁴⁰ While Judge Newman found that majority's inducement-only rule opened too many possibilities for abuse, she found the status quo, where divided infringement is not actionable unless one participant exhibits control or direction over the others, plainly inadequate to protect the rights of patentees.²⁴¹ Referring to the district court's ruling in *McKesson*, Judge Newman noted that the single-entity rule leaves meritorious patentees without redress and feared that this inadequacy in infringement law would reduce the incentive for innovators to pursue multi-actor technologies.²⁴²

In lieu of these two approaches, Judge Newman proposed imposing liability whenever "all of the claimed steps are performed, whether by a single entity or more than one entity, whether by direction or control, or jointly" ("All-Steps rule").²⁴³ The language of § 271(a), she interpreted, supports her construction because the word "whoever" can be both singular and plural.²⁴⁴ The language in the statute thus does not lend support to the single-entity rule that one actor must carry out all the claims of the patent to find infringement.²⁴⁵ Under Judge Newman's All-Steps rule, after finding infringement, liability is assessed under traditional

237. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1321 (Fed. Cir. 2012) (Newman, J., dissenting), *rev'd*, 132 S. Ct. 2111 (2014).

238. *Id.* at 1319.

239. *Id.* at 1319–20.

240. *Id.* at 1321.

241. *Id.* at 1319.

242. *Id.* at 1322.

243. *Id.* at 1326.

244. *Id.* at 1322.

245. *Id.*

tort principles of apportionment.²⁴⁶ This assessment considers factors including an entity's relative contribution to the injury, the economic benefit the entity received from the infringement, and the entity's knowledge or culpability.²⁴⁷ Such apportionment, Judge Newman argued, is particularly suitable for cases of divided infringement as it allows judges to take into account the nuances of each situation.²⁴⁸

One of the major criticisms of Judge Newman's All-Steps approach is its broad reach, because it first imposes liability whenever all claimed steps of a patent are performed, without regard to the circumstances surrounding the infringement, and only later considers these circumstances at the remedies stage. This rule, Judge Linn pointed out, would ensnare innocent actors and place the burden on courts to absolve them.²⁴⁹ Judge Newman attempted to preempt this concern by observing that deep-pocket commercial participants, rather than the occasional customer, are generally the targets of suits.²⁵⁰ Moreover, any damages attributed to an innocent infringer would likely be negligible.²⁵¹

This observation, however, is not entirely true in cases of divided infringement. Mass patent assertions against small businesses and consumers are increasingly commonplace.²⁵² End-user patent litigation typically involves patent assertion entities suing vast numbers of consumers or small businesses who incorporate a patented technology in their businesses but who do not make, use, or sell the technology on their own.²⁵³ The expense of patent litigation weighs particularly heavily on

246. *Id.* at 1331.

247. *Id.* at 1331 (referring to RESTATEMENT (THIRD) OF TORTS § 8 cmt. c (2000), which elaborates on how to evaluate the nature of each person's risk-creating conduct by examining "how unreasonable the conduct was in the circumstances, the extent to which the conduct failed to meet the applicable legal standard, the circumstances surrounding the conduct, each person's abilities and disabilities, and each person's awareness, intent, or indifference with respect to risk.").

248. *Id.* at 1332.

249. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1350 (Fed. Cir. 2012) (Linn, J., dissenting), *rev'd*, 132 S. Ct. 2111 (2014); W. Keith Robinson, *No "Direction" Home: An Alternative Approach to Joint Infringement*, 62 AM. U. L. REV. 59, 100 (2012).

250. *See Akamai*, 692 F.3d at 1332 (Newman, J., dissenting).

251. *See Robinson*, *supra* note 178, at 57.

252. *See Colleen Chien & Edward Reines, Why Technology Customers Are Being Sued En Masse for Patent Infringement & What Can Be Done*, 49 WAKE FOREST L. REV. 235 (2014).

253. Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C. L. REV. 1443, 1443 (2014). End users are likely to become even more prevalent in patent litigation, as 3D printers become more popular, making it more likely that an individual

these individuals, as they often lack the technological expertise to challenge the validity of the patent and any infringement claims.²⁵⁴ In light of these expenses, end users typically prefer to avoid litigation and settle claims even against which they have strong defenses, making them a particularly lucrative target for patent owners.²⁵⁵ Consequently, Judge Newman's All-Steps rule may not be as benign for innocent parties as she envisioned.

Additionally, Judge Newman's All-Steps rule creates a further conflict in divided infringement law between methods and systems.²⁵⁶ Currently, if an end user or customer practices an element of a patented system claim such that they derive benefit from and make "use" of the entire system can be held liable for direct infringement under § 271(a).²⁵⁷ The manufacturer or creator of the system, which by itself is not infringing without input from the customer, is consequently liable under a theory of indirect infringement. But under Judge Newman's apportionment approach, however, both the end user *and* manufacturer would be liable for direct infringement.

Finally, Judge Newman's approach also blurs the lines between direct, induced, and contributory infringement.²⁵⁸ The All-Steps rule indirectly inserts a knowledge or intent standard, typically reserved for induced and contributory infringement, into § 271(a), during the remedies stage. Even though a finding of direct infringement would still occur under a strict

or small business will make an infringing item that will expose them to liability. *Id.* at 1446. An example of these suits involve Innovatio, which acquired patent rights to wireless internet technology and sent more than 8,000 infringement letters to businesses that use Wi-Fi technology. *See* Motorola Solutions, Inc. v. Innovatio IP Ventures, 921 F. Supp. 2d 903, 907 (N.D. Ill. 2013). Another entity, ArrivalStar, owned patents covering systems and methods that enable users to receive electronic vehicle or shipment information; it filed hundreds of lawsuits, particularly targeting public transportation systems. *See* Joe Mullin, *Patent Troll that Sues Public Transit Systems Get Hauled into Court*, ARS TECHNICA (June 26, 2013), <http://arstechnica.com/tech-policy/2013/06/patent-troll-that-sues-public-transit-systems-gets-hauled-into-court/>.

254. *See* Bernstein, *supra* note 253, at 1450.

255. *See id.*

256. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1350 (Fed. Cir. 2012) (Linn, J., dissenting), *rev'd*, 132 S. Ct. 2111 (2014).

257. *See* Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc., 631 F.3d 1279, 1285 (Fed. Cir. 2011). The Federal Circuit found that the customer had "used" the system—one for collecting, processing, and delivering information from service providers to customers—because its actions put the system into service. *Id.* The court, however, concluded that the service provider had not "used" the system, even when it runs the backend of the system, because it does not put the system into service. *Id.* at 1286. Therefore, the service provider could only be liable for indirect infringement.

258. *See Akamai*, 692 F.3d at 1350.

liability regime, Judge Newman's rule requires courts to inquire into the intent and knowledge of the parties in order to exonerate some and hold others accountable. Judge Linn provided an example of such line blurring, involving a patentee with an apparatus claim, parties X and Y who make the nuts and bolts for the apparatus, and party Z who assembles the apparatus.²⁵⁹ Under Judge Newman's All-Steps Rule, parties X, Y, and Z would all be liable as joint infringers, whereas under the current regime, party Z would be strictly liable as a direct infringer and parties X and Y would be liable as contributory infringers.²⁶⁰ Such a stark departure from the strict liability approach of § 271(a) would be better left for Congress, rather than the courts, to implement.

B. JUDGE LINN'S JOINT ENTERPRISE INTERPRETATION

In his dissent, Judge Linn defended the single-entity rule and the *BMC/Muniauction* approach to divided infringement, using many arguments similar to those appearing in the recent Supreme Court decision reversing the en banc decision.²⁶¹ Even though patent law may have had its origins in the common law, Judge Linn emphasized that Congress removed joint actor liability from the discretion of the courts by codifying it in 1952.²⁶² Consequently, §§ 271(b) and (c) describe the only ways in which individuals could be liable for actions short of direct infringement under § 271(a).²⁶³ In support of the single-entity rule, Judge Linn offered a different interpretation from Judge Newman's of the term "whoever"—the term indicates that more than one entity can be independently liable for direct patent infringement, so long as each entity separately practices all the elements of the claim.²⁶⁴ Furthermore, Judge Linn argued that Congress is perfectly capable of creating alternative forms of infringement and that it was aware of the Federal Circuit's interpretation of § 271(a) in both *BMC* and *Muniauction* when it enacted the Leahy-Smith America Invents Act.²⁶⁵ Congress's inaction thus signified that it had no wish to broaden the scope of indirect infringement liability by abrogating the single-entity rule for direct infringement.²⁶⁶

259. *Id.*

260. *Id.*

261. *Id.* at 1344.

262. *Id.* at 1337.

263. H.R. REP. NO. 82-1923, at 9 (1952).

264. *See Akamai*, 692 F.3d at 1338.

265. *Id.* at 1343; America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

266. *See Akamai*, 692 F.3d at 1343.

Instead of proposing a new rule for divided infringement, Judge Linn asserted that the current divided infringement rule, rooted in traditional principles of vicarious liability, offers patentees adequate protection.²⁶⁷ The decision in *BMC*, which held that an entity was liable for infringement where another's actions could be legally imputed to him,²⁶⁸ is congruent with the generally recognized notion that multiple actors can only infringe a patent together if one somehow controls the others.²⁶⁹ According to Judge Linn, it is undisputed that such application of traditional principles of vicarious liability and agency to direct infringement under § 271(a) is enough to protect patentees from masterminds who attempt to avoid infringement by contracting out the steps of a method patent to third parties.²⁷⁰

Judge Linn opined, however, that the current rule also reaches entities acting together as joint enterprises to infringe a patent.²⁷¹ A joint enterprise exists where there is:

- (1) an agreement, express or implied, among the members of the group; (2) a common purpose to be carried out by the group; (3) a community of pecuniary interest in that purpose, among the members; and (4) an equal right to a voice in the direction of the enterprise, which gives an equal right of control.²⁷²

Judge Linn found an example of such a joint enterprise in *Golden Hour Data Systems, Inc. v. emsCharts, Inc.*, a case where the defendants formed a strategic partnership allowing their programs to work together and even collaborated to sell the programs as a single unit.²⁷³ In *Golden Hour*, the Federal Circuit affirmed the district court's decision that there could be no direct infringement when the direction or control standard could not be established.²⁷⁴ Judge Newman heavily criticized the outcome of this case in her dissent, citing it as an example of why the Federal Circuit should

267. *Id.* at 1348.

268. *Id.* (citing *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380–81 (Fed. Cir. 2007)).

269. *Id.* (citing *Mobil Oil Corp. v. Filtrol. Corp.*, 501 F.2d 282, 291–92 (9th Cir. 1974)).

270. *Id.* (citing *BMC Res.*, 498 F.3d at 1381).

271. *Id.* at 1349 (“All members of a joint venture may be jointly and severally liable to third persons for wrongful acts committed in furtherance of the joint enterprise.” 48A C.J.S. Joint Ventures § 60).

272. RESTATEMENT (SECOND) TORTS § 491 cmt. c. (1965).

273. *See Golden Hour Data Sys. Inc., v. emsCharts, Inc.*, 614 F.3d 1367, 1369–71 (Fed. Cir. 2010).

274. *See Akamai*, 692 F.3d at 1349 (citing *Golden Hour Data Sys.*, 614 F.3d at 1371).

adopt the All-Steps rule.²⁷⁵ Judge Linn agreed that the *Golden Hour* decision should be overturned but argued that it could be overturned under the Joint Enterprise interpretation of the current rule rather than requiring a new rule.²⁷⁶

While the interpretation of the control or direction test to include a joint enterprise could be used to overturn the *Golden Hour* decision, it would not affect cases such as *Akamai* and *McKesson*, where customers are unlikely to be in joint enterprises with product or service providers.²⁷⁷ It is also unlikely to address concerns from the biotechnology industry, as physicians and hospitals may share a common purpose and be in an agreement with diagnostic companies but will likely lack a voice in the direction of the enterprise necessary for a finding of a joint enterprise. This illustrates a shortcoming of Judge Linn's reliance on the codification of indirect infringement in 1952. Most of the technology that is the subject of divided infringement suits today, stemming from the advent of the internet and advances in biotechnology leading to personalized medicine, did not exist in 1952.²⁷⁸ The Patent Act of 1952 thus could not have taken into account the issues that have arisen with new technologies and the new manners in which multiple entities working together could infringe patents on these new technologies.²⁷⁹ The loophole allowing two or more parties to infringe a method patent absent a showing of an agency relationship, as the Federal Circuit acknowledged, still persists.²⁸⁰

C. ROBINSON'S FLEXIBLE BIFURCATED APPROACH

Responding to the limitations of both Judge Newman's All-Steps rule and Judge Linn's Joint Enterprise interpretation, Professor Keith Robinson has proposed a more flexible approach to divided infringement. Robinson identified three main scenarios in which divided infringement issues arise: (1) when the patentee has poorly drafted claims unnecessarily directed to more than one entity, (2) when single-entity claims are drafted as such but their nature allows for actors to split up performance, and (3) when claims are interactive in nature and require multiple actors.²⁸¹ While the first scenario could easily be addressed through better claim drafting, the second and third scenarios present a greater challenge for lawmakers.

275. *Id.*

276. *Id.*

277. *See* Robinson, *supra* note 249, at 98.

278. *See id.* at 99.

279. *See id.* at 100.

280. *See* *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

281. *See* Robinson, *supra* note 249, at 109–10.

Rather than propose one rule to address both scenarios, Robinson set forth two separate approaches to lower the enforcement hurdle for truly novel interactive patents, thus closing the current divided infringement loophole while still remaining narrowly tailored to protect innocent parties.

1. *Claims Addressed to a Single Infringer*

In this scenario, patent claims are written for performance by a single entity; however, multiple entities may split up performance of the claims, without evidence of control or direction, thus deriving the benefit of the patented invention without the risk of infringement.²⁸² In these instances, Professor Robinson's flexible bifurcated approach recommends that courts take into account five factors—collaboration, concerted action, benefit to be realized, nature of the activity, and intent—to determine divided infringement liability:²⁸³

Collaboration: Because requiring evidence of a legal relationship to establish collaboration between multiple parties leaves open the opportunity for gamesmanship, Robinson suggests examining evidence of joint sales activities, joint promotional activities, and any other joint activity, all of which weigh in favor of finding divided infringement.²⁸⁴

Concerted action: Evidence of parties acting in concert weighs in favor of a finding of divided infringement.²⁸⁵ Such evidence could include whether the parties acted with each other in pursuit of a common design.²⁸⁶ In *Golden Hour*, the two defendants enabled their programs to work together such that as a package, the programs would carry out all the elements of the asserted claims.²⁸⁷

Benefit: A finding that one or more entities commercially benefitted, either through gaining a competitive advantage or monetarily, weighs in favor of a finding of divided infringement. As one of the primary roles of patent law is to prevent infringers from stealing the benefit of an invention,²⁸⁸ an inquiry into

282. See *Golden Hour Data Sys. Inc., v. emsCharts, Inc.*, 614 F.3d 1367, 1369 (Fed. Cir. 2010) (discussing a data system where each component can be utilized by different parties).

283. See Robinson, *supra* note 249, at 110 (drawing the first three factors from *Golden Hour Data Sys. Inc., v. emsCharts, Inc.*, 614 F.3d 1367 (Fed. Cir. 2010)).

284. *Id.* at 111–12.

285. See *Wallace v. Holmes*, 29 F. Cas. 74, 80 (C.C.D. Conn. 1871).

286. RESTATEMENT (SECOND) OF TORTS § 876(a) (1979).

287. *Golden Hour*, 614 F.3d at 1383 (Newman, J., dissenting).

288. See *Royal Typewriter Co. v. Remington Rand, Inc.*, 168 F.2d 691, 692 (2d Cir. 1948) (defending the doctrine of equivalents as achieving this result).

whether an infringer benefitted from his actions is highly relevant.

Nature of the infringing activity: Performance of a claimed step for one's own personal benefit or private use (non-commercial) weighs against a finding of divided infringement.²⁸⁹ Conversely, a commercial step such as "tagging" in *Akamai*, weighs in favor of divided infringement since the step must be performed for any beneficial use of the method and could be performed by any party.²⁹⁰

Intent of the parties: As with induced and contributory infringement, Robinson proposes that this approach to divided infringement also consider the intent of the parties.²⁹¹ But because Robinson acknowledges that liability for direct infringement does not require a showing of intent,²⁹² this proposal only recommends that a showing of intent by one or more parties weigh in favor of a finding of divided infringement.²⁹³

Because this approach allows courts to take into account the totality of the circumstances surrounding each instance of infringement, Robinson believes that it closes any loopholes that a sophisticated patent infringer may exploit by dividing performance of method claims with additional parties. It remains unclear, however, just how the courts should take into account these five factors, whether they should conduct individual balancing tests, conduct one holistic balancing test, or employ a complex sliding-scale algorithm.

2. *Interactive Claims*

While better claim drafting could solve some of the issues arising from divided infringement, some method claims are interactive in nature and thus inherently require multiple actors. Robinson suggests a two-step analysis for these types of claims to determine joint liability

289. See Naoki Mizutani, *Remarks at Panel on Patent Infringement Suits in Global Network Age*, SOFTIC Symposium 2001: Information Distribution and Legal Protection in Cyberspace—In Search of a New System (Nov. 21, 2001), available at http://www.softic.or.jp/symposium/records/SOFTIC_10%82%94h_proceedings.pdf (distinguishing the impacts of personal versus commercial use).

290. See Robinson, *supra* note 249, at 114.

291. *Id.*

292. 35 U.S.C. § 271(a) (2006) has been interpreted to lack an intent requirement. See *In re Seagate Tech., LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc) ("Because patent infringement is a strict liability offense, the nature of the offense is only relevant in determining whether enhanced damages are warranted.").

293. See Robinson, *supra* note 249, at 114.

infringement.²⁹⁴ First, a patentee bears the burden of proving that his invention is premised upon interactivity. Second, courts apply a test based on the results of the interactivity inquiry.

In determining whether an invention is interactive in nature, Robinson suggests that courts look to whether there is a nexus between the interactive nature of the method claim and the patentability of the claim.²⁹⁵ Any evidence demonstrating that the interactive nature of the claim contributed to its novelty and non-obviousness during patent prosecution fulfills this nexus requirement.²⁹⁶ In other words, the nexus requirement is met when the claimed interactivity is “the reason for, reasonably related to, or substantially related to” the patentability of the claim.²⁹⁷ If such a nexus exists, then the inquiry turns to the five factors presented in Section IV.C.1—collaboration, concerted action, benefit to be realized, nature of the activity, and intent—and courts engage in the same analysis as with claims written for single entities.²⁹⁸ This broader approach for interactive claims, as with claims aimed at single actors, aims to provide a lower hurdle of enforcement for innovative interactive technologies. If, however, a court cannot identify such a nexus, suggesting that the claim has drafting issues and that the claim could have been written for performance by a single entity, the court engages in a similar analysis as the current control or direction test, examining the relationship between the actors.²⁹⁹ This more narrowly tailored approach would better protect innocent parties from poorly drafted claims.³⁰⁰

3. *Evaluating the Flexible Bifurcated Approach*

While this approach does attempt to address many of the issues currently facing divided infringement law, it also creates a complicated framework that could lead to inconsistent results. Robinson attempted to allay such concerns by pointing out that many of the Federal Circuit’s findings of no divided infringement would be upheld under this approach, as the interactive nature of the claims asserted in *BMC* and *Muniauction*

294. *See id.* at 115–16.

295. *Id.* at 116.

296. *Id.*

297. *Id.* at 117 (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 (1997)).

298. *Id.*

299. *Id.* (citing *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–30 (Fed. Cir. 2008) and *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381–82 (Fed. Cir. 2007)).

300. *Id.* at 18 (proposing that claims lacking a nexus between interactivity and patentability be subject to the rigid control or direction test).

was not central to their patentability, and thus the claims were subject to the direction or control test.³⁰¹ While this may be the case, Professor Robinson did not provide examples of interactive claims that would be able to meet the nexus requirement. Furthermore, his approach does not take into account the recent Supreme Court rulings in *Mayo* and *Alice*, which may force patentees to draft claims involving multiple parties in order to overcome the § 101 hurdle. It is unclear whether these claims would meet the nexus requirement and be subject to a more flexible test or if they would be subject to the status quo control or direction test.

And like Judge Newman's All-Steps rule, this approach also blurs the lines between the strict liability standard of review under § 271(a) and the intent inquiry typically undertaken in §§ 271(b) and (c) analyses. Robinson acknowledged this and did not require, but merely recommended, that courts examine intent under the more flexible approach. Still, such a deviation from the established strict liability standard may best be left to Congress rather than the courts to implement.

Finally, this approach fails to remedy the current inconsistency in divided infringement law between system claims and method claims. It is currently much easier to prove direct infringement with split system claims, as the Federal Circuit's decision in *Centillion Data Systems, LLC v. Qwest Communications International, Inc.* holds an actor who "uses" the entire system liable for direct infringement under § 271(a),³⁰² than it is to prove direct infringement of split method claims.³⁰³ This is peculiar because prosecutors often draft system and method claims in parallel. Under the status quo, if an invention is claimed both as a system and a method, whoever uses the invention would likely be found liable for direct infringement of the system claim but could possibly avoid infringement of the method claim.³⁰⁴

301. *Id.*

302. *Centillion Data Sys., LLC v. Qwest Commc'ns Int'l, Inc.*, 631 F.3d 1279, 1285 (Fed. Cir. 2011). The court has also applied a fairly broad approach to the term "use" as evident in *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1322–23 (Fed. Cir. 2005). There, the court held that a Blackberry customer uses an entire system, even parts located outside of the United States, when it sends a text message within the United States. *Id.*

303. *See* *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 134 S. Ct. 2111 (2014).

304. Stephen W. Moore, *A Last Step Rule for Direct Infringement of Process Claims: Clarifying Indirect Infringement and Narrowing Joint Infringement*, 61 CLEV. ST. L. REV. 827, 846 (2013).

D. MOORE'S LAST STEP RULE

In an effort to address the current inconsistency in divided infringement law between systems and methods, attorney Stephen Moore proposed the Last Step rule to harmonize the two regimes by holding whoever completes the method by performing its last step liable for direct infringement.³⁰⁵ The underlying premise of the last step rule treats method patents similarly to patented products and systems. Whereas a patented product is infringed when its components are combined, and whereas a patented system is infringed when one makes use of the system,³⁰⁶ patented methods are infringed by whoever puts the method into service and obtains benefit from it.³⁰⁷ This happens once the last step is completed, because but-for the completion of the method, the benefit would not be realized.

One of the benefits of this approach is its simplicity, as a finding of direct infringement only requires identifying who completed the last step. Generally, the last step is defined as that which completes the method.³⁰⁸ If performance of the steps overlaps, the last step is the one that chronologically finishes last.³⁰⁹ And in rare situations where actors simultaneously perform a step that both completes the method and finishes exactly at the same time, both steps could be recognized as last steps for the purposes of finding direct infringement.³¹⁰ In these rare scenarios, the actors would be jointly liable for direct infringement.³¹¹ And a remedy would then be apportioned between the joint infringers, similar to what Judge Newman proposed in her dissent to the en banc decision.³¹²

By holding whoever completes the last step liable for direct infringement, the court can then look to everyone else as a potential indirect infringer and determine whether any of them acted with the requisite intent to infringe. Considering how the Last Step rule would function in practice with the Akamai patents demonstrates that this approach would hold Limelight liable as a direct infringer. The last step of the method at issue, a content delivery system, is “returning to the client

305. *Id.* at 849.

306. *See Centillion*, 631 F.3d at 1285.

307. *See Moore*, *supra* note 304, at 850.

308. *See id.*

309. *Id.*

310. *Id.*

311. *Id.*

312. Judge Newman detailed how this might be done in her dissent in the *Akamai* en banc decision. *See Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1330–32 (Fed. Cir. 2012) (Newman, J., dissenting), *rev'd*, 132 S. Ct. 2111 (2014).

an IP address of a given one of the content servers within the given region that is likely to host the embedded object and that is not overloaded,” which Limelight performs.³¹³ End users then, could only be held liable for indirect infringement if it could be shown that they had knowledge of Akamai’s patented system.³¹⁴

As a result, this approach maintains the strict liability approach under § 271(a) and offers innocent infringers a measure of protection by inquiring into their intent, while eliminating the inconsistency between patented systems and methods post-*Centillion*. While it is a complete overhaul of the extant single entity and control or direction inquiries, the last step rule is supported by the statute, as it only requires a broad reading of the term “uses” under § 271(a), which is analogous to that already applied by the Federal Circuit for system claims.³¹⁵

This approach, however, is not without its own shortcomings. Because both the single-entity rule and the current approach to divided infringement for method patents stem from Federal Circuit decisions, it is unlikely that the Federal Circuit itself will engage in such an overhaul of its precedent. The Supreme Court, as illustrated by the *Akamai* decision, appears reticent to directly overturn previous Federal Circuit holdings in this area. Furthermore, this approach could subject innocent end users to liability for direct infringement. While the customers in *Akamai* did not perform the last step, it is possible to envision a method in which they do, particularly with respect to business method and software patents. With end-user patent litigation targeting small businesses and consumers on the rise, this could pose a very large problem.³¹⁶ And finally, as technology develops, particularly in the field of the IoTs, it may become increasingly difficult to identify the last step, as actors engage in complex, iterative interactions.

E. CLOSING THE DIVIDED INFRINGEMENT LOOPHOLE: PROPOSALS FOR MOVING FORWARD

The current proposals to closing the loophole in divided infringement law each have their benefits and drawbacks, some of which arise from constraints that the current language in § 271 places on any approach. While the All-Steps rule; flexible, bifurcated approach; joint enterprise

313. U.S. Patent No. 6,108,703 (filed Aug. 22, 2000).

314. See Moore, *supra* note 304, at 858.

315. See *Centillion Data Sys., LLC v. Qwest Commc’ns Int’l, Inc.*, 631 F.3d 1279, 1285 (Fed. Cir. 2011).

316. See Chien & Reines, *supra* note 252.

interpretation; and Last Step rule all seek to close the current loophole in divided infringement law in very different manners, these approaches share common goals and features.

First, these approaches all address the single-entity rule, either by relaxing it or completely abrogating it. Judge Linn's interpretation of direct infringement under § 271(a) to include joint enterprises and the approach for single-entity claims under the flexible, bifurcated approach both seek to relax the control or direction relationship standard currently required to hold two or more parties jointly liable for infringement under § 271(a). Judge Newman's All-Steps rule and the Last Step rule go further to eliminate the single-entity rule in its entirety. Both initially avoid an inquiry into the relationships between the parties and hold one actor (Last Step) or all the actors (All-Steps) liable for divided infringement under § 271(a). Judge Newman's All-Steps approach then examines culpability at the remedies stage to exonerate innocent parties, whereas the Last Step rule allows innocent direct infringers to cross-claim against other actors for indirect infringement—either contributory or induced.

Second, these approaches—with the exception of Judge Linn's joint enterprise interpretation, which is a variation of the current control or direction standard—all couple a relaxation or abrogation of the single-entity rule with the injection of some type of intent inquiry under § 271(a). Judge Newman's All-Steps rule does this indirectly by requiring that remedies be assessed under traditional tort principles of apportionment, which take into account culpability and economic benefit among other factors. The flexible, bifurcated approach recommends inquiring into the existence of collaboration, concerted action, benefit to be realized, the nature of the activity, and intent of the parties. And the Last Step rule ensures patentees that they can hold at least one actor—and possibly multiple actors—liable for direct infringement, which then allows courts to examine the intent of the other parties involved under theories of indirect infringement.

These attempts to imbue intent into direct infringement under § 271(a) suggest that the current statute is inadequate to address issues arising from divided infringement by multiple actors.³¹⁷ As demonstrated by the various proposals, an intent or knowledge standard is required in

317. Introducing an intent requirement under the § 271(a) analysis is problematic because it places a burden on the patentee to prove that a defendant acted with the intent to infringe, even in simple cases where one actor carried out all the steps in a method claim. This greatly increases the cost of enforcing intellectual property rights and considerably shifts the current system in favor of accused infringers.

order to truly protect innocent parties from being held liable for infringement. Yet under § 271(a), which is a strict liability regime, courts do not inquire into intent.³¹⁸ This may explain why the Federal Circuit en banc attempted to close the loophole with the inducement-only rule under § 271(b), which does have a knowledge or intent requirement. This approach, however, is itself limited by the statute, as there can be no finding of induced infringement unless there is a finding of direct infringement. The most appropriate solution to this inadequacy would be congressional action clarifying two forms of direct infringement under § 271(a): one that retains a strict liability approach when a single entity performs all the steps of a claimed method patent, and a second that inquires into the knowledge and intent of the participating parties where multiple entities share the performance of a patented method claim.

In the meantime, however, the Federal Circuit should take the opportunity on remand to relax the relationship standard under § 271(a), particularly in light of the recent cases on § 101, subject matter patentability, while maintaining the current strict liability standard. One possibility would be to change the control or direction standard to “some connection” or “common purpose.” This would not entirely abrogate the single-entity rule, but it would allow for more findings of infringement when parties divide performance of steps of a method patent absent a showing of an agency relationship and narrow the current gap in divided infringement law. Although a broader relationship standard, absent an inquiry into intent, does pose a small risk of entangling innocent third parties, these concerns have been greatly diminished by the Supreme Court’s decisions in *Alice* and *Mayo*, which in practice are likely to invalidate many of the patents for which courts would have been particularly concerned about innocent third-party liability. Relaxing the relationship standard thus would effectively shrink the current loophole, offering patentees greater protection until Congress acts.

V. CONCLUSION

The current statutory framework for patent infringement has proven to be imperfect and created a loophole in patent infringement law with respect to divided infringement of multi-actor patents. While the Federal Circuit attempted to close this loophole, concluding en banc in *Akamai* that a court can find induced infringement under § 271(b) absent a

318. Mark A. Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225, 235 (2005).

finding of direct infringement under § 271(a), the Supreme Court's recent decision reversed the Federal Circuit's holding and reinforced the single-entity rule. The Court, however, did note in its decision that it may be receptive to imposing liability on multiple actors sharing performance of a patented method through a divided infringement approach under § 271(a). The Federal Circuit, particularly in light of the Supreme Court's recent decisions in *Mayo* and *Alice*, should act to broaden the current relationship requirement for a finding of divided infringement under § 271(a). This, however, is not a complete cure to the loophole in divided infringement, as no relationship standard can adequately address both the interest of patentees and innocent third parties.³¹⁹ Congressional action, establishing two forms of direct infringement, thus may be more appropriate. A new § 271(a) that maintains the strict liability approach for single entities and introduces an intent inquiry when multiple parties divide performance of a method claim will strike a better balance between protecting the interests of patentees and those of innocent third parties.

319. Relationship standards will likely either be underinclusive, allowing some individuals to game the system and infringe a patentee's intellectual property rights without consequences, or overinclusive, holding innocent parties who are unaware that their actions contributed to patent infringement liable.

THE DEFENSIVE PATENT PLAYBOOK

James M. Rice[†]

Billionaire entrepreneur Naveen Jain wrote that “[s]uccess doesn’t necessarily come from breakthrough innovation but from flawless execution. A great strategy alone won’t win a game or a battle; the win comes from basic blocking and tackling.”¹ Companies with innovative ideas must execute patent strategies effectively to navigate the current patent landscape. But in order to develop a defensive strategy, practitioners must appreciate the development of the defensive patent playbook.

Article 1, Section 8, Clause 8 of the U.S. Constitution grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”² Congress attempts to promote technological progress by granting patent rights to inventors. Under the utilitarian theory of patent law, patent rights create economic incentives for inventors by providing exclusivity in exchange for public disclosure of technology.³ The exclusive right to make, use, import, and sell a technology incentivizes innovation by enabling inventors to recoup the costs of development and secure profits in the market.⁴

Despite the conventional theory, in the 1980s and early 1990s, numerous technology companies viewed patents as unnecessary and chose not to file for patents.⁵ In 1990, Microsoft had seven utility patents.⁶ Cisco

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1. Naveen Jain, *10 Secrets of Becoming a Successful Entrepreneur*, INC. (Aug. 13, 2012), <http://www.inc.com/naveen-jain/10-secrets-of-becoming-a-successful-entrepreneur.html>.

2. U.S. CONST. art. 1 § 8, cl. 8.

3. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977).

4. See Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 129–30 (2004).

5. See Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297, 302–03 (2010) [hereinafter Chien, *From Arms Race to Marketplace*].

filed for one patent between 1984 and 1993.⁷ Oracle opposed software patents at the United States Patent and Trademark Office (“PTO”) hearings in 1994.⁸ While these companies were not representative of the entire market, companies did not file patents to the extent seen today.⁹

Multiple factors in the patent landscape caused a dramatic shift in the use of the patent system. First, the Federal Circuit situated the patent system for rapid growth through significant reversals of patent denials by the PTO.¹⁰ With the patent system primed for growth, Texas Instruments (“TI”) and International Business Machines (“IBM”) catalyzed a patent aggregation “arms race” that increased patent filings industry-wide.¹¹ As a result, webs of fragmented and overlapping patent rights, called patent thickets, developed in many innovative areas.¹²

After the dot-com bubble collapsed, non-practicing entities (“NPEs”) emerged on the patent playing field.¹³ Patent thickets and aggressive litigation by non-practicing entities turned the patent system on its head.¹⁴ As a result, companies developed an array of defensive options and strategies to counter the changing use of patents. However, the tactics

6. This number resulted from a search for “Microsoft” as assignee on the U.S. Patent & Trademark Office’s website. See Patent Full-Text and Image Database, <http://patft.uspto.gov> (last visited Nov. 19, 2014).

7. *Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy: Joint Hearings Before the Fed. Trade Comm’n & Dep’t of Justice* 673–74 (Feb. 28, 2002) (statement of Robert Barr, Vice President for Intellectual Property and Worldwide Patent Counsel, Cisco Systems, Inc.), available at http://www.ftc.gov/sites/default/files/documents/public_events/competition-ip-law-policy-knowledge-based-economy-hearings/020228ftc.pdf.

8. *Public Hearing on Use of the Patent System to Protect Software-Related Inventions: Before Bruce A. Lehman, Assistant Secretary of Commerce and Commissioner of Patents and Trademarks*, USPTO 140 (1994) (statement of Jerry Baker, Senior Vice President, Oracle Corp.) (“I cannot find any evidence that patents for software will tend to [promote technological progress]. Indeed, every indication is to the contrary.”), available at <http://www.uspto.gov/web/offices/com/hearings/software/sanjose/sjhrng.pdf>.

9. According to the U.S. Patent and Trademark Office (“PTO”), there were 176,264 patent filings in 1990, compared to 609,052 in 2013. PATENT TECHNOLOGY MONITORING TEAM, U.S. PATENT & TRADEMARK OFFICE, U.S. PATENT AND STATISTICS CHART, CALENDAR YEARS 1963–2013 (2014), available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm.

10. Arti K. Rai, *Who’s Afraid of the Federal Circuit?*, 121 YALE L.J. ONLINE 335, 338 (2011), <http://www.yalelawjournal.org/forum/whos-afraid-of-the-federal-circuit>.

11. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 304.

12. Carl Shapiro, *Navigating the Patent Thicket: Cross Licensing, Patent Pools, and Standard Setting* in INNOVATION POLICY AND THE ECONOMY 119, 119–20 (Adam B. Jaffe et al., eds., 2001).

13. See *infra* Part II.

14. See *id.*

needed to navigate the patent system evolved as the landscape shifted. The analysis below follows the chronological evolution of defensive strategies and sets forth a defensive patent playbook for practitioners in the patent field.

This Note proceeds in four parts. Each Part reviews the development of the patent landscape as a necessary backdrop for an analysis of various defensive patent plays. The issues from each era cumulated to shape the current patent landscape. Part I evaluates early defensive methods used to navigate webs of overlapping patent rights. Part II describes the rise of NPEs, changes in substantive doctrines, and additional strategies introduced in the wake of the dot-com bubble. Part III discusses the current trend towards increased monetization, and assesses defensive options in the current landscape. Part IV explores defensive tactics that may become widely used in the future.

I. EARLY HISTORY

Many technology companies did not seek patent rights on their innovations in the 1980s and early 1990s.¹⁵ However, the emergence of computer platform-based technologies transformed the patent system. This Part traces the development of the patent landscape during the mid- to late-1990s and analyzes the defensive strategies developed during this era to combat the changing use of patents.

A. BACKGROUND: THE DEVELOPMENT OF PATENT THICKETS

During the “early history,” companies shifted their use of patents after actions by the Federal Circuit prompted growth in the patent system.¹⁶ In the 1980s and 1990s the Federal Circuit expanded patent law in the areas of computer software and biotechnology by repeatedly reversing PTO patent denials.¹⁷ Further, through a series of decisions, the Federal Circuit relaxed the requirement that inventions be a nonobvious improvement over the prior art.¹⁸ Scholars contend that these changes “pushed the law

15. See Chien, *From Arms Race to Marketplace*, *supra* note 5, at 302–03.

16. Rai, *supra* note 10, at 338.

17. *Id.*

18. Robert Hunt, *Patent Reform: A Mixed Blessing for the U.S. Economy*, FED. RESERVE BANK OF PHILA. BUS. REV. 15, 20–21 (Nov./Dec. 1999), *available at* <http://www.philadelphiafed.org/research-and-data/publications/business-review/1999/november-december/brnd99rh.pdf>.

in an excessively pro-patent direction, broadening the scope of patentable matter and endowing patentees with unwarranted power.”¹⁹

With the patent system situated for growth, TI and IBM stimulated a patent “arms race” that increased patenting industry-wide.²⁰ When facing bankruptcy in the mid-1980s, TI initiated a licensing and litigation campaign to save the company.²¹ At first, TI took an adversarial stance, but it gradually shifted towards a licensing model.²² By the 2000s, TI had accumulated an expansive patent portfolio and an estimated four billion dollars in licensing fees.²³ Around the same time, IBM started a licensing and assertion campaign.²⁴ Armed with a quarter of the software patents granted by the PTO between 1978 and 1988, IBM’s campaign brought in millions of dollars in licensing revenue.²⁵

By the 1990s, practicing companies grew tired of paying licensing fees and filed more patent applications under the newly relaxed patenting standard.²⁶ Companies developed larger patent portfolios because of their shifting views on the importance of acquiring patents for defensive purposes rather than increased research and development spending.²⁷ As a result, private parties increasingly held exclusive rights in prior discoveries, and patent thickets began to develop in key industries such as biotechnology and computer software.²⁸ Because cumulative innovation occurs when an invention builds on prior discovers,²⁹ these patent thickets became an obstacle to future innovation.³⁰ Too many owners held exclusive patent rights that inventors sought to build upon.³¹

19. Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470, 477–78 (2011); see Donald R. Dunner et al., *A Statistical Look at the Federal Circuit’s Patent Decisions: 1982–1994*, 5 FED. CIR. B.J. 151, 151 (1995).

20. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 304.

21. *Id.*

22. *Id.* at 305.

23. *Id.* at 304.

24. *Id.* at 305.

25. *Id.* at 304–06.

26. *Id.* at 306.

27. *Id.*

28. Shapiro, *supra* note 12, at 119.

29. *Id.* at 119–20 (noting Sir Isaac Newton’s statement that each scientist “stands on the shoulders of giants” to reach new heights).

30. Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCI. 698, 698 (1998).

31. *Id.*

Furthermore, excessive privatization occurred in developing platform technologies with significant network externalities.³² These technologies needed standards for maximum user benefit.³³ In industries such as computer software and telecommunications, formal standard setting was “a core part of bringing new technologies to market.”³⁴ Excessive patent rights threatened to prevent the development of these standards and to impose a “drag on innovation and commercialization of new technologies.”³⁵

Excessive privatization amplified three key transaction costs that companies had to overcome in order to assemble patent rights—search costs, holdouts, and licensing costs.³⁶ First, the search costs of a patent transaction were costly due to the intangible nature of patent rights.³⁷ Unlike tangible property that can be clearly defined, the boundaries of patent rights generally remain blurred until a federal court interprets the patent’s claims.³⁸ A thicket of patents with unclear boundaries placed inventors in a costly struggle to determine where there was freedom to operate and which patents were relevant to their efforts.³⁹

32. See generally Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987):

Network externalities exist in markets for products for which the utility or satisfaction that a consumer derives from the product increases with *the number of other consumers of the product*. The telephone is a classic example of a product for which there are network externalities. The benefits to a person from owning a telephone are a function of the number of other people owning telephones connected to the same telephone network . . .

Id. at 1340 (emphasis added).

33. See James C. De Vellis, *Patenting Industry Standards: Balancing the Rights of Patent Holders with the Need for Industry-Wide Standards*, 31 AIPLA Q.J. 301, 303 (2003) (“Industry standards are critical in an increasingly interdependent, technology-based world.”).

34. Shapiro, *supra* note 12, at 119.

35. See *id.* at 121–24; see also Heller & Eisenberg, *supra* note 30, at 698–99 (describing the “tragedy of the anticommons” that can occur with the proliferation of intellectual property rights).

36. See Justin R. Orr, Note, *Patent Aggregation: Models, Harms, and the Limited Role of Antitrust*, 28 BERKELEY TECH. L.J. 525, 531–32 (2013).

37. Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 2 (2013).

38. Orr, *supra* note 36, at 529 n.22. Federal courts interpret the meaning of a patent’s claims, which clarify the boundaries of the patent right, in hearings referred to as “Markman” hearings. *Id.*; see also *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996).

39. See Menell & Meurer, *supra* note 37, at 1–2.

Second, companies faced holdout problems, which occur when a patent holder learns that its patent rights are essential to an inventor's overall plan.⁴⁰ As the inventor reaches licensing agreements with more patent holders, the inventor becomes more committed to the project, and the remaining patent holders gain leverage to demand a higher fee.⁴¹ Patent thickets exacerbated this problem because an inventor must purchase rights from numerous patent holders to make, use, or sell a new invention that builds upon prior patents.⁴²

Finally, negotiating individual licensing agreements with a large number of companies in the industry became prohibitively expensive.⁴³ In industries where a single product may relate to hundreds of patents, companies avoided attempting to overcome the patent thicket through negotiated licenses and refrained from introducing new products.⁴⁴ For instance, according to one commentator, a large company in the pharmaceutical industry developed a treatment for Alzheimer's disease, but it did not release the drug due to the threat of overwhelming litigation.⁴⁵

Companies needed to develop strategies to overcome the costs associated with fragmented patent rights, especially in the computer software, telecommunications, and biotechnology industries.⁴⁶ Consequently, defensive plays materialized to combat excessive privatization.

B. DEFENSIVE PLAYS IN THE EARLY HISTORY

During this era, companies developed three major strategies to navigate the patent thicket: (1) defensive patent aggregation, (2) standard setting and RAND cross-licensing and (3) open source software. These strategies make up the first group of "plays" in the defensive patent playbook.

40. Michael Mattioli, *Power and Governance in Patent Pools*, 27 HARV. J.L. & TECH. 421, 428 (2014).

41. *Id.*

42. See Mark A. Lemley, *Ten Things to Do About Patent Holdup of Standards (and One Not to)*, 48 B.C. L. REV. 149, 150–52 (2007).

43. See Jason Schultz & Jennifer M. Urban, *Protecting Open Innovation: The Defensive Patent License as a New Approach to Patent Threats, Transaction Costs, and Tactical Disarmament*, 26 HARV. J.L. & TECH. 1, 8 (2012).

44. Shapiro, *supra* note 12, at 126.

45. MICHAEL HELLER, THE GRIDLOCK ECONOMY: HOW TOO MUCH OWNERSHIP WRECKS MARKETS, STOPS INNOVATION, AND COSTS LIVES 4–5 (2008).

46. See Shapiro, *supra* note 12, at 119.

1. *Defensive Patent Aggregation*

Companies began to use the defensive aggregation play industry-wide in the late 1990s.⁴⁷ The cost of paying for patent licenses, like those paid to TI and IBM, and the lack of freedom to operate spurred the growth of patent aggregation as a defensive strategy.⁴⁸ Companies aggregated patents to deter lawsuits, rather than to assert offensively.⁴⁹

Defensive patent portfolios offer no legal defense but can be used to bring counterclaims in a patent suit.⁵⁰ Colleen Chien compared mass patent aggregation to the nuclear arms race with each company viewing its patents as instruments of mutually assured destruction.⁵¹ For example, suppose that Company *X* claims that Company *Y* infringes its patents. If Company *Y* has an extensive patent portfolio that potentially covers Company *X*'s products, Company *Y* will likely counter with an assertion of patent infringement against Company *X*. The threat of countersuit creates an incentive for the companies to enter into a cross-licensing agreement or drop their suits.⁵²

The size and scope of the patent portfolio dictate the effectiveness of the strategy.⁵³ During cross-licensing negotiations, the parties rarely scrutinize each individual patent.⁵⁴ Companies instead focus on quantity rather than quality because of the high cost of determining the validity and scope of each patent claim.⁵⁵ As a result, the aggregated patent portfolio provides “a stronger patent position than the sum of its patent parts.”⁵⁶ However, defensive aggregation requires symmetrical risks to deter litigation.⁵⁷ As discussed in Part II, NPEs do not face the same retaliatory

47. See Chien, *From Arms Race to Marketplace*, *supra* note 5, at 304–308 (noting that defensive patent strategies date back to at least the beginning of the twentieth century when Henry Ford aggregated automobile patents to reduce the risk of being sued and ensure freedom to operate).

48. *Id.* at 304.

49. Schultz & Urban, *supra* note 43, at 6.

50. *See id.*

51. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 334; *see generally* Henry S. Rowen, *Introduction*, in *GETTING MAD: NUCLEAR MUTUAL ASSURED DESTRUCTION, ITS ORIGINS AND PRACTICE* 1–13 (Henry D. Sokolski, ed., 2004).

52. Schultz & Urban, *supra* note 43, at 6–7.

53. *Id.* at 6.

54. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 308.

55. *Id.*

56. Orr, *supra* note 36, at 526.

57. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 317.

risks because they do not make, use, import, or sell any infringing product.⁵⁸

Defensive aggregation allows companies to combat excessive privatization by creating a “patent stalemate” with other practicing companies.⁵⁹ In addition to defensive aggregation, another play developed in the early history to assist the assimilation of patent rights in platform-based technologies.

2. *Standard Setting/RAND Cross-Licensing*

Standard setting and reasonable and nondiscriminatory (“RAND”) licensing pledges provide companies with a method for overcoming transaction costs and standardization issues. Standard-setting organizations (“SSOs”) set standards to promote coordination and interoperability.⁶⁰ When SSOs incorporate patented technology into a standard, the patent holder gains leverage and the power to holdout for inflated licensing rates because of the expense of switching to a different standard.⁶¹ SSOs attempt to “mitigate the tension between proprietary rights and the need for interoperability” through RAND pledges.⁶²

A RAND pledge is a commitment to offer implementers of a standard a reasonable license to any patents necessary to implement the standard.⁶³ Prior to incorporation into a standard, SSOs require patent holders to disclose all patents or pending patent applications relevant to the standard and to submit a Letter of Assurance.⁶⁴ In the Letter of Assurance, patent

58. *See infra* Part II.

59. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 317.

60. Marc Rysman & Timothy Simcoe, *Patents and the Performance of Voluntary Standard-Setting Organizations*, 54 MGMT. SCI. 1920, 1922–23 (2008).

61. *See* U.S. DEP’T OF JUSTICE & USPTO, POLICY STATEMENT ON REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 1 n.2 (2013), *available at* http://www.uspto.gov/about/offices/ogc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf.

62. Kassandra Maldonado, Note, *Breaching RAND and Reaching for Reasonable: Microsoft v. Motorola and Standard-Essential Patent Litigation*, 29 BERKELEY TECH. L.J. 419, 422 (2014).

63. Jorge L. Contreras & Richard J. Gilbert, *A United Framework for RAND and Other Reasonable Royalties*, 30 BERKELEY TECH. L.J. (forthcoming 2015) (manuscript at 4), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2502066.

64. *See, e.g.*, INT’L ELECTROTECHNICAL COMM’N ET AL, GUIDELINES FOR IMPLEMENTATION OF THE COMMON PATENT POLICY 15 (providing a General Patent Statement and Licensing Declaration Form For ITU-T or ITU-R Recommendation) *available at* http://www.itu.int/dms_pub/itu-t/oth/04/04/T04040000010003PDFE.pdf (last visited Jan. 16, 2015); *Letter of Assurance for Essential Patent Claims*, IEEE,

holders agree to license their patents on RAND terms if their patent becomes essential to the practice of the standard.⁶⁵ If patent holders decline to make RAND commitments, their technology will not be integrated into the standard.⁶⁶

Companies throughout the technology industry implement standards in order to compete in the market and provide interoperable products. In theory, implementers of the standard gain access to patented technology at a reasonable rate, and patent holders benefit through the widespread adoption of their technology and reasonable royalty rights. The patents encumbered by a RAND commitment may still be licensed and asserted, but the patent holder must offer the implementer reasonable licensing terms.⁶⁷ However, after seeking RAND commitments, SSOs rarely become involved in the licensing process.⁶⁸

This lack of oversight allows standard essential patent (“SEP”) holders to utilize RAND-encumbered patents as offensive and defensive weapons, to encourage cross-licensing.⁶⁹ If a company asserts patent infringement of a non-SEP patent, the alleged infringer can utilize their RAND-encumbered SEPs in the same manner as other patents are utilized.⁷⁰ If a party implements the standard, they necessarily infringe the SEP. Thus, the threat of mutually assured destruction can reduce litigation and forcibly encourage cross-licensing agreements.⁷¹ However, a recent court ruling has modified patent holders’ ability to obtain injunctions on

http://standards.ieee.org/about/sasb/patcom/loa-802_11-kpn-08Jan2013.pdf (last visited Jan. 16, 2015).

65. Contreras & Gilbert, *supra* note 63, at 1–2.

66. See, e.g., Int’l Telecomm. Union, *Common Patent Policy for ITU-T/ITU-R/ISO/IEC*, <http://www.itu.int/en/ITU-T/ipr/Pages/policy.aspx> (last visited Jan. 16, 2015).

67. See, e.g., *Letter of Assurance for Essential Patent Claims*, *supra* note 64.

68. Jay P. Kesan & Carol M. Hayes, *FRAND’s Forever: Standards, Patent Transfers, and Licensing Commitments*, 89 IND. L.J. 231, 239 (2014).

69. See generally Thomas H. Chia, Note, *Fighting the Smartphone Patent War with RAND-Encumbered Patents*, 27 BERKELEY TECH. L.J. 209, 209–11 (2012) (defining standard essential patents as patents that are necessary to implement a given standard); Shapiro, *supra* note 12, at 119–120 (describing the “risk of holdup”).

70. See Dan O’Connor, *Standard-Essential Patents in Context: Just a Small Piece of the Smartphone War Puzzle*, PATENT PROGRESS (Mar. 5, 2013), <http://www.patentprogress.org/2013/03/05/standard-essential-patents-in-context-just-a-small-piece-of-the-smartphone-war-puzzle/>.

71. Chia, *supra* note 69, at 213–14.

RAND-encumbered patents.⁷² Part III evaluates this modification and the play's role in the current patent landscape.⁷³

In conclusion, standard setting and RAND pledges enable companies to provide interoperable products in platform-based technologies.⁷⁴ Patent holders benefit from the adoption of their technology, and implementers acquire patented technology at a reasonable rate. But the breach of RAND pledges limits the effectiveness of the play.

3. *Open Source Software*

In addition to RAND pledges, open source software emerged as an alternative approach to software development.⁷⁵ The label "open source" refers to the distribution of source code used to develop software programs so that other programmers can study and modify the code.⁷⁶ The success of open source depends on shared contributions to a nonproprietary model and the theory that the motivations to innovate go beyond the economic incentives achieved through exclusivity.⁷⁷

Open source software originated with Richard Stallman's operating system, which he called GNU.⁷⁸ Stallman granted individuals a license to modify his source code and distribute it to others under the GNU General Public License ("GPL").⁷⁹ But Stallman required the person who modified and distributed the software to grant others the same conditions granted under the GPL.⁸⁰ Open source software progressed when Linus Torvalds built upon Stallman's foundation and shared his kernel, a central component of the operating system, under the GPL.⁸¹ Torvalds's kernel became known as Linux.⁸²

72. See *Apple, Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1331–32 (Fed. Cir. 2014).

73. See *infra* Part III.

74. See Rysman & Simcoe, *supra* note 60, at 1922–23.

75. YOCHAI BENKLER, *THE WEALTH OF NETWORKS: HOW SOCIAL PRODUCTION TRANSFORMS MARKETS AND FREEDOM* 63–67 (2006).

76. See Sara Boettinger & Dan L. Burk, *Open Source Patenting*, 1 J. INT'L BIOTECHNOLOGY L. 221, 222 (2004) (defining "open source" and explaining that programmers typically use programming languages, the source code, to develop software that is then translated to a machine-readable format, called object code, which programmers cannot understand or analyze when distributed).

77. See BENKLER, *supra* note 75, at 94–99.

78. *Id.* at 64.

79. *Id.* at 65.

80. *Id.*

81. *Id.* at 65–66.

82. *Id.*

After a decade of incremental improvements, technology companies in mainstream industry began to utilize open source software.⁸³ This utilization promotes innovation and limits the enforcement of patents that use open source software.

a) Open Source License Benefits

Open source licenses promote innovation by increasing competition and empowering diverse problem solving. Open source increases competition by acting as a “valuable check on potential monopoly power.”⁸⁴ Enhanced competitiveness yields lower prices and accelerates innovation.⁸⁵ For example, in 1998, a leaked internal memorandum from Microsoft revealed that a Microsoft strategist considered open source software a major threat to the company’s dominance over the desktop computer.⁸⁶ The increased competition generated through open source licenses prohibited Microsoft from monopolizing the desktop operating platform and charging inflated prices.⁸⁷

Further, open source licenses spur technological development by enabling numerous programmers to contribute to open source projects.⁸⁸ The presence of a wide range of contributing licensees allows society to benefit from a multitude of diverse approaches to solving technological issues.⁸⁹ Resulting technological developments benefit consumers and companies seeking to promote innovation to achieve business objectives.

b) Open Source Limits on Patent Rights

Using software subject to an open source license does not affect the ability to *obtain* patent protection, but it severely curtails the *enforcement* of patent rights.⁹⁰ If a programmer includes software under an open source

83. *Id.* at 66.

84. James Boyle, *Open Source Innovation, Patent Injunctions, and the Public Interest*, 11 DUKE L. & TECH. REV. 30, 31–32 (2012) (noting that, although most prevalent in computer software, open source licensing can be “found in areas ranging from synthetic biology to the development of artificial limbs.”).

85. *Id.*

86. BENKLER, *supra* note 75, at 123.

87. See Robert P. Merges, *A New Dynamism in the Public Domain*, 71 U. CHI. L. REV. 183, 193 (2004).

88. FED. TRADE COMM’N., THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION (Mar. 2011), *available at* <http://www.ftc.gov/reports/evolving-ip-marketplace-aligning-patent-notice-remedies-competition>.

89. Boyle, *supra* note 84, at 32.

90. *See id.*

licensing agreement in a proprietary program, the patent holder limits the enforceability of its patent rights against downstream users.

First, under the GPL Agreement, contributors grant the licensee—any user of the open source software—a copyright license to their software.⁹¹ In addition to the direct license granted, companies may be prohibited from utilizing patent rights they have *licensed from third parties* in open source projects.⁹² For instance, Company A receives a patent license from a third party for GreatSoftware with no right to sublicense GreatSoftware. Company A wants to utilize GreatSoftware in an open source project under the GPL. However, because Company A does not have the ability to sublicense GreatSoftware, it cannot satisfy the licensing requirements of the GPL. Thus, Company A must either remove GreatSoftware from its product or not distribute the open source project containing GreatSoftware. Therefore, the requirements of the open source license limit Company A's ability to utilize patent rights licensed from a third party in conjunction with open source software.

Although open source licenses severely limit the direct use of patent rights, patent holders may still utilize their rights in certain situations. Under the GPL, even if patented technology contains open source software, patent holders may still (1) engage in licensing and assertion campaigns against infringers not using the inventor's open source code, (2) distribute a patented version of software without the open source code, and (3) assert patent rights against redistributors that do not conform to the open source license terms.⁹³ For example, if a competitor sells an infringing product not derived from the inventor's original code, the patent holder may assert its patent rights against the competitor because users who independently created other software are not granted a license.⁹⁴ Ironically, the patent holder will likely be unable to assert patent rights against competitors who copy its source code, but will be able to assert patent rights against competitors who did not copy the source code.⁹⁵

91. GNU, GNU General Public License Version 1, GNU OPERATING SYSTEM (Feb. 1989), <https://www.gnu.org/licenses/gpl-1.0.html>.

92. Laura A. Majerus, *Patent Rights and Open Source—Can They Co-exist?*, FENWICK & WEST LLP INTELL. PROP. 2006 SUMMER BULL. 1, 2–3 (June 30, 2006), http://www.fenwick.com/FenwickDocuments/IP_Bulletin_Summer_2006.pdf.

93. *Id.*

94. *Id.*

95. Gene Quinn, *Beware Open Source Strings Attached if You Want a Patent*, IP WATCHDOG (Oct. 12, 2010), <http://www.ipwatchdog.com/2010/10/12/beware-open-source-strings-attached-if-you-want-a-patent/id=12787/>.

As software patents became more prevalent in the 2000s, open source licenses began to include reciprocal patent agreements, in addition to copyright provisions, to ensure that software patents could not prevent the use or modification of open source software.⁹⁶ Part III evaluates how these patent provisions altered this play and describes “infection” defenses provided by open source software.⁹⁷

c) Summary of Open Source Licenses

Open source provides an alternative approach to innovation that enhances competitiveness and enables numerous programmers to contribute to open source projects. Although the first two versions of the GPL only granted a copyright license, the inclusion of open source software in proprietary programs limits patent holders’ ability to enforce patent rights.

II. POST-DOT-COM BUBBLE

After the dot-com bubble burst, obstacles within the patent system accumulated. As practicing companies shifted their use of the patent system and patent thickets expanded, an influential player emerged on the patent playing field—the NPE. The term “NPE” generally refers to patent holders who monetize their patents without producing a product or practicing the technology.⁹⁸ The rise of the NPE (or “patent troll”)⁹⁹ dramatically altered the patent landscape. This Part introduces a broad strategy to influence substantive doctrinal changes through lobbying and evaluates three additional plays that surfaced during this era: public disclosure, patent pledges, and RPX defensive protection.

A. BACKGROUND: RISE OF THE NPEs

When the dot-com bubble collapsed, failed startup companies (“startups”) provided NPEs with an abundance of patents. During the 1990s and 2000s, startups accumulated patents as tools to receive venture

96. Simon Phipps, *4 Ways Open Source Protects You Against Software Patents*, INFOWORLD (Nov. 8, 2013), <http://www.infoworld.com/article/2609614/open-source-software/4-ways-open-source-protects-you-against-software-patents.html>.

97. See *infra* Part III.

98. Orr, *supra* note 36, at 525 n.3.

99. “Patent troll” references the children’s tale where three billy goats must pay a fee to the troll waiting under the bridge in order to pass. Robin Feldman & Tom Ewing, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1 (2012).

capitalist funding.¹⁰⁰ Startups that owned patents attracted larger investment amounts and experienced longer incubation periods.¹⁰¹ In the early 2000s, the speculative bubble in the stock market quickly deflated, and “[w]hen the dot-coms came crashing down, many in the IP world suspected that the bankrupt companies held hidden treasures.”¹⁰² NPEs purchased such patent “treasures” at bankruptcy proceedings from failed startups and other technology companies.¹⁰³

Alternative billing arrangements allowed NPEs to take advantage of asymmetrical costs.¹⁰⁴ In the past, attorneys generally billed clients in patent litigation on an hourly basis.¹⁰⁵ However, NPEs began utilizing the contingent-fee arrangement popularized by Jerome Lemelson and his attorney, Gerald Hosier.¹⁰⁶ A contingent-fee arrangement occurs when a lawyer represents a plaintiff in exchange for a specified percentage of the damages or settlement recovered from the defendant.¹⁰⁷ In patent cases, a defendant typically searches extensively for prior art in order to make an invalidity argument, which results in significant discovery costs.¹⁰⁸ NPEs take advantage of lower discovery costs and a contingent-fee arrangement as a strategic advantage against defendants using the more expensive hourly billing structure.¹⁰⁹

While NPEs assert some legitimate claims of patent infringement, they predominately monetize patents with weak claims of infringement through “nuisance suits.”¹¹⁰ Although research shows that NPEs generally

100. Jerry X. Cao & Po-Hsuan Hsu, *The Informational Role of Patents in Venture Capital Financing* 1 (June 8, 2011), available at <http://ssrn.com/abstract=1678809>.

101. *Id.* at 23.

102. Lisa Lerer, *Going Once*, ALM IP L. & BUS., Oct. 2005, at 12.

103. Robin M. Davis, Note, *Failed Attempts to Dwarf the Patent Trolls: Permanent Injunctions in Patent Infringement Cases Under the Proposed Patent Reform Act of 2005 and eBay v. MercExchange*, 17 CORNELL J.L. & PUB. POL'Y 431, 431–32 (2008).

104. See James E. Bessen & Michael J. Meurer, *Essay: The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 413 (2014).

105. David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 ALA. L. REV. 335, 338 (2012).

106. See Chien, *From Arms Race to Marketplace*, *supra* note 5, at 311–12 (noting that Jerome Lemelson pioneered NPE licensing and assertion campaigns in the 1980s and 1990s by signing licenses with over a thousand companies and earning over a billion dollars).

107. Murray L. Schwartz & Daniel J. B. Mitchell, *An Economic Analysis of the Contingent Fee in Personal-Injury Litigation*, 22 STAN. L. REV. 1125, 1125 (1970).

108. See Schwartz, *supra* note 105, at 349–53.

109. See Bessen & Meurer, *supra* note 104, at 413.

110. “Nuisance suits” refer to instances when a patent owner files a patent infringement claim “seeking to license even clearly bad patents for royalty payments small

lose in summary judgment or during trial,¹¹¹ NPEs leverage the costs of defending a suit to obtain licensing agreements on weak infringement claims. Between 1985 and 2004, alleged infringers averaged \$2.46 million in defense fees in patent litigation suits that continued through trial, whereas alleged infringers only averaged \$57,000 in defense fees in suits resolved before going to trial.¹¹² Because of the costs associated with defending an infringement suit and unclear patent boundaries, approximately seventy percent of all patent cases settled in the early 2000s.¹¹³ NPEs exploit the fact that companies have higher discovery costs and an incentive to settle in nuisance suits for any amount up to the anticipated defense costs.¹¹⁴

Further, while defensive patent aggregation may give companies the ability to neutralize potential suits against other practicing companies, NPEs do not fear countersuit.¹¹⁵ For aggregation to deter suits, two or more companies must have symmetry of exposure that maintains a “patent stalemate.”¹¹⁶ If two companies each own extensive patent portfolios and produce products, the risk of countersuit deters patent assertion.¹¹⁷ However, unlike practicing companies, NPEs do not face the same retaliatory risks because they do not make, use, import, or sell any infringing product or technology.¹¹⁸ An NPE’s primary risks in patent litigation are that (1) the court shifts the fees to hold the NPE liable for the defendant’s expenses,¹¹⁹ or (2) the court invalidates the asserted patent,

enough that licensees decide it is not worth going to court.” Mark A. Lemley, *Rationale Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1517 (2001).

111. John R. Allison et al., *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677, 693–94 (2011) (exposing that if default judgments are not taken into account, NPEs win only 8% of their cases).

112. See James E. Bessen & Michael J. Meurer, *The Private Costs of Patent Litigation* 16 (B.U. Sch. L., Working Paper Series, Law & Econ. Working Paper No. 07-08, 2008), available at http://ssrn.com/abstract_id=983736.

113. See Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 274 (2006).

114. See David Rosenberg & Steven Shavell, *A Model in Which Suits are Brought for Their Nuisance Value*, 5 INT’L REV. L. & ECON. 3, 4–5 (1985).

115. Schultz & Urban, *supra* note 43, at 7–8.

116. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 317.

117. See *id.* at 317–18.

118. *Id.*

119. 35 U.S.C. § 285 (2012) provides that in “exceptional cases” the court may award reasonable attorney fees to the prevailing party. NPEs face more risk from fee-shifting after *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014). See *infra* Part IV.

foreclosing any future assertion of the invalidated patent by the NPE.¹²⁰ Because of these limited risks, NPEs exploit the asymmetrical exposure and cost of litigation to their advantage.¹²¹

As a result, by the mid-2000s, NPEs brought around twenty percent of total patent infringement suits and became prominent players in the patent field.¹²² For example, Acacia Research Corporation (“Acacia”), a publicly traded company, monetizes purchased patents¹²³ and enforces patents owned by individual inventors or companies.¹²⁴ From 1993 to 2008, Acacia generated \$410 million in revenues and litigated 308 lawsuits.¹²⁵

Additionally, Intellectual Ventures (“IV”) became a feared NPE during this time with an estimated portfolio of over 30,000 patents.¹²⁶ IV portrays its primary purpose as a patent intermediary that facilitates patent transactions between individual inventors and manufacturing entities.¹²⁷ However, Robin Feldman and Tom Ewing identified 1,276 shell companies that IV operated to hide nearly eight thousand U.S. patents and three thousand pending applications.¹²⁸ IV’s use of shell companies does not promote its claimed role as a “patent intermediary.” Conversely, the use of shell companies enhances IV’s leverage in licensing and assertion campaigns by hiding patents until after companies have committed to the underlying technology.¹²⁹

In addition to the threat of NPEs, the continuing influx of patents exacerbated patent thickets. These obstacles prompted further additions to the defensive patent playbook.

120. Allison et al., *supra* note 111, at 678-80.

121. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 317-18.

122. Colleen V. Chien, *Patent Trolls by the Numbers* (Santa Clara Univ., Working Paper Series, Legal Studies Research Paper No. 08-13, 2013), *available at* <http://ssrn.com/abstract=2233041>.

123. Orr, *supra* note 36, at 525-26.

124. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 328-29.

125. *Id.* at 329.

126. Feldman & Ewing, *supra* note 99, at 4.

127. *Historical Perspective on the Patent Market*, INTELLECTUAL VENTURES INSIGHTS BLOG (July 1, 2013), <http://www.intellectualventures.com/insights/archives/historical-perspective-on-the-patent-market>.

128. Feldman & Ewing, *supra* note 99, at 4.

129. Orr, *supra* note 36, at 543-44.

B. DEFENSIVE PLAYS IN THE WAKE OF THE DOT-COM BUBBLE

While companies continued to use the plays from Part I,¹³⁰ four additional plays entered the defensive patent playbook during this era: lobbying for doctrinal changes, public disclosure, patent pledges, and RPX defensive protection. Public disclosure and patent pledges provide companies with further methods of navigating patent thickets but do not provide additional defense from NPEs. Companies attempted to address the NPE threat that emerged in the wake of the dot-com bubble by seeking substantive changes in the law.

1. *Lobbying for Changes in Patent Doctrines*

As a general defensive strategy, companies with significant resources may attempt to change the law. These companies can seek doctrinal changes from the legislative branch by funding advocacy groups and from the judicial branch by filing amicus curiae briefs.¹³¹ While this play will not mitigate imminent threats, changes in patent law doctrines may have the greatest effect on the future patent landscape.

Companies may fund lobbying groups that will advocate on behalf of their interests. Lobbying has been a method of change in this country since the founding of the Republic¹³² and has become central in patent law reform. For example, when the patent system began to accumulate the obstacles discussed above, Congressman Lamar Smith introduced the Patent Reform Act of 2005, which he called “the most comprehensive change to U.S. patent law since Congress passed the 1952 Act.”¹³³ In response to reform efforts, many large companies allocated substantial money to form and fund lobbying groups, such as the Coalition for Patent Fairness and the Coalition for 21st Century Patent Reform.¹³⁴ These

130. *See supra* Part I.

131. “Amicus curiae” refers to “someone who is not a party to a lawsuit but who petitions the court or is requested by the court to file a brief in the action because that person has a strong interest in the subject matter.” BLACK’S LAW DICTIONARY 102 (10th ed. 2014)

132. William N. Eskridge, Jr., *Federal Lobbying Regulation: History Through 1954*, in THE LOBBYING MANUAL: A COMPLETE GUIDE TO FEDERAL LOBBYING LAW AND PRACTICE 6 (3d ed. 2005).

133. *See Amendment in the Nature of a Substitute to H.R. 2795, The “Patent Reform Act of 2005”*, Hearing on H.R. 2795 Before the Subcomm. On Courts, the Internet, and Intell. Prop. Of the H. Comm. On the Judiciary, 109th Cong. 214 (2005) (statement of the Hon. Lamar Smith, Chairman of the Subcommittee).

134. *See* Candace Lombardi, *Tech Firms to Lobby for Patent Litigation Reform*, ZDNET NEWS (May 11, 2006, 1:22 PM), <http://www.zdnet.com/article/tech-firms-to-lobby-for-patent-litigation-reform/>; IPFrontline, *New Coalition Seeks to*

lobbying groups represented both the information technology and biomedical industries, which had divergent interests.¹³⁵ Eventually, after millions of dollars and significant compromises, the Patent Reform Act of 2005 evolved to become the America Invents Act (“AIA”), which strengthened companies’ defensive position.¹³⁶ However, the Supreme Court addressed many of the proposed changes before the AIA was signed into law.

In addition to legislative lobbying, companies may seek to influence patent doctrines through amicus curiae briefs. The influence of amicus curiae briefs is debatable,¹³⁷ but companies throughout the 2000s filed these briefs in support of their interests. For example, in 2006 and 2007, companies filed extensive amicus curiae briefs in substantive patent law cases before the Supreme Court. In *eBay Inc. v. MercExchange, L.L.C.*, a number of technology companies filed briefs supporting eBay’s certiorari petition.¹³⁸ Ultimately, the Court’s opinion increased the difficulty of obtaining a permanent injunction to prevent further use of infringing technology.¹³⁹ The decision essentially eliminated NPEs’ ability to

Protect American Innovation, IP FRONTLINE (Mar. 23, 2007), <http://www.ipfrontline.com/depts/article.asp?id=14571&deptid=8>.

135. See generally WENDY H. SCHACHT, CONG. RESEARCH SERV., RL33367, PATENT REFORM: ISSUES IN THE BIOMEDICAL AND SOFTWARE INDUSTRIES (2006).

136. See Tracie L. Bryant, Note, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 HARV. J.L. & TECH. 687, 688–90 (2012); Wes Klimczak, *IP: How the AIA Has Affected Patent Litigation*, INSIDE COUNSEL MAG. (June 18, 2013), <http://www.insidecounsel.com/2013/06/18/ip-how-the-aia-has-affected-patent-litigation>; see also *infra* Part III (discussing *inter partes* reviews).

137. See generally Joseph D. Kearney & Thomas W. Merrill, *The Influence of Amicus Curiae Briefs on the Supreme Court*, 148 U. PA. L. REV. 743 (2000).

138. The companies presenting the briefs included Yahoo!, Intel, Microsoft, Oracle, Micron, Research-in-Motion, and Nokia. Dennis Crouch, *Review: eBay v. MercExchange Amici Briefs*, PATENTLY-O (Jan. 30, 2006), http://patentlaw.typepad.com/patent/2006/01/eBay_v_mercexch.html; see, e.g., Brief for Yahoo! Inc., as Amicus Curiae in Support of Petitioner, *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (No. 05-130).

139. *eBay*, 547 U.S. 388 (2006):

According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.

Id. at 391.

threaten companies with injunctions, thereby reducing their leverage.¹⁴⁰ Furthermore, in *KSR International Co. v. Teleflex, Inc.*, numerous companies filed amicus curiae briefs.¹⁴¹ The holding in this case broadened the applicability of the obviousness test, ruling that obviousness is not “confined by a formalistic conception of the words teaching, suggestion, and motivation.”¹⁴² The decision made the obviousness claim easier to assert as an invalidity defense and seemingly diminished the presumption of patent validity under 35 U.S.C. § 282. It remains unclear what, if any, effect the amicus curiae briefs had on the Court’s holdings, but both decisions increased defendants’ leverage in patent litigation.

In conclusion, companies may seek to change patent law doctrines through lobbying and amicus curiae briefs. The results of lobbying develop slowly, and the value gained from amicus curiae briefs is difficult to measure. However, companies that successfully affect substantive patent doctrines shift their exposure in the patent landscape. These efforts will likely be coupled with other defensive plays, such as public disclosure.

2. *Public Disclosure*

Public disclosure erects a “bulwark against future patent threats” by creating prior art that patent applications must overcome.¹⁴³ Patent examiners evaluate patent applications by searching the state of the prior art.¹⁴⁴ When parties disclose information, the disclosure becomes part of the existing prior art.¹⁴⁵ Because no patent may be granted for knowledge within the prior art or any obvious improvement thereupon, public

140. Courts have granted injunctions to NPEs in a handful of cases. *See, e.g.*, *Joyal Prods., Inc. v. Johnson Elec. N. Am., Inc.*, No. 04-5172(JAP), 2009 WL 512156 (D.N.J. Feb. 27, 2009) (granting an injunction in favor of a NPE that had previously practiced the patent); *Commonwealth Scientific & Indus. Research Org. v. Buffalo Tech. Inc.*, 492 F. Supp. 2d 600 (E.D. Tex. 2007) (granting an injunction to a research institution of the Australian government).

141. The companies presenting briefs in support of the petitioner included Intel, Micron, Cisco, GM, Time Warner, and Viacom. Dennis Crouch, *KSR Shifts Obviousness Debate to “Mere Aggregations” and Presumptions of Non-Obviousness*, PATENTLY-O (Nov. 20, 2006), http://patentlyo.com/jobs/2006/11/ksr_shifts_obvi.html. Other companies filed briefs in support of neither party: IBM, Ford Motor Company, and Daimler Chrysler. Predictably, Intellectual Ventures filed a brief in support of respondent. *Id.*

142. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

143. Schultz & Urban, *supra* note 43, at 27.

144. Prior art may be defined as references or knowledge available to the public before a specified date. *See generally* Robert P. Merges, *Priority and Novelty Under the AIA*, 27 BERKELEY TECH. L.J. 1023 (2012).

145. The AIA enhances the power of public disclosure because other inventors can no longer swear behind disclosed references. 35 U.S.C. § 102(b) (2012).

disclosure affects the patentability of others' inventions.¹⁴⁶ Companies use public disclosure as a salvage strategy or as a tactic to reduce downstream transaction costs. There are multiple methods of implementing this play, each with their own benefits and limitations.

a) Public Disclosure Benefits

Companies impede competitors from obtaining patents and reduce the patent thicket through the public disclosure play. They implement this strategy in two different scenarios. First, companies may use public disclosure as a salvage strategy when their research leads to an unpatentable invention or a "patentable invention that is of limited commercial value."¹⁴⁷ Even if their research does not yield valuable patent rights, companies affect the patentability of others' inventions by altering the state of the prior art.¹⁴⁸

In addition, companies may use public disclosure to reduce downstream transaction costs. As the value of patent rights increased in the 1990s, the value of preempting patent rights increased.¹⁴⁹ As a result, entities attempt to obtain preempting patent rights.¹⁵⁰ These entities profit by controlling the building blocks that further cumulative innovation can build upon.¹⁵¹ Practicing companies may utilize public disclosure to prevent others from obtaining preemptive patent rights and consequently eliminate prohibitive transaction costs. By entering information into the public domain, companies strategically "forgo property rights to reduce downstream transaction costs."¹⁵²

For example, in the late 1990s, scientists used single nucleotide polymorphisms ("SNPs") as diagnostic tools that functioned as "disease markers."¹⁵³ SNPs could have created "a potential anticommons" because in theory many SNPs could be present in a gene that causes a disease.¹⁵⁴ Any organization researching a gene in order to create a therapy would

146. See Gideon Parchomovsky, *Publish or Perish*, 98 MICH. L. REV. 926, 928 (2000).

147. Wendell Ray Guffey, *Statutory Invention Registration: Defensive Patentability*, 16 GOLDEN GATE U. L. REV. 291, 292 (1986).

148. See Parchomovsky, *supra* note 146, at 928.

149. See Merges, *supra* note 87, at 185–86.

150. *Id.*

151. The *In re Fisher* case now prevents the patenting of research intermediaries that provide no practical benefit to the public by ruling that these intermediaries contain no specific and substantial utility. 421 F.3d 1365, 1367 (Fed. Cir. 2005).

152. Merges, *supra* note 87, at 191.

153. *Id.* at 189.

154. *Id.* at 189–90.

need to license every patented SNP associated with that gene.¹⁵⁵ Ten major pharmaceutical companies responded by creating the SNP Consortium for the purpose of entering SNPs into the public domain.¹⁵⁶ The SNP Consortium set out to disclose 300,000 SNPs in two years, but it surpassed this goal by entering nearly 1.4 million SNPs into the public domain by the end of 2001.¹⁵⁷

b) Public Disclosure Limitations

The public disclosure play may eliminate companies' ability to obtain patent rights. Under 35 U.S.C. § 102, inventors must file a patent application within one year of public disclosure.¹⁵⁸ Therefore, unless a patent application is filed within one year of disclosure or as the method of disclosure, companies lose their ability to seek patent rights by utilizing a public disclosure strategy.

This bar may become important because the public disclosure play sometimes relies on third parties. If a company wants to use public disclosure to reduce downstream transaction costs, the company must ensure that others in the industry will make similar public disclosures before implementing this tactic because once one party begins preempting, "all will want to obtain blockade positions."¹⁵⁹ However, the risk of losing the ability to obtain patent rights can be mitigated by a strategic disclosure strategy.

If a company decides to use public disclosure, it must determine the most effective method of implementing the strategy. This Note analyzes three methods of entering information into the public domain: (1) creating a printed publication, (2) filing a utility patent application, and (3) prosecuting a patent application and dedicating the patent to the public. Each method contains its own limitations.

Parties may disclose their technology by creating a printed publication. The PTO considers a reference to be a printed publication "upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable

155. *Id.*

156. *Id.* at 190.

157. Gudmundur A. Thorisson & Lincoln D. Stein, *The SNP Consortium Website: Past, Present and Future*, 31 NUCLEIC ACIDS RES. 124 (2003).

158. 35 U.S.C. § 102(a)-(b)(1) (2012).

159. See Richard A. Epstein, *Steady the Course: Property Rights in Genetic Material* 48-49 (Univ. of Chi. L. Sch., John M. Olin L. & Econ. Working Paper No. 152, 2003), available at http://ssrn.com/abstract_id=317101.

diligence, can locate it.”¹⁶⁰ Therefore, a party could create a “printed publication” by publicly posting information on the internet.

Creating a printed publication enables quick and cheap disclosure. However, in order for the disclosure to be considered prior art, the patent examiner must learn about it, and the disclosed information must be described in a comprehensible manner.¹⁶¹ Patent examiners spend on average only eight to eighteen hours to complete review work for each patent.¹⁶² Therefore, in order for this method of public disclosure to be effective, companies must make the printed publications easily searchable, and the inventors must provide comprehensible disclosures in the publications.

Alternatively, parties may disclose information through the PTO by filing a patent application. Patent applications become prior art as of their filing date¹⁶³ and are published eighteen months after the filing date or earlier if requested.¹⁶⁴ Thus, a party may choose to file a patent application to create prior art and then later abandon the application.¹⁶⁵

Filing a patent application as a method of disclosure enhances the effectiveness of the play and mitigates the risk of losing patent rights. First, it increases the patent examiner’s ability to find the disclosure. Also, because it generally takes over one year for a patent application to become abandoned,¹⁶⁶ companies utilizing this method have more time to withdraw from the public disclosure strategy without forfeiting their ability to gain patent protection.

Nevertheless, filing a patent application to disclose has its own drawbacks. First, it may become expensive to file an application for each

160. *In re Wyer*, 655 F.2d 221, 226 (C.C.P.A. 1981) (citing *I.C.E. Corp. v. Armco Steel Corp.*, 250 F. Supp. 738, 742–43 (S.D.N.Y. 1966)).

161. Schultz & Urban, *supra* note 43, at 27–28 (noting that organizations have attempted to build a repository for prior art to help lower the search costs associated with finding the published information for both defense lawyers and the PTO).

162. *Id.* at 29.

163. 35 U.S.C. § 102(a).

164. 35 U.S.C. § 122(b)(1)(A) (2012).

165. Prior to the implementation of the AIA, 35 U.S.C. § 157 (2006) allowed inventors to file a Statutory Invention Registration (“SIR”) that prevented others from obtaining a patent but lacked any enforceability right.

166. Companies must fail to reply to an Office Action from the PTO before the application is abandoned. 35 U.S.C. § 133 (2012). The type of technology of the invention dictates the response time for an Office Action. The PTO provides estimates of the time until a first Office Action on its website, at http://www.uspto.gov/cgi-bin/fao_calc/fao_calc.pl?au=&submit=Search+by+Art+Unit.

disclosure. The PTO currently charges \$280, or \$140 for a small entity, to file a utility patent application.¹⁶⁷ Furthermore, while a patent application becomes prior art as of its filing date in the United States,¹⁶⁸ the patent application may not serve as prior art internationally until published.¹⁶⁹ Companies seeking to disclose information internationally may choose to simultaneously create a printed publication online, rather than relying on the PTO to publish their application in a timely manner.

Finally, companies may prosecute patents and subsequently dedicate the patent to the public.¹⁷⁰ However, companies likely would choose alternative methods of public disclosure due to the cost associated with prosecuting a patent application.

c) Summary of the Public Disclosure Play

Companies primarily consider implementing a public disclosure play in two scenarios. First, companies may utilize public disclosure to supplement prior art as a salvage strategy when an invention is unpatentable or of limited commercial value.¹⁷¹ Second, where the value in preventing preemption exceeds the value of patent rights, companies may consider utilizing public disclosure to eliminate downstream transaction costs associated with excessive fragmentation of patent rights.¹⁷² Before using this tactic, however, companies must ensure that others in the industry commit to making similar public disclosures because once one company begins preempting, other companies may abandon the public disclosure strategy.¹⁷³ Ideally, in order to protect patent rights, companies implementing public disclosure would simultaneously create a comprehensible “printed publication” and file a patent application that will subsequently be abandoned.

3. Patent Pledges

In addition to public disclosures, companies may use patent pledges as a defensive tactic. Patent pledges are “promises by patent holders not to enforce their patents under certain conditions.”¹⁷⁴ These pledges are

167. 37 C.F.R. § 1.16(a) (2013).

168. 35 U.S.C. § 102(a)(2) (2012).

169. *See, e.g.,* Alex Zhang, *Key Considerations for Patent Strategies in China*, IPWATCHDOG (Nov. 6, 2011), <http://www.ipwatchdog.com/2011/11/06/key-considerations-for-patent-strategies-in-china/id=20241/>.

170. 35 U.S.C. § 253(b) (2012).

171. Guffey, *supra* note 147, at 292.

172. *See* Epstein, *supra* note 159, at 48–49.

173. *See id.*

174. Schultz & Urban, *supra* note 43, at 30.

typically announced publicly and do not require reciprocal agreements by other inventors or companies.¹⁷⁵ Parties who utilize patent pledges do so in reliance on the legal doctrines of contract law, estoppel, or implied license.¹⁷⁶

Since ownership of the pledged patents remains with the promisor, these patents likely retain their defensive utility against other practicing companies in the future. Further, because NPEs are not exposed to countersuit, a patent pledge does not affect NPE litigation.¹⁷⁷ Thus, patent pledges do not reduce or modify the promisor's exposure to patent litigation, but they do provide practicing companies with alternative benefits.

a) Patent Pledge Benefits

Patent pledges provide consumers assurance of an open network, influence the development of standards, and increase innovation by startup companies. First, patent pledges provide consumers assurance that the pledged patents will not hinder the adoption of market-wide interoperability standards.¹⁷⁸ In markets with network externalities, assurances of interoperability possess significant power. A patent pledge can eliminate the threat of dominance present in a proprietary system and assures users of a commitment to interoperability, which influences consumers' views of the expected network size.¹⁷⁹ In network markets, consumers base purchases of durable products on the expected size of the network.¹⁸⁰ Thus, assurances to consumers may be a powerful tactic

175. *Id.*

176. *Id.* (explaining that an implied license requires the pledgee to show that the pledgor intended to license the patent for a specific use and estoppel only provides a defense to patent infringement when the alleged infringer can show that he knew of the patent pledge and reasonably relied upon it).

177. *Id.* at 7–8.

178. Jorge L. Contreras, *Tesla Motors and the Rise of Non-ICT Patent Pledges*, PATENTLY-O (June 16, 2014), <http://patentlyo.com/patent/2014/06/motors-patent-pledges.html>.

179. See Jorge L. Contreras, *A Market Reliance Theory for FRAND Commitments and Other Patent Pledges*, __ UTAH L. REV. (forthcoming 2015) (manuscript at 4–5), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2309023; see also Merges, *supra* note 87, at 193 (explaining that a public domain operating system “comes without the threat of leverage and dominance that are always present with a proprietary operating system”).

180. Michael L. Katz & Carl Shapiro, *Network Externalities, Competition and Compatibility*, 75 AM. ECON. REV. 424, 426 (1985).

because systems that are expected to be popular will be more popular for that reason.¹⁸¹

IBM's support of Linux provides an example. IBM focused its business on the sale of "infrastructure" software, including network management, collaboration tools, and databases.¹⁸² In the late 1990s, IBM recognized that its computer operating system, OS/2, could not compete with Microsoft's Windows operating system.¹⁸³ If Microsoft controlled the personal computer operating system, IBM would have suffered financially because the operating system acted as an "input into its main product lines" of infrastructure software.¹⁸⁴ IBM responded by supporting the open source Linux platform and announced it would invest one billion dollars to make Linux suitable for enterprise use.¹⁸⁵ IBM continued its commitment by making a patent pledge of five hundred patents in 2005 that "made the headlines of every major technology-related news publication."¹⁸⁶ The patent pledge assured users that they could commit to Linux without the threat of dominance present in a proprietary operating system such as Microsoft Windows.¹⁸⁷ Ultimately, the assurance provided by IBM's patent pledge likely altered the competitive landscape and improved IBM's position in the market.

Furthermore, companies may use the assurances of patent pledges to influence the competitive environment in which they operate by promoting standards or preventing their adoption. In markets with network externalities, a natural tendency toward standardization exists.¹⁸⁸ Patent pledges commit the network to openness and concede any attempt for proprietary control over the standard.¹⁸⁹ Because the assurance of

181. Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 94 (1994) [hereinafter Katz & Shapiro, *Systems Competition and Network Effects*].

182. Merges, *supra* note 87, at 192.

183. Dirk Riehle, *The Economic Case for Open Source Foundations*, IEEE COMPUTER, Jan. 2010, at 95.

184. Merges, *supra* note 87, at 192–93.

185. Wen Wen et al., *Patent Commons, Thickets, and the Open Source Software Entry by Start-up Firms*, (Nat'l Bureau of Econ. Research, Working Paper No. 19394, 2013), <http://www.nber.org/papers/w19394.pdf>.

186. Andrés Guadamuz González, *Open Science: Open Source Licenses in Scientific Research*, 7 N.C.J.L. & TECH. 321, 360–61 (2006).

187. Merges, *supra* note 87, at 186 (stating that IBM's investment in the Linux system "amounts to a credible commitment that no one—including IBM itself—will be able to exercise the sort of hold-up power that comes with exclusive ownership of property rights in a computer operating system").

188. Katz & Shapiro, *Systems Competition and Network Effects*, *supra* note 181, at 105.

189. Merges, *supra* note 87, at 193.

openness alters consumers' expectations as to the size of the network, patent pledges influence the adoption of a standard. For instance, IBM utilized its patent pledge to promote the Linux operating system, which prevented Microsoft's Windows system from becoming the industry standard.¹⁹⁰

Finally, established companies may utilize a patent pledge to promote increased innovation by startup companies. Patent thickets can increase at least three costs for startups: (1) costs of inventing around others' patent rights, (2) costs of acquiring patents owned by others, and (3) costs of infringement, which includes licensing costs and litigation costs.¹⁹¹ Patent pledges may reduce these costs for startup companies entering the market by clearing a portion of a patent thicket.¹⁹²

These reduced costs may promote increased funding of startup companies. When applying for venture capitalist funding, a startup typically reports ongoing litigation.¹⁹³ A litigation risk or the potential for licensing demands deters some investors who see the exposure as a limit to potential revenue.¹⁹⁴ Economist Catherine Tucker estimates that venture capitalist investments in new innovations and startup companies over the past five years would likely have been \$109 million higher if not for the excessive patent litigation by "non-frequent litigators" and \$22.772 billion higher if not for litigation brought by "frequent litigators."¹⁹⁵

Thus, the patent pledgor may "forego [sic] potential opportunities to license their [intellectual property rights] in hopes of increasing innovative activity that will spur demand for complementary products and services from which the contributor can appropriate value."¹⁹⁶ For example, IBM strategically employed a patent pledge to increase innovative activity by programmers within the Linux platform. The patent pledge spurred the development of Linux, resulting in increased demand for IBM's infrastructure software.¹⁹⁷ While patent pledges provide companies with multiple benefits, the play contains some limitations.

190. *See id.* at 123.

191. *See* Wen, *supra* note 185, at 5.

192. *Id.* at 2.

193. Catherine Tucker, *The Effect of Patent Litigation and Patent Assertion Entities on Entrepreneurial Activity* 9–10 (2014), available at <http://ssrn.com/abstract=2457611>.

194. *Id.* at 10 (recognizing that "there may be other positive effects of patent litigation on VC investment that should be traded off against the potential for these negative effects").

195. *Id.* at 36.

196. Wen, *supra* note 185, at 29.

197. Merges, *supra* note 87, at 192–93.

b) Patent Pledge Limitations

Companies should be aware of a patent pledge's inability to alleviate concerns regarding the enforceability and revocability of the pledge.¹⁹⁸ In theory, after making a patent pledge, companies cannot assert patent rights against others that meet the conditions of the pledge.¹⁹⁹ Thus, the pledgor has no ability to offensively monetize the pledged patents. However, no caselaw has interpreted the enforceability of patent pledges or their revocability.²⁰⁰ According to some scholars, patent pledge enforceability remains vulnerable to attack because the pledges rely on the doctrines of estoppel and implied license.²⁰¹ Further, the revocability of patent pledges remains a concern.²⁰² Without a reciprocal agreement to keep the pledged technology open, a pledge could theoretically be withdrawn.²⁰³ The pledgor may change its business strategy, or the pledged patents may be transferred to a successor that chooses not to honor the patent pledge.²⁰⁴ The determination of the enforceability of a pledge and whether the pledge can be revoked influences both the effectiveness of the patent pledge and the value of the patents.

c) Summary of the Patent Pledge Play

Companies participating in a market with network externalities may consider the patent pledge as a tactic to (1) provide consumers assurance of an open network, (2) influence standardization within the market, and (3) increase innovative activity by startup companies. A company with patents used for primarily defensive purposes must determine if the value derived from the patent pledge exceeds the value of maintaining unencumbered patents for future use. If a company's business model depends on the monetization of patents, the potential value gained through the patent pledge must be weighed against the income derived from patent monetization.

198. See Schultz & Urban, *supra* note 43, at 32; see also Florian Mueller, *IBM Breaks the Taboo and Betrays its Promise to the FOSS Community*, FOSS PATENTS (Apr. 6, 2010), <http://fosspatents.blogspot.com/2010/04/ibm-breaks-taboo-and-betrays-its.html>.

199. See Schultz & Urban, *supra* note 43, at 31. Searches in Westlaw and Lexis confirmed Jason Schultz and Jennifer Urban's assertion that no court has interpreted a patent pledge, as of January 25, 2015.

200. *Id.*

201. *Id.* at 32.

202. *Id.*

203. *Id.*

204. *Id.*

Because the contours of patent pledge enforceability and revocability have not been clearly defined, companies implementing technology included in patent pledges must consider the risk that a pledged patent will be revoked or transferred to an offensive entity. Companies may consider seeking a license from the pledgor, if feasible, to eliminate this risk. However, if the patent pledge garnered significant publicity, the risk of revocation may be mitigated by the reputational harm that would result.

4. *Defensive Protection: RPX*

In addition to self-implemented plays, companies may utilize a third party for added protection. In 2008, RPX Corporation (“RPX”) began offering a “Defensive Patent Aggregation” service to reduce companies’ exposure to patent litigation.²⁰⁵ RPX monitors patents available for sale and acquires patents that may be asserted against members or potential members.²⁰⁶ RPX licenses these patents to companies that pay the annual subscription fee to become a member.²⁰⁷ Thus, RPX protects members from immediate threats of patent litigation from other practicing companies and NPEs.

However, once a license has been provided, RPX may sell the acquired patents to practicing companies or NPEs, which has been called a “catch and release method.”²⁰⁸ Releasing patents seems to fuel, rather than deter, the threat of patent litigation. RPX does not assert patents²⁰⁹ but indirectly poses a significant threat to practicing companies. Suppose RPX approaches Company Z and asks them to become a member. Company Z rejects the offer. RPX can sell a patent to an aggressive third party that will bring suit against Company Z so that the next time Company Z will be more compliant with RPX’s request. One company has already claimed that RPX is guilty of extortion, racketeering, and wire fraud.²¹⁰

RPX has recently started to offer patent litigation insurance products.²¹¹ These insurance products attempt to transform “the expensive

205. RPX Corporation, Registration Statement (S-1) (Sept. 2, 2011).

206. *Id.*

207. *Id.*

208. David Hetzel, *Embracing the New IP Reality*, INTELL. ASSET MGMT. MAG. May/June 2010, at 32.

209. Registration Statement (S-1), *supra* note 205.

210. Patrick Anderson, *Patent Aggregator RPX Accused of Extortion, Racketeering & Wire Fraud*, GAMETIME IP (May 31, 2011), <http://gametimeip.com/2011/05/31/patent-aggregator-rpx-accused-of-extortion-racketeering-wire-fraud/>.

211. *Welcome to RPX Insurance Services*, RPX INS. SERVS., <http://www.rpxcorp.com/insurance/> (last visited Nov. 8, 2014).

uncertainty of NPE litigation into a manageable and predictable cost of business.”²¹² However, it appears only a handful of companies have chosen to utilize the insurance products.²¹³

In conclusion, companies may utilize the RPX defensive protection play to supplement other patent strategies. However, RPX’s “defensive patent aggregation” service provides limited protection from litigation exposure and creates additional threats in the patent system. These services provide companies with various tools, but the trend of increased patent litigation has not subsided.

III. CURRENT LANDSCAPE

Excessive litigation of patent rights has caused the media,²¹⁴ legal scholars,²¹⁵ and President Obama²¹⁶ to question the validity of the current patent system. The obstacles of prior eras have accumulated in the current patent landscape. Practicing companies fight “patent wars” in areas of dense patent thickets,²¹⁷ and the number of NPE suits continues to grow.²¹⁸ Data provided by RPX indicates that in 2012, NPEs brought sixty-two percent of patent infringement suits.²¹⁹ In addition to the lingering threats, some practicing entities in the current landscape shifted from patent aggregation to patent monetization. As a result, companies

212. *Id.*

213. Boris Marjanovic, *RPX Corporation: A Cheap and Misunderstood Patent Company With a Moat*, SEEKING ALPHA (Aug. 30, 2013), <http://anorthinvestments.com/2014/09/23/rpx-corporation-a-cheap-and-misunderstood-patent-company-with-a-moat/>.

214. *See* 441: *When Patents Attack!*, THIS AMERICAN LIFE (July 22, 2011), <http://www.thisamericanlife.org/radio-archives/episode/441/when-patents-attack>; *Patent Trolls: How Some Say They're Hurting U.S. Economy* (CBS News television broadcast Dec. 21, 2012).

215. *See generally* DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* (2009); Peter S. Menell, *A Method for Reforming the Patent System*, 13 MICH. TELECOMM. & TECH. L. REV. 487 (2007).

216. *See* Barack Obama, President of the United States, State of the Union Address (Jan. 28, 2014), 2014 DAILY COMP. PRES. DOC. NO. 00050 (urging Congress to pass a patent reform bill); David Kravets, *History Will Remember Obama as the Great Slayer of Patent Trolls*, WIRED (Mar. 20, 2014, 6:30 AM), <http://www.wired.com/2014/03/obama-legacy-patent-trolls/>.

217. *See* Terry Ludlow, *Trends in US Patent Litigation*, INTELL. ASSET MGMT. MAG., Sept.–Oct. 2011, at 15; Jacob Goldstein, *The Smartphone Patent War*, *In 1 Graphic*, NPR: PLANET MONEY (Aug. 17, 2011), <http://www.npr.org/blogs/money/2011/08/17/139723088/the-smartphone-patent-war-in-1-graph> (showing an illustration of smartphone patent cases).

218. Chien, *Patent Trolls by the Numbers*, *supra* note 122.

219. *Id.*

have resorted to (1) old plays in the current landscape, (2) modified plays, and (3) new entries to the defensive patent playbook. However, in order to understand these plays, the progression of the current patent landscape must be evaluated.

A. BACKGROUND: A TRANSITION IN THE USE OF AGGREGATED PATENTS

In light of the high costs associated with acquiring and maintaining patent portfolios, company executives eventually questioned whether their intellectual property assets had the potential to earn income.²²⁰ Many companies had diverted substantial money from their research and development funds to acquire patents,²²¹ and paid thousands of dollars in maintenance fees for each individual patent.²²² As a result, some companies progressed from defensive patent aggregation to offensive patent monetization.²²³

Monetization of a patent portfolio generates revenue to recoup purchase costs, offset maintenance fees, fund research and development, or enable a change in direction for the company.²²⁴ Monetization by companies occurs in three forms: (1) direct licensing and assertion campaigns against other practicing companies, (2) selling patent assets, and (3) patent privateering.²²⁵

As previously discussed, IBM and TI pioneered the monetization of patents through licensing and assertion campaigns.²²⁶ With this model in place, other companies that originally built patent portfolios for defensive purposes developed separate licensing and assertion divisions to generate royalties from their portfolios.²²⁷ For example, General Electric, which historically has rarely engaged in licensing, began enforcing patents

220. Lerer, *supra* note 102, at 12.

221. Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors: IP Privateering and Modern Letters of Marque and Reprisal*, 4 HASTINGS SCI. & TECH. L.J. 1, 16 (2012).

222. After the PTO grants a patent, patent holders must pay maintenance fees after three and a half years (\$1600), seven and a half years (\$3600) and eleven and a half years (\$7400). 37 C.F.R. § 1.20(e)–(g) (2013).

223. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 325.

224. Orr, *supra* note 36, at 540.

225. *Id.* at 539.

226. *See supra* Part I.

227. Orr, *supra* note 36, at 540.

through its “Trading and Licensing” division.²²⁸ In 2008, General Electric’s licensing and assertion campaign brought in \$291 million.²²⁹

In contrast, other companies monetize by selling their patents if offensive assertion is not feasible given the companies’ resources and culture.²³⁰ Companies sell ancillary patents to both practicing companies and NPEs with grant-back licenses to eliminate the risk of the patents being used against them.²³¹ For instance, Acacia claimed that it was approached by “large companies looking to turn their patents into revenue.”²³² Similarly, IV contends that practicing companies sell their patents to NPEs.²³³ In fact, some companies that previously spoke out about the negative effects of NPEs later sold their patents to those same entities.²³⁴ But most companies remain hesitant, at least publicly, to sell their patents to NPEs because many in the patent field consider this action an “unforgivable sin.”²³⁵

Finally, companies monetize their patent portfolios through patent privateering.²³⁶ Patent privateering occurs when practicing companies sponsor NPEs by transferring full or partial interest in patents to NPEs under revenue sharing arrangements.²³⁷ The privateer, a specialized form of NPE, acts as an agent for these sponsors who are working to achieve corporate goals.²³⁸ The sponsor may attempt to camouflage its involvement.²³⁹ This practice allows companies to indirectly monetize their patent portfolios and alter the competitive landscape, while maintaining

228. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 322–23.

229. *Id.* at 323.

230. *Id.* at 325.

231. Matthew Fawcett & Jeremiah Chan, *March of the Trolls: Footsteps Getting Louder*, 13 INTELL. PROP. L. BULL. 1, 20 (2008).

232. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 314 (citing ACACIA TECHS., LLC, ACACIA TECHNOLOGIES: LEADER IN PATENT LICENSING AND ENFORCEMENT 3, <http://acaciatechnologies.com/docs/CorporateBrochure.pdf> (last visited Dec. 17, 2010)).

233. Nathan Myhrvold, *The Big Idea: Funding Eureka!*, HARV. BUS. REV., Mar. 2010, at 41.

234. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 344 (noting that Micron’s counsel spoke publicly about the negative effects of NPEs and later transferred 4,500 patents to an NPE, Round Rock Research LLC).

235. Ewing, *supra* note 221, at 22.

236. *See id.* at 8–9 (explaining that privateering was an effective and cheap method of waging war by enlisting private parties to attack enemy ships and allowing the privateers to keep the proceeds).

237. Orr, *supra* note 36, at 541.

238. Ewing, *supra* note 221, at 24.

239. *Id.* at 5.

focus on their core business and avoiding the risk of retaliation or reputational damage.²⁴⁰

While the secretive nature of some patent privateering makes it difficult to trace, it appears that companies provide patent arms to some NPEs.²⁴¹ For example, Nokia and Sony each transferred patents to an NPE, Mobile Media LLC, that later asserted those patents against Apple.²⁴² Similarly, Microsoft transferred patents to a Canadian NPE, Mosaid Technologies, that later brought suit against Google.²⁴³

In addition to arming NPEs, companies also create NPEs for the purpose of patent privateering. In July 2011, Apple, Microsoft, Research in Motion, Sony, Ericsson, and EMC formed a company, called the Rockstar Consortium, to outbid Google and Intel for Nortel Networks' patent assets.²⁴⁴ After the purchase, Rockstar Consortium maintained control of the patents and acted as a privateer for its founding companies. Rockstar used Nortel's patents to initiate suits against Google and Samsung.²⁴⁵

As these challenges in the patent landscape have accumulated, companies have resorted to old plays, modified tactics, and new strategies.

B. OLD PLAYS IN THE CURRENT LANDSCAPE

Although developed in the mid-1990s, companies continue to use defensive aggregation and patent pledges to enact defensive patent strategies. Companies in today's landscape implement these plays in their original form. The following analysis provides examples of the modern use of this "old play."

1. *Defensive Aggregation*

Defensive aggregation may be considered an "old play," but companies still utilize the threat of mutual destruction as a defensive tactic in modern practice. For example, Facebook utilized defensive aggregation in litigation against Yahoo!. Just before Facebook's initial public offering,

240. *Id.* at 13–14.

241. Ewing, *supra* note 221 at 38–39.

242. Orr, *supra* note 36, at 541.

243. *Id.* at 541–42.

244. Chia, *supra* note 69, at 213.

245. See Kurt Orzeck, *Google, Samsung Sued Over Nortel Search-Engine Patents*, LAW360 (Oct. 31, 2013, 8:59 PM), http://www.law360.com/articles/485409/google-samsung-sued-over-nortel-search-engine-patents?article_related_content=1.

Yahoo! asserted ten patents against Facebook.²⁴⁶ Facebook counterclaimed using ten of its own patents, four of which it acquired after Yahoo!'s initial assertion.²⁴⁷ Three months after the initial complaint, Yahoo! and Facebook ended the infringement suit and formed a "strategic alliance."²⁴⁸

Similarly, defensive aggregation of patents has been rampant in the ongoing smartphone patent litigation. In October 2009, Nokia sparked a series of suits by asserting that Apple's iPhone infringed their patent rights.²⁴⁹ The companies settled twenty months later,²⁵⁰ but the "smartphone war" had begun. Technology giants—such as Microsoft, Google, Apple, Samsung, Research in Motion, and HTC—became participants in a series of patent litigation actions that instigated vast expenditures in patent aggregation.²⁵¹ In July 2011, the Rockstar Consortium paid \$4.5 billion to outbid Google and Intel for Nortel Networks' six thousand patent assets.²⁵² Google responded by acquiring 17,000 patents in its purchase of Motorola Mobility for \$12.5 billion.²⁵³ Google announced that its primary objective was to protect itself and other business partners from future patent litigation.²⁵⁴

246. Complaint for Patent Infringement, *Yahoo! Inc. v. Facebook, Inc.*, No. CV-12-01212, 2012 WL 764479 (N.D. Cal. Mar. 12, 2012).

247. Defendant Facebook, Inc.'s Answer; Counterclaim Against Yahoo! Inc. for Patent Infringement, *Yahoo! Inc. v. Facebook, Inc.*, No. CV-12-01212-JSW, 2012 WL 1094169 (N.D. Cal. Apr. 3, 2012).

248. John Letzing, *Facebook, Yahoo Kiss and Make Up*, WALL ST. J. (July 6, 2012, 6:54 PM), <http://online.wsj.com/news/articles/SB10001424052702303684004577511132642631606>.

249. See Judith Aparri, *Reckoning Smartphone Patent Wars with Nokia, Apple, HTC, Motorola, and Samsung*, INT'L BUS. TIMES (Apr. 7, 2014, 2:12 PM), <http://au.ibtimes.com/articles/546903/20140407/apple-vs-samsung-cases-ip-wars-patent.htm#.VEFX5Va0b1o>.

250. See Ryan Davis, *Apple Pays Up To Settle Nokia Patent Suits*, LAW360 (June 14, 2011, 1:16 PM), <http://www.law360.com/articles/251166/apple-pays-up-to-settle-nokia-patent-suits>.

251. See Aparri, *supra* note 249; see also Ludlow, *supra* note 217, at 15.

252. See Liam Tung, *Google Settles with Rockstar Consortium Over Nortel Patents*, ZDNET NEWS (Nov. 21, 2014, 1:57 PM), <http://www.zdnet.com/article/google-settles-with-rockstar-consortium-over-nortel-patents/>.

253. See Aaron Pressman, *Now that Google's Selling Motorola, How Much Did it Overpay in 2011?*, THE EXCHANGE – YAHOO! FINANCE (Jan. 29, 2014, 4:42 PM), <http://finance.yahoo.com/blogs/the-exchange/google-selling-motorola-phone-business-but-keeping-some-patents-214150173.html> (indicating that Google ultimately paid around \$4 billion for the 17,000 patent assets after Motorola's assets were sold).

254. Larry Page, *Supercharging Android: Google to Acquire Motorola Mobility*, OFFICIAL GOOGLE BLOG (Aug. 15, 2011), <http://googleblog.blogspot.com/2011/08/supercharging-android-google-to-acquire.html>.

As illustrated, companies implement defensive aggregation effectively in the modern landscape. However, defensive aggregation is not the only old play that remains in the modern playbook.

2. Patent Pledges

Although developed in the mid-2000s, companies have recently implemented the patent pledge. For instance, Google and Tesla Motors recently used the patent pledge tactic. Google controls the Android operating system used on hundreds of millions of mobile devices worldwide.²⁵⁵ Android allows users to develop applications, commonly referred to as “apps,” and distribute these applications on the Google Play marketplace.²⁵⁶ In March 2013, Google announced an Open Patent Non-Assert (“OPN”) Pledge.²⁵⁷ The OPN Pledge states that Google will not “sue any user, distributor or developer of open-source software on specified patents, unless first attacked.”²⁵⁸ By October 2014, Google had included 114 U.S. patents and 131 international patents in the OPN Pledge.²⁵⁹ Just as IBM assured consumers that they could commit to Linux’s open source operating system with their patent pledge,²⁶⁰ Google’s OPN Pledge assures users freedom to develop open source software within the Android platform. Additionally, like IBM’s pledge increased software for the Linux system,²⁶¹ Google’s pledge will probably enhance the amount of apps produced for the Android platform.

Similarly, Tesla Motors Inc. (“Tesla”) recently implemented a patent pledge. Tesla’s chief executive officer, Elon Musk,²⁶² announced that “Tesla will not initiate patent lawsuits against anyone who, in good faith,

255. Android Developers, *Android, the World’s Most Popular Mobile Platform*, <http://developer.android.com/about/index.html> (last visited Jan. 25, 2015).

256. *Id.*

257. Duane Valz, *Taking a Stand on Open Source and Patents*, GOOGLE OPEN SOURCE BLOG (Mar. 28, 2013), <http://google-opensource.blogspot.com/2013/03/taking-stand-on-open-source-and-patents.html>.

258. *Id.*

259. *Open Patent Non-Assertion Pledge: Pledged Patents*, GOOGLE OPEN PATENT NON-ASSERTION PLEDGE, <http://www.google.com/patents/opnpledge/patents/> (last visited Oct. 4, 2014).

260. *Merges*, *supra* note 87, at 193.

261. *Id.* at 192–93.

262. Elon Musk co-founded Zip2 and PayPal before his role as CEO of Tesla Motors. *Executive Bios*, TESLA MOTORS INC., <http://www.teslamotors.com/executives> (last visited Sept. 10, 2014). Musk currently oversees the development of rockets and spacecraft in his position as chief designer at SpaceX. *Id.* In addition, Musk is the non-executive Chairman and principal shareholder of SolarCity. *Id.*

wants to use our technology.”²⁶³ At the time of the announcement, Tesla had 172 issued U.S. patents and 123 published pending applications comprised primarily of battery and charging technologies.²⁶⁴ While Tesla’s exact motivations remain unclear, Musk may have sought to assure customers that Tesla would operate on an open network that would not confine consumers to Tesla’s charging technology and stations.

Three days after issuing its patent pledge, Tesla met with Nissan and BMW to discuss methods of collaboration and a supercharging network.²⁶⁵ This meeting led some to speculate that Tesla seeks to make its roadside charging stations or battery packs the industry standard.²⁶⁶ Yet, it is equally plausible that Tesla’s patent pledge intended to ensure that other companies do not exclude Tesla from an interoperable network. Others argue that Tesla seeks to coordinate electric vehicle makers around open standards and allow more companies to enter the industry in order to overcome the gasoline-vehicle standard.²⁶⁷ Ultimately, while patent pledges can promote or deter the adoption of standards, it is unclear which interoperable component Tesla allegedly seeks to promote as a standard.

Finally, Tesla may be foregoing opportunities to license their charging and battery technology in an effort to spur innovation within the electric vehicle industry. Just as increased innovation within the Linux platform ultimately stimulated demand for IBM’s infrastructure software,²⁶⁸ spurred innovation in battery technology could propel the electric vehicle industry and thereby increase demand for Tesla’s cars and batteries.

While the effectiveness of these pledges remains uncertain, companies implement patent pledges in the modern landscape. In addition to these old plays, the modern defensive playbook contains a couple of plays that have been adapted for the current landscape.

263. Elon Musk, *All Our Patent Are Belong to You*, TESLA MOTORS INC. (June 12, 2014), <http://www.teslamotors.com/blog/all-our-patent-are-belong-you>.

264. *Envision IP: Auto Industry May Ignore Tesla Patents*, DELTASIGHT (June 26, 2014), <https://www.deltasight.com/tesla-auto-industry-may-ignore-tesla-patents/>.

265. Nikki Gordon-Bloomfield, *Nissan, BMW, Look to Adopt Tesla’s Charging Standard*, TRANSPORT EVOLVED (June 16, 2014), <https://transportevolved.com/2014/06/16/nissan-bmw-look-adopt-teslas-charging-standard/>.

266. William J. Watkins, Jr., *Rethinking Patent Enforcement: Tesla Did What?*, FORBES OPINION (July 17, 2014, 1:16 PM), <http://www.forbes.com/sites/realspin/2014/07/17/rethinking-patent-enforcement-tesla-did-what/>.

267. James Bessen, *History Backs up Tesla’s Patent-Sharing*, HARV. BUS. REV. BLOG (June 13, 2014), <http://blogs.hbr.org/2014/06/history-backs-up-teslas-patent-sharing/>.

268. *Merges*, *supra* note 87, at 192–93.

C. MODIFIED PLAYS IN THE CURRENT LANDSCAPE

Part I evaluated the open source and RAND strategies implemented in the 1990s. However, these plays have evolved over time. The following analysis traces the development of the open source and RAND plays and provides the current strategies for their utilization. Some of the plays discussed in this Section provide litigation tactics available in very specific situations rather than general defensive strategies.

1. *Open Source Licenses II: Patent Provisions and Infection*

Open source licenses evolved over time. Because both copyrights and patents can protect software, open source licenses—like the GPL—faced a unique challenge. As software patents became more prevalent in the 2000s, open source licenses began to include reciprocal patent agreements, in addition to copyright provisions, to ensure that software patents could not prevent the use or modification of open source software.²⁶⁹

Open source patent provisions prohibit patent assertion by any licensee against the licensor and other downstream licensees of the technology.²⁷⁰ These provisions are usually structured as either a license to a specified technology or a general covenant not to sue.²⁷¹ The Open Source Initiative lists nearly seventy different variations of open source licenses.²⁷² The majority of the analysis in this Section discusses the GPLv3 and Apache licenses, but the provisions of open source licenses vary.²⁷³

The GPLv3 prevents the enforcement of patent rights through Section 11 of the GPLv3, which states that “[e]ach contributor grants [any licensee] a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.”²⁷⁴ However, the provision has caused confusion because it appears directed towards “contributor[s],” which Section 11

269. Phipps, *supra* note 96.

270. Schultz & Urban, *supra* note 43, at 33.

271. *Id.*

272. *Open Source Licenses: Licenses by Name*, OPEN SOURCE INITIATIVE, <http://opensource.org/licenses/alphabetical> (last visited Jan. 18, 2015).

273. Of the nearly 100,000 projects hosted on Google Code in 2008, 42.6% of these projects utilized the GPLv2/GPLv3 licenses and 25.8% used the Apache license, including the Android operating system. Greg Stein, *Standing Against License Proliferation*, GOOGLE OPEN SOURCE BLOG (May 28, 2008), <http://google-opensource.blogspot.com/2008/05/standing-against-license-proliferation.html>.

274. GNU General Public License Version 3, GNU OPERATING SYSTEM (June 29, 2007), <http://www.gnu.org/licenses/gpl.html>.

defines as “copyright holder[s].”²⁷⁵ If a “contributor” must modify the GPLv3 software to be a “copyright holder,” the mere distribution of GPLv3 software without modifications appears not to trigger the license in Section 11.²⁷⁶ In an attempt to clear confusion regarding the interpretation of Section 11, GPLv3’s drafters stated that “non-contributor redistributors remain subject to applicable implied patent license doctrine.”²⁷⁷

In addition to the patent license, the GPLv3 contains a termination clause that terminates copyright and patent licenses in the event that a user initiates a patent lawsuit against any GPLv3 contributor.²⁷⁸ These provisions appear to further constrain the enforcement of proprietary technology that includes open source software.

a) Limitations on Effectiveness of Open Source Patent Provisions

The open source patent provisions have some limitations to their effectiveness. Open source licenses lack clarity as to the scope of the patent rights licensed.²⁷⁹ The drafters of GPLv3 recognized the lack of clarity and subsequently attempted to produce information to assist interpretation.²⁸⁰ However, because no caselaw has interpreted a patent-related open source provision,²⁸¹ uncertainty surrounds the scope and enforceability of the patent licensing provisions.²⁸² This uncertainty increases the business risk

275. *Id.*

276. Hendrik Schöttle, *Open Source Software and Patents: How the GPLv3 Affects Patent Portfolios*, INT’L LAW OFFICE (Feb. 5, 2013), <http://www.internationallawoffice.com/newsletters/Detail.aspx?g=64b59c8c-9677-46eb-97fe-3d22f9fc011e>.

277. *What Does “the Program” Mean in GPLv3?*, FREE SOFTWARE FOUNDATION, <https://www.gnu.org/licenses/gplv3-the-program.html> (last visited Feb. 19, 2015).

278. GNU General Public License Version 3, *supra* note 274.

279. *See* Schultz & Urban, *supra* note 43, at 34; *see also* Andrew Strickland & Amy Chun, *Leveraging Open-Source Software in Patent Litigation*, AM. BAR ASS’N – SEC. OF LITIG. (Sept. 20, 2011), <http://apps.americanbar.org/litigation/committees/intellectual/articles/fall2011-leveraging-open-source-software-patent-litigation.html>.

280. *See What Does “the Program” Mean in GPLv3?*, *supra* note 277.

281. In 2008, the Federal Circuit held that an open source agreement was enforceable as an express contractual license under *copyright law*; the Federal Circuit found that even without monetary exchange, open source licenses contain consideration because these licenses may generate market share and improve the licensee’s reputation. *Jacobsen v. Katzer*, 535 F.3d 1373, 1379–83 (Fed. Cir. 2008).

282. Schultz & Urban, *supra* note 43, at 33 (recognizing that the validity of open source licensing agreements may be challenged when patents have been transferred to third parties who claim a lack of privity with the original licensee).

in both releasing software and using software licensed by others under the GPLv3.²⁸³

b) Infection of Open Source Software as a Defensive Tactic

Most technology companies today use software protected under an open source license.²⁸⁴ These companies face an internal struggle to coordinate their use of open source software with their patent portfolio management.²⁸⁵ Under a broad interpretation, the GPLv3 grants licenses not only to modified open source software but also to any software that “links” to the open source software.²⁸⁶ The uncertain scope of open source provisions may drive companies to prohibit use of open source software in proprietary commercial products.²⁸⁷ Thus, coordination within a company becomes vital to ensure that a proprietary project does not become “infected” with open source software.

If a portion of the plaintiff’s software has been infected by open source software, a defendant can use the infection as a defensive tactic in patent litigation. First, the plaintiff may have unknowingly granted the defendant a patent license under the provisions of the open source license, which can be used as a defense to an infringement claim.²⁸⁸

Furthermore, the plaintiff’s exposure to countersuit increases if the asserted patent includes (1) the defendant’s open source software or (2) third-party open source software. If the defendant’s open source software infected the plaintiff’s software, the plaintiff likely violates the licensing requirements of the open source license.²⁸⁹ In *Twin Peaks Software Inc. v. Red Hat, Inc.*, Twin Peaks Software (“TPS”) asserted patented software against Red Hat.²⁹⁰ Red Hat initially denied the validity of the patents and claimed they did not infringe—a typical patent defense.²⁹¹ However, Red Hat discovered that TPS’s proprietary software

283. See Majerus, *supra* note 92, at 3.

284. Heather Meeker, *Open Source – The Last Patent Defense?*, OUTER CURVE FOUND. (Feb. 11, 2014), <http://www.outercurve.org/blog/2014/02/11/Open-Source--The-Last-Patent-Defense/>.

285. *Id.*

286. Majerus, *supra* note 92, at 1–2.

287. *Id.*

288. See Meeker, *supra* note 284.

289. *Id.*

290. Defendants Red Hat, Inc.’s and Gluster, Inc.’s Answer and Counterclaims to Plaintiff Twin Peaks Software Inc.’s First Amended Complaint for Patent Infringement at 1, *Twin Peaks Software Inc. v. Red Hat, Inc.*, No. 5:12-CV-00911 RMW; 2012 WL 5403091 (N.D. Cal. Aug. 2, 2012).

291. *Id.* at 4–5.

actually included some of Red Hat's open source software, which triggered the defensive termination clause and created a counterclaim.²⁹² Red Hat amended its counterclaim to include a violation of the open source license and sought an injunction.²⁹³ Soon thereafter, the case settled.²⁹⁴

Further, if a third party has infected a portion of the plaintiff's software, the defendant can use the plaintiff's increased exposure to suits from third parties as a defensive tactic.²⁹⁵ For example, the defensive termination provision of the Apache 2.0 states that any patent licenses granted to the licensee on open source software shall be revoked if a licensee asserts patent infringement.²⁹⁶ Therefore, by bringing suit, the plaintiff forfeits any patent licenses it has received from other contributors to the software. Even if the defendant has no direct counterclaim, the plaintiff exposes itself to potential liability from other third parties by filing for patent infringement.²⁹⁷ This exposure may be utilized as a defensive tactic.

Finally, if the defendant discovers that the plaintiff's software has been infected, the defendant may be able to challenge the inventorship of the patent. Even though the AIA eliminated the inventorship requirement of 35 U.S.C. § 102(f), the PTO has argued that "section 101 continues to restrict the grant of patents to inventors."²⁹⁸ While the specific use of open source software will dictate the validity of the inventorship argument, defendants have yet another defensive tool that poses additional risk to the patent holder.

292. *See* Defendants/Counterclaim-Plaintiffs Red Hat, Inc.'s and Gluster, Inc.'s First Amended Answer and Counterclaims to Plaintiff Twin Peaks Software Inc.'s First Amended Complaint for Patent Infringement at 6, *Twin Peaks Software Inc. v. Red Hat, Inc.*, No. 5:12-CV- 00911 RMW, 2012 WL 5403098 (N.D. Cal. Sept. 13, 2012).

293. *Id.*

294. *See* Meeker, *supra* note 284.

295. *See id.*

296. *Apache License, Version 2.0*, THE APACHE SOFTWARE FOUND. (Jan. 2004), <http://www.apache.org/licenses/LICENSE-2.0.html>.

297. *See* Meeker, *supra* note 284.

298. Defendant U.S. Patent and Trademark Office's Dispositive Motion at 9, *Madstad Eng'g, Inc. v. USPTO*, No. 8:12-CV-01589-SDM-MAP, 2012 WL 4936440 (M.D. Fla. Sept. 18, 2012); *but see* Dennis Crouch, *With 102(f) Eliminated, Is Inventorship Now Codified in 35 U.S.C. 101? Maybe, but not Restrictions on Patenting Obvious Variants of Derived Information*, PATENTLY-O (Oct. 4, 2012), <http://patentlyo.com/patent/2012/10/with-102f-eliminated-is-inventorship-now-codified-in-35-usc-101.html> (discussing the unresolved issues that originate from the elimination of 35 U.S.C. § 102(f)).

c) Summary of the Modified Open Source License Play

Before utilizing open source licenses, companies must evaluate the value of the patent rights against the value gained through implementation and distribution of open source software. Companies must coordinate the use of open source software with their patent portfolio management if they plan to assert their patents. If proprietary projects include open source software, patent rights could be severely limited. However, the effectiveness of patents used *defensively* will be unimpeded due to the termination clauses included in open source licenses. Finally, companies in patent litigation should always determine whether their opponent has been infected with open source software. Infection may provide significant defenses and alter the dynamics of patent litigation.

2. *RAND II: Limitations and Breach of Contract Claims*

As discussed in Part I, SSOs require RAND commitments to encourage the widespread adoption of standards and prevent SEP holders from utilizing their leverage to demand inflated licensing rates.²⁹⁹ However, smartphone companies used RAND-encumbered patents in the same manner as other patents were utilized.³⁰⁰ These companies aggregated SEPs as offensive and defensive weapons.³⁰¹ This use of RAND-encumbered patents raised concerns, especially in the smartphone industry where the implementation of a standard in a single smartphone requires hundreds or thousands of SEPs owned by different parties.³⁰² However, recent court decisions seem to have curbed the abuse of RAND-encumbered patents by limiting the availability of injunctions.

a) Injunction Availability

In *Apple Inc. v. Motorola, Inc.*, the Federal Circuit recognized the difficulty of obtaining an injunction on a RAND-encumbered patent but stated that no “per se rule” against injunctions existed.³⁰³ Judge Reyna declared that the *eBay* framework for analyzing injunctive relief should be

299. See U.S. DEP’T OF JUSTICE & USPTO, POLICY STATEMENT ON REMEDIES FOR STANDARDS-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 1 n.2 (2013) available at http://www.uspto.gov/about/offices/ogc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf.

300. See O’Connor, *supra* note 70.

301. See *id.*

302. James Ratliff & Daniel L. Rubinfeld, *The Use and Threat of Injunctions in the RAND Context*, 9 J. OF COMPETITION L. & ECON. 1, 2 (2013).

303. 757 F.3d 1286, 1331–32 (Fed. Cir. 2014).

utilized to evaluate RAND committed patents.³⁰⁴ Nevertheless, Judge Reyna recognized that within the *eBay* framework “a patentee subject to FRAND commitments may have difficulty establishing irreparable harm.”³⁰⁵ Thus, the ability to obtain an injunction on a RAND committed patent appears considerably weaker than it would be without the RAND commitment.³⁰⁶ This decision reduces the threat of SEPs as weapons of mutually assured destruction and reduces patent holders’ leverage when licensing SEPs.

But companies may attempt to revoke their RAND commitment. SSOs members generally declare the essentiality of their patents to the standard in their letter of assurance, but the SSOs do not examine whether the patents are actually essential.³⁰⁷ Thus, companies may argue that their patents are not “essential” to implement the standard under the definition provided in the SSOs’ bylaws, which would allow an ordinary infringement suit.³⁰⁸ But if the patent is essential to the standard, implementers may have a breach of contract defense.

b) Breach of Contract Claim as a Defensive Tactic

The abuse of RAND commitments may lead to a breach of contract claim against a patent holder asserting infringement of a SEP. Because RAND commitments do not arise through statute or regulation, some courts have analyzed RAND commitments as contracts between SEP holders and SSOs, with implementers acting as third-party beneficiaries.³⁰⁹

For example, suppose an SEP holder offers an implementer a license for a RAND-encumbered patent essential to the standard. Due to

304. *Id.*

305. *Id.* Some SSOs require members to license under fair, reasonable, and nondiscriminatory terms (“FRAND”). FRAND and RAND are used interchangeably in this Note.

306. Contreras & Gilbert, *supra* note 63, at 31.

307. See Thomas F. Cotter, *The Comparative Law and Economics of Standard-Essential Patents and FRAND Royalties*, 22 TEX. INTELL. PROP. L.J. 311, 312 (2014).

308. See D. Brian Kacedon et al., *Court Finds Patent Claims Essential to Wi-Fi Standard Because They Cover Technology Required by the Standard and There Are No Commercially or Technically Feasible Noninfringing Alternatives*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP LES INSIGHTS (Sept. 17, 2013), <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=d1f3763e-703e-4506-af9f-868bf89bb5d8>.

309. See *Microsoft Corp. v. Motorola, Inc.*, 864 F. Supp. 2d 1023, 1030 (W.D. Wash. 2012); see also Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 BERKELEY TECH. L.J. 1135, 1160 (2013).

differing opinions of “reasonable” terms,³¹⁰ the implementer rejects the license offer as inconsistent with the RAND commitment. If the SEP holder files suit for patent infringement, the implementer may attempt to enforce the RAND commitment by bringing a breach of contract action.³¹¹ Alternatively, if the SEP holder seeks injunctive relief prior to RAND negotiations, some courts have found that the SEP holder has breached their duty of good faith owed to the contract between the SEP holder and the SSO.³¹²

These contractual claims provide multiple defenses. First, the breach of contract claim may be used to limit damages by pleading for relief in the form of a judicially determined RAND rate.³¹³ Alternatively, or in addition, the alleged infringer may point to the RAND commitment to reduce the likelihood that the court grants injunctive relief.³¹⁴ Finally, if the SEP holder sought injunctive relief in foreign courts or the U.S. International Trade Commission, the implementer can file a breach of contract suit to enjoin the SEP holder from enforcing an injunction or exclusion order because the SEP holder breached the duty of good faith and fair dealing.³¹⁵ However, these defenses are only available when the plaintiff asserts a RAND-encumbered patent.

c) Summary of the Modified RAND Play

Recent decisions have decreased the threat of SEPs as weapons of mutually assured destruction and reduced patent holders’ leverage when licensing SEPs. Therefore, before making a RAND commitment, a company must determine if “reasonable” royalties at higher volumes that result from standardization outweigh the patents’ offensive and defensive value and higher royalties that could be obtained without a RAND commitment. If a company has already made RAND commitments, it needs to investigate whether the encumbered patents are actually essential to the standard when facing litigation. Finally, the RAND commitment

310. See generally Maldonado, *supra* note 62; Contreras & Gilbert, *supra* note 63.

311. Contreras & Gilbert, *supra* note 63, at 31.

312. See *Realtek Semiconductor Corp. v. LSI Corp.*, 946 F. Supp. 2d 998, 1008 (N.D. Cal. 2013).

313. See *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, 2013 WL 2111217, at *53–65 (W.D. Wash. Apr. 25, 2013).

314. See Contreras & Gilbert, *supra* note 63, at 31.

315. See *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 889 (9th Cir. 2012) (enjoining Motorola from enforcing a patent injunction against Microsoft in Germany); see also *Realtek*, 946 F. Supp. 2d at 1008 (filing a breach of contract claim before the International Trade Commission concluded its investigation or issued an exclusion order).

provides several defensive options for implementers under contract law. However, these options will only be available to implementers confronted with RAND-encumbered patents. While companies cannot choose the patents asserted against them, they can inquire as to whether the asserting party previously made a RAND commitment.

D. NEW PLAYS: NETWORK CROSS-LICENSING AGREEMENTS

Instead of relying on Congress—which is arguably in a worse state of gridlock than the patent system³¹⁶—to provide further remedies, practitioners have continued to develop new defensive plays to protect their interests. Recently, two network cross-licensing agreements³¹⁷ have been proposed as defensive options for practicing companies: the Defensive Patent License Agreement and the License on Transfer Agreement.

Companies may obtain cross-licenses similar to the provisions in the Defensive Patent License Agreement (“DPL”) and License on Transfer Agreement (“LOT”) with other companies through a series of bilateral agreements.³¹⁸ For example, Samsung and Cisco recently entered a cross-licensing agreement that included the two companies’ existing patents as well as patents filed in the next ten years.³¹⁹ However, negotiating individual agreements with a large number of companies in the industry may be prohibitively expensive.³²⁰

Network cross-licensing agreements reduce transaction costs and enhance protection benefits through network effects. Network cross-licenses reduce transaction costs by eliminating the costs of negotiation between patent holders and providing a standard license with predictable terms for each participant.³²¹ Furthermore, the network cross-licensing agreements utilize positive network effects to enhance the benefits of

316. See Christopher Ingraham, *Congressional Gridlock Has Doubled Since the 1950s*, WASH. POST (May 28, 2014), <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/05/28/congressional-gridlock-has-doubled-since-the-1950s/>.

317. In this Note, “network cross-licensing agreement” refers to any collective licensing agreement in which members grant reciprocal licenses to current or future patent rights.

318. Transaction costs could be reduced for companies seeking to obtain the licensing provisions contained in the LOT Agreement, but companies likely would negotiate on an individual basis for cross-licensing agreements more similar to the DPL Agreement.

319. *Cisco and Samsung Enter Into Patent Cross-License Agreement*, CISCO PRESS RELEASES (Feb. 5, 2014), http://newsroom.cisco.com/release/1342531/Cisco-and-Samsung-Enter-Into-Patent-Cross-License-Agree_2.

320. See Schultz & Urban, *supra* note 43, at 8.

321. *Id.* at 47.

participating.³²² As more companies join, the agreements provide more protection from litigation risks and become more attractive to new members.³²³ While these benefits are common to both network cross-licensing agreements, the DPL and LOT Agreements contain distinct licensing provisions that lead to varying reductions in litigation exposure.

a) The Defensive Patent License (DPL) Network

The DPL Agreement, a standardized cross-license, “serves as the connection point for a distributed defensive cross-license network.”³²⁴ Upon joining the DPL network, a participant licenses its entire patent portfolio under a perpetual, worldwide, royalty-free license.³²⁵ If a participant wants to stop offering its patents under the DPL, it may discontinue licensing to newcomers after six months’ notice.³²⁶ However, the participant may not revoke any licenses in place before the end of the notice period unless a licensee brings suit against another DPL participant offensively, in which case all DPL participants may suspend their licenses to the DPL party asserting its patents offensively.³²⁷ Thus, upon entry to the DPL Agreement, companies grant other participants patent licenses that may only be revoked in specific situations. This structure provides protection to participants but requires more commitment than the LOT Agreement.

b) The License on Transfer (LOT) Agreement

Industry participants launched a networked, royalty-free cross-licensing agreement for transferred patents called the LOT Agreement.³²⁸ LOT participants grant a license to other participants, but the license only becomes effective when patents transfer to non-participants.³²⁹ Until transferred, participants preserve full use of their patents.³³⁰ As an example, if a LOT participant owns one thousand patents and transfers two patents to a non-participant, the LOT Agreement grants all other

322. *Id.* at 23–24.

323. David L. Hayes & C. Eric Schulman, *A Response to a Proposal for a Defensive Patent License (DPL)* 5 (Feb. 4, 2013) (unpublished manuscript), available at <http://ssrn.com/abstract=2054314>.

324. Schultz & Urban, *supra* note 43, at 5.

325. *Id.* at 39.

326. *Id.* at 39–40.

327. *Id.*

328. *LOT Agreement*, GOOGLE PATENT PROGRAMS, <http://www.google.com/patents/licensing/#tab=lot> (last visited Jan. 18, 2015).

329. *Id.*

330. *Id.*

participants a license to the two transferred patents. Licenses to the other 998 patents remain untriggered.

The LOT Agreement allows for license termination when patents transfer to a “non-assertion entity.”³³¹ For example, LOT Participant *A* transfers its patents to non-LOT Participant *B*, triggering the licensing provision. If LOT Participant *C* brings suit offensively against non-LOT Participant *B* and non-LOT Participant *B* qualifies as a “non-assertion entity” under the agreement, the license to LOT Participant *C* may be terminated so that non-LOT Participant *B* can use the transferred patents defensively.

c) Reduction in Litigation Exposure: Protection from NPE use of Defensively Aggregated Patents

These network cross-licensing agreements protect companies from multiple litigation threats. As discussed, NPEs obtain defensively aggregated patents through two monetization strategies implemented by practicing companies: direct sale of patents to NPEs or patent privateering arrangements. If a company sells patents to NPEs, it typically includes a grant-back license to eliminate the risk of the patents being used against them after the sale.³³² Unlike the typical grant-back provision that only prohibits NPEs from asserting against the seller, the DPL and LOT Agreements prohibit NPEs from asserting transferred patents against all licensed participants. Under the DPL, each participant grants other participants a perpetual license upon joining the DPL.³³³ LOT participants grant licenses to other participants that become effective when patents are transferred to non-participants.³³⁴ Thus, both agreements reduce the number of potential targets for NPEs and consequently diminish the profits NPEs derive from purchasing encumbered patents.

In addition, companies indirectly monetize patents by transferring rights to NPEs through privateering arrangements.³³⁵ The structure of the LOT Agreement targets this practice. Because the license does not trigger unless a patent transfers to a non-participant,³³⁶ LOT allows practicing companies to bring suit directly against other participants and confront the risk of retaliation and reputational damage. However, companies cannot

331. LOT Agreement § 1.1(c) *available at* <http://www.lotnet.com/how-to-join-lotnet/index.cfm> (last visited Jan. 18, 2015).

332. Fawcett & Chan, *supra* note 231, at 20.

333. Schultz & Urban, *supra* note 43, at 39.

334. *LOT Agreement*, *supra* note 328.

335. *See* Ewing, *supra* note 221 at 8–9.

336. LOT Agreement § 1.1(c), *supra* note 331.

avoid these risks by transferring their patents to NPEs under privateering arrangements because the LOT license triggers upon transfer. The LOT Agreement deters companies from entering into privateering arrangements with NPEs and decreases the value of encumbered patents to NPEs. The DPL Agreement also protects participants against privateering because the agreement grants participants a license upon entry. Just as countries in the 1800s abolished privateering through treaties,³³⁷ companies eradicate detrimental patent privateering against other participants when they sign the LOT or DPL Agreements. Although both agreements eliminate the threat of patents transferred by participants, companies face additional litigation exposure.

d) Reduction in Litigation Exposure: Protection from Direct Assertion by Practicing Companies

When the patent system functions as intended, companies use patent rights as a tool to recoup the costs of developing a new technology by allowing the patent holder to prohibit other companies from making, using, selling, or importing the patented technology.³³⁸ Under the LOT Agreement, participants may still assert their patents against LOT participants and non-participants in this manner because the license does not trigger unless a patent transfers to a non-participant.³³⁹ Thus, nothing in the LOT Agreement prevents companies from asserting their patents, but the companies must face the risk of retaliation and reputational damage.

Under the DPL Agreement, participants forfeit their ability to assert patents against other participants.³⁴⁰ While the DPL limits companies' abilities to assert their patents, it also eliminates the risk of suit from other participating companies. This protection could create more freedom to operate with respect to DPL technologies,³⁴¹ allowing participating companies to compete on the merits of their products or services—rather than competing in the courtroom.³⁴² Furthermore, the DPL Agreement does not prohibit participants from asserting their patents against non-participants.

337. Ewing, *supra* note 221, at 8.

338. See Lemley, *supra* note 4, at 129–30.

339. LOT Agreement § 1.1(c), *supra* note 331.

340. See Schultz & Urban, *supra* note 43, at 39–40.

341. See *id.* at 48.

342. See Hayes & Schulman, *supra* note 323, at 4–5.

e) Litigation Exposure: Incomplete Protection

However, neither the DPL Agreement nor the LOT Agreement will protect companies from patents already owned by NPEs or obtained by NPEs from non-participants.

f) Network Cross-Licensing Agreement Limitations

Furthermore, network cross-licensing agreements impose some limitations in order to provide the positive attributes previously discussed. Network cross-licensing agreements inevitably lower the value of participants' patents because the patents no longer provide an exclusive right.³⁴³ The license granted to other participants restricts a purchaser's ability to bring suit, so the value of the patent decreases.³⁴⁴ This reduction in value may be a deterrent for both large portfolio companies and startup companies. Large portfolio companies lose significant monetary value in their assets by encumbering their patents with licenses, and startup companies hinder their ability to sell off patents as a method of mitigating losses upon failure.

Because their licensing provisions differ, the DPL and LOT Agreements contain additional, distinct limitations.

i) DPL Agreement Limitations

The risk and limitations of the DPL may deter companies from participating. First, even the creators of the DPL recognize that the DPL is not a viable option for companies with business models dependent upon monetization of their patent portfolios.³⁴⁵ Companies that actively enforce and rely on patents to recoup investments may instead consider the LOT Agreement, which allows direct assertion of patents.

Second, large portfolio companies may not join the DPL because of the potential for disproportionate benefits.³⁴⁶ A company with a minimal patent portfolio may benefit significantly more than companies that have spent substantial money aggregating large patent portfolios.³⁴⁷ A company with few patents acquires licenses to all of the larger companies' aggregated patents without providing much benefit in return.³⁴⁸ Further, a small startup company could use the DPL as an opportunity to compete

343. *See id.* at 4–5.

344. *See id.* at 5.

345. *See* Schultz & Urban, *supra* note 43, at 52.

346. Hayes & Schulman, *supra* note 323, at 5–6.

347. *Id.*

348. *Id.*

with large portfolio companies without the risk of patent infringement.³⁴⁹ Later, when the startup company reaches a position where it is strong enough to survive patent litigation, it could simply terminate its status as a DPL participant.³⁵⁰

Lastly, the biggest deterrent to the DPL may be the risk associated with joining. Once a company joins the DPL, the license granted becomes irrevocable unless another member of the DPL offensively attacks.³⁵¹ Therefore, companies must be so confident in the value of joining the DPL that they will risk their entire existing patent portfolio, which may have cost millions of dollars to aggregate.

ii) LOT Agreement Limitations

The LOT Agreement faces fewer deterrents to entry for companies but provides less protection from litigation. Unlike the DPL Agreement, the LOT Agreement allows participants to assert patents against other participants.³⁵² Depending on a company's monetization strategy, the LOT structure could be viewed as a limitation or a benefit. If a company's patent portfolio consists of patents that will not be asserted, the company may view the lack of protection from other participants' patents as a limitation.³⁵³ On the other hand, companies that seek to enforce their patents may not view this as a limitation because the freedom of assertion may outweigh the lack of protection.³⁵⁴

The LOT Agreement does not face the same lopsided benefit limitation present in the DPL Agreement. The LOT Agreement does not appear to favor companies with large patent portfolios or minimal portfolios. Due to the sheer number of aggregated patents, companies with larger portfolios provide substantial benefit to minimal portfolio companies by providing a larger number of licenses to minimal portfolio companies if the aggregated patents are later transferred to NPEs. Similarly, the LOT Agreements provide large companies significant protection against patents transferred by failed startups to NPEs.

The reduction in participants' exposure increases as more operating companies join the LOT network.³⁵⁵ Therefore, the success of the LOT

349. *Id.*

350. *Id.*

351. *Id.*

352. *LOT Agreement*, *supra* note 328.

353. These companies likely would be better suited with the DPL Agreement.

354. *See Hayes & Schulman*, *supra* note 323, at 27.

355. *Id.* at 27.

Agreement depends on whether the LOT Agreement can utilize positive network effects to incentivize other companies to join. Google, Canon, SAP, Newegg, Dropbox, and Asana joined the LOT network and placed 300,000 patents into the LOT pool.³⁵⁶ It is unclear whether these patents will provide sufficient incentive for others to join.

g) Summary of the DPL and LOT Plays

Strategically, until the DPL has significant participation, companies with larger patent portfolios may individually cross-license with other companies to avoid the potential lopsided benefits and risks of joining the DPL. Companies with minimal patent portfolios and infrequent monetization may join the DPL for the added protection and terminate participation if their patent strategy or position begins to shift.³⁵⁷

The LOT Agreement provides less protection than the DPL but requires less commitment. While the LOT Agreement imposes some limitations for companies seeking to monetize patents through direct sale or patent privateering, it provides diminished risk because all patents remain unencumbered until transferred. Companies with large defensive portfolios and startup companies should consider the LOT Agreement if the value gained outweighs the ability to monetize their portfolio by collaborating with NPEs.

IV. DEVELOPING DEFENSIVE PLAYS

Currently, two additional developments may provide future defensive options: inter partes reviews and enhanced fee-shifting. These areas of the law have not fully developed, but this Part introduces these evolving defenses.

Companies may utilize inter partes reviews (“IPRs”) to invalidate asserted patents. During an IPR, the Patent Trial and Appeal Board (“PTAB”) will evaluate patentability “under section 102 or 103 . . . on the basis of prior art consisting of patents and printed publications”³⁵⁸ if the requesting petitioner demonstrates “a reasonable likelihood” that the PTAB would find at least one claim invalid.³⁵⁹ If the petitioner requests an

356. *Asana, Canon, Dropbox, Google, Newegg and SAP Announce Formation of New Cooperative Patent-Licensing Agreement*, CANON GLOBAL (July 10, 2014), <http://www.canon.com/news/2014/jul10e.html>.

357. See Hayes & Schulman, *supra* note 323, at 5–6.

358. 35 U.S.C. § 311(b) (2012).

359. 35 U.S.C. § 314(a) (2012).

IPR after the commencement of patent litigation, a district court will often stay the case.³⁶⁰

Effectively, a stay offers litigants a choice between arguing validity in district courts or at the PTO. District courts construe claims according to “the meaning that [a] term would have to a person of ordinary skill in the art in question at the time of the invention.”³⁶¹ However, during IPRs, the PTAB uses the “broadest reasonable construction in light of the specification of the patent in which it appears.”³⁶² Additionally, the burden of proof differs. A district court requires clear and convincing evidence to invalidate a patent claim, but the PTAB requires only a preponderance of evidence to invalidate a patent claim.³⁶³ Early IPR decisions by the PTAB indicate that the PTO may be a favorable forum for patent challengers,³⁶⁴ but companies need to monitor the challenger success rate and analyze a larger sample size before reaching such a conclusion.

In addition to the AIA developments, a recent Supreme Court decision indicates that fee-shifting might become a more serious threat to NPEs moving forward. Under 35 U.S.C. § 285, a court may only award attorney fees to the prevailing party in “exceptional cases.”³⁶⁵ In *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, the Court articulated a more discretionary standard for determining whether a case is “exceptional.”³⁶⁶ This discretionary standard could mitigate the current asymmetrical exposure present in patent litigation and gives practicing entities a greater threat against NPEs.³⁶⁷

360. Jason E. Stach & Jeffrey A. Freeman, *District Court or the PTO: Choosing Where to Litigate Patent Invalidity*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP IP LITIGATOR (Mar./Apr. 2014), <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=e7ad4528-cec4-4889-a23d-d17bca527ca2>.

361. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005).

362. 37 C.F.R. § 42.100(b) (2013).

363. 35 U.S.C. § 316(e) (2012).

364. David Cavanaugh, *Early Results of Post Grant Proceedings*, INTELL. PROP. TODAY (July 31, 2014), http://www.wilmerhale.com/uploadedFiles/Shared_Content/Editorial/Publications/Documents/IP-today-early-results-post-grant-proceedings-July-2014.pdf (evaluating IPR decisions from September 16, 2012 until May 1, 2014).

365. 35 U.S.C. § 285 (2012).

366. *Octane*, 134 S. Ct. at 1749.

367. See Hannah Jiam, Note, *Fee-Shifting and Octane Fitness: An Empirical Approach Towards “Exceptional”*, 30 BERKELEY TECH. L.J. 611 (2015).

V. CONCLUSION

The patent system is a complex puzzle that constantly evolves. Multiple factors have contributed to the current patent landscape. First, in the 1980s, the Federal Circuit situated the patent system for rapid growth. With the patent system primed for growth, licensing and assertion campaigns catalyzed a patent aggregation “arms race” that increased patent filings and resulted in webs of overlapping patent rights.³⁶⁸ Subsequently, after the dot-com bubble burst, NPEs obtained many of these patents and became prominent players in the patent field by exploiting asymmetrical costs and risks. As a result, the current landscape faces the accumulation of these obstacles and an increasing transition from patent aggregation to patent monetization.

These eras produced numerous defensive strategies to help companies compete in the patent landscape: defensive aggregation, RAND cross-licensing, open source licenses, lobbying for doctrinal changes, public disclosure, patent pledges, third-party defensive protection, and network cross-licensing agreements. These defensive plays range from general strategies to specific litigation tactics.

The evolution of the defensive patent playbook will continue as companies develop new strategic maneuvers, new players emerge in the patent field, and courts define the contours of the AIA. No single private action will cure the current patent system. The viability of these “plays” will be dictated by each individual company’s patent portfolio, business goals, and exposure to litigation. Ultimately, each option and strategy in the defensive patent playbook contains its own benefits, risks, and limitations that must be evaluated to prepare a successful patent game plan.

368. Chien, *From Arms Race to Marketplace*, *supra* note 5, at 304.

BURDEN OF PROOF IN *MEDTRONIC*: THE FEDERAL CIRCUIT'S IDIOSYNCRATIC PATENT JURISPRUDENCE VETOED, AGAIN

Sorin G. Zaharia[†]

*Ei incumbit probatio qui dicit, non qui negat.*¹

In line with this time-honored maxim, the United States Supreme Court held in *Medtronic, Inc. v. Mirowski Family Ventures, LLC* that in a declaratory judgment action filed by a licensee denying infringement, the patent owner (the nominal defendant) retains the burden of proof for showing infringement.² The opinion, reversing the Federal Circuit's ruling that the burden shifts to the licensee,³ is a natural continuation of the Court's 2007 *MedImmune, Inc. v. Genentech, Inc.* decision, which struck down the Federal Circuit's stringent standard for when a licensee could file a declaratory judgment action.⁴

In *MedImmune*, a patent licensee filed suit seeking a declaratory judgment that the patent was invalid or not infringed.⁵ At the same time, the licensee continued paying royalties to preclude treble damages if the patent were to be found valid and infringed.⁶ The Federal Circuit ruled that since the licensee continued the royalty payments there was no constitutional case or controversy before the court, meaning the licensee had no standing.⁷ The Federal Circuit's rule clashed with established precedent for non-patent declaratory judgment cases⁸ and was overturned

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1. The burden of the proof lies upon him who affirms, not he who denies.

2. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 846 (2014).

3. *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266 (Fed. Cir. 2012), *rev'd sub nom. Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014).

4. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007).

5. *Id.* at 122–23.

6. *Id.* at 122.

7. *Id.*

8. As aptly indicated by an amicus before the *MedImmune* court. See Brief of Amicus Curiae Medtronic, Inc. in Support of Petitioner at 9, *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007) (No. 05-608), 2006 WL 1355598, at *9 (pointing

by the Supreme Court.⁹ The Court ruled that a licensee could file a declaratory judgment action while continuing to pay royalties, thus bringing patent law back into the normative civil procedure fold.¹⁰

The dispute in *MedImmune* settled on remand¹¹ and therefore did not address who bore the burden of proof regarding infringement (or lack thereof) where the licensee's royalty payments foreclosed a counterclaim of infringement by the patent holder. Seven years later in *Medtronic*, the Court analyzed this issue on similar facts, rejected yet another patent-specific declaratory judgment rule from the Federal Circuit, and unanimously held that the burden was always on the patentee, a decision dictated by "simple legal logic" as well as multiple practical and policy considerations.¹²

Through Justice Breyer's well-reasoned opinion, the *Medtronic* Court again admonished the Federal Circuit for constructing, for patent cases alone, a legally unsound rule divorced from long-established precedent.¹³ As the *Medtronic* and *MedImmune* fact patterns are similar, the Court likely granted certiorari in *Medtronic* because the Justices felt the need to finish the job begun in *MedImmune* and continue to bring patent law within the fold of mainstream jurisprudence.

Yet *Medtronic* itself, like *MedImmune*, is a narrow ruling, making it likely that declaratory judgments in patent cases will reappear on the Supreme Court's docket in the near future. *MedImmune* did not address the issue of whether a declaratory judgment action could be prevented by licensee estoppel—in other words whether a no-challenge clause in the contract would be enforceable.¹⁴ On the other hand, licensee estoppel did not even come up in *Medtronic*, as the license agreement specifically

out legal precedent, going back seventy years, that was erroneously distinguished by the Federal Circuit).

9. *See MedImmune*, 549 U.S. at 137.

10. *See id.*

11. Marilyn Chase, *Genentech, MedImmune Settle Patent Dispute*, WALL ST. J., June 12, 2008, at B7.

12. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 849 (2014).

13. *See id.* ("[S]ettled case law[] strongly supports [overruling the Federal Circuit.]; *see also id.* at 851 ("[T]he fact that [Federal Circuit's] rule's scope is limited cannot, by itself, show that the rule is legally justified.")).

14. *See MedImmune*, 549 U.S. at 124 ("We express no opinion on whether a nonrepudiating licensee is similarly relieved of its contract obligation during a successful challenge to a patent's validity—that is, on the applicability of licensee estoppel under these circumstances.").

permitted the declaratory judgment action.¹⁵ Yet issues related to licensee estoppel, at the heart of many patent disputes leading to declaratory judgments, form another area where the Federal Circuit has read established Supreme Court precedent narrowly¹⁶ and perhaps even idiosyncratically. The impact of *Medtronic* in the context of both present and future patent disputes will depend on how courts interpret “nonrepudiating” licensee estoppel.¹⁷

This Note examines the legal soundness, policy aspects, and practical impact of the *Medtronic* decision. The Note proceeds as follows: Part I describes the background of the declaratory judgment, including its historical and constitutional basis, as well as its application in patent cases. A significant portion is devoted to declaratory judgments in the context of a license relationship, with a particularly detailed discussion of the *MedImmune* case. The conflict between contract law and federal patent policy, as decided in the seminal *Lear, Inc. v. Adkins* case,¹⁸ is also analyzed, as is the Federal Circuit caselaw in view of the *Lear* doctrine, before and after *MedImmune*. Part II focuses on the *Medtronic* case, its factual background, the special rule established by the Federal Circuit, and a comprehensive account of the Supreme Court’s decision. Then, Part III provides a detailed analysis of the *Medtronic* decision, a comparison with other fields of law, a discussion of the public policy concerns at play, as well as a description of the opinion’s impact in the practice field. In the context of the latter, the Note includes advice for both patent holders and potential licensees in view of the decision. At the same time, it points out that while *Medtronic* and its predecessor *MedImmune* are steps forward, the Court has still not fully decided the issue of licensee estoppel, which is crucial for ascertaining the framework and the limits of permissibility in the interaction between contract law and federal patent policy. Part IV briefly summarizes and concludes the Note.

15. *Medtronic*, 134 S. Ct. at 846.

16. *See* Studiengesellschaft Kohle M.B.H. v. Shell Oil Co., 112 F.3d 1561, 1568 (Fed. Cir. 1997) (narrowing the circumstances in which licensee estoppel is precluded by *Lear, Inc. v. Adkins*, 395 U.S. 653 (1969)).

17. *See MedImmune*, 549 U.S. at 124.

18. 395 U.S. at 674.

I. DECLARATORY JUDGMENT

The declaratory judgment action has emerged as a tool enabling licensees and other users of technology to determine whether their technology infringes a patent, without having to risk the high damages of willful infringement.¹⁹

A. CONSTITUTIONAL AND STATUTORY BASIS

Declaratory judgments are preventive adjudications, allowed in federal courts by the Declaratory Judgment Act (“DJA”) of 1934, which states (as amended):

(a) In a case of actual controversy within its jurisdiction . . . any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such.²⁰

By instituting an “actual controversy” prerequisite, Congress ensured that the DJA adhered to the constitutional requirement that federal courts only adjudicate “case[s] or controvers[ies].”²¹ The Supreme Court upheld the constitutionality of the DJA three years after its enactment, in *Aetna Life Insurance Co. v. Haworth*,²² a cornerstone case in declaratory judgment jurisprudence. While declaratory judgments are not unique to patent law,²³ they are common in the patent context when there is an “actual controversy”²⁴ as to whether one’s commercial products infringe another’s patents.

B. DECLARATORY JUDGMENTS IN PATENT LICENSE DISPUTES AND THE STANDARD FOR “ACTUAL CONTROVERSY”

Declaratory judgments are relatively common in patent cases—indeed, the DJA was enacted with a view toward patent disputes.²⁵ The availability of a declaratory action is particularly appropriate in the patent context, in

19. See *MedImmune*, 549 U.S. at 134 (holding that a party does not have to risk treble damages and the loss of a significant percent of its business before seeking a declaration that its products do not infringe).

20. 28 U.S.C. § 2201 (2012).

21. U.S. CONST. art. III, § 2, cl. 1.

22. 300 U.S. 227 (1937).

23. Indeed, some of its earlier uses were in insurance cases; see, e.g., *id.*

24. 28 U.S.C. § 2201(a).

25. See *Cardinal Chem. Co. v. Morton Int’l, Inc.*, 508 U.S. 83, 95–96 (1993).

view of the significant damages available for infringement.²⁶ A declaratory judgment action allows one challenging a patent's scope to remove the cloud of litigation and avoid the dilemma between whether to continue his activities (and thus continue accruing damages if he is infringing) or to stop his economic undertaking.²⁷ Without the option of a declaratory judgment, he would be at the mercy of the patentee, as damages could accrue significantly²⁸ if the patentee delayed bringing an infringement suit.²⁹

In the context of a patent license agreement, an "actual controversy" clearly exists if a party to the contract breaches it, but the exact legal threshold for an "actual controversy" in the absence of a breach is more blurred.

1. *Lear v. Adkins: Freedom of Contract vs. Federal Patent Policy*

Many patent disputes arise in the context of patent license agreements, whereby patent owners contract the use of their patents in exchange for royalties. At one time it was deemed that by purchasing a license, the licensee was precluded from contesting the validity of the patent in court, even in the case of an "actual controversy," as reflected for example by the licensee stopping royalty payments (repudiating the contract).³⁰ This led to a conflict between the freedom of contract and federal patent policy. Taking a stand on the issue, in 1969 the Supreme Court partially struck down the common-law doctrine of licensee estoppel³¹ in *Lear v. Adkins*.³² *Lear* held that a licensee who repudiates the license agreement cannot be forbidden, in defending against infringement contentions, from arguing that the patent is invalid.³³ To reach this conclusion, the Court applied a

26. See 35 U.S.C. § 284 (2012) (authorizing a court to "increase the damages up to three times the amount found or assessed." Courts usually do this if they find infringement to have been "willful." See *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996)).

27. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 850 (2014) (citing *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007)).

28. Under the statute of limitations, damages can be recovered for acts of infringement that occurred as far back as six years prior to filing the lawsuit. See 35 U.S.C. § 286 (2012).

29. See *Medtronic*, 134 S. Ct. at 850.

30. *Automatic Radio Mfg. Co., Inc. v. Hazeltine Research, Inc.*, 339 U.S. 827, 836 (1950) ("The general rule is that the licensee under a patent license agreement may not challenge the validity of the licensed patent in a suit for royalties due under the contract.") (citing *United States v. Harvey Steel Co.*, 196 U.S. 310 (1905)).

31. See, e.g., *Automatic Radio*, 339 U.S. at 836.

32. *Lear, Inc. v. Adkins*, 395 U.S. 653, 674 (1969).

33. *Id.*

balancing test between the patent owner's interests and the public policy of having invalid patents struck down, finding the latter to be countervailing.³⁴ It is important to note that the *Lear* decision was narrow on its facts: it did not address nonrepudiating licensees, nor did it explicitly address "no challenge" clauses (provisions in a written contract that would bar legal challenges to the patent). Those unaddressed issues would come to the fore in subsequent years.

2. *Narrowing of Lear by the Federal Circuit; the Reasonable Apprehension of Suit ("RAS") Standard*

In subsequent years the Federal Circuit applied *Lear* narrowly, attempting to limit its impact and generally the ability of licensees to challenge patents when a license agreement was in place.³⁵ Because *Lear* involved a repudiating licensee, it did not address the case where the licensee has not stopped making royalty payments, yet does not agree that his products are infringing. A potent tool in the licensee's arsenal is the declaratory judgment action, which has the purpose of deciding such controversies. So an important question before the courts concerned justiciability, whether a licensee who was still paying royalties under an agreement even had standing to file a declaratory judgment action, that is, whether there was an "actual controversy." In *Gen-Probe, Inc. v. Vysis, Inc.*, the Federal Circuit sided with the patent owner and ruled that there was no "actual controversy" if the licensee did not repudiate the contract and continued to make payments; lack of standing meant that the court did not even need to invoke licensee estoppel to throw the licensee out of court.³⁶ In *Gen-Probe* the Federal Circuit established the so-called "reasonable apprehension of suit" ("RAS") standard for when a licensee would have standing to file a declaratory judgment action.³⁷ A Federal Circuit panel was bound by the RAS standard³⁸ when it dismissed another nonrepudiating licensee's declaratory judgment suit in *MedImmune*.³⁹

34. *Id.* at 670.

35. *See Studiengesellschaft Kohle M.B.H. v. Shell Oil Co.*, 112 F.3d 1561, 1568 (Fed. Cir. 1997) (holding that a condition for a licensee to invoke the *Lear* doctrine is to cease payment of royalties).

36. *See Gen-Probe Inc. v. Vysis, Inc.*, 359 F.3d 1376, 1379–80 (Fed. Cir. 2004).

37. *Id.*

38. A Federal Circuit panel "is bound by prior precedential decisions unless and until overturned *in banc*." *Gen. Dynamics Corp. v. United States*, 773 F.2d 1224, 1225 n. 2 (Fed. Cir. 1985), *rev'd on other grounds*, 481 U.S. 239 (1987).

39. *MedImmune, Inc. v. Genentech, Inc.*, 427 F.3d 958, 964–65 (Fed. Cir. 2005), *rev'd*, 549 U.S. 118, 137 (2007).

3. *MedImmune: The Supreme Court Rules that “Actual Controversy” Does Not Require that Licensee Repudiate Contract*

The Supreme Court granted certiorari in *Medimmune* and reversed the Federal Circuit 8–1.⁴⁰ In an opinion written by Justice Scalia, the Court found that a potential infringer did not have to “bet the farm” and risk treble damages before filing a declaratory judgment action.⁴¹ The Court found that an actual controversy existed where the declaratory judgment plaintiff was making the royalty payments practically under coercion and therefore the constitutional requirements of Article III were satisfied.⁴² The Federal Circuit’s RAS standard died in a footnote.⁴³ The *MedImmune* Court found the meaning of an “actual controversy” much broader than the Federal Circuit’s view.⁴⁴ In the Court’s opinion, “actual controversy” meant the existence of a “substantial controversy, between parties having adverse legal interests, of sufficient immediacy and reality.”⁴⁵

Notably, however, the *MedImmune* Court emphasized that it was not deciding the licensee estoppel issue.⁴⁶ Because *MedImmune* was a “nonrepudiating” licensee (i.e., still paying royalties), the case did not expressly involve the *Lear* doctrine (which struck down licensee estoppel in the case of “repudiating” licensees).⁴⁷ Neither did the case address who had the burden of proof regarding infringement.

4. *Post-MedImmune: The Unanswered Question of the Burden of Proof*

Following *MedImmune*, the Federal Circuit applied the broader “actual controversy” standard in declaratory judgment cases.⁴⁸ Yet aside from the issue of licensee estoppel, *MedImmune* failed to address another important matter. While *MedImmune* made it possible for a licensee to file a declaratory judgment action without “betting the farm,” the case was

40. *MedImmune*, 549 U.S. at 137.

41. *Id.* at 129.

42. *See id.* at 131–32.

43. *Id.* at 132 n.11 (finding that the Federal Circuit’s RAS standard conflicted with Supreme Court precedent, including *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227 (1937) and *Cardinal Chemical Co. v. Morton Int’l*, 508 U.S. 83 (1993)).

44. *See MedImmune*, 549 U.S. at 127.

45. *Id.*

46. *See id.* at 124.

47. *Id.*

48. *See SanDisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1377 (Fed. Cir. 2007); *Teva Pharms. USA, Inc. v. Novartis Pharms. Corp.*, 482 F.3d 1330, 1334 (Fed. Cir. 2007).

mostly about patent validity.⁴⁹ Obviously, the licensee has to prove invalidity as the patent comes with a presumption of validity from the U.S. Patent Office.⁵⁰ Moreover, the case settled on remand;⁵¹ the Federal Circuit did not have the opportunity to iron out the mechanics of an action for declaratory judgment of non-infringement filed by a non-repudiating licensee. Notably, *MedImmune* did not address the issue of who has the burden of proof in an suit seeking a declaration of non-infringement. Does the alleged infringer (the plaintiff in the declaratory judgment action) need to prove non-infringement, or does the patentee (the defendant) need to prove infringement instead, as would be the case in an ordinary patent infringement suit?⁵² If the patentee could counter-claim for infringement, that would be a compulsory counter-claim⁵³ and the patentee would bear the burden of proof. But what if the patentee cannot counter-claim, for example if the licensee continues making royalty payments? This question had to wait seven years to be answered, again by the Supreme Court, in *Medtronic*.⁵⁴

II. *MEDTRONIC* CASE SUMMARY: THE UNFINISHED BUSINESS OF *MEDIMMUNE*

Because the *MedImmune* case settled on remand, there was no chance to answer the question of who bears the burden of proof when the licensee continues paying royalties. Instead, the Federal Circuit provided an answer in *Medtronic, Inc. v. Boston Scientific Corp.*, holding that the burden of proof shifted to the licensee if the patent owner could not assert infringement.⁵⁵ This was yet another special rule crafted by the Federal Circuit for patent cases, a rule that the Supreme Court abrogated shortly after granting certiorari.⁵⁶

49. See *MedImmune*, 549 U.S. at 124.

50. *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S. Ct. 2238, 2245 (2011).

51. *Chase*, *supra* note 11.

52. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 851 (2014).

53. See FED. R. CIV. P. 13(a)(1).

54. *Medtronic*, 134 S. Ct. at 846.

55. *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266 (Fed. Cir. 2012), *rev'd sub nom. Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014).

56. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014).

A. FACTUAL BACKGROUND AND DISTRICT COURT JUDGMENT

Mirowski Family Ventures (“Mirowski”), owner of patents related to cardiac stimulation devices,⁵⁷ had a license agreement with Medtronic, Inc., a medical device manufacturer, by which Medtronic was allowed to practice certain Mirowski patents in return for royalties.⁵⁸ The agreement, which the parties entered into in 1991, also spelled out a procedure whereby Medtronic could challenge allegations of infringement by Mirowski by seeking a declaratory judgment, while at the same time paying disputed royalties into escrow, to be distributed to the prevailing party.⁵⁹

After Mirowski sent letters to Medtronic in 2003 claiming that several new Medtronic products infringed Mirowski patent claims and demanding royalties,⁶⁰ Medtronic filed a suit in the U.S. District Court for the District of Delaware, asking for a declaratory judgment of non-infringement and patent invalidity.⁶¹ At the same time, as provided by the license agreement, Medtronic started paying royalties into the escrow account for its new products that Mirowski claimed were infringing.⁶² Because Medtronic was paying royalties (even though into escrow) as specified by the agreement and thus remained Mirowski’s licensee, Medtronic was not making and selling its products “without authority” and thus was not technically infringing.⁶³ Therefore, Mirowski could not file a counterclaim of patent infringement under 35 U.S.C. § 271.⁶⁴

The district court held that Mirowski held the burden of proving infringement, since Mirowski as the patentee claimed that Medtronic’s

57. *Id.* at 846.

58. *Id.* In reality, Medtronic’s agreement was with two other companies (Eli Lilly and Boston Scientific) to which Mirowski had licensed its patents. For the sake of simplicity, this Note follows the Court and uses “Mirowski” to refer to all entities that licensed the Mirowski patents to Medtronic.

59. *See id.* at 846–47.

60. *Id.* at 847.

61. *Id.* The parties delayed the action until 2007, under timing provided in a “Litigation Tolling Agreement” (“LTA”), which spelled out that an actual controversy existed as to whether one of Mirowski’s patents was valid and whether Medtronic’s new products were infringing its claims. The LTA provided for a “DJ Suspension Period.” Once that period ended, Medtronic sued for a declaratory judgment. *See Medtronic, Inc. v. Boston Scientific Corp.*, 777 F. Supp. 2d 750, 759 (D. Del. 2011).

62. *Medtronic*, 134 S. Ct. at 847.

63. *See* 35 U.S.C. § 271 (2012) (“[W]hoever *without authority* makes, uses, offers to sell, or sells any patented invention, within the United States . . . during the term of the patent therefor, infringes the patent.” (emphasis added)).

64. *See Medtronic*, 134 S. Ct. at 847.

new products read on its patent claims.⁶⁵ The court further found after a bench trial that Mirowski had failed to prove infringement and entered judgment for Medtronic.⁶⁶ Mirowski appealed on the burden of proof issue, which had been a constant point of disagreement between the parties throughout the trial.⁶⁷

B. THE FEDERAL CIRCUIT'S SPECIAL RULE ON THE BURDEN OF PROOF

The Federal Circuit reversed on appeal, finding that Medtronic, as the plaintiff in the declaratory action, bore the burden of proof.⁶⁸ While it agreed that ordinarily the burden would stay with the patentee even in a declaratory judgment action, the Federal Circuit held that in this particular case, where the patent holder was precluded by an existing license agreement from asserting an infringement counterclaim, the burden shifted to the licensee.⁶⁹

In arriving at this conclusion, the Federal Circuit described the burden-shifting rule as arising by necessity from the Supreme Court's *MedImmune* decision.⁷⁰ The Federal Circuit started by admitting that generally the burden of proof lies with the "party seeking relief" and that that party was the patentee in a regular infringement action or a counterclaim.⁷¹ Notably, the court reiterated its holding in a pre-*MedImmune* case that the evidentiary burdens are the same "whether or not the counterclaim [is] permitted."⁷² However, the court held that this was not a regular case, and in its view the major difference was that this particular instance involved a patent license in a "post-*MedImmune*" world.⁷³ Post-*MedImmune*, Medtronic was able to file its declaratory judgment action, but the Federal Circuit found that it was the only party seeking relief, as in the court's view Mirowski was seeking nothing but "to

65. *Medtronic*, 777 F. Supp. 2d at 765 (quoting *Under Sea Indus., Inc. v. Dacor Corp.*, 833 F.2d 1551, 1557 (Fed. Cir. 1987) for the proposition that "[t]he burden is always on the patentee to show infringement.").

66. *Medtronic*, 134 S. Ct. at 847.

67. *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1270 (Fed. Cir. 2012), *rev'd sub nom. Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014).

68. *Medtronic*, 134 S. Ct. at 847.

69. *Id.*

70. *Medtronic*, 695 F.3d at 1272.

71. *Id.*

72. *Id.* at 1273 (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 802 (Fed. Cir. 1999)).

73. *Id.*

be discharged from the suit and be permitted to continue the quiet enjoyment of its contract.”⁷⁴

In holding that Medtronic bore the burden of proof, the Federal Circuit described its ruling as consistent with other areas of law, and mentioned insurance cases as an example.⁷⁵ While usually the insured has the burden of proof regarding coverage, if the insurer files for a declaratory judgment of non-liability the burden shifts because, in the Federal Circuit’s words, the insured “is not seeking affirmative relief.”⁷⁶

The Federal Circuit thus found that Medtronic was the party seeking relief.⁷⁷ In announcing the rule that where a licensor could not assert a counterclaim the licensee bore the burden of proving non-infringement, the Federal Circuit declared that a contrary result would transform *MedImmune*’s “shield” for licensees into a sword, by allowing licensees to “hal[e] licensors into court and forc[e] them to . . . prove what had already been resolved by license.”⁷⁸ In May 2013 the Supreme Court granted certiorari on the question of who had the burden of proof.⁷⁹

C. THE SUPREME COURT’S REVERSAL IN *MEDTRONIC V. MIROWSKI*:
MEDIMMUNE REDUX

Seven years after *MedImmune*, the Supreme Court revisited declaratory actions in the patent context in *Medtronic v. Mirowski*, which again overturned the Federal Circuit (this time unanimously) and held that in a declaratory judgment suit the burden of proof of patent infringement always stays with the patent owner.⁸⁰

The 9–0 opinion⁸¹ written by Justice Breyer was based on “simple legal logic,” case precedent in both patent and non-patent cases, and several practical considerations.⁸²

74. *Id.*

75. *Id.* at 1273–74.

76. *See id.* at 1274 (citing *Reliance Life Ins. Co. v. Burgess*, 112 F.2d 234, 237 (8th Cir. 1940)).

77. *Id.*

78. *Id.*

79. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 846 (2014).

80. *Id.* at 849.

81. Even Justice Thomas, the sole dissenter in *MedImmune*, signed on.

82. *Medtronic*, 134 S. Ct. at 849.

1. *The Jurisdictional Issue: “Actual Controversy” Under a Straightforward Application of MedImmune*

The Court pointed first to *Medimmune* and its very similar facts, and found that the “case or controversy” constitutional justiciability requirement was satisfied.⁸³ Like in *MedImmune*, the Court held in *Medtronic* that an “actual controversy” does not require an actual likelihood of suit—rather it only necessitates a likelihood of suit if the royalty payments were to stop.⁸⁴

2. *The Court’s Main Legal Argument: “Simple Legal Logic”*

Turning to the burden of proof, the Court found that it cannot shift in a declaratory judgment action, based on a “simple legal logic” syllogism.⁸⁵ The burden of proof in patent infringement cases is on the patentee, a proposition established more than a hundred years ago.⁸⁶ The Court noted that the DJA was only “procedural⁸⁷ and neither expanded courts’ jurisdiction nor created substantive rights.⁸⁸ The burden of proof, being a substantive characteristic of a claim,⁸⁹ could not thus be shifted in a declaratory judgment action.⁹⁰ Therefore, a declaratory judgment suit deviated from the “default rule” that usually placed the burden of proof on the nominal plaintiff.⁹¹

3. *Three Additional Practical Considerations Mandating the Same Result*

In addition, the Court also noted three “practical considerations” leading to the same conclusion.⁹² First, the Court found that the Federal Circuit’s rule would have created significant post-litigation uncertainty,

83. *See id.* at 848–49.

84. *Id.*; *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 128 (2007). In fact, the action in *Medtronic* started pursuant to a “Litigation Tolling Agreement” through which the parties expressly recognized their dispute as to whether the patent covered *Medtronic*’s new products. *See Medtronic, Inc. v. Boston Scientific Corp.*, 777 F. Supp. 2d 750, 759 (D. Del. 2011).

85. *Medtronic*, 134 S. Ct. at 849.

86. *See id.* (citing *Imhaeuser v. Buerk*, 101 U.S. 647, 662 (1880)); *see also Under Sea Indus., Inc. v. Dacor Corp.*, 833 F.2d 1551, 1557 (Fed. Cir. 1987).

87. *Medtronic*, 134 S. Ct. at 849 (citing *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240 (1937)).

88. *Id.*

89. *Id.* (quoting *Raleigh v. Ill. Dept. of Revenue*, 530 U.S. 15, 20–21 (2000)).

90. *Id.*

91. *See Schaffer v. Weast*, 546 U.S. 49, 56 (2005) (“We therefore begin with the ordinary default rule that plaintiffs bear the risk of failing to prove their claims.”).

92. *Medtronic*, 134 S. Ct. at 849–50.

because a burden of proof different than in a regular infringement lawsuit would have eliminated the preclusive effect of the declaratory judgment action.⁹³ Destroying its preclusive effect would have defeated the very object of the declaratory judgment, that of providing a definitive legal determination of the parties' legal rights.⁹⁴

Second, the Court reasoned that a shifted burden of proof would be onerous to the licensee, who would have to prove a negative, seeking to "negate every conceivable infringement theory."⁹⁵ The Court found that the patentee was in a better position to know and point out exactly how a given product infringes the patent's claims.⁹⁶

Third, the Justices found that a shifting burden would be hard to reconcile with the "very purpose" of the DJA.⁹⁷ The Court found that by making the declaratory judgment procedure so onerous for the licensee, the Federal Circuit's rule would have eviscerated the very objective of the DJA, that is, ameliorating the dilemma of the licensee between abandoning his rights and risking a lawsuit and potential treble damages ("bet[ting] the farm" in Justice Scalia's *MedImmune* words).⁹⁸ The significant drawbacks of shifting the burden were not counterbalanced by any notable advantages.⁹⁹

4. *The Supreme Court Finds that the Public Interest Does Not Warrant a Shift in the Burden*

Finally, the *Medtronic* Court found, in the spirit of *Lear*, that the public interest did not warrant a shift in the burden of proof in declaratory judgment actions of patent non-infringement.¹⁰⁰ As the public has a "paramount interest in seeing that patent monopolies . . . are kept within their legitimate scope,"¹⁰¹ patent owners should not be allowed to extract royalties for use of ideas beyond the limited patent monopoly grant.¹⁰² The

93. *Id.*

94. *Id.* (citing *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 241 (1937) and pointing out that a shifting burden of proof would invalidate any preclusive effect of the first judgment, per the RESTATEMENT (SECOND) OF JUDGMENTS § 28(4) (1980)).

95. *Id.* at 850.

96. *Id.*

97. *Id.* (citing *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 128 (2007)).

98. *See Medtronic*, 134 S. Ct. at 850.

99. *See id.*

100. *Id.* at 851–52.

101. *Id.* (quoting *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 816 (1945)).

102. *Id.* at 852 (quoting *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 349–50 (1971)).

Supreme Court noted again, quoting *Lear*, that the public's interest is furthered by cases involving a licensee and licensor, because licensees might be "the only individuals with enough economic incentive to litigate questions of a patent's scope."¹⁰³

III. DISCUSSION

Before looking at the practical impact and the still unsettled questions in the wake of *Medtronic*, it is helpful to analyze the legal soundness and the policy aspects of the decision.

A. LEGAL SOUNDNESS—HOW "SIMPLE" IS THE COURT'S "SIMPLE LEGAL LOGIC"?

The issue of who bears the burden of proof in patent infringement cases is not a mandatory rule,¹⁰⁴ proven, for example, by the Court's discussion of whether it could be shifted.¹⁰⁵ The Court's ruling that the burden stays with the patentee relies on the burden's being a substantive aspect, an issue that is settled law¹⁰⁶ even though it started as a historical quirk in this context. Equally importantly, the Court gives a strong message that it does not want the Federal Circuit to construct idiosyncratic rules for patent cases divorced from general jurisprudence.

1. *Burden of Proof as a Substantive Aspect—The Impact of Erie*

The Court dealt rather quickly with a crucial prong of its "simple legal logic" syllogism, that is, the proposition that the burden of proof is a substantive issue.¹⁰⁷ In fact, while this appears to be long-settled precedent,¹⁰⁸ it hasn't always been the case, and it is to some extent a historical quirk. At one point in the early twentieth century, the burden of

103. *Id.* (quoting *Lear, Inc. v. Adkins*, 395 U.S. 653, 670 (1969)).

104. An example of a mandatory burden of proof rule is in criminal cases, where a "beyond a reasonable doubt" burden is constitutionally mandated as a matter of due process to always lie with the prosecution. *See In re Winship*, 397 U.S. 358, 364 (1970).

105. *Medtronic*, 134 S. Ct. at 851–52. Also, in one instance in U.S. patent law, the burden of proof can be statutorily shifted from the patentee: in process patents, the burden shifts to the accused infringer if the patentee cannot determine through reasonable efforts the process used, because the alleged infringer is in a better position to know the actual process utilized to manufacture its products. *See* 35 U.S.C. § 295 (2012).

106. *Medtronic*, 134 S. Ct. at 849.

107. *See id.*

108. *See id.* (citing an admiralty action, *Garrett v. Moore-Cormack Co., Inc.*, 317 U.S. 239, 249 (1942), for the proposition that the burden of proof is "part of the very substance of [the plaintiff's] claim and cannot be considered a mere incident of a form of procedure.").

proof was mostly regarded as procedural.¹⁰⁹ At the same time, it was recognized that whether a rule was substantive or procedural might depend on the purpose for which it was applied.¹¹⁰

It was only after the landmark decision in *Erie v. Tompkins* that federal courts became compelled, in the context of diversity jurisdiction cases, to decide whether something was a matter of substance or procedure.¹¹¹ Federal courts in diversity cases had to apply substantive state law even while using federal procedural rules, with the main difference between substance and procedure being whether the choice of a particular rule dictated the outcome of the case, which had to be under *Erie* and its progeny “substantially the same” in federal as in state courts.¹¹² In view of this requirement, the courts categorized the burden of proof as a matter of substance rather than procedure, due to its significant impact on a case’s outcome.¹¹³ From there, it was an easy leap for federal courts to hold the burden of proof as substantive in all cases, including those involving federal questions, such as admiralty¹¹⁴ or bankruptcy law.¹¹⁵

Does this mean that whether the burden of proof is substantive in federal question cases, including patent cases, is not settled? Not at all. While not as long-established as other federal jurisprudence, it is certainly old by many standards—in fact, fifty years older than the Federal Circuit itself.¹¹⁶ From a pragmatic viewpoint, if the criterion of whether something is a matter of substance versus procedure is strongly tied to the outcome, it makes sense that the burden of proof should be substantive in a declaratory judgment suit. The Declaratory Judgment Act¹¹⁷ envisioned such an action to be solely a procedural vehicle speeding up the resolution of a controversy, with the outcome the same as in a full infringement suit. To paraphrase *Guaranty Trust*, a well-known case in the wake of *Erie*,

109. See, e.g., *Levy v. Steiger*, 124 N.E. 477 (Mass. 1919); RESTATEMENT OF CONFLICT OF LAWS § 595 (1934); Case Comment, *Is the Incidence of the Burden of Proof a Matter of Substantive or Procedural Law?*, 29 HARV. L. REV. 1, 95–97 (1915).

110. See Case Comment, *Procedure or Substance – Burden of Proof – Erie v. Tompkins and the New Federal Rules*, 15 IND. L.J. 4, 329 (1940).

111. *Erie R.R. Co. v. Tompkins*, 304 U.S. 64, 78 (1938).

112. See *Guaranty Trust Co. v. York*, 326 U.S. 99, 109 (1945).

113. See *Cities Serv. Oil Co. v. Dunlap*, 308 U.S. 208, 212 (1939).

114. See *Garrett v. Moore-McCormack Co.*, 317 U.S. 239, 249 (1942) (quoted by the Supreme Court in *Medtronic* and holding that the burden of proof was “part of the very substance of [the] claim and cannot be considered a mere incident of a form of procedure.”).

115. See *Raleigh v. Ill. Dept. of Revenue*, 530 U.S. 15, 20–21 (2000).

116. The Court of Appeals for the Federal Circuit was created in 1982, through the Federal Courts Improvement Act, Pub. L. No. 97-164, 96 Stat. 25 (1982).

117. 28 U.S.C. § 2201 (2012).

through the Declaratory Judgment Act Congress afforded litigants another means to resolve their patent disputes, not another body of patent law.¹¹⁸ Finally, the Court's message about settled legal precedent resonates not only in *Medtronic*, but in other recent cases as well.

2. *Bringing Patent Law into the Mainstream*

The *Medtronic* Court, by shooting down the Federal Circuit's rule, promulgated the same message that it repeatedly announced throughout the past decade: patent cases do not warrant special rules regarding trans-substantive aspects of the litigation that are not in the patent statutes themselves. The Supreme Court admonished the Federal Circuit for adopting such a rule, and noted that the fact that the Federal Circuit meant for the rule to apply only in "limited circumstances" was irrelevant to its soundness.¹¹⁹ This message is in line with previous Court decisions that rejected the Federal Circuit's special rules for patent cases, such as *eBay v. MercExchange*,¹²⁰ *Medimmune v. Genentech*¹²¹ and *Teva v. Sandoz*.¹²²

The Court made a salient point, as it did in *MedImmune*, that there is substantial legal precedent to rely on, not unique to patent law.¹²³ Like *MedImmune*, the *Medtronic* opinion is replete with jurisprudence going back to the nineteenth century.¹²⁴ For example, as Justice Scalia emphasized at oral argument, in most declaratory judgment actions the defendant cannot counterclaim either, so a patent declaratory action is not special because of the impossibility of a counterclaim.¹²⁵ The Federal Circuit had created a special rule in patent cases solely due to the subject matter. This rule was similar to the pre-*MedImmune* rule it created in *Gen-Probe*, where it distinguished *Aetna* basically on the ground that it was

118. *See Guaranty Trust Co. v. York*, 326 U.S. 99, 112 (1945) (holding that "Congress afforded out-of-State litigants another tribunal, not another body of law.")

119. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 851 (2014).

120. *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 390 (2006) (finding no special injunction rule in patent cases).

121. *MedImmune v. Genentech, Inc.*, 549 U.S. 118, 137 (2007) (finding no special rule about what constitutes an "actual controversy" in a declaratory judgment action).

122. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 835 (2015) (no special rule on the standard of appellate review of a district court's factual conclusions).

123. *See Medtronic*, 134 S. Ct. at 849.

124. *See id.* (discussing "settled case law," dating as far back as 1880, that "strongly supports" the Court's opinion). Note however that, as discussed above, the Court's syllogism actually relies on slightly more recent precedent, going back to the 1930s.

125. Transcript of Oral Argument at 28, *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014) (No. 12-1128).

not a patent case. As a prescient amicus in *MedImmune* put it, this was a “distinction without a difference.”¹²⁶

The *Medtronic* ruling was an easy decision involving settled aspects of civil procedure rather than technical patent expertise. Its civil procedure underpinnings should shield it from the usual dismissive criticisms of the Supreme Court’s lack of technical expertise.¹²⁷ And a deeper look into those fundamentals highlights even better the problems with the Federal Circuit’s burden-shifting rule.

B. A UNIFORM VIEW OF DECLARATORY JUDGMENTS: THE FURTHER CASE AGAINST A SPECIAL RULE FOR THE BURDEN OF PROOF IN PATENT CASES

Besides the reasons discussed by the Supreme Court in overturning the Federal Circuit, two other points work against the Federal Circuit’s special rule. First, a comparison with insurance industry cases actually works against the rule, contrary to the Federal Circuit’s reliance on one insurance case taken out of context. Second, even the basic assumptions of the Federal Circuit, such as that *Mirowski* could not counterclaim, were perhaps unwarranted.

1. *A One-to-One Comparison with Insurance Industry Cases*

In fact, other areas of law posit clear analogies to the patent context, and in all of them the defendant in a declaratory judgment action needs to be the first to establish a claim. One example is insurance disputes, an area the Federal Circuit noted, but erroneously interpreted a case as warranting

126. Brief of Amicus Curiae Medtronic, Inc. in Support of Petitioner at 9, *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118 (2007) (No. 05-608).

127. See, e.g., Gene Quinn, *Killing Industry: The Supreme Court Blows Mayo v. Prometheus*, IPWATCHDOG (Mar. 20, 2012, 1:44 PM), <http://www.ipwatchdog.com/2012/03/20/supreme-court-mayo-v-prometheus/id=22920/>, where Quinn discussed the Court’s holding and stated:

If a student were to write such nonsense in a patent law paper or on a patent law final exam they would receive little, if any, credit. It is shocking that all 9 Justices of the Supreme Court know so little about patent law, yet the collective fate of the industry rests on those with only a cursory understanding of patent law.

Id. But there is a counter argument that even in very technical areas, lack of specialized expertise can help someone when experts are lost in the minutiae. See Timothy Lee, *The Supreme Court’s Technical Cluelessness Makes Them Better Justices*, VOX (Apr. 23, 2014, 6:00 PM), <http://www.vox.com/2014/4/23/5644154/the-supreme-courts-technical-cluelessness-makes-them-better-justices>.

its burden-shifting rule.¹²⁸ In insurance disputes, when an insurer files a declaratory judgment action asking for a declaration that it does not owe coverage of a claim, the burden of proof is initially on the insured, who needs to establish a claim within the scope of the insurance coverage.¹²⁹ This situation is similar to the patent context in *Medtronic*, where Mirowski, as the analogue of the insured, had the burden of showing a positive claim that Medtronic's products read on its patents.¹³⁰ The very language Mirowski used in briefing and at oral argument,¹³¹ trying to distinguish the suit as being about "claim coverage" rather than infringement,¹³² rang hollow and in fact shows why it had to bear the burden of proof. "Claim coverage" does not exist in a vacuum¹³³—what Mirowski really was claiming was that Medtronic's new products were infringing its patents. Just as the insured needs to establish first a claim within the scope of coverage in an insurance case, so too the patentee must establish an activity of the licensee falling within the scope of its patents' claims. In other words, infringement.

The Federal Circuit partly based its new rule on an incorrect interpretation of *Burgess*, an insurance case where the burden was shifted to the insurer, by reading the rationale as that the insured "asked no

128. See *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1273–74 (Fed. Cir. 2012), *rev'd sub nom. Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014) (citing *Am. Eagle Ins. Co. v. Thompson*, 85 F.3d 327, 331 (8th Cir. 1996) for the general proposition that in a declaratory judgment the burden is on the party seeking recovery under a policy, i.e. the insured, yet reading the placing of the burden on the insurance company in *Reliance Life Ins. Co. v. Burgess*, 112 F.2d 234, 237 (8th Cir. 1940) as a burden shift due to the insured not asking for any "affirmative relief.>").

129. See, e.g., *Am. Eagle Ins. Co. v. Thompson*, 85 F.3d 327, 331 (8th Cir. 1996) (cited by the Federal Circuit in *Medtronic*); *Harken Exploration Co. v. Sphere Drake Ins., PLC*, 261 F.3d 466, 471 (5th Cir. 2001).

130. The burden of showing that the products read on the patents is higher than the weak requirement that "it believed were covered by the contract" that satisfied the Federal Circuit. See *Medtronic*, 695 F.3d at 1273. Similarly, in an insurance case it is not sufficient that the insured "believes" that he suffered, for example, a loss covered by the policy—some substantiation is required, e.g., that the loss was of the type covered by the insurance contract. Obviously, this substantiation is technically much easier there (e.g. a police report of an accident might suffice) than in the patent context, but that does not remove the similarity.

131. Transcript of Oral Argument at 27, *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014) (No. 12-1128).

132. See *id.* at 37 (noting "claim coverage" is itself part of the infringement analysis).

133. There is no "claim coverage" cause of action in the federal patent statutes.

affirmative relief.”¹³⁴ That is not the complete reason. In *Burgess*, the insured, who had several life insurance policies in his name, died of gunshot wounds, which the insurer claimed were self-inflicted while the insured was sane.¹³⁵ The court did place the burden on the insurer, but not only because the insured “asked [for] no affirmative relief.” As stated in another case cited by the Federal Circuit, the burden was shifted in *Burgess* because the insurer “disputed coverage by asserting an affirmative defense of exclusion” of coverage in case of intentional or suicidal death.¹³⁶ That fact pattern is distinguishable from the context here, because Medtronic’s claim of non-infringement is not an “affirmative defense,” but just the negative of infringement.¹³⁷ *Burgess* was taken out of context by the Federal Circuit in trying to rationalize its new rule—insurance cases where the insurer is not trying to prove a particular exclusion of coverage as an affirmative defense, but just claiming that the insured did not show coverage to begin with, are the correct analogue of Medtronic’s claiming “non-infringement.”

Further showing that insurance cases do not justify the Federal Circuit’s rationale, in those cases the insured also cannot generally counterclaim if the insurer is making payments under the claim. As long as the insurer continues to provide coverage, even “under protest,”¹³⁸ there is no breach of the insurance contract¹³⁹ and the insured cannot countersue

134. See *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1274 (Fed. Cir. 2012).

135. *Reliance Life Ins. Co. v. Burgess*, 112 F.2d 234, 236 (8th Cir. 1940).

136. *Fireman’s Fund Ins. Co. v. Videfreeze Corp.*, 540 F.2d 1171, 1175 (3d Cir. 1976) (discussing *Burgess*).

137. An affirmative defense accepts all allegations of the other party, but then goes on to show other facts proving lack of liability. See, e.g., *Tech. Licensing Corp. v. Pelco, Inc.*, No. 11 C 8544, 2012 U.S. Dist. LEXIS 28673, at *2 (N.D. Ill. Mar. 5, 2012) (taking issue with the alleged infringer’s listing “noninfringement” as an affirmative defense in their answer, as “violat[ing] the fundamental nature of an [affirmative defense]”).

138. For example, an insurer may do this through a reservation of rights. A reservation of rights is issued by an insurer who feels unsure about whether it owes coverage, but does not want to risk punitive damages if a court decides that it wrongfully denied a claim. The reservation of rights spells out that while the insurer is paying (for example paying to defend the insured in a lawsuit) for the time being, it is still investigating coverage and reserves the right to stop its payments in the future and recover monies already paid.

139. There might be, in the insurance context, a breach of the covenant of good faith and fair dealing, but that issue is separate from the breach of contract issue, and in most jurisdictions is dependent on the existence of a breach of the underlying contract.

for any such breach.¹⁴⁰ The wise insurer who has questions of coverage does not have to “bet the farm,” that is, open itself to high punitive damages, by breaching the contract. Similarly, the patent licensee should not be forced to open himself to treble damages for willful infringement.¹⁴¹ Besides insurance cases not justifying a burden-shifting rule, a few premises behind the Federal Circuit’s reasoning might also have been faulty.

2. Even the Underlying Assumptions of the Federal Circuit Might Have Been Wrong

The Federal Circuit’s rule did not agree with established jurisprudence, because a declaratory judgment action is not supposed to change the rules of the game. Indeed, the declaratory judgment considers the future action that would be brought by the defendant. The fact that the future action has not yet been taken does not make the controversy “hypothetical.”¹⁴²

Further making the case against a special rule, it is very possible that the Federal Circuit erred when it found that the patent owner could not file any counterclaim. Some claim that Mirowski, the patent owner, might have been able to file its own action, a “reverse” declaratory judgment counterclaim of future infringement, and thus the Federal Circuit could have been reversed on this ground alone.¹⁴³ This is an interesting idea, and the record shows that Mirowski did initially counterclaim for the right to obtain the money deposited by Medtronic in escrow.¹⁴⁴ However, it is not clear how far from anticipatory breach one needs to be for a court to find such an option viable.

140. Again, in some jurisdictions the insured, while not being able to sue for breach of the underlying contract, can countersue on a bad faith cause of action, if the reservation of rights was issued in bad faith. But in the majority of jurisdictions, continuous payment by the insurer precludes any counterclaim.

141. *See* *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007).

142. *See* *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 242 (1937) (holding that because the parties had “taken adverse positions with respect to their existing obligations” the controversy was real and concrete, rather than hypothetical).

143. Megan M. La Belle, “Reverse” Patent Declaratory Judgment Actions: A Proposed Solution for Medtronic, 162 U. PENN. L.R. 43, 45 (2013).

144. *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1273 n.2 (Fed. Cir. 2012), *rev’d sub nom.* *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014) (showing that Mirowski initially counterclaimed for a declaratory judgment of its right to recover the money paid into escrow, and that the counterclaim “was dismissed without prejudice pursuant to joint stipulation by the parties”). While the dismissed counterclaim was not at issue for the appeal, the proven possibility of such a claim showed that Medtronic was not the only party seeking relief.

In a similar vein, an even stronger argument is that the Federal Circuit was wrong to hold that only Medtronic was “seeking relief.”¹⁴⁵ The patentee itself was also seeking relief, in the form of receiving the royalties paid into the escrow account. The existence of the escrow account provision shows that Medtronic was truly paying the royalties under protest¹⁴⁶ and undermines the Federal Circuit’s finding that Medtronic was the one asking the court to “disturb the status quo ante” and that the only thing Medtronic wanted was the “quiet enjoyment of its contract.”¹⁴⁷

C. *MEDIMMUNE AND MEDTRONIC ARE GOOD PUBLIC POLICY*

As the rule about who shoulders the burden of proof is not mandatory, a discussion is in order as to whether there are sound policy arguments for shifting it. A shift is not warranted, for two reasons. First, licensees are best equipped and motivated to litigate a patent’s scope. Second, critics’ contentions that letting the patentee shoulder the burden would increase licensing costs and decrease innovation are mostly unsupported.

1. *A Change in the Default Rule is Not Warranted in the Patent Context, as the Licensee Has the Strongest Incentive to Challenge a Dubious Patent*

As shown above,¹⁴⁸ there is ample legal precedent for the default rule that the patentee should bear the burden of proving infringement in any action before a court. However, every rule has an exception.¹⁴⁹ While well settled, the burden of proof rule is not a mandatory one, at least not constitutionally mandatory, as in a choice of law¹⁵⁰ or a criminal case.¹⁵¹ Therefore, it is fair to ask whether, for example, public policy would warrant or even dictate a change of this rule in the patent context, in a

145. *See id.*

146. It might also have helped with justiciability, by showing that the parties were clearly engaged in an “actual controversy.”

147. *See Medtronic*, 695 F.3d at 1273.

148. *See supra* Section III.A.

149. As mentioned above, there is a statutory exception in the case of products manufactured using process patent techniques. 35 U.S.C. § 295 (2012). The statute makes this one-time exception because an accused infringer would be in a better position to know how his products were manufactured.

150. In a choice of law case, changing a (state) substantive issue in federal court would be unconstitutional under *Erie*. *See Erie R.R. Co. v. Tompkins*, 304 U.S. 64, 78 (1938).

151. *See supra* note 104. The burden of proof in criminal cases is constitutionally mandated as a matter of due process to be always on the prosecution and to reach the “beyond a reasonable doubt” level.

situation where the patentee cannot countersue for infringement and apparently only wants to “continue the quiet enjoyment of its contract.”¹⁵²

The answer is no. In *Lear*, the Supreme Court has recognized that invalidating bad patents is in the public interest, and that a licensee is in the strongest position to invalidate a dubious patent. The message of the *Medtronic* opinion is that public policy is well served by the current rules, and there is no rationale for creating a special burden-of-proof rule for patent declaratory judgment actions.¹⁵³ The Court rightly believes that keeping the patent monopoly in check is important, and it might well be that for many patents the licensees, being the ones with a direct “economic incentive,” are the only ones who would be interested in litigating issues related to the patent.¹⁵⁴

In disregarding the licensee’s unique position as having an incentive to challenge a patent, proponents of very strong “contract rights” place excessive confidence on the motivations of third-parties to challenge patents and on the reliability of examinations at the patent office.¹⁵⁵ Further, invalidating bad patents has distinct advantages. For example, there is empirical proof that invalidating patents does in fact spur so-called “cumulative” or “follow-on” innovation, at least in some fields.¹⁵⁶

2. *Making It Harder for Licensees to Challenge Patents Is Not Justified*

Critics of “diluting patent rights” unleash a bevy of arguments, though not fully persuasive. Some critics of the *Medtronic* decision argue that here, unlike in *MedImmune*, “helping” the licensee does not have similar public benefits, because *Medtronic* did not concern invalidity (which is good against the world)¹⁵⁷ but rather non-infringement, which is a private affair between licensor and licensee. This is not a truly germane argument. The

152. *Medtronic, Inc. v. Boston Scientific Corp.*, 695 F.3d 1266, 1273 (Fed. Cir. 2012).

153. *See Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 851–52 (2014).

154. *See id.* at 852.

155. *See* Peter S. Menell, *Governance of Intellectual Resources and Disintegration of Intellectual Property in the Digital Age*, 26 BERKELEY TECH. L.J. 1523, 1554 n.129 (2011).

156. Alberto Galasso & Mark Schankerman, *Patents and Cumulative Innovation: Causal Evidence from the Courts*, 130 QUARTERLY J. ECON. 317 (2015) (finding that invalidating patents has a positive effect on cumulative, or follow-on, innovation in the fields of computers and communications, electrical and electronics, and medical instruments, as measured by the number of scientific citations).

157. *See Blonder-Tongue Labs. v. Univ. of Ill. Found.*, 402 U.S. 313, 350 (1971).

Federal Circuit's inverted standard was making it harder for the licensee to file a declaratory judgment in the first place, and many licensees contest both validity and infringement. A higher threshold for proving non-infringement would have had a chilling effect on many declaratory judgment plaintiffs. It would have dissuaded many licensees who still wished to argue patent invalidity, but did not want to concede infringement, from bringing a declaratory judgment action altogether.

Another argument against *Medtronic* is that it will increase licensing costs, since licensors will be wary of licensing their patents for fear of being found invalid.¹⁵⁸ This argument is not totally without merit, as it appears that bargaining failure is more rampant with large firm patents and small potential licensees.¹⁵⁹ However, licensees now have cheaper and easier avenues—namely the new post-grant proceedings such as *inter partes* review (“IPR”) available under the America Invents Act (“AIA”)¹⁶⁰—for invalidating dubious patents.

Yet another argument is that allowing “easy” declaratory judgment suits would lead to forum shopping. However, a study has shown that the party filing a declaratory judgment is not at a particular advantage if the forum is contested, as courts are much more likely to transfer declaratory judgment cases compared to non-declaratory judgment suits.¹⁶¹

Finally, critics claim that *MedImmune* and *Medtronic* will decrease innovation by decreasing the value of a patent.¹⁶² Proponents of this argument fail to bring any hard evidence for this assertion. In fact, factual evidence suggests no such decrease in innovation. Obviously, one cannot just rely on the total number of patent filings, as filings alone are not a good measure of innovation, in view of the various reasons one might file a patent application, from government incentives to “padding” a curriculum vitae. A better yardstick is the number and percentage of the total patent applications filed concurrently in two or more countries (signifying at least

158. See, e.g., Brief of Intellectual Prop. Owners Ass'n in Support of Respondents, *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014) (No. 12-1128).

159. See Galasso & Schankerman, *supra* note 156. The invalidation of large firm patents is the one most likely to lead to strong follow-on innovation, but only in selected fields.

160. See 35 U.S.C. § 311 (2013).

161. Chester S. Chuang, *Offensive Venue: The Curious Use of Declaratory Judgment to Forum Shop in Patent Litigation*, 80 GEO. WASH. L. REV. 1065 (2012).

162. See, e.g., Nicholas G. Smith, *Medimmune v. Genentech: A Game-Theoretic Analysis of the Supreme Court's Continued Assault on the Patentee*, 15 MARQUETTE INTELL. PROP. L. REV. 503 (2011).

the perceived heightened value of the invention, in view of the applicant's expending significant effort and money in applying abroad).¹⁶³ This percentage can serve as a rough normalizing factor that, while not perfect, is better at gauging innovation than the raw number of patent applications. In any case, it does not appear that the Supreme Court's many so-called "patentee-unfriendly" decisions in the last decade have had a significant effect on the explosion in the number of patent applications.¹⁶⁴ The number of applications has continued to increase almost exponentially with time, with the only blip seen across all world regions during the great economic recession of 2008.¹⁶⁵

In conclusion, invalidating bad patents is likely to provide significant benefits—while the putative drawbacks (a claimed "devaluation" of the patents) have not been proven to adversely affect innovation in a significant fashion. The value of invalidating bad patents and breaking abusive patent monopolies has been noted in other recent court decisions, including in antitrust scrutiny of the so-called "reverse payment" or "pay for delay" settlements that keep generic medicines off the market.¹⁶⁶ Indeed, recently in *FTC v. Actavis, Inc.*,¹⁶⁷ the Supreme Court again brought echoes of *Lear* and the bane of bad patents, in ruling that reverse payment settlements, in which big pharmaceutical companies pay off would-be generic producers to not enter the market, can be scrutinized in court under antitrust rationales.¹⁶⁸ In analyzing the impact of the *Medtronic* decision, the broader policy message espoused in *Lear* and in recent cases such as *Actavis*, should play center stage.

163. See *How Innovative is China? Valuing Patents*, ECONOMIST, Jan. 5, 2013, at 52 (finding that only 5% of Chinese patent filers seek to patent their ideas abroad, compared to 27% of American patent applicants and 40% of the Europeans). This could also show that different countries grant patents at very different rates, with the result that potential applicants might not want to waste their efforts in filing for a weak patent in the face of long odds of a grant. This aspect also normalizes the raw number of patents to better reflect actual innovation.

164. See *id.* (showing in a figure the global number of patent applications growing from 400,000 in 2000 to almost 1.2 million in 2011).

165. See *id.*

166. See, e.g., FTC, PAY-FOR-DELAY: WHEN DRUG COMPANIES AGREE NOT TO COMPETE, <http://www.ftc.gov/news-events/media-resources/mergers-and-competition/pay-delay> (last visited Mar. 15, 2015).

167. *FTC v. Actavis, Inc.*, 133 S. Ct. 2223 (2013). For a recent review of the doctrine surrounding this decision, see Allison A. Schmitt, Note, *Competition Ahead? The Legal Landscape for Reverse Payment Settlements After Federal Trade Commission v. Actavis, Inc.*, 29 BERKELEY TECH L.J. 493, 533 (2014) (discussing that one of the policy goals behind the Hatch-Waxman Act is to invalidate "bad" patents).

168. *Actavis*, 133 S. Ct. at 2233.

D. PRACTICAL IMPACT OF *MEDTRONIC* AND ADVICE FOR DRAFTING LICENSES

Medtronic is arguably a narrow decision on its facts. It applies only in the licensor/licensee context, where the licensee does not repudiate the license (otherwise, the patentee could always have asserted, in fact would have had to assert, a compulsory counterclaim for infringement and thus bear the burden of proof, even in the eyes of the Federal Circuit). Due to its apparent narrowness, many commentators paid little attention to *Medtronic*, some calling it just a “blip.”¹⁶⁹ Nevertheless, practitioners predicted that the number of declaratory judgment cases would rise in the wake of the decision, as licensees would be more emboldened to file actions for declaratory judgment.¹⁷⁰ A few commentators even ventured as far as to imply that *Medtronic* was a potentially quite significant decision.¹⁷¹ This Part analyzes the practical impact of the decision and provides advice for parties in an existing or prospective patent license relationship.

1. *Practical Impact*

As a practical impact, the *Medtronic* decision, like *MedImmune*, will likely make it easier for licensees to bring declaratory judgment suits. The special burden of proof rule created by the Federal Circuit would have worked to the detriment of licensees and made them think twice before filing a declaratory judgment action because, among others, it is indeed hard to prove a negative.¹⁷²

Yet, unlike *MedImmune*, which applied to many more cases, touching upon the central issue of whether a declaratory judgment action could be filed in the first place, *Medtronic* is not likely to be as significant in immediate, measurable impact. So far, its actual influence has been limited but perceptible. And in a related context in *Ferring B.V. v. Watson Labs., Inc.*, the Federal Circuit ruled that there was no presumption of

169. See, e.g., Supreme Court IP Review (SCIPR) IIT Chicago-Kent College of Law, <http://www.kentlaw.iit.edu/scipr> (last visited Feb. 9, 2015).

170. See, e.g., Brian G. Arnold et al., *KEEPING CURRENT: Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843 (2014), BUS. LAW TODAY, May 2014, available at http://www.americanbar.org/publications/blt/2014/05/keeping_current_arnold.html (last visited Feb. 9, 2015).

171. *IP Professors Q&A: GW Law's Roger Schechter*, LAW360 (Oct. 3, 2014, 3:09 PM), <http://www.law360.com/articles/583169/ip-professors-q-a-gw-law-s-roger-schechter>.

172. See *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 850 (2014).

infringement on an ANDA filer.¹⁷³ While not a declaratory judgment action, the *Ferring* decision may have been influenced by *Medtronic* and its message that the patentee holds the burden of proving infringement.

Thus, *Medtronic* should not be relegated to a narrow holding on its facts, but viewed in light of its implications and its *Lear*-based discussion of public policy. *Medtronic* makes not only the statement that patent law needs to pay heed to settled civil procedure,¹⁷⁴ but also that *Lear* is very much alive,¹⁷⁵ and that its precepts will continue to affect the relationship between patent holders and licensees (or prospective licensees) in the future.

2. *Advice for Parties in a Patent License Relationship*

Predicting the *exact* impact of *Medtronic* is nevertheless hard. As general advice for patent holders and licensees, it is obvious that *Medtronic* goes in the same direction as *MedImmune* and provides similar incentives to licensees to file actions for declaratory judgment (even though as discussed¹⁷⁶ the *MedImmune* decision is probably weightier). As such, some of the general advice given post-*MedImmune* also applies to a large extent here.¹⁷⁷ The advice that follows is for patent holders (obviously, the converse applies to licensees).

For existing license agreements, a patent holder wary of litigation should be careful of change in terms (or the appearance of new products of the licensee) that could lead to an adverse legal relationship. This could be sufficient to establish the “actual controversy” necessary for declaratory judgment jurisdiction.¹⁷⁸ Patent holders would also do well to have a mechanism for being able to inspect their licensee’s new products in the agreement,¹⁷⁹ as that would help them objectively assess whether the

173. See *Ferring B.V. v. Watson Labs., Inc.*, 764 F.3d 1401, 1408 (Fed. Cir. 2014).

174. *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 849–52 (2014); see also *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240 (1937); *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007).

175. The reference to *Lear* in *Medtronic* shows that reports of its possible death have been exaggerated. See, e.g., Rochelle Cooper Dreyfuss & Lawrence S. Pope, *Dethroning Lear? Incentives to Innovate after MedImmune*, 24 BERKELEY TECH. L.J. 971, 991–1006 (2009).

176. See *supra* Section III.D.1.

177. See, e.g., Dreyfuss & Pope, *supra* note 175.

178. See, e.g., Mark Henry, *Patent Licensing After Medimmune v. Genentech*, IPTODAY (Apr. 2007), <http://www.iptoday.com/pdf/2007/4/Henry-Apr2007.pdf>.

179. Adrian Mollo, *Licensing Law Alert: Patent Owners Retain Burden of Proof When Licensees Challenge Infringement*, BNA BLOOMBERG LAW (Feb. 21, 2014), <http://www.bna.com/licensing-law-alert-patent-owners-retain-burden-of-proof-when-licensees-challenge-infringement/>.

licensee's products infringe their patents, an assessment they are solely responsible for under *Medtronic*.

Regarding prospective license agreements, again, much of the excellent advice provided by several scholars¹⁸⁰ post-*MedImmune* applies, with even stronger relevance. In reading Dreyfuss and Pope's advice¹⁸¹ one needs to keep in mind the *Lear* decision, and the fact that, despite assertions to the contrary, *Lear, Brulotte v. Thys Co.*,¹⁸² and the other cases asserting the strong federal patent policy of needing to keep patent monopoly in check are not dead, as shown by *Medtronic*.¹⁸³ Thus, no challenge clauses in licensing agreements, while obviously topping the list of what a patent holder might want, are still unlikely to be enforceable.¹⁸⁴ Less extreme measures, that are likely enforceable, are provisions that the license agreement be automatically terminated in the event the licensee files a declaratory judgment suit.¹⁸⁵ Arbitration provisions would also be likely enforceable, in view of the federal policy of favoring arbitration.¹⁸⁶ Another helpful license clause for patent owners is permitting inspection of the licensee's products, both old and new. In the event the parties are competitors or proprietary issues exist, a manageable solution would be a neutral party performing the inspection.¹⁸⁷ Much of this advice is still uncertain at least in part, because the Court has still not resolved the issue of licensee estoppel.

E. THE ELEPHANT IN THE ROOM: LICENSEE ESTOPPEL

The biggest issue of all is still in the air. *Medtronic* left unanswered the question of licensee estoppel for nonrepudiating licensees, and the closely related non-challenge clause, which Justice Scalia noted might still be fair

180. Dreyfuss & Pope, *supra* note 175, at 991–1006.

181. *Id.*

182. *Brulotte v. Thys Co.*, 379 U.S. 29 (1964).

183. *See* *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1327 (Fed. Cir. 2010) (citing *Brulotte* for the proposition that trying to extend royalty payments beyond the life of the patent is analogous to an effort to enlarge the monopoly and a misuse of the patent). However, the Supreme Court has granted certiorari and is reconsidering the *Brulotte* rule in 2015, in a decision that will have important ramifications in the freedom of contract vs. federal patent policy battle landscape. *See* Ryan Davis, *High Court To Reconsider Ban On Expired-Patent Royalties*, LAW360 (Dec. 12, 2014, 6:13 PM), <http://0-www.law360.com.texsl.iii.com/appellate/articles/604392/high-court-to-reconsider-ban-on-expired-patent-royalties>.

184. *See infra* Section III.E (providing a more detailed discussion).

185. *See, e.g.*, Arnold, *supra* note 170.

186. *See, e.g.*, *AT&T Mobility LLC v. Concepcion*, 131 S. Ct. 1740 (2011).

187. *See* Dreyfuss & Pope, *supra* note 175, at 991–1006.

game in a contract for nonrepudiating licensees.¹⁸⁸ The outcome of a declaratory judgment action will strongly depend on how courts treat this matter, an issue relevant to many license agreements. Could parties contract around this issue, and is a non-challenge clause enforceable? Some commentators read *MedImmune* as providing an affirmative answer, arguing that Justice Scalia was open to a prohibition spelled in the terms of the contract.¹⁸⁹ Following *MedImmune*, scholars have put forth many arguments trying to explain Justice Scalia's apparent dicta, ranging from simply stating that the Court was not aware that licensee estoppel had been dead for four decades, to a conscious effort to revive it, in spite of other cases in the late 1960s affirming a federal policy of not allowing contract law to expand the narrow patent monopoly.¹⁹⁰

Again, *Medtronic's* explicit mentioning of *Lear* hints that the Court is not going to overrule that case anytime soon. Although neither the *MedImmune* nor the *Medtronic* Court ruled on the applicability of the *Lear* doctrine when a licensee is still making payments, the tone of the *Medtronic* opinion and stress on the public's "paramount interest" of seeing patent monopolies "kept within their legitimate scope"¹⁹¹ is more than a clue that the Court would likely rule that *Lear* applies to such situations. Thus, a patentee cannot through contract prevent a licensee from suing, at least if claiming invalidity of the patent. *FTC v. Actavis* is another instance in which the policy arguments in *Lear* were brought to the fore, even though in an antitrust context.¹⁹² It is safe to say that the Court would not cite *Lear* approvingly if it were ready to overrule it and hold that "freedom of contract" trumps federal patent policy in this area.¹⁹³ Also, other courts as well continue to view *Lear* as a strong doctrine.¹⁹⁴ It is thus very likely that a contractual no-challenge clause would be unenforceable.

188. See *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007).

189. See *id.*

190. See Dreyfuss & Pope, *supra* note 175, at 984–86.

191. See *Medtronic, Inc. v. Mirowski Family Ventures, LLC*, 134 S. Ct. 843, 852 (2014).

192. *FTC v. Actavis, Inc.*, 133 S. Ct. 2223 (2013).

193. But see *Kimble v. Marvel Enters., Inc.*, 727 F.3d 856 (9th Cir. 2013), *cert. granted*, 135 S. Ct. 781 (2014). While *Kimble* involves the ability to extract royalty payments after patent expiration (as opposed to patent validity in *Lear*), it will nevertheless provide another window into how the Court regards the conflict between freedom of contract and patent policy.

194. See *Rates Tech., Inc. v. Speakeasy, Inc.*, 685 F.3d 163 (2d Cir. 2012) (holding that a no-challenge clause in a license agreement was void for public policy based on *Lear*, and that only after being afforded discovery could a licensee be bound by an ulterior no-challenge agreement, e.g., a settlement).

However, a no-challenge clause in a consent decree, after the licensee has had at least the opportunity to do some discovery, may be enforceable.¹⁹⁵ While not ideal for a patent holder, who will still have to engage in litigation, it could offer peace of mind that he does not need to go through litigation again to forestall a similar challenge in the future.

Assuming, however, that a no-challenge clause were, against all odds, found enforceable by the courts, the toolbox that patent owners have to protect their monopoly would expand significantly. In addition to provisions calling for higher royalties if the licensee files a declaratory judgment action or even upfront royalties, a patent owner could insist in the license terms on an outright prohibition of a licensee filing a declaratory judgment suit, for either non-infringement or invalidity, while still paying royalties.

While the *Medtronic* opinion will certainly affect the dynamics of the patent owner-licensee equation, and in particular how license agreements are drafted, only time and a future ruling on licensee estoppel/no-challenge clauses in the context of nonrepudiating licensees will tell the full effect of this decision. The *Kimble v. Marvel Enterprises* case, in which the Supreme Court recently granted certiorari to revisit the *Brulotte* rule barring royalty payments after a patent's expiration, will hopefully help clarify the current Court's view of the conflict between freedom of contract and federal patent policy.¹⁹⁶

IV. CONCLUSION

*Ei incumbit probatio qui dicit, non qui negat.*¹⁹⁷ The Supreme Court's *Medtronic* opinion is proof that this maxim is as true today as it was thousands of years ago, and not only in criminal cases. Declaratory judgment is but a procedural vehicle allowing the dispute between the parties to be settled earlier, rather than changing the main duties of the actors in court. In *Medtronic*, the high Court continued the task begun in *MedImmune* in bringing patent law declaratory judgments into line with other legal fields, in spite of the Federal Circuit's efforts to the contrary. While the Court's "simple legal logic" partly relies on a historical quirk, the result in *Medtronic* was unavoidable in view of eighty years of legal precedent, practical considerations, and public policy. However,

195. *See id.* (distinguishing a clause in a consent decree, after the licensee has had the benefit of discovery).

196. *See Kimble v. Marvel Enters., Inc.*, 135 S. Ct. 781 (2014) (granting certiorari to review the Ninth Circuit's decision); *see also Davis, supra* note 183.

197. The burden of the proof lies upon him who affirms, not he who denies.

Medtronic's true impact will only be seen when and if the Court finally settles the tug-of-war between contract law and federal patent policy, in particular the issue of nonrepudiating licensee estoppel, which it brought to the fore but punted on in the earlier *MedImmune* case. The outcome in *Kimble v. Marvel Enterprises*,¹⁹⁸ a case on a related issue in the freedom of contract vs. patent policy clash that the Court will decide in 2015, will hopefully provide at least a partial clarification of who the winner is of this legal battle in the twenty-first century.

198. *Kimble v. Marvel Enters., Inc.*, 727 F.3d 856 (9th Cir. 2013), *cert. granted*, 135 S. Ct. 781 (2014).

PATENTABLE SUBJECT MATTER AFTER *ALICE*— DISTINGUISHING NARROW SOFTWARE PATENTS FROM OVERLY BROAD BUSINESS METHOD PATENTS

Ognjen Zivojnovic[†]

For the last forty years, software has perplexed patent law. On the one hand, all software consists of algorithms—a series of logical or arithmetic steps performed on loaded and stored numbers¹—which courts have long considered patent-ineligible abstract ideas.² On the other hand, there is no dispute that the application of an abstract idea may be patent-eligible,³ and physical machines programmed with software offer tangible improvements to our daily lives.⁴ In fact, software is responsible for many of the most valuable advances of the twentieth and early twenty-first centuries.⁵ Courts have repeatedly confronted the question of where, on a spectrum between a patent-ineligible abstract idea and a patent-eligible application thereof, a claim directed to a piece of software implemented by a computer falls, but their results have been inconsistent and confusing.⁶ Thus, the central

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1. See DAVID A. PATTERSON & JOHN L. HENNESSY, COMPUTER ORGANIZATION AND DESIGN: THE HARDWARE/SOFTWARE INTERFACE 76–78 (4th ed. 2009) (listing all instructions in the MIPS assembly language, i.e., all possible steps that an exemplary processor in a computer can execute); Timothy B. Lee, *Software Is Just Math. Really.*, FORBES (Aug. 11, 2011, 2:29 PM), <http://www.forbes.com/sites/timothylee/2011/08/11/software-is-just-math-really/> (arguing that all software ever written boils down to a mathematical algorithm).

2. See *Gottschalk v. Benson*, 93 U.S. 63, 71–73 (1972).

3. *Diamond v. Diehr*, 450 U.S. 175, 187–88 (1981).

4. See *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1305 (Fed. Cir. 2013) (en banc) (Rader, C.J., concurring in part and dissenting in part), *aff'd*, 134 S. Ct. 2347 (2014).

5. See *id.*; PATTERSON, *supra* note 1, at 3–4.

6. Compare *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1356 (Fed. Cir. 2012) (arguing that claims directed to software are only invalid if “it [is] manifestly evident that the claims are patent-ineligible under § 101”), *vacated*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc), *aff'd*, 134 S. Ct. 2347 (2014) with *Bancorp Servs. L.L.C. v. Sun Life Ins. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (arguing that “a computer must be integral to the claimed invention, facilitating the process in a way that

question plaguing software patents—what additional limitations are “enough”⁷ to transform a patent-ineligible abstract idea into a patent-eligible application—remains unanswered.

In its most recent decision addressing the patent eligibility of software, *Alice Corp. Pty. Ltd. v. CLS Bank International*,⁸ the Supreme Court held that adding the words “apply it with a computer” to a patent-ineligible abstract idea is not “enough” to confer patent eligibility.⁹ This holding can be interpreted narrowly, affecting only business method patents—i.e., software patents that amount to little more than a fundamental economic practice (i.e., a “business method”) applied “with a computer.” However, *Alice* also endorsed a theory that the exceptions to patent eligibility (including the abstract idea exception) are substantive limitations meant to protect against overly broad patents.¹⁰ In the lower court en banc decision,¹¹ four Federal Circuit judges argued that adopting this substantive limitation theory would be the death knell for all software patents.¹² While the Supreme Court left ample room for interpretation between these two extremes, whether due to *Alice* or other factors, lower courts have invalidated the majority of software patents challenged under § 101 since the *Alice* decision.¹³

Few dispute that many of the recently invalidated software patents, especially business method patents, are more likely to burden than promote innovation.¹⁴ In fact, commentators have argued that business

a person making calculations or computations could not” before it is enough to confer patent eligibility onto software).

7. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012) (“To put the matter more precisely, do the patent claims add *enough* to their statement of [patent-ineligible subject matter] to allow the processes they describe to qualify as patent-eligible processes that *apply* [the subject matter]?”).

8. 134 S. Ct. 2347 (2014).

9. *Id.* at 2358.

10. *See infra* Part II.B. Whether interpreting § 101 in this manner is desirable from a policy perspective is a separate question outside the scope of this Note. For example, some have argued that the exceptions to patent eligibility under § 101 should be eliminated altogether in favor of more rigorous enforcement of the other provisions of the Patent Act. *See generally* Michael Risch, *Everything Is Patentable*, 75 TENN. L. REV. 591 (2008). This Note, however, builds on all Supreme Court precedent.

11. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc), *aff’d*, 134 S. Ct. 2347 (2014).

12. *See id.* at 1313 (Moore, J., dissenting in part).

13. *See* Timothy B. Lee, *Software Patents Are Crumbling, Thanks to the Supreme Court*, VOX (Sept. 12, 2014, 3:50 PM), <http://www.vox.com/2014/9/12/6138483/software-patents-are-crumbling-thanks-to-the-supreme-court>.

14. Bernard Chao, *Finding the Point of Novelty in Software Patents*, 28 BERKELEY TECH. L.J. 1217, 1222–23 (2013); Timothy B. Lee, *Software Patents Are a Disaster. The*

methods are simply not the type of innovation the Intellectual Property Clause of the United States Constitution¹⁵ and the Patent Acts were meant to protect.¹⁶ At the same time, other commentators have argued that many types of software innovation, especially innovation in the realm of algorithms themselves, both deserve patent protection and are appropriately encouraged through patents.¹⁷ Whether the social benefits of software patents outweigh their social costs is an ongoing debate outside the scope of this Note. As things stand, software is not categorically ineligible for patent protection.¹⁸ Thus, given the purpose of the patent-eligible subject matter exceptions endorsed by the Supreme Court, courts need a mechanism for distinguishing between software patents based on claim scope when deciding whether to invalidate a patent under § 101. Put differently, courts should be able to make a distinction between a pure business method patent that attempts to monopolize a broad abstract idea by only specifying that it is “implemented using a computer,” and a software patent that narrowly claims what an inventor actually built, instead of categorically rendering all software patents running on a general-purpose computer invalid.

This Note argues that *Alice* and other Supreme Court precedent afford sufficient interpretive leeway to allow courts deciding questions of patent eligibility to make such a distinction. To accomplish this, additional claim limitations reciting specifics of how a piece of software accomplishes a patent-ineligible abstract idea should be “enough” to confer patentability,

Courts Finally Did Something About It in 2014, VOX (Dec. 31, 2014, 3:10 PM), <http://www.vox.com/2014/12/31/7475317/software-patents-2014-review>.

15. U.S. CONST. art. I, § 8, cl. 8 (“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”).

16. Peter S. Menell, *Forty Years of Wondering in the Wilderness and No Closer to the Promised Land: Bilski’s Superficial Textualism and the Missed Opportunity to Return Patent Law to its Technology Mooring*, 63 STAN. L. REV. 1289, 1312–13 (2011).

17. Donald S. Chisum, *The Patentability of Algorithms*, 47 U. PITT. L. REV. 959, 1013–17 (1986) (arguing in favor of making patent protection available to software algorithms). *But see* Allen Newell, *Response: The Models Are Broken, The Models Are Broken*, 47 U. PITT. L. REV. 1023, 1033–34 (1986) (arguing that software “may have a different character than the standard economic model of incentives that underlies the patent law”); Lee, *Software Patents Are a Disaster*, *supra* note 14.

18. *See* *Bilski v. Kappos*, 130 S. Ct. 3218, 3226–27 (2010); *see also supra* Section I.C; *see also* *Ca. Inst. of Tech. v. Hughes Commc’ns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *7–8 (C.D. Cal. Nov. 3, 2014) (arguing that “[t]he America Invents Act (‘AIA’) contemplates the existence of software patents explicitly” and that “the Supreme Court . . . implicitly endorsed the patentability of software”).

even if the additional claim limitations are themselves patent-ineligible abstract ideas.

Parts I and II of this Note provide legal background; Part I surveys 35 U.S.C. § 101 jurisprudence, focusing on the cyclic rise and fall of the “enough” threshold marking the line between a patent-ineligible abstract idea and a patentable application thereof, and Part II discusses *Alice*. Part III explains the technical context of software and how it interacts with the patent system. Part IV analyzes how commentators, courts, and the United States Patent and Trademark Office (“PTO”) have interpreted the *Alice* decision. Part IV also proposes an alternative interpretation that allows courts to decide the validity of software patents based on their actual preemptive effect and claim scope. Finally, Part V concludes.

I. THE SEARCH FOR WHAT IS “ENOUGH”: AN OVERVIEW OF § 101 JURISPRUDENCE

Section 101 dictates that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new useful improvement thereof, may obtain a patent.”¹⁹ Since software consists of a series of steps executed by a machine, claims directed at software routinely constitute a “process, machine, manufacture, or composition of matter” and are therefore at first glance patent-eligible under the statute.²⁰

However, the Supreme Court has created judicial exceptions to these broad categories of patent-eligible subject matter.²¹ As early as 1852, the Court in *Le Roy v. Tatham* held that “[a] principle, in the abstract, is a fundamental truth; an original cause, a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”²² While the terminology used to describe and justify these exceptions has varied over time, today it is generally accepted that laws of nature, natural phenomena, and abstract ideas are not patent-eligible:

19. 35 U.S.C. § 101 (2012).

20. *See, e.g.*, *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1285–86 (Fed. Cir. 2013) (en banc) (Lourie, J., concurring), *aff'd*, 134 S. Ct. 2347 (2014); *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1349 (Fed. Cir. 2013), *vacated sub nom*, *WildTangent, Inc. v. Ultramercial, LLC*, 134 S. Ct. 2870 (2014), *aff'd*, 772 F.3d 709 (Fed. Cir. 2014); *Digitech Image Techs., LLC v. Elec. For Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014).

21. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014).

22. 55 U.S. 156, 175 (1852).

Laws of nature, natural phenomena, and abstract ideas are the basic tools of scientific and technological work. Monopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it, thereby thwarting the primary object of the patent laws. [The Supreme Court has] repeatedly emphasized this concern that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity.²³

A. THE EARLY, ELEVATED THRESHOLD OF “ENOUGH”—*BENSON* AND *FLOOK*

The first two Supreme Court patent eligibility decisions affecting software patents—*Gottschalk v. Benson* in 1972²⁴ and *Parker v. Flook* in 1978²⁵—reflected the Court’s underlying belief that software was categorically ineligible for patent protection.²⁶

In *Benson*, the Court held that an algorithm, which today falls in the abstract idea category, is patent-ineligible.²⁷ The patent at issue claimed an algorithm for converting binary-coded decimal numbers, where each digit of the decimal number is expressed as a separate binary number (e.g., the number ten expressed as “0001 0000”), to a pure binary representation of that number (e.g., the number ten expressed as “1010”).²⁸ This algorithm, the Court reasoned, was nothing more than a mathematical expression of a scientific truth, and as such was not patentable.²⁹ The Court’s reasoning cast doubt on the availability of patent protection for software, since all software consists of retrieving numbers, storing numbers, and performing a limited set of simple arithmetic or logical functions on these numbers, regardless of how complex, sophisticated, or innovative the software is.³⁰

23. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2354 (citations and internal quotation marks omitted).

24. 409 U.S. 63 (1972).

25. 437 U.S. 584 (1978).

26. See *Benson*, 409 U.S. at 71–72; *Flook*, 437 U.S. at 595–96.

27. *Benson*, 409 U.S. at 67–68.

28. *Id.* at 65–67.

29. *Id.* at 67–68. Specifically, the Court considered the algorithm in *Benson* analogous to the mathematical expression at issue in *Mackay Radio and Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 91–92 (1939)—a formula for calculating the angle at which a radio signal will be transmitted from an antenna based on the wave length of the signal and the length of the antenna wire.

30. See *Benson*, 93 U.S. at 71–73; PATTERSON, *supra* note 1, at 78. This holding in *Benson* has been criticized by commentators. See, e.g., Robert Merges, *Symposium: Go Ask Alice—What Can You Patent After Alice v. CLS Bank?*, SCOTUSBLOG (June 20, 2014, 12:04 PM), <http://www.scotusblog.com/2014/06/symposium-go-ask-alice-what-can-you-patent-after-alice-v-cls-bank/>:

Next, *Benson* held that the claims at issue did not include additional limitations that rendered the patent-ineligible algorithm patentable.³¹ The Court noted that a claim is patent-eligible if it ties a patent-ineligible abstract idea to a particular machine, or uses it to change an article to a different state or thing.³² However, the Court concluded that the claimed algorithm “has no substantial practical applications except in connection with a digital computer,” and that the claim limitation of a computer was thus insufficient to render the claims patent-eligible.³³ While the Court noted that other types of limitations might also confer patent eligibility, *Benson* reflected a general pessimism on behalf of the Supreme Court regarding patent protection for software.³⁴

The Supreme Court [in *Benson* laid] down some notoriously ill-considered tracks in the domain of software patents. The essence of the decision was a ruling that the mathematical algorithm underlying the computer program was discovered rather than invented—it was a preexisting mathematical relationship which the ‘inventor’ merely harnessed for his patented invention. The resulting claim to the algorithm itself, was, the court decided, tantamount to a claim to a law of nature. This formulation of the claim misrepresents the nature of algorithms (which simply do not grow on trees), and has as a result spawned no end of confusion in the patent world.

After all, software algorithms do not occur naturally—instead, it is humans that select and combine mathematical operations when designing such software. *See id.* (algorithms “simply do not grow on trees”). Thus, the human contribution to software is no different than the human contribution to a steam engine—artificially selecting and combining patent-ineligible subject matter (metal and other compounds in the case of the steam engine, mathematical operations in the case of software) into something new and useful. *See Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012) (“The Court has recognized, however, that too broad an interpretation of this exclusionary principle could eviscerate patent law. For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”). However, the Supreme Court has continued to embrace the holding in *Benson*. *Merges, Go Ask Alice, supra* (“But now the Supreme Court has gone and assimilated the *Benson* holding into the new *Bilski-Mayo-Alice* framework, in a way that will surely bring future headaches.”); *see also infra* Section IV.A.1. Thus, this Note accepts that algorithms are patent-ineligible as a given and incorporates the holding in *Benson* into the framework proposed in Part IV.

31. *Benson*, 409 U.S. at 70–71. In later cases, the Court phrased this type of inquiry as deciding whether “the patent claims add *enough* to [patent-ineligible subject matter] to allow the processes they describe to qualify as patent-eligible processes that *apply* the” patent-ineligible subject matter. *See Mayo*, 132 S. Ct. at 1297.

32. *Benson*, 409 U.S. at 70–71.

33. *Id.* at 71–72.

34. *Id.* at 71–73.

The threshold of “enough” set forth in *Benson* was further heightened five years later in *Flook*.³⁵ Driven by concerns that a “competent draftsman” should not be able to transform a patent-ineligible abstract idea into a patent-eligible application by appending “conventional or obvious” “post-solution activity” (i.e., additional physical steps taken after a mathematical expression is solved),³⁶ the majority held that a claim reciting an abstract idea must also include an “inventive concept” to be patent-eligible.³⁷ Specifically, when analyzing such a claim, a court should assume that the abstract is already present in the prior art and then determine whether the remainder of the claim is new and useful—i.e., whether the remainder of the claim constitutes a “patentable invention.”³⁸ Under this “inventive concept” standard, if an inventor’s contribution to human knowledge, sometimes referred to as the point of novelty,³⁹ lies in the abstract idea itself, it is not patent-eligible.⁴⁰ Thus, under *Flook*, a new algorithm (i.e., an abstract idea), without accompanying new and useful hardware, is not eligible for patent protection, regardless of how revolutionary the algorithm may be, how narrowly it is claimed, what real-world applications it may have, or how much it may improve existing physical processes.⁴¹

The combination of *Benson* and *Flook* virtually eliminated patent protection for software—*Benson* labeled algorithms, and thus by extension all software, as patent-ineligible abstract ideas, and *Flook* by indicating that, as long as an invention’s sole point-of-novelty lay in the software, no additional limitation could be “enough” to confer patent eligibility.

35. Compare *id.* at 71–72 (finding that the claimed digital computer did not confer patent eligibility onto the abstract idea because the digital computer did not prevent the claim from “wholly pre-empt[ing]” the abstract idea (emphasis added)) with *Parker v. Flook*, 437 U.S. 584, 595–96 (1978) (finding that the claimed chemical process did not confer patent eligibility onto the abstract idea because, absent the abstract idea, it was not patentable).

36. *Flook*, 437 U.S. at 590.

37. *Id.* at 594.

38. *Id.*

39. See, e.g., *Diamond v. Diehr*, 450 U.S. 175, 200 n.15 (1981) (Stevens, J., dissenting).

40. Chao, *Finding the Point of Novelty*, *supra* note 14, at 1241.

41. *Id.* at 1241–42; see also Mark A. Lemley, *Point of Novelty*, 105 NW. U.L. REV. 1253, 1278 (2011).

B. LOWERING THE PATENT ELIGIBILITY THRESHOLD—FROM *DIEHR*
TO *STATE STREET BANK*

Only three years after *Flook*, in 1981 the Supreme Court reversed direction in *Diamond v. Diehr*, and lowered the “enough” threshold sufficiently to make patent protection available to software innovation.⁴² Even though *Diehr* did not explicitly overrule *Flook*, the two cases are difficult, if not impossible, to harmonize.⁴³

The *Diehr* majority viewed the claims as directed to a process for transforming rubber, and held that the fact that one of the steps of this otherwise patentable process involved a mathematical expression did not deprive the whole process of patent eligibility.⁴⁴ While *Diehr* acknowledged that limiting an abstract idea “to a particular technological environment” or including “insignificant post-solution activity” cannot confer patent eligibility,⁴⁵ the Court also warned that a claim cannot be dissected and must be considered as a whole.⁴⁶ The majority in *Diehr* thereby redefined what constitutes “enough” to confer eligibility on a patent-ineligible abstract idea—any limitation that ensures that the claimed invention, “when considered as a whole, is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing).”⁴⁷

The Court of Customs and Patent Appeals (“C.C.P.A.”), the predecessor to the Federal Circuit, implemented the holding in *Diehr* as

42. See 450 U.S. at 192. While the same Justices were on the Court in both cases, Justice White and Justice Powell switched sides—excluding them, the dissenters in *Diehr* formed the majority in *Flook*, and vice versa. *Id.* at 177, 193.

43. Chao, *Finding the Point of Novelty*, *supra* note 14, at 1235.

44. *Diehr*, 450 U.S. at 191–92.

45. *Id.* at 191–92.

46. *Id.* at 188.

47. *Id.* at 192. The dissenting opinion in *Diehr*, written by Justice Stevens who wrote for the majority in *Flook*, would have maintained the standard set forth in *Flook*—if the entire subject matter an inventor claims to be novel (i.e., the inventor’s contribution or the point the novelty) falls within a patent-ineligible exception to § 101, the claim as a whole is patent-ineligible, regardless of what additional limitations are included. See *id.* at 211–12 (Stevens, J., dissenting). In fact, the dissent would have preferred to make a unequivocal and sweeping proclamation: (1) “no program-related invention is a patentable process under § 101 unless it makes a contribution to the art that is not dependent entirely on the utilization of a computer,” and (2) “the term ‘algorithm’ as used in [*Diehr*], as in *Benson* and *Flook*, is synonymous with the term ‘computer program.’” *Id.* at 219. In essence, the dissent argued that software innovation is categorically patent-ineligible, and that only an additional, separate, novel, and non-obvious hardware element would be “enough” to confer patent eligibility.

the *Freeman-Walter-Abele* test.⁴⁸ Under this test, a claim had to apply an abstract idea to a physical element or as part of a physical process in order to be patent-eligible.⁴⁹ For example, in *In re Abele*, the C.C.P.A. held that a claim directed to calculating numbers based on collected data and displaying these numbers was patent-ineligible.⁵⁰ However, the C.C.P.A. also held, in the same case, that a claim which further required the collected data to be X-ray attenuation data from a computed axial tomography (“CAT”) scan, was patent-eligible, since the CAT scan was a physical process and part of the claim.⁵¹

Over time, the C.C.P.A., and later the Federal Circuit, further lowered the “enough” threshold. Initially, the court liberally construed what constitutes a physical process. In *Arrhythmia Research Technology Inc. v. Corazonix Corp.*, the Federal Circuit determined that transforming one electrical signal into another within a computer was a physical process and therefore “enough” to confer patent eligibility.⁵² Once this reasoning took hold, the *Freeman-Walter-Abele* test met its end in *In re Alappat*, where the Federal Circuit held that transforming one set of data into another set of data was “enough” for patent eligibility, since the transformation produced “a useful, concrete, and tangible result.”⁵³ Finally, the lowest threshold of what additional limitations are “enough” to confer patent eligibility was set in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*⁵⁴ There, the Federal Circuit formally overruled the *Freeman-Walter-Abele* test and held that any claim incorporating an abstract idea that produces “a useful, concrete, and tangible result” is patent-eligible.⁵⁵

Thus the barrier to patenting software created by *Benson* and *Flook* was completely eroded in subsequent decisions. By the start of the twenty-first century, software was eligible for patent protection.

48. *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1057–58 (Fed. Cir. 1992).

49. *Id.* at 1058

50. 684 F.2d 902, 908 (C.C.P.A. 1982).

51. *Id.* at 908–09.

52. 958 F.2d at 1059.

53. 33 F.3d 1526, 1544 (Fed. Cir. 1994).

54. 149 F.3d 1368, 1373–75 (Fed. Cir. 1998).

55. *Id.*

C. THE PATENT ELIGIBILITY THRESHOLD RISES AGAIN—*BILSKI* AND *MAYO*

Uncertainty regarding software's patent eligibility returned in the wake of the Supreme Court's 2010 *Bilski v. Kappos*⁵⁶ and 2012 *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* decisions.⁵⁷ Unlike *Flook* and *Benson*, neither of these decisions ever questioned whether patent protection was available for software.⁵⁸ At the same time, the Court noticeably raised the "enough" threshold for patent eligibility, so that § 101 again became a substantive hurdle for software.⁵⁹ Thus, while neither *Bilski* nor *Mayo* categorically excluded software innovation from the patent system, the two cases in effect rendered the validity of most software patents uncertain.

The tide started turning against software patents in 2008 when the Federal Circuit held in *In re Bilski* that the appropriate § 101 inquiry is whether a claim meets the "machine-or-transformation test."⁶⁰ Under this new test, a claim incorporating an abstract idea includes "enough" to transform it into a patent-eligible application *if and only if* the abstract idea is either (1) "tied to a particular machine or apparatus," or (2) "transforms a particular article into a different state or thing."⁶¹ The court did not resolve how high a threshold this was or how difficult it would be for software patents to meet, since the court declined to decide whether a general-purpose computer constitutes "a particular machine or apparatus."⁶² Moreover, the court noted that transforming data *representing* a physical object and then displaying this data was sufficient to meet the transformation prong of the test.⁶³

The Supreme Court responded with its 2010 *Bilski* decision. The Court first addressed the Federal Circuit's new machine-or-transformation test, concluding that, while it was "an important and useful clue," it could not be the sole test for determining whether an invention is patent-eligible:

56. 130 S. Ct. 3218 (2010).

57. 132 S. Ct. 1289 (2012).

58. *See Bilski*, 130 S. Ct. at 3226–27 (indicating that the Federal Circuit's machine-or-transformation test cannot be the sole test for patent eligibility, since it brought uncertainty regarding the availability of patent protection for software innovation).

59. *See Mayo*, 132 S. Ct. at 1297–98 (implying that only activity that was not "well-understood, routine, [or] conventional" was "enough" to confer patent eligibility).

60. 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc), *aff'd*, 130 S. Ct. 3218 (2010).

61. *Id.*

62. *Id.* at 962.

63. *Id.* at 963.

The machine-or-transformation test may well provide a sufficient basis for evaluating processes similar to those in the Industrial Age—for example, inventions grounded in a physical or other tangible form. But there are reasons to doubt whether the test should be the sole criterion for determining the patentability of inventions in the Information Age. As numerous *amicus* briefs argue, the machine-or-transformation test would create uncertainty as to the patentability of software, advanced diagnostic medicine techniques, and inventions based on linear programming, data compression, and the manipulation of digital signals.⁶⁴

Next, the Court held that business methods, just like other types of innovation, are not categorically barred from patent protection, unless the particular business method at issue also happens to be an abstract idea.⁶⁵

Importantly, the Court reinvigorated *Flook* and attempted to harmonize it with *Diehr*. The Court described the *Flook* claim as an attempt to patent a mathematical algorithm, adding only insignificant post-solution activity and limiting it to a field of use, and the *Diehr* claim as being directed to an industrial process that happens to include a mathematical formula.⁶⁶ In so doing, the Court did not explain why the claims in *Flook* and *Diehr* warranted such drastically different descriptions,⁶⁷ when, superficially at least, they appeared to be very similar.⁶⁸

Finally, the Court concluded that the *Bilski* claims were not patent-eligible because the concept of hedging recited therein was an unpatentable abstract idea, and allowing the claims would preempt and effectively grant a monopoly over this abstract idea.⁶⁹ In reaching this conclusion, the Court did not elaborate on, or even hint at what additional limitations would be “enough” to render the claim patent-eligible.

While the Supreme Court’s decision in *Bilski* was superficially more permissive of software patents than the corresponding Federal Circuit

64. *Bilski v. Kappos*, 130 S. Ct. 3218, 3226–27 (2010).

65. *Id.* at 3228–29. The concurrence in *Bilski*, following an extensive analysis of the history of U.S. patent law, concluded that a method of conducting business is not a “process” under § 101. *Id.* at 3239–50 (Stevens, J., concurring). Based on this interpretation, the concurrence argued that the claims at issue are invalid not for falling into the abstract idea exception to § 101, but for not being directed to any one of the categories of patent-eligible subject matter in the first place. *Id.* at 3257.

66. *Id.* at 3230 (majority opinion).

67. *Id.*

68. Chao, *Finding the Point of Novelty*, *supra* note 14, at 1235.

69. *Bilski*, 130 S. Ct. at 3231.

decision, it also endorsed the prior Supreme Court opinions most detrimental to software patents—*Benson* and *Flook*.

The Supreme Court's next § 101 decision, *Mayo*, further endorsed *Benson* and *Flook*. There, the Court held that a claim must do more than recite a patent-ineligible law of nature and instruct the relevant audience to apply it—it must also include an “inventive concept,” a term borrowed from *Flook*.⁷⁰ However, the Court did not explain whether this term had the same meaning as in *Flook*.⁷¹ Nor did the Court assume that the claimed patent-ineligible subject was in the prior art and then evaluate the patentability of the claim, as it did in *Flook*.⁷² Instead, the Court held that obvious, well-understood, routine, and conventional activity already engaged in by the scientific community is not “enough” to confer patent eligibility.⁷³ The Court recognized that this inquiry may sometimes, but not always, involve an “overlap” between “the § 101 patent eligibility inquiry and . . . the § 102 novelty inquiry.”⁷⁴ The Court also continued to maintain that *Flook* and *Diehr* are non-conflicting valid precedent, relying on a similar description of these two cases as in *Bilski*.⁷⁵

After *Bilski* and *Mayo*, the Federal Circuit issued a series of inconsistent decisions regarding the patent eligibility of claims directed to computer-implemented software or algorithms (i.e., abstract ideas). One faction of the court argued that a computer must “play a significant part in” or “be integral to” the claimed invention, “facilitating the process in a way that a person making calculations or computations could not” for the limitation to be “enough” to confer patent eligibility to an otherwise patent-ineligible abstract idea.⁷⁶ The other faction argued that unless a claim is so lacking in additional limitation that it is “manifestly evident that [it] is directed to a patent-ineligible abstract idea,” a claim incorporating an abstract idea is patent-eligible.⁷⁷ During this time, the

70. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012).

71. *Id.*

72. *Id.* at 1294–99.

73. *Id.* at 1298.

74. *Id.* at 1304.

75. *Id.* at 1299.

76. *Bancorp Servs. L.L.C. v. Sun Life Ins. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

77. *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1352 (Fed. Cir. 2012), *vacated*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc), *aff'd*, 134 S. Ct. 2347 (2014).

outcome of any particular case depended more on which judges heard the case, rather than the actual merits and the claim language.⁷⁸

Thus, *Bilski* and *Mayo* cast uncertainty on when, if ever, software executed by a physical computer is patent-eligible and, more generally, what limitations are “enough” to confer patent eligibility to an abstract idea. Commentators were eagerly awaiting a cause that would resolve the uncertainty in § 101 jurisprudence as applied to software.⁷⁹

II. THE SUPREME COURT’S *ALICE V. CLS BANK* DECISION

Part II discusses *Alice*. Section II.A provides a history of the case, including the fundamental disagreement at the Federal Circuit level that lead to a fractured en banc decision. Section II.B then discusses the Supreme Court’s analysis and holding in *Alice*.⁸⁰

78. Bernard Chao, *Interpreting CLS Bank Int’l v. Alice*, PATENTLY-O (Sept. 3, 2013), <http://patentlyo.com/patent/2013/09/interpreting-cls-bank-intl-v-alice.html> (observing that, even after the *CLS Bank* en banc decision, “success of any appeal to the Federal Circuit may simply be panel dependent”). The Federal Circuit issued six decisions between March 20, 2012, when the Supreme Court decided *Mayo*, and June 19, 2014, when the Supreme Court decided *Alice*, where at least one judge of the Federal Circuit that took part in *CLS Bank* also expressed an opinion regarding the patent eligibility of another software patent. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341 (Fed. Cir. 2012); *Bancorp Servs. L.L.C. v. Sun Life Ins. Co. of Can. (U.S.)*, 687 F.3d 1266 (Fed. Cir. 2012); *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335 (Fed. Cir. 2013); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336 (Fed. Cir. 2013); *SmartGene Inc. v. Advanced Biological Labs., SA*, 555 F. App’x 950 (Fed. Cir. 2014); *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 F. App’x 988 (Fed. Cir. 2014). In these decisions, the judges that found the system claims at issue in *CLS Bank* to be patent-eligible also found these other software patents patent-eligible five out of five times. *CLS Bank Int’l*, 685 F.3d at 1343; *Ultramercial, Inc.*, 722 F.3d at 1337; *Accenture Global Servs., GmbH*, 728 F.3d at 1347–48 (Rader, C.J., dissenting). On the other hand, the judges that held that all claims in *CLS Bank* were invalid also found these other software patents patent-ineligible eleven out of twelve times. *CLS Bank Int’l*, 685 F.3d at 1356 (Prost, J., dissenting); *Bancorp Servs. L.L.C.*, 687 F.3d at 1269; *Ultramercial, Inc.*, 722 F.3d at 1355 (Lourie, J., concurring); *Accenture Global Servs., GmbH*, 728 F.3d at 1337; *SmartGene Inc.*, 555 F. App’x at 951; *Cyberfone Sys., LLC*, 558 F. App’x at 989. The only time any Federal Circuit judge broke rank was when Judge Lourie found the claims at issue in *Ultramercial, Inc. v. Hulu, LLC* valid under § 101 and thought they ought to survive a motion to dismiss. *Ultramercial, Inc.*, 722 F.3d at 1355 (Lourie, J., concurring).

79. See, e.g., Chao, *Interpreting CLS Bank Int’l v. Alice*, *supra* note 78 (“Hopefully, the Supreme Court will resolve” the issue that, after *CLS Bank Int’l*, “the success of any appeal to the Federal Circuit may simply be panel dependent.”); Guy Gosnell & Jim Carroll, *CLS Bank Ruling Won’t Have Much Impact On Practitioners*, LAW360 (June 17, 2013, 12:31 PM), <http://www.law360.com/articles/448529/cls-bank-ruling-won-t-have-much-impact-on-practitioner>.

80. See also *supra* Part IV (discussing possible interpretations and effects of *Alice*).

A. PROCEDURAL HISTORY

On May 24, 2007, CLS Bank International sued Alice Corp. Pty. Ltd. seeking declaratory judgment of non-infringement, invalidity, and unenforceability of U.S. Patent No. 5,970,479 (“the ’479 patent”), U.S. Patent No. 6,912,510 (“the ’510 patent”), U.S. Patent No. 7,149,720 (“the ’720 patent”), and U.S. Patent No. 7,725,375 (“the ’375 patent”).⁸¹ The asserted claims covered a form of escrow that allows parties to enter into a contract scheduled to mature at a later time.⁸² For example, two individuals may agree in the morning to exchange currencies, but, to avoid allowing either party to gain a benefit by exactly timing its acceptance based on fluctuations in the exchange rate, the two individuals might agree that the exchange rate at the end of the day is controlling.⁸³ When forming such a contract, a mechanism is necessary to ensure that each party is still able to pay its side of the bargain at the end of the day.⁸⁴ The claimed invention solves this issue by having a trusted third-party keep track, via a so-called shadow credit and/or debit record, of a contracting party’s financial transactions between the time a contract is initially formed (e.g., in the morning, when the two individuals agree to exchange currencies) and when it matures (e.g., at the end of the day, when the controlling exchange rate is set).⁸⁵ The third-party blocks any financial transactions that would prevent a contracting party from performing its side of the contract.⁸⁶ Once the contract matures, the third-party instructs an exchange institution (e.g., the contracting party’s bank) to perform non-blocked financial transactions.⁸⁷ The claims asserted in this case included method, computer system, and computer-readable medium claims directed to this mechanism.⁸⁸

At the district court, CLS Bank moved for summary judgment after initial discovery, alleging that all asserted claims were directed to patent-ineligible subject matter.⁸⁹ Since claim construction had not yet taken place, the district court presumed “that the terms ‘shadow’ credit and/or

81. CLS Bank Int’l v. Alice Corp. Pty. Ltd., 768 F. Supp. 2d 221, 223, 228–29 (D.D.C. 2011), *aff’d*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc), *aff’d*, 134 S. Ct. 2347 (2014).

82. *Id.* at 224–225.

83. *See id.*

84. *See id.*

85. *See id.*

86. *See id.*

87. *See id.*

88. *Id.* at 224–28

89. *Id.* at 228.

debit record and ‘transaction’ in [the method claims] recite electronic implementation and a computer or an analogous electronic device.”⁹⁰ The court also defined the abstract idea as “[u]sing an intermediary, which may independently maintain records or accounts on the parties to ensure each party has sufficient value or worth to complete a proposed exchange, as a way to guarantee that a transaction is ultimately honored by all parties, thereby minimizing risk.”⁹¹ The court then found all asserted claims invalid under § 101 for preempting this abstract idea.⁹²

On appeal, a three-judge panel of the Federal Circuit reversed the district court’s decision, holding that it was not manifestly evident that the asserted claims were directed to patent-ineligible subject matter.⁹³

The Federal Circuit then granted CLS Bank’s petition for an en banc rehearing to decide (a) what test courts should adopt to determine whether a computer-implemented invention is a patent-ineligible abstract idea, including whether the recitation of a computer is “enough” to confer patent eligibility, and (b) whether the manner in which an invention is claimed (i.e., as a method, system, or storage medium) affects this determination.⁹⁴ Instead of definitively answering either of these questions, the en banc panel issued a *per curiam* decision with five opinions on the merits proposing “at least three incompatible standards, devoid of consensus,”⁹⁵ and “Additional reflections” by Chief Judge Rader lamenting

90. *Id.* at 237.

91. *Id.* at 244.

92. *Id.* at 245–53, 255.

93. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341, 1356 (Fed. Cir. 2012), *vacated*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc), *aff’d*, 134 S. Ct. 2347 (2014).

94. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 484 F. App’x 559 (Fed. Cir. 2012) (order granting rehearing en banc).

95. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1321 (Fed. Cir. 2013) (en banc) (Newman, J., concurring in part and dissenting in part), *aff’d*, 134 S. Ct. 2347 (2014). Judge Lourie wrote the first opinion, which was joined by Judges Dyk, Prost, Reyna, and Wallach. *Id.* at 1273 (Lourie, J., concurring). Chief Judge Rader wrote a second opinion, which was joined by Judge Moore and partially by Judges Linn and O’Malley. *Id.* at 1313 (Rader, C.J., concurring in part and dissenting in part). Judges Linn and O’Malley wrote a third opinion agreeing with Chief Judge Rader’s analysis, but disagreeing over how the method claims should be construed, believing them to be equivalent to the system claims. *Id.* at 1327 (Linn, J., and O’Malley, J., dissenting). Judge Moore also wrote a separate fourth opinion joined by Chief Judge Rader and Judges Linn and O’Malley (i.e., the judges who also joined Chief Judge Rader’s opinion), where he warned that endorsing Judge Lourie’s theory of § 101 would lead to “the death of hundreds of thousands of patents.” *Id.* at 1313 (Moore, J., dissenting in part). Judge Newman issued a final fifth opinion, arguing for the elimination of the exceptions to patent-eligible subject matter. *Id.* at 1321 (Newman, J., concurring in part and dissenting in part).

the state of § 101 jurisprudence.⁹⁶ Chief Judge Rader later went on to describe the *CLS Bank* en banc decision as “the greatest failure in [his] judicial career.”⁹⁷

The two main opinions, one written by Judge Lourie and the other by Chief Judge Rader, reflect two diverging perspectives on the purpose of the patent subject matter exceptions.⁹⁸ Even with this difference in perspective, Judge Lourie and Chief Judge Rader agreed on how to interpret prior Supreme Court precedent and the method and storage medium claims at issue.⁹⁹ However their fundamental disagreement on the purpose of the exceptions to patent-eligible subject matter, when coupled with the nature of computers, caused the two judges to diverge on the system claims.¹⁰⁰

Judge Lourie’s and Chief Judge Rader’s opinions each reflect one of two views on the purpose of the exceptions to patent-eligible subject matter—as a substantive limitation on patent scope to preclude issuance of overly broad patents,¹⁰¹ or as a coarse filter to preclude patents on certain types of discovery that would impede more than encourage progress.¹⁰²

96. *Id.* at 1333–35 (Rader, C.J., additional reflections).

97. Tony Dutra, *Rader Regrets CLS Bank Impasse, Comments on Latest Patent Reform Bill*, BLOOMBERG BNA (Oct. 29, 2013), <http://www.bna.com/rader-regrets-clsn17179879684>.

98. *Compare CLS Bank Int’l*, 717 F.3d at 1280–82 (Lourie, J., concurring) (arguing that a claim is patent-eligible if it includes “substantive limitations” so that the claim does not in practice cover an abstract idea) *with id.* at 1299–1300 (Rader, C.J., concurring in part and dissenting in part) (arguing that a claim is patent-eligible if it is “tie[d] to a concrete reality”).

99. *Compare id.* at 1280–89 (Lourie, J., concurring) (finding the method claims patent-ineligible) *with id.* at 1299–1305, 1311–13 (Rader, C.J., concurring in part and dissenting in part) (finding the method claims patent-ineligible).

100. *Compare id.* at 1289–92 (Lourie, J., concurring) (finding the system claims patent-ineligible) *with id.* at 1306–11 (Rader, C.J., concurring in part and dissenting in part) (finding the system claims patent-eligible). Additionally, a majority of judges agreed that the presumption of validity under § 282 also applies to challenges under § 101. *Id.* at 1284 (Lourie, J., concurring), 1304–05 (Rader, C.J., concurring in part and dissenting in part). Accordingly, an alleged infringer must prove by clear and convincing evidence that a patent is directed to a patent-ineligible abstract idea to invalidate it. Moreover, Judge Lourie’s conclusion that district courts do not have to address a § 101 challenge to an issued patent as a threshold matter and before addressing other theories of invalidity was not contested by any of the other judges. *Id.* at 1284 (Lourie, J., concurring)

101. *See, e.g.*, Robert D. Swanson, Note, *Section 101 and Computer-Implemented Inventions*, 16 STAN. TECH. L. REV. 161, 174 (2012); Mark A. Lemley et al., *Life After Bilski*, 63 STAN. L. REV. 1315, 1317 (2011).

102. *See, e.g.*, Joshua A. Kresh, Note, *Patent eligibility After Mayo: How Did We Get Here and Where Do We Go?*, 22 FED. CIR. B.J. 521, 521 (2013); Swanson, *supra* note 101, at 174.

Judge Lourie subscribed to the substantive limitation theory of § 101. According to his opinion, if a claim incorporates an abstract idea, it must also include “additional substantive limitations that narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself” and thus “preempt [one of] the fundamental tools of discovery.”¹⁰³ In contrast, Chief Judge Rader sided with the coarse filter theory. According to his opinion, the relevant inquiry under § 101 is whether “the claim contains limitations that meaningfully tie that idea *to a concrete reality* or actual application of that idea.”¹⁰⁴

Even with their disagreement on the purpose of the patent-eligible subject matter exceptions, Judge Lourie and Chief Judge Rader still shared a similar view of precedent and on many of the claims in the case. Thus, while the two judges disagreed over how to characterize the “inventive concept” referenced in *Mayo*, they agreed that “inventiveness” did not imply a requirement of novelty or non-obviousness.¹⁰⁵ Additionally, the two judges generally agreed on what types of limitations are *not* “enough”

103. *CLS Bank Int'l*, 717 F.3d at 1280–82 (Lourie, J., concurring).

104. *Id.* at 1299–1300 (Rader, C.J., concurring in part and dissenting in part) (emphasis added).

105. Chief Judge Rader argued that the Supreme Court’s reference to “inventive concept” should not be read “to instill an ‘inventiveness’ or ‘ingenuity’ component into the [§ 101] inquiry,” but instead as “shorthand for [the Supreme Court’s] inquiry into whether implementing the abstract idea in the context of the claimed invention inherently requires the recited steps.” *Id.* at 1302–03 (Rader, C.J., concurring in part and dissenting in part). Judge Lourie, on the other hand, argued that the “‘inventive concept’ . . . refers to a genuine human contribution to the claimed subject matter” and “a product of human ingenuity.” *Id.* at 1283 (Lourie, J., concurring) (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 307 (1980) (internal quotation marks omitted)). However, even under Judge Lourie’s interpretation, an “inventive concept” does not require “‘inventiveness’ in the same sense as that term more commonly applies to two of the statutory requirements for patentability, i.e., novelty and nonobviousness” and that the Supreme Court’s references to “routine” or “conventional” steps is to be understood as a question of whether “a claim . . . effectively covers the natural law or abstract idea itself.” *Id.* at 1282–84. Thus, while the two judges used different language, both agreed that the search for an “inventive concept” does not overlap with §§ 102 and 103 and is instead focused on whether the additional limitations actually limit the claim so that it is not coextensive with the abstract idea. Accordingly, Chief Judge Rader’s criticism of Judge Lourie’s definition of “inventive concept” as “imbu[ing] it with a life that is neither consistent with the Patent Act’s description of Section 101 nor with the totality of Supreme Court precedent” and “inject[ing] an ‘ingenuity’ requirement” is more a reflection of the deeply divided nature of the court than of any practical differences between the two definitions of “inventive concept.” *See id.* at 1303 n.5 (Rader, C.J., concurring in part and dissenting in part).

to confer patent eligibility.¹⁰⁶ As a result, the two judges agreed that the method and storage medium claims at issue were patent-ineligible, although their respective opinions use different language.¹⁰⁷

However, Judge Lourie and Chief Judge Rader passionately disagreed on how to treat the concrete recitations of computer hardware found in the system claims. This divergence stems from the very nature of computers. On one hand, computers are physical appliances that can be put on a desk and thus meet Chief Judge Rader's coarse filter of being grounded in a concrete and physical reality.¹⁰⁸ According to Chief Judge Rader's view, a concrete recitation of computer hardware is "enough" to confer patent eligibility if "the computer plays a meaningful role in the performance of the claimed invention."¹⁰⁹ Based on this premise, Chief

106. According to Judge Lourie, "a trivial appendix to the underlying abstract idea," limitations that "in practice fail to narrow the claim relative to the fundamental principle therein," "token or trivial limitations," "vague limitations cast in 'highly general language,'" "bare field-of-use limitations," and limitations that "are so insignificant, conventional, or routine as to yield a claim that effectively cover the natural law or abstract idea itself," do not render a claim otherwise directed to a patent-ineligible abstract idea patentable. *Id.* at 1283–84 (Lourie, J., concurring). Similarly, Chief Judge Rader noted that a claim is not meaningfully limited if it "merely describes an abstract idea or simply adds 'apply it,'" "contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment," or "provide[s] no real direction, cover[s] all possible ways to achieve the provided result, or [is] overly-generalized." *Id.* at 1300–01 (Rader, C.J., concurring in part and dissenting in part).

107. *Id.* at 1285–89 (Lourie, J., concurring) ("[T]here is nothing in the asserted method claims that represents '*significantly more*' than the underlying abstract idea for purposes of §101. . . . [U]pholding Alice's claims . . . 'would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea.'"); *id.* at 1311–13 (Rader, C.J., concurring in part and dissenting in part) ("Viewed individually, the recited elements only recite the steps *inherent* in [the abstract] concept (stated at a high level of generality and implement those steps according to methods long used in escrows according to the record in this case." (emphasis added)).

108. *See id.* at 1299–1300 (Rader, C.J., concurring in part and dissenting in part) ("A claim may be premised on an abstract idea—the question for patent eligibility is whether the claim contains limitations that meaningfully tie that idea *to a concrete reality* or actual application of that idea." (emphasis added)); *id.* at 1320 (Moore, J., dissenting in part) ("Looking at these hardware and software elements, it is impossible to conclude that this claim is merely an abstract idea. It is a pure system claim, directed to a specific machine configured to perform certain functions. Indeed, the computer covered by this claim is a tangible item that you could pick up and put on your desk.").

109. *Id.* at 1302 (Rader, C.J., concurring in part and dissenting in part). The requirement of a meaningful role ensures that the recitation of computer hardware is not merely tangential to the claimed invention and thus "insignificant or token pre- or post-solution activity" insufficient to confer patent eligibility. *See id.* at 1300–01.

Judge Rader found the system claims at issue patent-eligible.¹¹⁰ On the other hand, all computers include generic hardware elements and perform the same basic functions.¹¹¹ Accordingly, the recitation of generic computer hardware is in practice, due to the universal presence of computers in modern life, not a substantive limitation on claim scope, as required for patent eligibility under Judge Lourie's substantive limitation analysis.¹¹² Thus, according to Judge Lourie, "[u]nless the claims require a computer to perform operations that are not merely accelerated calculations, a computer does not itself confer patent eligibility."¹¹³ In view of this requirement, Judge Lourie found the system claims at issue patent-ineligible.¹¹⁴

Therefore, while Judge Lourie and Chief Judge Rader converged with regards to the method and storage medium claims, their disagreement on the purpose of the subject matter eligibility exceptions to patent-eligible subject matter caused the two judges to diverge with regards to the system claims. The result was a "hopelessly fractured" Federal Circuit.¹¹⁵ The judges that agreed with Chief Judge Rader also joined an opinion written by Judge Moore arguing that Judge Lourie's approach would cause "the death of hundreds of thousands of patents, including all business method, financial system, and software patents as well as many computer implemented and telecommunications patents."¹¹⁶ These judges accused Judge Lourie of being plain "wrong" and of "trampl[ing] upon a mountain of precedent."¹¹⁷ Moreover, Chief Judge Rader's "Additional reflections" lamented recent Supreme Court precedent regarding § 101, calling it "a good mystery" containing "subjective and empty words" that left the Federal Circuit "with little, if any, agreement . . . even though [§ 101] has not changed a syllable."¹¹⁸ Given this chaos, Supreme Court intervention

110. *Id.* at 1306–11.

111. *See* *Merges, Go Ask Alice*, *supra* note 30 ("novel hardware elements are simply not a prominent feature of many software patents").

112. *See* *CLS Bank Int'l*, 717 F.3d at 1286 (Lourie, J., concurring).

113. *Id.* Chief Judge Rader heavily criticized this requirement, arguing that it meant that "computer implementation could never produce patent eligibility," since "[e]verything done by a computer can be done by a human." *Id.* at 1306 n.7 (Rader, C.J., concurring in part and dissenting in part).

114. *Id.* at 1289–92 (Lourie, J., concurring).

115. Gosnell, *supra* note 79.

116. *CLS Bank Int'l*, 717 F.3d at 1313 (Moore, J., dissenting in part).

117. *Id.* at 1313–14.

118. *Id.* at 1335 (Rader, C.J., additional reflections).

was almost inevitable,¹¹⁹ and, as anticipated, the Court granted the petition for writ of certiorari.¹²⁰

B. THE SUPREME COURT DECISION

The Court's skepticism regarding the patentability of the claims at issue in *Alice* was foreshadowed during oral arguments. Justice Breyer questioned whether the claims amounted to anything more than an accounting system in use since the days of King Tut, except that the system was implemented using a computer instead of a person holding an abacus.¹²¹ Justice Kennedy noted that the innovative aspect of the claimed invention did not lie in implementing the abstract idea at issue on a computer, but in the abstract idea itself.¹²² Justice Kennedy thus questioned whether, given the abstract idea, "any computer group of people sitting around a coffee shop in Silicon Valley" or "any second-year college class in engineering" could program the software necessary to implement the claimed invention.¹²³

So, it came as no surprise when the Supreme Court unanimously decided that all of the claims at issue in *Alice* were patent-ineligible.¹²⁴ The holding of the case is a straightforward application of precedent—since an abstract idea does not become patent-eligible by merely adding the words "apply it"¹²⁵ or by limiting it "to a particular technological environment,"¹²⁶ "[s]tating an abstract idea while adding the words 'apply it with a computer' simply combines those two steps" and does not confer patent eligibility.¹²⁷ The Supreme Court then decided that the claims at issue, including all of the method, system, and storage medium claims, do no more than "simply instruct the practitioner to implement the abstract idea

119. See Chao, *Interpreting* CLS Bank Int'l v. Alice, *supra* note 78; Gosnell, *supra* note 79.

120. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 734, 735 (2013) (granting petition for writ of certiorari).

121. Transcript of Oral Argument at 6, *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014) (No. 13-298).

122. *Id.* at 5.

123. *Id.* at 5, 12.

124. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2352. All justices joined the majority opinion. *Id.* at 2360–61 (Sotomayor, J., concurring). However, Justices Sotomayor, Ginsburg, and Breyer maintained the reasoning found in the concurring opinion of Justice Stevens in *Bilski*. *Id.* at 2360–61. According to these three Justices, the claims at issue were patent ineligible for the additional reason that they were directed to a method of doing business, because such a method "does not qualify as a 'process' under § 101." *Id.*

125. *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1294 (2012).

126. *Bilski v. Kappos*, 130 S. Ct. 3218, 3230 (2010).

127. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358 (majority opinion).

of intermediated settlement on a generic computer.”¹²⁸ The holding effectively killed all pure business method patents (i.e., all patents that merely recite an abstract economic practice and only add “apply it with a computer”); however, its impact on the larger field of software patents remains to be seen.

Before reaching the particular claims at issue, the Court first announced that the patent subject matter exceptions are motivated by a concern over pre-emption.¹²⁹ All exceptions, “laws of nature, natural phenomena, and abstract ideas,” are to be treated equally.¹³⁰ Additionally, the analysis does not change based on the form of the claim; instead, in *Alice*, the Court analyzed the system claims in the exact same manner as the method claims.¹³¹ As for what types of limitations are “enough” to confer patent eligibility, the Court framed the inquiry in the following manner:

[I]n applying the § 101 exception, we must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into a patent-eligible invention. The former would risk disproportionately tying up the use of the underlying ideas, and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption,

128. *Id.* at 2359.

129. *Id.* at 2355.

130. *See id.* (indicating that the *Mayo* framework further elaborated in *Alice* applies to all three common law exceptions to patent eligibility).

131. *See id.* at 2360 (finding the system and computer-readable medium claims to be “no different from the method claims in substance” and thus invalid “for substantially the same reasons”). The Supreme Court’s similar treatment of all of the exceptions to patent-eligible subject matter and proclamation that the form of a claim is irrelevant triggered a change in the PTO’s examination practices. Following *Mayo*, the PTO issued instructions on how Examiners are to treat process (i.e. method) claims that involve laws of nature/natural correlations. Memorandum from Andrew H. Hirshfeld, Deputy Comm’r for Patent Examination Policy, to Patent Examining Corps 4–9 (July 3, 2012), available at http://www.uspto.gov/patents/law/exam/2012_interim_guidance.pdf. These instructions also indicated that product (e.g., system and storage medium) claims are to be analyzed under the *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101* and that process claims directed to an abstract idea should be analyzed under the *2010 Interim Bilski Guidance*. *Id.* at 3. Following *Alice*, the PTO issued a new memorandum, which applies to all claims, regardless of whether they are process or product claims, and regardless of whether they incorporate an abstract idea or a law of nature/natural correlation. Memorandum from Andrew H. Hirshfeld, Deputy Comm’r for Patent Examination Policy, to Patent Examining Corps 2 (June 25, 2014), available at http://www.uspto.gov/patents/announce/alice_pec_25jun2014.pdf.

and therefore remain eligible for the monopoly granted under our patent laws.¹³²

According to the Court's two-step framework, a court must first "determine whether the claims at issue are directed to one of those patent-ineligible concepts."¹³³ Next, the court must inquire whether the elements of a claim, either individually or as an ordered combination, have added "enough" to transform the patent-ineligible concept into a patent-eligible application.¹³⁴ The Court indicated that its previous references to "inventive concept" and "enough" are synonymous, each referring to "an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself."¹³⁵

Turning to the particular claims at issue, the Court first found that each claim is directed to the abstract idea of intermediate settlement.¹³⁶ Specifically, the Court considered the claims in *Alice* to be analogous to the claims in *Bilski*—each constituted "a fundamental economic practice long prevalent in our system of commerce."¹³⁷ The Court also described the concept as "a building block of the modern economy" and as "a method of organizing human activity."¹³⁸ After determining that the

132. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2354–55 (citations and internal quotation marks omitted).

133. *Id.* at 2355.

134. *Id.*

135. *Id.* (internal quotation marks omitted).

136. *Id.* at 2356.

137. *Id.* In fact, the Supreme Court cited a book from 1896 to underscore this point. *Id.* At least one commentator took notice that the Supreme Court appears to be relying "upon the prevalence of a practice in the prior art" when determining that it is an abstract idea. Rebecca S. Eisenberg, *Symposium: Business Methods as "Abstract Ideas"—Explaining the Opacity of Alice and Bilski*, SCOTUSBLOG (June 23, 2014, 1:08 PM), <http://www.scotusblog.com/2014/06/symposium-business-methods-as-abstract-ideas-explaining-the-opacity-of-alice-and-bilski>. She went on to argue that this indicates that the Supreme Court is modifying § 101 jurisprudence from "preventing the patenting of basic tools because they are too important to leave to the exclusive control of a patent holder" into "prevent[ing] the patenting of modest variations on longstanding practices that are unworthy of patent protection because they add too little to what is already conventional." *Id.* However, the Federal Circuit in *Ultramercial* subsequently held that even an idea that incorporates novel steps may, standing alone, nonetheless be abstract. *Ultramercial, Inc. v. Hulu LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) ("We do not agree with Ultramercial that the addition of merely novel or non-routine components to the claimed idea necessarily turns an abstraction into something concrete. In any event, any novelty in implementation of the idea is a factor to be considered only in the second step of the *Alice* analysis.").

138. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356.

particular type of intermediate settlement at issue was an abstract idea, the Court refused to further “delimit the precise contours of the ‘abstract idea’ category.”¹³⁹ The Court also rejected petitioners’ argument that an idea must exist independent of human action in order to qualify for the abstract idea exception.¹⁴⁰

Next, in step two of its analysis, the Supreme Court asked whether the *Alice* claims add “enough” to the abstract idea, i.e., whether they contain an “inventive concept” to transform this abstract idea into a patent-eligible application.¹⁴¹ To guide this analysis, the Court reviewed its precedent.¹⁴² In doing so, the Court noted that “well-understood, routine, conventional activities previously known to the industry” were not sufficient to confer patent eligibility.¹⁴³ Next, the Court determined that the ubiquity of computers means that “wholly generic computer implementation” and “a generic computer . . . perform[ing] generic computer functions” are insufficient to protect against drafting efforts to monopolize an abstract idea and thus not “enough” to confer patent eligibility.¹⁴⁴ This analysis indicates that the Court sided with Judge Lourie’s perspective of computer hardware, the purpose behind the exceptions to § 101, and when computer-implementation may confer patent eligibility.¹⁴⁵ Furthermore, the Court considered the tangible nature of computers and that they “necessarily exist in the physical, rather than purely conceptual realm”

139. *Id.* at 2357.

140. *Id.* at 2356–58.

141. *Id.* at 2357.

142. *Id.* at 2357–58.

143. *Id.* at 2359 (internal quotation marks omitted).

144. *Id.* at 2358–59.

145. Compare *id.* at 2358 (“[W]holly generic computer implementation is not generally the sort of ‘additional feature’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the abstract idea itself.’”) with *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1286 (Fed. Cir. 2013) (Lourie, J., concurring) (“Furthermore, simply appending generic computer functionality to lend speed or efficiency to the performance of an otherwise abstract concept does not meaningfully limit claim scope for purposes of patent eligibility.”), *aff’d*, 134 S. Ct. 2347 (2014). In fact, the Supreme Court explicitly cited Judge Lourie’s opinion in *CLS Bank Corp. Pty. Ltd.*, 134 S. Ct. at 2358–59. Moreover, this conclusion is consistent with previous Supreme Court precedent, where the Court also viewed the exceptions to patent-eligible subject matter as a substantive limitation meant to protect against overly broad claims. See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301 (2012) (finding the claims at issue in *Mayo* and the claim previously at issue in *Benson* to be “overly broad” and thus patent-ineligible); Lemley, *Life After Bilski*, *supra* note 101, at 1332–36 (arguing that the substantive limitation theory explains the outcome in each of the major Supreme Court cases dealing with patent eligibility).

irrelevant to its § 101 inquiry, which is in direct conflict with Chief Judge Rader's coarse filter theory.¹⁴⁶

Finally, the Supreme Court concluded that the system and storage medium claims "are no different from the method claims in substance," and thus are patent-ineligible for substantially the same reasons as the method claims.¹⁴⁷

As apparent in the aftermath of *Alice*, the Supreme Court's holding has killed pure business method patents, since reciting a fundamental economic practice and instructing a practitioner to implement it with a computer is not patent-eligible.¹⁴⁸ At the same time, *Alice* leaves room for interpretation with regards to other types of software patents, and it remains to be seen how courts and the PTO actually implement the Court's guidance. Most importantly, it remains to be seen whether the Court's endorsement of Judge Lourie's perspective "is the death of hundreds of thousands of patents, including all business method, financial system, and software patents as well as many computer implemented and telecommunication patents."¹⁴⁹

III. SOFTWARE AND SOFTWARE PATENTS

With the legal background in place, Part III explores the stakes in the patent eligibility controversy—software innovation. Section III.A explains what software is and how it is designed, while Section III.B provides an overview of the debate regarding whether software patents promote or discourage innovation.

146. *Compare Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358–59 ("The fact that a computer 'necessarily exists in the physical, rather than purely conceptual, realm,' . . . is beside the point. There is no dispute that a computer is a tangible system (in § 101 terms, a 'machine')," but, "if that were the end of the § 101 inquiry," "[s]uch a result would . . . eviscerate[e] [the common law exceptions to patent eligibility.]" *with CLS Bank Int'l*, 717 F.3d at 1305 (Rader, C.J., concurring in part and dissenting in part) ("If tying a method to a machine can be an important indication of patent eligibility, it would seem that a claim embodying the *machine itself*, with all its structural and functional limitations, would rarely, if ever, be an abstract idea."); *id.* at 1314 (Moore, J., dissenting in part) ("[N]o contortion of the term 'abstract idea' can morph this physical system into an abstract idea.").

147. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2360.

148. *See id.* at 2358–59.

149. *CLS Bank Int'l*, 717 F.3d at 1313 (Moore, J., dissenting in part).

A. DEFINING SOFTWARE

Modern software has become vastly more complex than the simple flowcharts at issue in *Benson*.¹⁵⁰ Today, it is impractical for any practitioner to sit down and write all the individual software instructions that make up even a simple program.¹⁵¹ As such, software has evolved from a flowchart model, where numerical operations are serially performed on a particular set of inputs, into a layered model, where different components of software blindly rely on each other to provide certain functionalities.¹⁵² Ironically, given the subject matter of this Note, this layered approach to software design is called “abstraction.”¹⁵³ Abstraction allows for easier design and debugging of software, since practitioners can design, implement, debug, and subsequently upgrade an individual layer without having to simultaneously modify other layers.¹⁵⁴ Similarly, practitioners can import an improved version of a given layer without having to modify existing layers.¹⁵⁵

To facilitate discussion and avoid confusion, the remainder of this Note will discuss software with the following exemplary set of software layers:

150. See PATTERSON, *supra* note 1, at 10 (“A typical application, such as a word processor or a large database system, may consist of millions of lines of code and rely on sophisticated software libraries that implement complex functions in support of the application.”).

151. See *id.* at 10, 21 (“This principle . . . is the way both hardware designers and software designers cope with the complexity of computer systems.”).

152. See *id.* at 20 (“To go from a complex application to the simple instructions involves several layers of software that interpret or translate high-level operations into simple computer instructions.”), 20–21 (“Typically, the operating system will encapsulate the details of doing I/O, allocating memory, and other low-level system functions so that application programmers do not need to worry about such details.”); see also *Android Interfaces*, ANDROID DEVELOPERS, <http://source.android.com/devices/index.html> (last visited Jan. 30, 2015) (Application developers only need to concern themselves with one out of five software layers, as all other communication between these layers “is hidden from the developer and things appear to ‘just work.’”).

153. See PATTERSON, *supra* note 1, at 20 (“The use of such layers, or *abstractions*, is a principal technique for designing very sophisticated computer systems.”); see also *Android Interfaces*, *supra* note 152 (discussing a hardware *abstraction* layer (HAL)).

154. See Oracle Corp., *What Is an Object?*, THE JAVA™ TUTORIALS, <http://docs.oracle.com/javase/tutorial/java/concepts/object.html> (last visited Feb. 10, 2015) (discussing some of the benefits of “object oriented programming,” which is a type of layering used in software design).

155. See *id.*

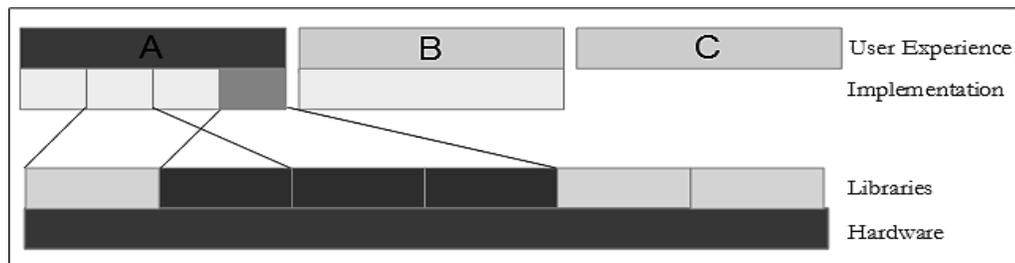


Figure 1: User experience A might be a video game, user experience B might be a ranking algorithm, and user experience C might be the user interface of a word processing program.

To give a concrete example before diving into the details of each layer, assume that these layers correspond to software and hardware found within a cellular phone, and that the highlighted blocks are all of the software and hardware components involved in allowing a user to play a video game (i.e., the components involved in providing user experience *A*). A practitioner designing software for this cellular phone, such as an application developer, would set out to create the video game (i.e., user experience *A*). To accomplish this, the application developer would only have to write the code corresponding to a single implementation.¹⁵⁶ In writing this code, the application developer would be able to call functions provided by one or more components of the library layer (e.g., the Android operating system) for common tasks such as storing data, receiving user input, triggering interruptions, or displaying graphics to the user.¹⁵⁷ The application developer does not need to know how the library layer accomplishes each of these tasks. Instead, she only needs to know what inputs the library layer requires and what it promises as its output or result (i.e., the application programming interface).¹⁵⁸ The library layer, in turn, is the only layer that then actually interacts with the hardware.¹⁵⁹ This allows the same video game to function on any cell phone or tablet, regardless of its hardware, that has a library layer with the same

156. See *Android Interfaces*, *supra* note 152 (an application developers only needs to write the application framework layer). The application developer may, however, decide to break up the implementation layer into multiple layers to further simplify development using, e.g., object oriented programming. See Oracle Corp., *supra* note 154.

157. See *Android Interfaces*, *supra* note 152 (“The Binder Inter-Process Communication mechanism allows the application framework to cross process boundaries and call into the Android system services code.”).

158. See *id.*

159. See *id.* (“The [hardware abstraction layer (HAL)] serves as a standard interface that allows the Android system to call into the device driver layer while being agnostic about the lower-level implementations of your drivers and hardware.”).

application programming interface (e.g., another cell phone that runs the Android operating system).¹⁶⁰ Thus, the implementation layer is hardware agnostic, which allows for hardware independence (i.e., the same piece of software can be executed on other hardware platforms).¹⁶¹ Hardware independence is a desirable goal in software development, as it allows the application developer to reach a wider consumer base than if the program could run only on specific devices.¹⁶²

The user experience is what the user actually expects a piece of software to accomplish—it is the end-result of running the piece of software. For example, a user experience might be the interface displayed in a word processing program and the set of features available to the user, or the user experience might involve storing files selected by a user to the cloud. The patents at issue in *Alice* illustrate another example of a user experience—blocking transactions that a particular user cannot afford during the time period after a contract is formed but before it matures, and then settling these transactions at the end of the day.¹⁶³

If the user experience layer is *what* a piece of software accomplishes, then the next layer, the implementation layer, is the first layer that describes *how* that piece of software accomplishes this particular result. Now, a given user experience might have multiple different implementations that lead to the same result, as is the case with user experience *A*. Alternatively, only a single implementation might be possible or currently known, as is the case with user experience *B*. Finally, while in theory every user experience has an underlying implementation, in some cases the implementation might be straightforward and there might be a direct mapping between the user experience and the libraries utilized by the implementation. Described using legal terminology, such an implementation would be an inherent part of the user experience or at most involve “well-understood, routine, conventional activities.” To highlight this situation, user experience *C* is drawn with no

160. See *id.*; see also *Device Compatibility*, ANDROID DEVELOPERS, <http://developer.android.com/guide/practices/compatibility.html> (last visited Jan. 30, 2015) (“Android is designed to run on many different types of devices, from phones to tablets and televisions.”).

161. See *Android Interfaces*, *supra* note 152; see also *Device Compatibility*, *supra* note 160.

162. See *Device Compatibility*, *supra* note 160; see also PATTERSON, *supra* note 1, at 20–21 (“[The] abstract interface [between the hardware and low-level software] allows many *implementations* of varying cost and performance to run identical software.”).

163. See *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1285 (Fed. Cir. 2013) (en banc) (Lourie, J. concurring), *aff’d*, 134 S. Ct. 2347 (2014).

implementation at all. The claims at issue in *Alice* fall into this third category—any implementation necessary to achieve the user experience claimed in the *Alice* patents is already directly reflected in the claimed user experience, and thus inherently part of the user experience or at most constitutes “well-understood, routine, conventional activities.”¹⁶⁴

The next layer, the library layer, consists of software that might be useful to a number of different implementations and that thus is maintained as part of a central library accessible by all of these different implementations. Grouping such universally useful software into a single set of libraries saves storage space by eliminating redundant code, allows the implementation layers to be hardware agnostic, and facilitates improvements by allowing practitioners to update a single library instead of individually modifying each implementation that uses this library.¹⁶⁵ In the context of personal computer (“PC”) architecture, the library layer may include the operating system that bridges the gap between applications and the hardware.¹⁶⁶ Other functionalities that are frequently included in the library layer are media players, compression algorithms, display formats, user interface elements, and network connection managers.¹⁶⁷

Finally, there is the hardware itself. The line between software and hardware is a fluid one, however, since anything coded in software can also be implemented directly in hardware.¹⁶⁸ The decision of whether to implement a particular feature in hardware or software is merely a design choice—it is easier to implement features in software, but hardware is capable of performing the same processing faster.¹⁶⁹

164. See *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2359 (2014).

165. See Oracle Corp., *supra* note 154.

166. See PATTERSON, *supra* note 1, at 10.

167. See *Class Index*, ANDROID DEVELOPERS, <http://developer.android.com/reference/classes.html> (last updated Feb. 12, 2015, 7:42 PM) (listing classes within the Android operating system that are available to developers for use).

168. *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1306 (Fed. Cir. 2013) (en banc) (Rader, C.J., concurring in part and dissenting in part); see also Paul Graham, *Are Software Patents Evil?*, PAULGRAHAM (Mar. 2006), <http://www.paulgraham.com/softwarepatents.html> (“Since software patents are no different from hardware patents, people who say ‘software patents are evil’ are saying simply ‘patents are evil.’”).

169. See *Hardware or Software Video Decoder?*, ANDROIDCENTRAL, <http://forums.androidcentral.com/google-nexus-7-tablet-2012/240201-hardware-software-video-decoder.html> (last updated Jan. 18, 2014, 12:06 PM) (online forum where practitioners discuss the benefits and drawbacks of using a hardware versus software video decoder). The line between software and hardware is further blurred because many features that, from the perspective of the main processor, are performed by hardware are actually still implemented as software running on a separate and specialized digital signal processor. See *A Beginner’s Guide to Digital Signal Processing*, ANALOG

B. THE ROLE OF SOFTWARE PATENTS

The trade-off in determining the appropriate level of patent protection is easily stated—the benefit of encouraging innovation through the grant of a monopoly versus the cost of that monopoly to consumers and follow-on innovators—but difficult to measure.¹⁷⁰ This balance becomes especially delicate in a cumulative field, such as software, where components need to interact and build on each other to accomplish a particular user experience.¹⁷¹ In cumulative fields, allowing overly broad patents is likely to harm innovation in the future more than it encourages innovation in the present¹⁷²—the very concern the Supreme Court is attempting to solve via its § 101 jurisprudence.¹⁷³

Moreover, software is especially susceptible to overly broad patents. Each software layer individually is fully functional—it can be described and claimed by stating only its desired outcome.¹⁷⁴ This functional aspect of software claiming has led to overly broad software patents. The existence of such broad functional claims is especially troubling if a practitioner who creates a particular user experience is able to claim it by merely reciting the user experience and appending “apply it with a computer” (i.e., a claim reciting only the elements highlighted below). The scope of such a claim is illustrated below:

DEVICES, http://www.analog.com/en/content/beginners_guide_to_dsp/fca.html (last visited Feb. 10, 2015).

170. See Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1340 (1987).

171. See Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 908–911 (1990).

172. See *id.*

173. See Lemley, *Life After Bilski*, *supra* note 101, at 1317–18; *supra* Section II.B.

174. Kevin E. Collins, *Patent Law’s Functionality Malfunction and the Problem of Overbroad, Functional Software Patents*, 90 WASH. U. L. REV. 1399, 1402–03 (2013).

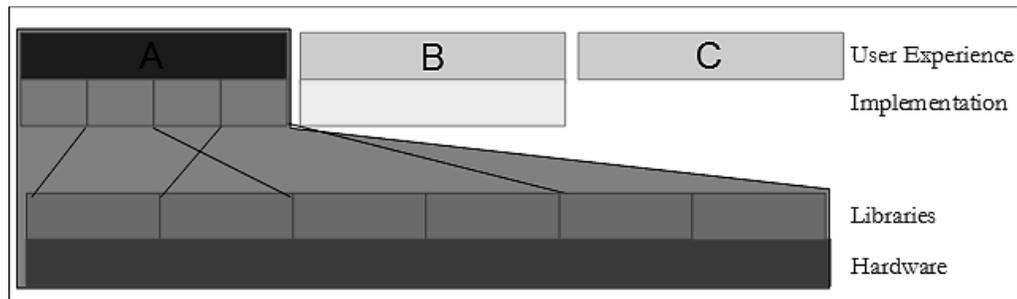


Figure 2: The scope of a claim reciting only a user experience implemented with a computer is represented by the transparent overlay.

While the inventor may be the first to provide user experience *A*, what she really built is only a single implementation that leads to user experience *A*. However, by framing a claim as directed to user experience *A* “applied with a computer,” she is able to lay claim to and prevent others from competing with her in providing user experience *A*, regardless of how little a potential competitor’s implementation has in common with her own implementation.¹⁷⁵ The scope of her claim is thus not commensurate with her “practical, real-world contribution,” and her patent is therefore overly broad.¹⁷⁶

Software patents also frequently present notice externalities—additional costs that arise from unclear and not easily discoverable property boundaries.¹⁷⁷ In general, intangible property rights, such as patents, are more prone to notice externalities than real property rights, since intangible properties can overlap in scope and there are no physical boundaries.¹⁷⁸ Moreover, software patents are especially susceptible to notice concerns due to uncertainty regarding their claim scope¹⁷⁹ caused by the amorphous claim language often found in software patents¹⁸⁰ and the lack of a common nomenclature.¹⁸¹ This problem is further compounded by the difficulty of searching for potentially infringed patents and the

175. Mark A. Lemley, *Software Patents and the Return of Functional Claiming*, 2013 WIS. L. REV. 905, 907–08 (2013) (By obtaining broad functional claims, patentees “effectively capture[] ownership not of what they built, but of anything that achieves the same goal, no matter how different it is.”).

176. Lemley, *Life After Bilski*, *supra* note 101, at 1317.

177. Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 1–10 (2013).

178. *Id.* at 2, 15–17.

179. *Id.* at 33.

180. *Id.* at 20.

181. *Id.* at 36.

dubious validity of many software patents.¹⁸² In fact, it is reasonable to assume that every new software startup infringes patents without knowing.¹⁸³ Lack of notice, in turn, creates additional costs to other practitioners in the industry, such as costs of searching for and analyzing potentially infringed patents, and litigation costs if licensing fails,¹⁸⁴ thereby discouraging innovation.¹⁸⁵

This notice problem is even more disconcerting in the case of overly broad software patents, such as a patent that claims a library divorced from any particular user experience or implementation:

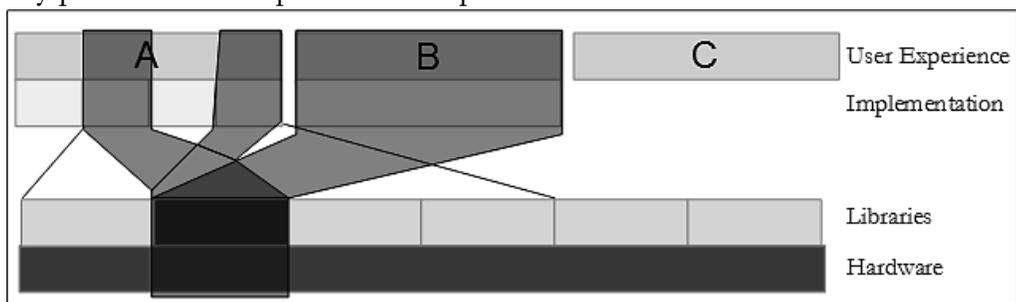


Figure 3: The scope of a claim reciting only a library implemented with a computer is represented by the transparent overlay.

While a practitioner may have initially implemented the claimed library as part of software that achieves one user experience (e.g., user experience *A*) and described the library in this manner within the patent's specification, the claim illustrated above would also be infringed by other practitioners working in unrelated fields (e.g., user experience *B*). Thus, another practitioner wanting to perform a freedom to operate search (i.e., a search performed before entering a field to determine whether there are any incumbent IP rights) before creating a software product would not just have to contend with the inherent vagueness of software claims, but additionally would be unable to confine her search to any particular area of technology (i.e., user experience). For example, assume there existed a patent on the Fast Fourier Transform.¹⁸⁶ Further, assume that in its

182. *Id.* at 5–6.

183. Graham, *supra* note 168 (“Don’t waste your time worrying about patent infringement. You’re probably violating a patent every time you tie your shoelaces.”).

184. Menell, *Notice Failure*, *supra* note 177, at 9–10.

185. *Id.* at 39.

186. The Fast Fourier Transform is an algorithm for converting a signal (e.g., a sound wave) back and forth between the time domain (e.g., the vibrations in the air a human ear picks up as sound) and the frequency domain (e.g., what combination of frequencies or notes are present in the sound). See Phil Burk et al., *Chapter 3: The*

specification this patent presents the algorithm in the context of sound processing, but then claims the algorithm independent of any sound processing (i.e., the patent only claims the library layer without any accompanying user experience). Even if a practitioner working on a new magnetic resonance imaging (“MRI”) machine were to invest an impractically large amount of time and money to perform a complete freedom to operate search within the field of medical imaging, she would still never discover the Fast Fourier Transform patent, since the only concrete use mentioned in the patent is sound processing.

Despite these negative aspects, commentators have argued that at least some software innovation is appropriately encouraged using patent protection. Developing a new software algorithm is not inherently different from other research and development investments, and software innovation should thus be encouraged via patent protection for the same reasons as innovation in these other fields.¹⁸⁷ Additionally, software, when executed by a computer, is a physical process performed by physical circuits and thus not different from or any more abstract than the more traditional inventions that have historically enjoyed patent protection.¹⁸⁸ At the same time, other commentators have argued that the software industry is fundamentally different from other industries, since software consumers are also likely to build upon an invention, leading to follow-on software innovation.¹⁸⁹ Introducing patent protection into such an ecosystem not only raises the price of the original invention to consumers, but also decreases the number of consumers improving the original invention, and thus decreases follow-on innovation.¹⁹⁰

In the end, resolving the debate over whether or not software innovation is appropriately encouraged using patent protection is outside the scope of this Note. In fact, it is difficult if not impossible to determine whether any particular software innovation deserved patent protection,¹⁹¹

Frequency Domain, MUSIC AND COMPUTERS: A THEORETICAL & HIST. APPROACH, http://music.columbia.edu/cmc/musicandcomputers/chapter3/03_04.php (last visited Feb. 8, 2015). The Fast Fourier Transform has allowed advances in a variety of fields, including medical imaging, wireless communication, sound processing, and many more. *See, e.g.*, Newell, *supra* note 17, at 1028.

187. Chisum, *supra* note 17, at 1015; *see also* Merges, *Go Ask Alice*, *supra* note 30 (arguing that the Google page rank patent “ought to survive Section 101 analysis”).

188. *See* PATTERSON, *supra* note 1, at 329 fig.4.24.

189. Newell, *supra* note 17, at 1033–34.

190. *See id.*

191. Before concluding that any particular innovation was appropriately encouraged using patent protection, the benefit to society of a patent on this innovation must be

and this Note does not attempt to make any such determination. However, software innovation is not categorically excluded from patent protection under current Supreme Court precedent.¹⁹² Thus, if *some* software innovation remains patent-eligible, it becomes necessary to distinguish between software innovation that is *less* deserving of patent protection and software innovation that is *more* deserving of patent protection. Given that the patent-eligible subject matter exceptions serve as a substantive limitation to protect against overly broad patents,¹⁹³ this entails distinguishing between software patents based on their claim scope, instead of finding both claims that are commensurate in scope with the inventor's contribution and overly broad claims on business methods equally patent-ineligible.

IV. INTERPRETING ALICE

While the central holding in *Alice* is relevant, it came as no surprise— instructing a practitioner to apply an abstract idea with a computer is not “enough” to confer patent eligibility.¹⁹⁴ The full effect of *Alice*, however, depends on what lower courts and the PTO do with the Court's guidance. Part IV provides an overview of the different interpretations of *Alice* used by courts, the PTO, and commentators when performing each of the two steps of the *Alice* framework, and proposes an alternative interpretation for each step. Section IV.A discusses step one of this analysis, and Section IV.B discusses step two.

A. STEP ONE—WHAT IS AN ABSTRACT IDEA?

Courts interpreting step one of the *Alice* framework differently will identify different abstract ideas even in the same claim. Section IV.A discusses three different tests for step one that have emerged since the *Alice* decision—a “mathematical formula” test employed by some courts and the PTO (Section IV.A.1), a pen-and-paper test employed by other

weighed against the social costs of the granted monopoly to determine whether society truly benefited from the patent's existence. Menell, *Tailoring Legal Protection for Computer Software*, *supra* note 170, at 1340. However, determining if any particular innovation would have occurred but-for patent protection and quantifying the social benefits and costs of a patent on that particular innovation is difficult if not impossible.

192. *Bilski v. Kappos*, 130 S. Ct. 3218, 3226–27 (2010); *supra* Section I.C; *see also* *Ca. Inst. of Tech. v. Hughes Commc'ns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *7–8 (C.D. Cal. Nov. 3, 2014) (arguing that Congress “contemplate[d] the existence of software patent” when it passed the America Invents Act and that “the Supreme Court . . . implicitly endorsed the patentability of software”).

193. *See supra* Section II.B.

194. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2358 (2014).

courts (Section IV.A.2), and a “multiple abstract ideas” test proposed in this Note (Section IV.A.3).

1. *The Mathematical Formula Test*

Following *Alice*, the Federal Circuit in *DDR Holdings, LLC v. Hotels.com, L.P.*,¹⁹⁵ and the PTO¹⁹⁶ apparently have tried to limit the impact of *Benson* on software by applying what this Note refers to as a “mathematical formula test” for identifying a patent-ineligible abstract idea—within the context of algorithms, only “mathematical” algorithms, relationships, and formulas¹⁹⁷ constitute abstract ideas. Thus, in *DDR Holdings, LLC*, the claims at issue recited features of an algorithm, including “a computer server” that receives “a signal” indicating that a link was selected, “automatically identif[ies]” the source page corresponding to the selected link, “automatically retrieve[s] . . . stored data corresponding to the source page,” and, “using the data retrieved, automatically generate[s] and transmit[s] . . . a second web page.”¹⁹⁸ However, the court noted that “identifying the precise nature of the abstract idea is not as straightforward as in *Alice*,” in part because the “asserted claims do not recite a *mathematical* algorithm.”¹⁹⁹ Similarly, the PTO issued instructions to examiners on analyzing patent eligibility under § 101 in view of *Alice*.²⁰⁰ These instructions set the standards examiners apply when evaluating a patent application and thus will affect what software patents will be issued in the future.²⁰¹ According to these instructions, “[f]undamental economic practices,” “[c]ertain methods of organizing human activities,” “[a]n idea of itself” and “[*m*]athematical relationships/formulas” are abstract ideas.²⁰² Thus, by avoiding use of the more expansive term of “algorithm” without any qualifier, both the *DDR Holdings* court and the PTO appear to be drawing a distinction between a “general algorithm” and a “mathematical algorithm” or “[*m*]athematical relationships/formulas” and implying that only claims reciting the latter but not only the former are directed to a patent-ineligible abstract idea.²⁰³

195. 773 F.3d 1245, 1257 (Fed. Cir. 2014).

196. Hirshfeld, Memorandum dated June 25, 2014, *supra* note 131, at 2–3.

197. Lacking any indication to the contrary, and for the sake of simplicity, this Note assumes that mathematical algorithms, relationships, and formulas are synonymous and can all be described as “mathematical formulas.”

198. *DDR Holdings, LLC*, 773 F.3d at 1249–50.

199. *Id.* at 1257 (emphasis added).

200. Hirshfeld, Memorandum dated June 25, 2014, *supra* note 131, at 2.

201. *Id.* at 1–3.

202. *Id.* at 2–3 (emphasis added).

203. *See id.*; *DDR Holdings, LLC*, 773 F.3d at 1249.

This distinction between patent-eligible “general algorithms” and patent-ineligible “mathematical formulas” traces back to *Application of Freeman*, where the C.C.P.A. distinguished between a “mathematical algorithm” of the type held patent-ineligible in *Benson* and “the term ‘algorithm’ as a term of art in its broad sense.”²⁰⁴ According to *Freeman*, some types of data processing software, such as “processing [a] hierarchical tree structure and spatially relating the various characters to be displayed,” might be an “algorithm,” but it is not a “mathematical algorithm” of the type deemed patent-ineligible in *Benson*.²⁰⁵ Thus, under *Freeman*, while a mathematical algorithm is an abstract idea, the same need not be the case for all algorithms. This distinction is significant to software, where every process consists of a series of steps for manipulating data and thus necessarily is an “algorithm,” but where arguably many types of data manipulation do not constitute “mathematical algorithms.”²⁰⁶

However, the mathematical formula test is not consistent with *Alice*’s characterization of the abstract idea at issue in *Benson*. In *Mayo*, the Court characterized *Benson* as holding that “a *mathematical process* for converting binary-coded decimal numerals into pure binary numbers,” “a *mathematical principle*,” and a “*mathematical formula*” are not patent-eligible.²⁰⁷ However, in *Alice*, the Court described the abstract idea at issue in *Benson* as “an *algorithm* for converting binary-coded decimal numerals into pure binary form.”²⁰⁸ Assuming that the Court selected the language in both *Mayo* and *Alice* purposefully, and was aware of the distinction lower courts made between an algorithm and a mathematical formula, this change

204. 573 F.2d 1237, 1245–46 (C.C.P.A. 1978). While subsequent decisions overruled the *Freeman-Walter-Abele* test, which was based in part on this case, these subsequent decisions did not address the discussion of general algorithms versus mathematical algorithms in *Freeman*. See *State St. Bank & Trust Co. v. Signature Financial Grp., Inc.*, 149 F.3d 1368, 1373–74 (Fed. Cir. 1998).

205. *Application of Freeman*, 573 F.2d at 1246.

206. Andrei Iancu & Peter Gratzinger, *Machines and Transformations: The Past, Present, and Future Patentability of Software*, 8 NW. J. TECH. & INTELL. PROP. 247 at *46 (2010) (“By narrowing the forbidden computational algorithms to ‘mathematical’ algorithms, *Freeman* appeared to narrow dramatically the type of information-intensive processes, such as software patents, that would be excluded under the Supreme Court’s holding in *Benson*.”); see also Merges, *Go Ask Alice*, *supra* note 30 (“By saying in effect that algorithms are a species of abstract idea, the Court invited all mischief. The entire shelf full of discredited cases on the metaphysics of what is and is not an algorithm must now be dusted off.”).

207. *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1301 (2012) (emphasis added).

208. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (emphasis added).

indicates that the Court now considers all algorithms, whether mathematical or not, patent-ineligible abstract ideas.

Additionally, using the mathematical formula test presents practical problems. Deciding whether a claim directed to software covered a patent-eligible “algorithm” or a patent-ineligible “mathematical algorithm” might be difficult if not impossible.²⁰⁹ A computer, by its very nature, can only do one of a few things—read a number from memory or an input, write a number to memory or an output, jump to another instruction based on a comparison of two numbers, or perform an arithmetic or logical operation on two numbers.²¹⁰ Of these, the operations that actually modify data and thus form the heart of software—arithmetic or logical operations—fall squarely in the category of “mathematical formulas.”

2. *The Pen-and-Paper Test*

Courts, even after *Alice*, have continued to apply the “pen-and-paper” test,²¹¹ which the Federal Circuit formulated in its pre-*Alice CyberSource*

209. *In re Warmerdam*, 33 F.3d 1354, 1359 (Fed. Cir. 1994) (“The difficulty is that there is no clear agreement as to what is a ‘mathematical algorithm,’ which makes rather dicey the determination of whether the claim as a whole is no more than that.”); *Newell*, *supra* note 17, at 1025 (“[A]ny attempt to find a helpful or cutting distinction between mathematics and nonmathematics, as between numerical or nonnumerical, is doomed.”); *Lee, Software Is Just Math*, *supra* note 1 (arguing that “all software that has ever been written” consists only of “mathematical algorithms” (emphasis removed)).

210. *See* PATTERSON, *supra* note 1, at 78 (listing all instructions an exemplary processor in a computer is capable of executing); *see also* *Lee, Software Is Just Math*, *supra* note 1 (arguing that “all software that has ever been written” consists only of “mathematical algorithms” (emphasis removed)). In fact, all data processing that a computer could possibly perform amounts to no more than a mathematical operation. A computer contains a processor consisting of digital circuits. *See* PATTERSON, *supra* note 1, at 329 fig.4.24; David Patterson & John L. Hennessy, *Chapter 4: The Processor*, COMPUTER ORGANIZATION AND DESIGN: THE HARDWARE/SOFTWARE INTERFACE 30 (2009) <http://booksite.mkp.com/patterson/lec.php> (requires logging in). Every time a particular software instruction has to be executed, voltages representing the instruction’s input numbers are applied to a first set of wires within the processor, and, after the digital circuit reaches equilibrium, the voltages present on a second set of wires represent the instruction’s output numbers. *See Chapter 4: The Processor, supra*, at 8–9, 23. As such, a computer is incapable of manipulating data in any manner except by operating on voltages corresponding to numerical representations of the data.

211. *See, e.g.*, *Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1007–08 (Fed. Cir. 2014); *Cogent Med., Inc. v. Elsevier Inc.*, Nos. C-13-4479-RMW, C-13-4483, C-13-4486, 2014 WL 4966326, at *4 (N.D. Cal. Sept. 30, 2014); *Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc.*, No. 2:13-CV-655, 2014 WL 4364848, at *10 (E.D. Tex. Sept. 3, 2014); *Walker Digital, LLC v. Google, Inc.*, No. 11-318-LPS, 2014 WL 4365245, at *9 (D. Del. Sept. 3, 2014); *Comcast IP Holdings I, LLC v. Sprint Commc’ns Co. L.P.*, No. 12-205-RGA, 2014 WL 3542055, at *4–5 (D. Del. July 16,

Corp. v. Retail Decisions, Inc. decision.²¹² In *CyberSource*, the Federal Circuit relied on *Benson* and *Flook* and held that “methods which can be performed mentally, or which are the equivalent of human mental work, are unpatentable abstract ideas—the ‘basic tools of scientific and technological work’ that are open to all.”²¹³ This includes methods that “can be performed in the human mind, or by a human using a pen and paper.”²¹⁴

The pen-and-paper test is appealing due to its ease of application and clear delineation of what constitutes an abstract idea.²¹⁵ However, courts still need to be vigilant of false positives—e.g., “a human being could perform the calculations that would yield the value of a parity bit” (i.e., a bit added to the end of a file or transmission that is used to detect whether the file or transmission has been corrupted), but this exercise would not actually produce a parity bit, since the result of the human calculation cannot be used to detect “the corruption of data during transmission.”²¹⁶ Except for these false positives, the test also has the potential to render all software executed by a general-purpose computer patent-ineligible, since “[e]verything done by a computer can be done by a human.”²¹⁷

A fundamental problem with the *CyberSource* inquiry is that it does not take into account how detailed or specific an algorithm is or how many components it has; instead, an algorithm is a single abstract idea if it can

2014); *DietGoal Innovations LLC v. Bravo Media LLC*, 33 F. Supp. 3d 271, 284 (S.D.N.Y. 2014).

212. See 654 F.3d 1366, 1371 (Fed. Cir. 2011).

213. *Id.*

214. *Id.* at 1372.

215. See *Walker Digital, LLC*, 2014 WL 4365245, at *9 (doing a direct comparison of claim elements to human activity in order to identify the abstract idea at issue).

216. *Ca. Inst. of Tech. v. Hughes Commc'ns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *16 (C.D. Cal. Nov. 3, 2014). The court in *California Institute of Technology* argued that the pen-and-paper test is instead “a stand-in” for determining whether “humans engaged in the same activity long before the invention of computers.” *Id.* However, since the Federal Circuit analyzed the mathematical expressions at stake in *Benson* and *Flook* when it formulated the pen-and-paper test, the test is more appropriate described as “a stand-in” for determining whether a process constitutes a patent-ineligible “algorithm.” See *CyberSource Corp.*, 654 F.3d at 1371–72.

217. *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1306 n.7 (Fed. Cir. 2013) (en banc) (Rader, C.J., concurring in part and dissenting in part), *aff'd*, 134 S. Ct. 2347 (2014). Now, there are pieces of hardware in a computer other than the processor that are capable of actions that a human cannot do, but these are not a necessary part of a general-purpose computer. See *Device Compatibility*, *supra* note 160 (discussing availability of pressure sensors on some, but not all, devices). Instead, it is desirable for software to not rely on such specialized hardware and thus remain hardware agnostic. See *supra* Section III.A.

be performed in the human mind or by a human using pen and paper.²¹⁸ This categorical approach is at odds with the Supreme Court's view that § 101 is a substantive limitation designed to protect against overly broad patents.²¹⁹ Specifically, identifying an "overly" broad claim is not a simple black-or-white determination, but a nuanced exercise of discretion. Any invention can be characterized at progressively narrower levels of abstraction, and a court needs to balance the benefit of creating incentives for innovation against the risk of preempting subsequent improvements when drawing the line between abstract idea and patentable invention.²²⁰ As an illustration, assume that a court is analyzing a set of progressively narrower claims, all covering the same piece of software that performs a function capable of being performed by a human. Here, the pen-and-paper test does not allow a court to draw a line between overly broad claims and claims that are sufficiently narrow so that they ought to be patent-eligible under the Supreme Court's substantive limitation theory of § 101. Instead, the court is forced to either hold all claims patent-eligible or patent-ineligible—a simple black-or-white determination that is more consistent with Chief Judge Rader's view of § 101 as a coarse filter,²²¹ a view the Supreme Court did not endorse in *Alice*.²²²

Moreover, lumping all of these algorithms into a single abstract idea can lead to a court defining an absurdly narrow abstract idea and thus losing sight of the overarching policy goal of protecting "the *basic* tools of scientific and technological work."²²³ This is not just hyperbole—the court in *McRO, Inc.* defined the abstract idea at stake as "automated rules-based use of morph targets and delta sets for lip-synchronized three-dimensional animation."²²⁴

3. *The Multiple Abstract Ideas Test*

Even fully accepting the extent of the Supreme Court's holding in *Benson* that an algorithm is an abstract idea, there is no reason why a claim

218. See *Walker Digital, LLC*, 2014 WL 4365245, at *9 (finding the entire claimed process to be a single abstract idea).

219. See Lemley, *Life After Bilski*, *supra* note 101, at 1317; *supra* Section II.B.

220. See Tun-Jen Chiang, *The Levels of Abstraction Problem in Patent Law*, 105 NW. U. L. REV. 1097, 1099–1100 (2011); Collins, *Patent Law's Functionality Malfunction*, *supra* note 174, at 1464–65.

221. See *supra* Section II.A.

222. See *supra* Section II.B.

223. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (emphasis added).

224. *McRO, Inc. v. Activision Publ'g, Inc.*, No. CV 14-336-GW(FFMx), 2014 WL 4759953, at *10 (C.D. Cal. Sept. 22, 2014).

directed to an algorithm must contain only a single detailed abstract idea, instead of multiple broader abstract ideas. Instead, this Note proposes that courts should apply a “multiple abstract ideas” test by separating a claimed software method along the layers that make up the software²²⁵ and defining the algorithms making up each layer as separate abstract ideas. Thus, under the multiple abstract ideas test, the same steps of a claim would be deemed patent-ineligible as under the pen-and-paper test, but these steps would be split up into multiple separate abstract ideas. This allows courts to stay true to Supreme Court precedent regarding the general patent-ineligibility of algorithms, instead of attempting to artificially cabin *Benson’s* holding to mathematical formulas, and to use the conceptually appealing pen-and-paper test, while still making a nuanced policy determination on how narrowly any individual abstract idea should be defined. For example, the court in *McRO, Inc.* could have identified two separate abstract ideas—a user experience (“automated lip synchronization using morph targets and delta sets”) and an implementation (“rules-based setting of morph targets and delta sets”).²²⁶

B. STEP TWO—WHAT IS “ENOUGH” TO CONFER PATENT ELIGIBILITY?

Since *Alice*, courts and commentators have also taken divergent approaches to step two of the *Alice* framework. At least one court argued that *Alice* revived *Flook* (discussed in Section IV.B.1). Multiple courts argued that only physical limitations are “enough” to confer patent eligibility (discussed in Section IV.B.2). Finally, this Note and at least one court argue that even a second abstract idea ought to confer patent eligibility onto a first abstract idea (discussed in Section IV.B.2).

1. *Alice Revived Flook*

At least one court has taken the position that *Alice* wholly endorsed and revived *Flook’s* framework. In a series of opinions, the *McRO, Inc.* court described *Alice’s* two-step test for abstraction as analogous to the famous test for obscenity—“I know it when I see it.”²²⁷ The court

225. See *supra* Section III.A.

226. See *McRO, Inc.*, 2014 WL 4759953, at *10. The author acknowledges that claims encompassing even a *single* abstract idea have already presented enough of a headache to patent practitioners and jurists. However, *infra* Section IV.B.3 will explain how the multiple abstract ideas test can be used to decide whether any individual software innovation is patent-eligible.

227. *McRO, Inc.*, 2014 WL 4759953, at *5 (quoting *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring)).

compared each of the asserted claims against the admitted prior art and identified “the use of rules, rather than artists, to set the morph weights and transitions between phonemes” as the sole novel aspect of the claims.²²⁸ The court then concluded that the asserted claims are patent-ineligible because they contain “an abstract idea at the point of novelty.”²²⁹

Additionally, at least one commentator and at least one other court, while not explicitly using *Flook’s* framework, adopted aspects of *Flook’s* analysis by referencing novelty and non-obviousness in their discussion of § 101. Professor Merges argued that “*novel* hardware elements are simply not a prominent feature of many software patents” and that “the second step of the [Alice] framework seems duplicative or at least highly similar to the traditional *novelty* and *non-obviousness tests* of U.S. patent law.”²³⁰ Similarly, the Federal Circuit in *Ultramercial, Inc. v. Hulu LLC* found the claims at issue patent-ineligible because they were “not tied to any particular *novel* machine or apparatus, only a general-purpose computer.”²³¹ While neither Professor Merges nor the *Ultramercial* court explicitly stated that an inventive concept must be a novel, non-abstract additional limitation, as would be necessary if *Alice* had revived *Flook’s* framework,²³² both the article and the decision indicate that practitioners and jurists still at least partially resort to *Flook’s* point-of-novelty framework when analyzing patent eligibility under *Alice*.

McRO, Inc.’s revival of *Flook* by requiring novelty before a limitation can be “enough” to confer patent eligibility is inconsistent with the shift in language used by the Supreme Court in *Alice*.²³³ Specifically, *Alice*, in contrast to *Flook* and *Mayo*, avoided conflating “well-understood, routine, conventional activities” insufficient for patent eligibility with activities that are not novel or obvious. As recently as *Mayo*, the Court stated that “[p]urely ‘conventional or *obvious*’ [pre]-solution activity” is insufficient to confer patent eligibility.²³⁴ In contrast, the Court in *Alice* never used the

228. *Id.* at *10–11.

229. *Id.* at *11.

230. Merges, *Go Ask Alice*, *supra* note 30 (emphasis added).

231. 772 F.3d 709, 716 (Fed. Cir. 2014) (emphasis added).

232. *See* Parker v. Flook, 437 U.S. 584, 594 (1978); *see also supra* Section I.A.

233. *See* Ca. Inst. of Tech. v. Hughes Commc’ns Inc., No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *11 (C.D. Cal. Nov. 3, 2014) (arguing that, while the point-of-novelty framework may be “a clear test of patentability,” the court in *McRO* “misread the law”); *Enfish, LLC v. Microsoft Corp.*, No. 2:12-cv-07360-MRP-MRW, 2014 WL 5661456, at *4 (C.D. Cal. Nov. 3, 2014) (“The Supreme Court did not revive *Flook’s* methodology in *Bilski*, *Mayo*, or *Alice*.”).

234. *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1298 (2012) (emphasis added) (quoting *Flook*, 437 U.S. at 590)).

term “obvious,” a term generally reserved for the question of obviousness under § 103.²³⁵ Also in *Mayo*, the Court noted that *Diehr* was distinguishable from *Flook* because “[i]t nowhere suggested that all [the steps of the method at issue in *Diehr*], or at least the combination of those steps, were in context *obvious, already in use, or purely conventional.*”²³⁶ However, in *Alice*, the Court reinterpreted *Diehr* as holding that the claims at issue there were patent-eligible “because they improved an existing technological process.”²³⁷ Accordingly, the Court used different language in its opinion to avoid imbuing aspects of novelty or obviousness into its § 101 inquiry. Going back further, *Flook* required courts to assume that the abstract idea is within the prior art, thereby again conflating abstractness and novelty.²³⁸ The two-step framework set forth in *Alice* requires no such step.²³⁹ The Supreme Court in *Alice* thus has a different understanding of what constitutes “enough” and an “inventive concept” than the Court did in *Mayo* and *Flook*.

Moreover, given the Supreme Court’s careful choice of words, the phrase “well-understood, routine, conventional activities previously known to the industry” must mean something different from “novel” or “non-obvious” as required by § 102 and § 103, respectively.²⁴⁰ Looking to their plain meanings, it is possible to chart the different phrases along a continuum of how much “more” a claimed element described in each manner adds to an abstract idea:

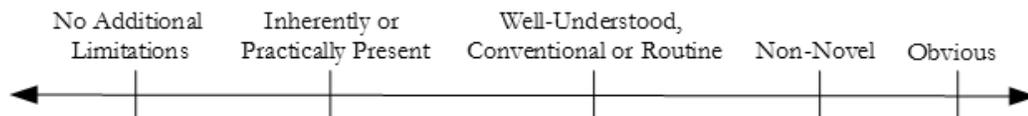


Figure 4: Language used by courts to describe additional limitations found in a claim that covers an abstract idea, ranked from lowest to highest threshold in view of the prior art.

Future court decisions will determine exactly what types of limitation are and, even more importantly, are not “well-understood, routine, conventional activities previously known to the industry.” However, one

235. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014).

236. *Mayo Collaborative Servs.*, 132 S. Ct. at 1299 (emphasis added).

237. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358.

238. *Flook*, 437 U.S. at 594 (1978).

239. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2355.

240. *See* *Ca. Inst. of Tech. v. Hughes Commc’ns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *14 (C.D. Cal. Nov. 3, 2014) (“[C]onventional elements do not constitute everything in the prior art, although conventional elements and prior art may overlap”).

thing is clear—unlike in *Flook*, the Court in *Alice* did not assume that the abstract ideas found in the claims were in the prior art and then evaluate the claim for patentability. Accordingly, the “inventive concept” referenced by the Court in *Alice* does not require strict novelty or non-obviousness, and *Alice* did not revive *Flook*.

Finally, if *McRO*’s interpretation of *Alice* were correct and *Flook* has been revived, the vast majority of software patents would be invalid, with no distinction based on claim scope being possible.²⁴¹ For example, *Flook*’s framework does not allow a court to distinguish between claims 1, 9, and 10 of U.S. Patent No. 6,285,999 (“the Google page rank patent”) based on claim scope.²⁴² This patent forms the basis of the Google search engine

241. *Id.* at *11 (arguing that “it is difficult to imagine any software patent that survives” a revival of *Flook*’s point-of-novelty framework, since “most inventions today build on what is known in the art, and an improvement to software will almost inevitably be an algorithm or concept which, when viewed in isolation, will seem abstract.”); *Flook*, 437 U.S. at 595–96 (implying that computer programs categorically do not qualify for patent protection absent congressional intervention).

242. These claims of the Google page rank patent include the following limitations:

1. A computer implemented method of scoring a plurality of linked documents, comprising:

obtaining a plurality of documents, at least some of the documents being linked documents, at least some of the documents being linking documents, and at least some of the documents being both linked documents and linking documents, each of the linked documents being pointed to by a link in one or more of the linking documents;

assigning a score to each of the linked documents based on scores of the one or more linking documents and

processing the linked documents according to their scores.

U.S. Patent No. 6,285,999 col. 8 ll. 55–67 (filed Jan. 9, 1998).

9. A computer implemented method of ranking a plurality of linked documents, comprising:

obtaining a plurality of documents, at least some of the documents being linked documents and at least some of the documents being linking documents, at least some of the linking documents also being linked documents, each of the linked documents being pointed to by a link in one or more of the linking documents;

generating an initial estimate of a rank for each of the linked documents;

updating the estimate of the rank for each of the linked documents using ranks for the one or more linking documents; and

processing the linked documents according to their updated ranks.

’999 Patent col. 9 l. 55–col. 10 l. 2.

and discloses an algorithm for ranking “linked documents” (e.g., web pages) called page rank.²⁴³ In the Notice of Allowance issued during prosecution, the Examiner indicated that the prior art does not show “assigning a score to each of the linked documents based on scores of the one or more linking documents,” as required by claim 1, “generating an initial estimate of a rank for each of the linked documents [and] updating the estimate of the rank for each of the linked documents using ranks for the one or more linking documents,” as required by claim 9, and “automatically performing a random traversal of a plurality of linked documents [and] assigning a rank to the linked document that is dependent on the number of times the linked document has been traversed,” as required by claim 10.²⁴⁴ If a court were to construe each one of these limitations broadly, the court may decide that each limitation, taken independently, is a step in an algorithm and thus an abstract idea

10. A computer implemented method of ranking a plurality of linked documents, comprising:

automatically performing a random traversal of a plurality of linked documents, the random traversal including selecting a random link to traverse in a current linked document;

for each linked document that is traversed, assigning a rank to the linked document that is dependent on the number of times the linked document has been traversed; and

processing the plurality of linked documents according to their rank.

²⁴³999 Patent col. 10 ll. 3–14.

243. See Bill Slawski, *10 Most Important SEO Patents: Part 1—The Original PageRank Patent Application*, SEO BY THE SEA (Dec. 9, 2011), <http://www.seobythesea.com/2011/12/10-most-important-seo-patents-part-1-the-original-pagerank-patent-application/>; Sergey Brin & Lawrence Page, *The Anatomy of a Large-Scale Hypertextual Web Search Engine*, 30 COMPUTER NETWORKS AND ISDN SYS. 107 (1998), available at <http://infolab.stanford.edu/~backrub/google.html>. The page rank algorithm ranks a particular web page based on how many other web pages include links to the particular web page and the ranks of these other web pages—thereby ranking pages based on the probability that a web surfer ends up on any given web page. See ²⁴⁴999 Patent col. 8 ll. 57–67, col. 3 ll. 4–16 (filed Jan. 9, 1998). This invention located more relevant and thus better search results for a user than the leading commercial search engines of the time. Brin, *supra*. Even today, when Google Search incorporates a large number of additional factors to help determine a web page’s rank, the page rank algorithm still plays a vital role. Ray Comstock, *So... You Think SEO Has Changed?*, SEARCH ENGINE WATCH (Mar. 19, 2014), <http://searchenginewatch.com/sew/opinion/2334934/so-you-think-seo-has-changed>. At least one commentator has used the Google page rank patent as an example of a software patent that “ought to survive Section 101 analysis.” Merges, *Go Ask Alice*, *supra* note 30.

244. ²⁴⁴999 Patent Notice of Allowance dated April 22, 2001.

under *Benson*.²⁴⁵ Thus, accepting that these three limitations actually constitute the point of novelty of claims 1, 9 and 10, respectively, a court employing *Flook*'s point-of-novelty framework would hold that claims 1, 9 and 10 are patent-ineligible. Accordingly, even though these claims of the Google page rank patent have different breadths and preemptive effects, and thus ought to be treated differently under the substantive limitation theory of the purpose of the patent-eligible subject matter exceptions, *Flook*'s framework does not allow a court to make such a distinction between narrowly tailored and overly broad claims on software innovation.

2. Only Physical Limitations can be “Enough”

Another possible interpretation of *Alice*, explicitly relied on in the Federal Circuit's *buySAFE, Inc. v. Google, Inc.* decision, is that an “inventive concept” must be “in the *physical* realm of things and acts—a ‘new and useful application’ of the ineligible matter in the *physical* realm—that ensures the patent covers something ‘significantly more than’ the ineligible subject matter.”²⁴⁶ Similarly, in *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, the Federal Circuit found that the patent at issue “claims an abstract idea because it describes a process of organizing information through mathematical correlations and is not tied to a specific *structure or machine*.”²⁴⁷

Additionally, in view of *Alice*, any physical limitation must be more than a “wholly generic computer implementation” to confer patent eligibility.²⁴⁸ This requirement has led some courts to conclude that a computer must do more than calculations of a type previously performed by humans before it is “enough.”²⁴⁹ This conclusion echoes Judge Lourie's *CLS Bank* opinion regarding computer implementation—“At its most basic, a computer is just a calculator capable of performing mental steps faster than a human could. Unless the claims require a computer to

245. See '999 Patent col. 8 ll. 54–67, col. 9 l. 55–col. 10 l. 14. This broad construction is used for illustrative purposes only. A court may also decide that a narrower construction is warranted, and that these steps are not patent-ineligible abstract ideas.

246. 765 F.3d 1350, 1353 (Fed. Cir. 2014) (emphasis added) (quoting *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014)).

247. 758 F.3d 1344, 1350 (Fed. Cir. 2014) (emphasis added).

248. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358.

249. See *Helios Software, LLC v. SpectorSoft Corp.*, No. 12-081-LPS, 2014 WL 4796111, at *17 (D. Del. Sept. 18, 2014) (concluding that, while a wholly generic computer implementation cannot confer patent eligibility, a claimed computer performing steps that “could [not] be performed by a human alone” is a “meaningful limitation” sufficient for patent eligibility).

perform operations that are not merely accelerated calculations, a computer does not itself confer patent eligibility.”²⁵⁰

Courts and commentators frequently combine the physical limitation requirement with the pen-and-paper test.²⁵¹ This causes decisions and articles to be inconsistent when discussing whether steps that humans cannot perform are themselves “enough” to confer patent eligibility, or if the recitation of a physical computer is “enough” because such steps constitute a non-generic use of the computer or meaningfully tie the steps to the computer. For example, the court in *Helios Software LLC* found claims patent-eligible because they “sufficiently tie the claimed method to a machine” by including “limitations [that] could [not] be performed by a human alone.”²⁵² As another example, Professor Merges has argued that using hardware elements in a novel manner is potentially “enough” to confer patent eligibility.²⁵³ However, as a counterexample, the court in *Card Verification Solutions, LLC v. Citigroup, Inc.* indicated that claims that use a computer only for “manipulating, reorganizing, or collecting data” are not patent-eligible, but held that claims reciting “pseudorandom tag generating software” that cannot be mimicked “by a human with nothing more than pen and paper” are.²⁵⁴ Thus, in that case, the software itself, not the underlying hardware, was “enough” to confer patent eligibility.²⁵⁵

Alice does not state or imply that only physical limitations are “enough” to confer patent eligibility. Instead, by listing in dicta what the additional limitation in the claims at issue *did not* do and thus *did not* confer patent eligibility, the Court implied that if a limitation *did* do those things it *would* confer patent eligibility.²⁵⁶ Thus, the Court first implied that steps that are *not* “well-understood, routine, conventional activit[ies] previously known to the industry” *are* “enough.”²⁵⁷ Second, the Court implied that a claim that “improve[s] the functioning of the computer itself” or “effect[s] an improvement in any other technology or technical field” is patent-eligible.²⁵⁸ Unfortunately, it is unclear what the Court meant by

250. *CLS Bank Int'l*, 717 F.3d at 1286 (Lourie, J. concurring).

251. *See Helios Software, LLC*, 2014 WL 4796111, at *17; *supra* Section IV.A.2.

252. *Helios Software, LLC*, 2014 WL 4796111, at *17.

253. Merges, *Go Ask Alice*, *supra* note 30.

254. No. 13 C 6339, 2014 WL 4922524, at *4–5 (N.D. Ill. Sept. 29, 2014).

255. *See id.*

256. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2359–60 (2014).

257. *See id.* at 2359 (internal quotation marks omitted) (quoting *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1294 (2012)).

258. *See id.* at 2359–60. This was the government’s position on limitations that are “enough” for patent eligibility. The government’s amicus curiae brief lists “an improvement in the functioning of the computer as a computer, e.g., by making it more

“improv[ing] the functioning of the computer itself,”²⁵⁹ what types of limitations the Court considered “[an]other technology or technical

efficient[,]” as one of its factors that support a finding of patent eligibility. Brief for the United States as Amicus Curiae in Support of Respondents at 30, *Alice Corp. Pty. Ltd.*, 134 S. Ct. 2347 (No. 13-298). While the government’s brief does not discuss whether claims similarly drawn to abstract ideas that “effect an improvement in any other technology or technical field” are patent-eligible, the government took this position during oral arguments. Transcript of Oral Argument, *supra* note 121, at 45 (“Any software patent that improves—that is used to improve another technology is eligible.”). It remains to be seen to what extent the Supreme Court adopted the government’s underlying logic and accompanying arguments in addition to the government’s final conclusion.

259. Allowing patents on software that “improve[s] the functioning of the computer itself” may lead to overly broad patents that have a much larger preemptive effect than the patents at issue in *Alice* or any other business method patent. For example, the Fast Fourier Transform, when implemented on a computer, converts a signal from the time domain to the frequency domain, and vice versa, much faster than an earlier algorithm used for this purpose, and thus “improve[s] the functioning of the computer itself.” *See supra* note 186; Eric W. Weisstein, *Fast Fourier Transform*, MATHWORLD—A WOLFRAM WEB RESOURCE, <http://mathworld.wolfram.com/FastFourierTransform.html> (last visited Feb. 8, 2015). Based on the Supreme Court’s dicta, a claim directed to the Fast Fourier Transform implemented on a computer might therefore be patent-eligible. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. However, such a claim would grant a monopoly on an important tool in a practitioner’s repertoire. *See, e.g.,* Newell, *supra* note 17, at 1028. While it is debatable whether the Fast Fourier Transform truly qualifies as a basic tool[] of scientific and technological work,” since practitioners would still be free to use the older and slower algorithm to accomplish the same result, at the very least a patent on the Fast Fourier Transform would present an equivalent preemption issue to the patent found patent-ineligible in *Benson*. Accordingly, given the right software example, the Supreme Court’s dicta that an “improve[ment to] the functioning of the computer itself” confers patent eligibility may be in conflict with earlier Supreme Court precedent, especially *Benson*. Moreover, software that enables a computer to perform a new function, even if this function is a business method, literally “improve[s] the functioning of the computer itself”—the computer is able to provide a service it previously was unable to. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359; *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) (“[The Federal Circuit] held that [a new software program] creates a new machine, because a general-purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.”). At the same time, this reasoning cannot be taken too far, since otherwise even the claims at issue in *Alice* would be patent-eligible for enabling a computer to provide the new function of “intermediated settlement, i.e., the use of a third-party to mitigate settlement risk.” *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356. In the end, clarifying this point may only affect software patents whose *only* purpose is facilitating a business method, since even the government’s position was that “a claim that discloses software that enables a computer to manipulate data in an innovative way would be patent-eligible even if its *primary* utility is in making financial transactions more efficient.” Brief for the United States as Amicus Curiae in Support of Respondents at 32, *Alice Corp. Pty. Ltd.*, 134 S. Ct. 2347 (No. 13-298) (emphasis added).

field,”²⁶⁰ or what the Court meant by “effect[ing] an improvement” in this other technology or technical field.²⁶¹ However, one thing is clear—*Alice* does not indicate that the “well-understood, routine, conventional activities” or the “other technology or technical field” must be in the physical realm. In fact, the Supreme Court previously used the phrase “emerging *technologies*” to describe Information Age inventions that are potentially not “grounded in a physical or other tangible form,” thereby indicating that an improvement in another technology does not require an improvement in, or any other tie to, the physical realm.²⁶²

Additionally, a physical limitation is not necessary to achieve the purpose of the patent eligibility exceptions. Specifically, the focus on physical limitations echoes Chief Judge Rader’s coarse filter perspective from *CLS Bank* that a claim must “meaningfully tie [an] idea to a *concrete reality* or actual application” in order to be patent-eligible.²⁶³ However,

260. Specifically, it is unclear whether enabling or facilitating a business method constitutes “an improvement in any other technology or technical field.” On one hand, the court’s use of the term “technology or technical field” harks back to the distinction drawn between business innovation and technological innovation by the concurring opinion in *Bilski*. See *Bilski v. Kappos*, 130 S. Ct. 3218, 3254 (2010) (Stevens, J., concurring) (“Business innovation, moreover, generally does not entail the same kinds of risk as does more traditional, technological innovation.”). Additionally, during oral arguments, the government took the position that an improvement to “a human activity,” such as “finance or something in business,” does not constitute “an improvement in any other technology or technical field.” Transcript of Oral Argument, *supra* note 121, at 48. At the same time, the majority in *Bilski* explicitly refused to make such a distinction between business and technology innovation, arguing that drawing a line between the two would be difficult, since “technologies” include “technologies for conducting business more efficiently.” See *Bilski*, 130 S. Ct. at 3228. Drawing the same line in the context of identifying whether an “inventive concept” is present would be contrary to the spirit of this holding. *But see* *I/P Engine, Inc. v. AOL Inc.*, 576 F. App’x 982, 982 (Fed. Cir. 2014) (Mayer, J. dissenting) (“The Supreme Court in *Alice* . . . , for all intents and purposes, recited a ‘technological arts’ test for patent eligibility.”).

261. The Supreme Court’s dicta does not specify what type and level of connection must exist between the claimed patent-ineligible subject matter and another “technology or technical field” for the claimed subject matter to “effect an improvement” in this other “technology or technical field.” See *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. After all, merely reciting this other “technology or technical field” in the claim would, without more, presumably be no more than “limiting the use of [the patent-ineligible subject matter] ‘to a particular technological environment,’” and thus insufficient to confer patent eligibility. See *id.* at 2358–59.

262. See *Bilski*, 130 S. Ct. at 3226–27 (emphasis added).

263. See *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1299–1300 (Fed. Cir. 2013) (en banc) (Rader, C.J., concurring in part and dissenting in part) (emphasis added), *aff’d*, 134 S. Ct. 2347 (2014); see also *id.* at 1320 (Moore, J., dissenting in part) (arguing that the system claims at issue in *CLS Bank* cannot be directed to an abstract

Alice does not endorse that view.²⁶⁴ Instead, *Alice* states that “[t]he fact that a computer ‘necessarily exist[s] in the physical, rather than purely conceptual, realm,’ is beside the point.”²⁶⁵ While this statement addresses the petitioner’s argument that a physical computer cannot be an abstract idea, it also cuts the other way—whether a claim is tied to the “physical . . . realm” is not the focus of the § 101 inquiry; it is “beside[s] the point.”²⁶⁶ After all, even an additional limitation that is not grounded in the “physical . . . realm” can “ensure that the patent in practice amounts to significantly more than a patent upon [an abstract idea].”²⁶⁷ Additionally, the relevant details in software that explain how a particular user experience is achieved and that thus limit a claim on the software to what a practitioner actually built are usually not found in any non-generic piece of hardware, but in a particular implementation or a particular set of libraries.²⁶⁸ Both of these are additional algorithms and not in the “physical realm,” yet each is a more meaningful limitation on claim scope than a recitation of hardware.²⁶⁹ Finally, implementing a particular feature in hardware (i.e., the physical realm) or software (i.e., an abstract idea) is merely a design choice and thus not indicative of the preemptive effect of a patent claiming this feature.²⁷⁰

Moreover, requiring that software claims include physical limitations beyond a general-purpose computer is inconsistent with an important goal in software development—independence from any specific hardware platform.²⁷¹ To achieve this goal, most software is designed to be hardware agnostic and thus rarely uses the underlying hardware beyond the functions available on most general-purpose computers—i.e., calculations a human, alone or with pen and paper, can perform.²⁷² Thus, few advances in software rely on the underlying hardware for non-generic function that

idea, since these claims cover “a tangible item that you could pick up and put on your desk.”).

264. *See supra* Section II.B.

265. *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2358 (citations omitted).

266. *See id.*

267. *See id.* at 2355 (internal quotation marks omitted) (quoting *Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 1294 (2012)).

268. *See supra* Section III.A.

269. *See id.*

270. *See id.*

271. *See id.*

272. *See id.*; *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1306 n.7 (Fed. Cir. 2013) (en banc) (Rader, C.J., concurring in part and dissenting in part), *aff’d*, 134 S. Ct. 2347 (2014).

cannot be described in terms equivalent to human mental steps.²⁷³ At the very least, well-designed software that performs a particular function using a general-purpose computer should be equally patent eligible as software that performs the same function, but relies on specialized hardware and is thus inferior.

Finally, requiring a physical limitation does not allow courts to distinguish software patents based on claim scope. Narrowly tailored claims on innovative software running on a general-purpose computer, and overly broad claims on business methods running on the same general-purpose computer, are equally patent-ineligible. For example, if a court construed claims 1, 9, and 10 of the Google page rank patent²⁷⁴ broadly, the court might decide that the only recitation of hardware or other physical element is the recitation of “computer implementation.”²⁷⁵ Furthermore, the steps in each of the claims can be performed by a human (e.g., a human could rank a set of research papers that cite to each other in the claimed manner) and are thus not enough to ensure that the recitation of a “computer” amounts to more than “generic computer implementation.”²⁷⁶ At the same time, claim 1 is much broader in scope than claims 9 and 10. Claim 1 in essence only requires that web pages be ranked according to a particular mathematical formula disclosed in the Google page rank patent,²⁷⁷ whereas claims 9 and 10 specify how this ranking is to be accomplished.²⁷⁸ However, if only physical limitations are “enough” to confer patent eligibility, the court would be unable to differentiate between broader claim 1 and narrower claims 9 and 10, and might instead hold that all claims of the Google page rank patent are equally invalid, even though the different claims have different scopes and thus different preemptive effects. Accordingly, requiring a physical limitation suffers from the same defect as the related pen-and-paper test—it limits patent eligibility categorically, instead of allowing courts to

273. See *CLS Bank Int'l*, 717 F.3d at 1306 n.7 (Rader, C.J., concurring in part and dissenting in part).

274. See *supra* note 242.

275. See U.S. Patent No. 6,285,999 col. 8 ll. 55–67, col. 9 l. 54–col. 10 l. 14 (filed Jan. 9, 1998). This broad construction is for illustrative purposes only. A court may also construe the claim in a manner that include additional ties to the physical realm.

276. See '999 Patent col. 8 ll. 55–67, col. 9 l. 54–col. 10 l. 14. Once again, this Note assumes an overly broad construction of the claims of the Google page rank patent for illustrative purposes.

277. See '999 Patent col. 4 ll. 15–25, col. 8 ll. 55–67, col. 9 l. 54–col. 10 l. 14.

278. See '999 Patent col. 9 l. 54–col. 10 l. 14.

conduct a nuanced analysis based on claim scope to identify and invalidate overly broad claims.²⁷⁹

3. A Second Abstract Idea is “Enough”

Instead of employing *Flook’s* point-of-novelty framework or demanding that a claim include additional physical limitations, this Note proposes that courts identify multiple separate abstract ideas within a single claim (i.e., apply the proposed multiple abstract ideas test from Section IV.A.3), and then inquire for each whether the other abstract ideas are “enough” to confer patent eligibility. Since *Alice*, at least one lower court has already acknowledged that “mathematical operation[s]” can be “enough” for patent eligibility, but did not address why these “mathematical operation[s],” themselves, ought to be patent-eligible.²⁸⁰ The proposed approach integrates the argument that the details of an algorithm can confer patent eligibility into the *Alice* framework.²⁸¹

For purposes of discussion, consider a claim that recites a particular user experience (i.e., *what* the claimed software accomplishes) and a particular implementation that provides the user experience (i.e., *how* the claimed software accomplishes this):

279. See *supra* Section IV.A.2.

280. See *Ca. Inst. of Tech. v. Hughes Commc’ns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014 WL 5661290, at *18 (C.D. Ca. Nov. 3, 2014) (holding that “mathematical operations,” such as “a linear transform operation to produce L transformed bits and the accumulation of these bits to produce a codeword,” can be inventive concepts sufficient to confer patent eligibility). Other courts noted that additional software limitations can also confer patent eligibility, but have shied away from describing these additional limitations using terminology associated with abstract ideas. See *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014) (claims that recite “a specific way to automate the creation of a composite web page . . . that incorporates elements from multiple sources” are patent-eligible); *Enfish, LLC v. Microsoft Corp.*, No. 2:12-cv-07360-MRP-MRW, 2014 WL 5661456, at *12 (C.D. Cal. Nov. 3, 2014) (discussing that a hypothetical chess program that uses dynamic memory allocation while playing a game of chess would be patent-eligible); *Card Verification Solutions, LLC v. Citigroup, Inc.*, No. 13 C 6339, 2014 WL 4922524, at *4 (N.D. Ill. Sept. 29, 2014) (finding a claim reciting “pseudorandom tag generating software” to be patent-eligible).

281. See *Ca. Inst. of Tech.*, 2014 WL 5661290, at *15–19; Collins, *supra* note 174, at 1402. Additionally, claims found valid under the proposed approach would explicitly include limitations that others have proposed ought to be imported into software claims by interpreting them as means-plus-function claims. See Lemley, *The Return of Functional Claiming*, *supra* note 175, at 909.

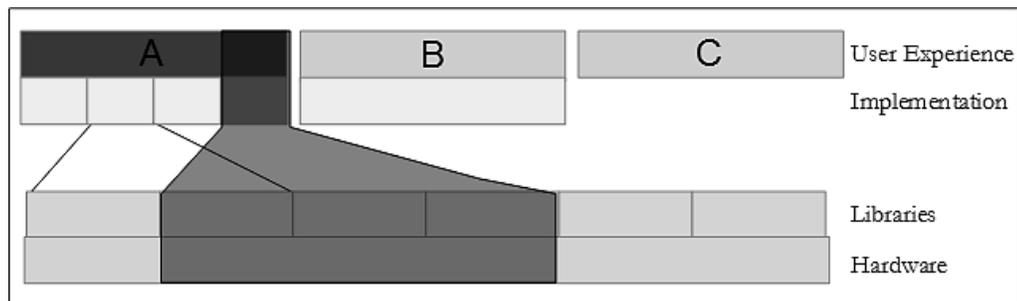


Figure 5: The scope of a claim reciting a user experience and an implementation is represented by the transparent overlay.

In the context of software, it is likely that both the user experience and the implementation are abstract ideas.²⁸² A court should first evaluate the claim from the perspective of the user experience, and determine whether the additional limitations (here, the recitation of a particular implementation) are “enough” to confer patent eligibility. If the point-of-novelty of the invention lies in the implementation, then by definition the recited implementation does not constitute “well-understood, routine, conventional activities” and therefore is “enough.”²⁸³ If the point-of-novelty lies in the user experience, so long as the claim recites an actual implementation and not just generic steps inherent to the user experience, the implementation that accomplishes this novel user experience presumably still constitutes more than “well-understood, routine, conventional activities” and is therefore “enough.”²⁸⁴

Now, there might be some novel user experiences, such as user experience *B*, which at the time a patent is litigated can only be implemented in a single manner. However, since additional alternative implementations may be discovered in the future, unless a defendant can show that such alternatives are impossible, a court should still find a claim directed to user experience *B* and the underlying implementation patent-eligible:

[W]e must be wary of facile arguments that a patent preempts all applications of an idea. It may often be easier for an infringer to argue that a patent fails § 101 than to figure out a different way to implement an idea, especially a way that is less complicated—less liable to get out of order—less expensive in construction, and its operation. But the patent law does not privilege the leisure of

282. See *supra* Section III.A; *supra* Section IV.A.1.

283. See *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359; *supra* Section IV.B.1.

284. See *id.*; see also *supra* Section III.A.

an infringer over the labors of an inventor. Patents should not be casually discarded as failing § 101 just because the infringer would prefer to avoid the work required to develop non-infringing uses of the abstract idea at the heart of an appropriately circumscribed invention.²⁸⁵

There may also be novel user experiences, such as user experience *C*, whose implementations are either inherent in the recitation of the user experience itself, or so straightforward as to be no more than “well-understood, routine, conventional activities.”²⁸⁶ In this scenario, no matter how willing a practitioner is to narrow her claim, patent protection is simply not available. The claims in *Alice* fall into this category—receiving information regarding transactions, keeping track of these transactions, and communicating instructions are all such straightforward steps that it is difficult to imagine any additional implementation details that are not inherent in their recitation.²⁸⁷ However, if no complex implementation is needed to achieve a novel user experience, patent protection may very well be undesirable from a social perspective. First, it is probably impractical to try and keep a user experience (e.g., the user interface of a word processing program) a secret.²⁸⁸ Accordingly, trade secret protection is not available, and patent protection is not needed to compel disclosure of the novel features of the invention.²⁸⁹ Second, if the user experience is truly simple to implement, which is frequently the case with business methods, then no large investments in research or development are required to bring it to market, which in turn means that patent protection (and the monopoly resulting therefrom) is not necessary to allow the practitioner to recoup her investment.²⁹⁰ Thus, some potentially novel inventions, such as the

285. *McRO, Inc. v. Activision Publ'g, Inc.*, No. CV 14-336-GW(FFMx), 2014 WL 4759953, at *7 (C.D. Cal. Sept. 22, 2014) (citations and internal quotation marks omitted).

286. *See Ultramercial, Inc. v. Hulu LLC*, 722 F.3d 1335, 714–15 (Fed. Cir. 2014) (even accepting that the abstract idea at issue may be novel, the court concluded that the claim did not include an inventive concept sufficient to confer patent eligibility).

287. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359.

288. *See Mobius Med. Sys., LP v Sun Nuclear Corp.*, No. 4:13-CV-3182, 2013 WL 6498981, at *12–13 (S.D. Tex. Dec. 10, 2013) (finding that user interfaces (i.e., user experiences) cannot be protected as trade secrets, but that algorithms used to generate these user interfaces (i.e., implementations) can be protected as trade secrets, since the parties' distribution agreement forbade decompiling, disassembling, or reverse engineering of these algorithms).

289. *See id.*; *Graham*, *supra* note 168 (absent patent protection, practitioners will resort to trade secrecy to protect their innovation).

290. *See Bilski v. Kappos*, 561 U.S. 593, 652 (2010) (Stevens, J., concurring) (Business innovation “generally does not require the same enormous costs in time,

alleged innovation reflected in the *Alice* patents and other pure business method patents, remain patent-ineligible under the proposed approach.

After determining that a claim contains “enough” additional limitations to confer patent eligibility onto an abstract user experience, a court should repeat the process from the perspective of the equally abstract implementation. Now, the additional limitation becomes the user experience. By definition, an implementation enables or “effects an improvement” upon the user experience, which Supreme Court dicta seems to suggest is “enough” for patent eligibility as long as the user experience falls in “any other technology or technological area.”²⁹¹ Accordingly, from the perspective of the implementation layer, the hypothetical claim includes an inventive concept sufficient for patent eligibility.

This proposed approach is consistent with the purpose of the patent-eligible subject matter exceptions endorsed by the Supreme Court—it ensures that claims contain substantive limitations and are not overly broad.²⁹² Specifically, a software claim that recites both *what* it accomplishes and *how* it accomplishes this result ensures that the scope of patent protection is commensurate with what a practitioner actually developed.²⁹³ Thus, in the example above, the practitioner would be granted a claim that only covers the particular implementation she designed, and others would be free to attempt to provide the same user experience using different implementations.²⁹⁴

As another example, if the practitioner designed a novel and useful library, the resultant claim would only be valid under the proposed approach if it also recites a user experience or implementation that the practitioner identified as benefiting from and thus being improved by this library. For purposes of discussion, consider a claim that recites a particular library and a particular user experience:

research, and development, and thus does not require the same kind of compensation to innovators for their labor, toil, and expense.” (citations and internal quotations omitted)).

291. See *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359; *supra* note 260; *supra* note 261.

292. See *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2354; Lemley, *Life After Bilski*, *supra* note 101, at 1316–17; *supra* Section II.B.

293. See Lemley, *Life After Bilski*, *supra* note 101, at 1316–17; *supra* Section III.B.

294. Compare *supra* Figure 1 with *supra* Figure 5.

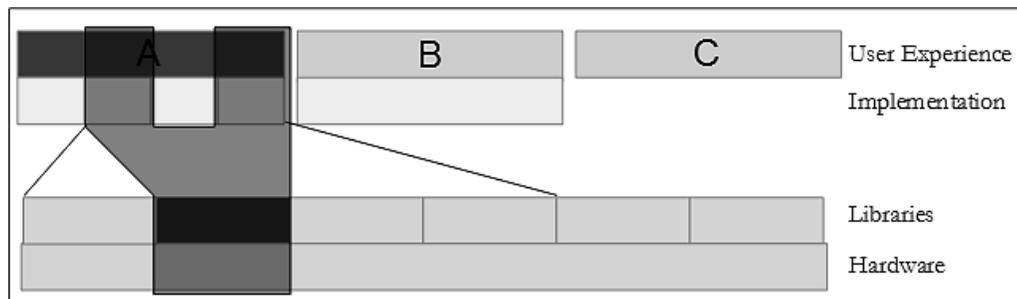


Figure 6: The scope of a claim reciting a user experience and a library is represented by the transparent overlay.

Such a claim would be valid under the proposed approach because the library would constitute more than “well-understood, routine, conventional activities” and thus confer patent eligibility onto the user experience, while the user experience would be a technology or technical area improved upon by the library and thus confer patent eligibility onto the library.²⁹⁵ The resultant claim would also not be overly broad, since its scope is limited to user experiences and implementations that actually benefited from the inventor’s contribution and that the inventor actually identified, as opposed to extending into fields the inventor did not even consider.²⁹⁶

Additionally, other practitioners have more notice of a claim directed to a library, if the claim also recites a user experience or implementation that benefits from this library. Under the layered approach to software design, another practitioner working on a particular implementation does not care and does not have any reason to know how a particular library functions, unless she happens to have designed the library herself.²⁹⁷ This other practitioner can only perform a freedom to operate search based on the information actually available to her—what she is currently working on (i.e., the implementation) and what she hopes to accomplish (i.e., the user experience). Additionally, if the other practitioner did design the library herself, the proposed approach to patent eligibility would allow her to confine her freedom to operate search to the field she is actually using this library for (i.e., the implementation and user experience her library is meant to facilitate). Either way, the proposed approach ensures that a patent directed to a new and useful library is only valid if other

295. See *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359; *supra* note 260; *supra* note 261.

296. See Lemley, *Life After Bilski*, *supra* note 101, at 1316–17; *supra* Section III.B.

297. See *supra* Section III.A.

practitioners have a mechanism for finding it during a reasonably limited freedom to operate search.²⁹⁸

Finally, the proposed approach to § 101, unlike *Flook's* framework or the requirement of a physical limitation, allows courts to distinguish software patents that are commensurate in claim scope with the inventor's contribution to the field from overly broad patents. For example, claim 1 of Google's page rank patent²⁹⁹ is probably invalid even under the proposed approach, since it merely recites a user experience (i.e., ranking web pages according to a particular mathematical formula) without actually specifying any implementation or library that allows this user experience to be achieved.³⁰⁰ In contrast, claims 9 and 10,³⁰¹ in addition to the abstract idea of ranking web pages, each recite one of two alternative implementations, neither of which is merely "well-understood, routine, conventional activities" and that thus each confer patent eligibility onto the abstract mathematical ranking formula.³⁰² At the same time, each of these two alternative implementations enables and thus "effect[s] an improvement" in the ranking of web-pages according to the mathematical formula, so the ranking of web pages in turn confers patent eligibility onto these two implementation limitations.³⁰³ Accordingly, under the proposed approach, Google would still have valid claims 9 and 10 covering two particular implementations that rank web pages according to the mathematical formula it invented, but would be unable to monopolize the mathematical formula itself via overly broad claim 1. Thus, the proposed approach ensures that not all claims of every software patent are blindly lumped together with overly broad pure business method patents and summarily rendered invalid; instead, it allows courts to distinguish between software claims based on scope.

The proposed approach to identifying an "inventive concept" that is "enough" to confer patent eligibility onto abstract ideas stays true to

298. *See supra* Section III.B.

299. *See supra* note 242.

300. *See* U.S. Patent No. 6,285,999 col. 4 ll. 15–25, col. 8 ll. 54–67 (filed Jan. 9, 1998). This conclusion assumes for illustrative purposes that the abstract idea encompassed in claim 1 is the specific mathematical formula disclosed in the Google page rank patent. A potentially more appropriate definition of the abstract idea is the broader concept of ranking web pages. *See id.* col. 1 ll. 19–22. Additionally, this Note assumes an overly broad construction of claim 1 for illustrative purposes. If either the abstract idea is defined more broadly or the claim is construed more narrowly, claim 1 of the Google page rank patent is likely valid under the proposed approach.

301. *See supra* note 242.

302. *See* '999 Patent col. 9 l. 55–col. 10 l. 14.

303. *See id.*; *supra* note 261.

Supreme Court precedent, including the *Alice* and *Benson* decisions, and accomplishes the goal behind § 101 jurisprudence of serving as a substantive limitation that protects against overly broad patents. Most importantly, and unlike the other two approaches to determining whether a claim adds “enough” to an abstract idea, the proposed approach allows courts to distinguish between patents on software running on a general-purpose computer based on claim scope.

V. CONCLUSION

Alice cemented § 101 as a substantive limitation on patent scope, one whose purpose is to protect against overly broad patents. Under *Alice*, one cannot obtain a patent by describing a common business method and instructing a practitioner to implement it with a computer. At the same time, at least some software remains patent-eligible. Thus, courts need a mechanism to distinguish between more desirable software patents and those that are less desirable. Given the purpose of the patent-eligible subject matter exceptions, any such approach needs to distinguish between software patents that are consummate in scope with an inventor’s contribution and those that are overly broad, instead of categorically rendering all software patents invalid.

The proposed solution accepts that a single piece of software includes many layers, each of which constitutes a separate patent-ineligible algorithm. These different algorithms, although abstract ideas when viewed individually, should be “enough” to confer patent eligibility to each other if they either improve or enable each other. Thus, a claim that recites a user experience (i.e., what a piece of software accomplishes) and an implementation or a library that is more than “well-understood, routine, conventional activit[y]” and that enables or improves the user experience should be patent-eligible. This allows courts to distinguish between a narrowly tailored software patent and an overly broad business method patent when evaluating patent eligibility.

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DIGITAL APPLES AND ORANGES: A COMPARATIVE ANALYSIS OF INTERMEDIARY COPYRIGHT LIABILITY IN THE UNITED STATES AND EUROPEAN UNION

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Two recent European cases highlight how copyright holders in the European Union (“EU”) benefit from a higher level of protection than copyright holders in the United States. Particularly, the EU places a higher burden on online intermediaries,¹ like internet service providers (“ISPs”) and online content curators, to stop and prevent copyright infringement. The goals of this Note are to show the differences in intermediary liability that have caused European intermediaries to face higher legal uncertainties and compliance costs than their U.S. counterparts, and to highlight how different lobbying efforts by copyright holders and online intermediaries may account for these differences.

For the unfamiliar reader, Part I provides a summary overview of the EU legislative and judicial systems. Part II briefly reviews the World Intellectual Property Organization (“WIPO”) copyright treaties, the Digital Millennium Copyright Act (“DMCA”) and Europe’s Copyright and E-Commerce Directives, and the U.S. and EU responses to these treaties. Copyright holders in the United States had to negotiate with online service providers (“OSPs”) in order for the DMCA to become law, whereas involvement of OSPs in the corresponding European legislative process is not as readily apparent. Part III and Part IV review the line of European cases on intermediary liability leading up to the two recent cases

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1. Online intermediaries (online service providers or “OSPs”) are entities that communicate or facilitate the transmission of information and include internet service providers (“ISPs”) and content platforms such as Google, Facebook, YouTube, Blogspot, and others. Whether a business is an online intermediary under the law is not always clear and subject to debate. For example, Myspace may be a content host in one jurisdiction, but a publisher in another.

*Svensson v. Retriever Sverige AB*² and *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH*,³ which potentially increase the burden of OSPs to prevent copyright infringement. Intermediaries may have to actively monitor that copyright holders did not change the availability of their online works and may have to block access to copyright infringing websites under unclear guidelines.

Next, Part V compares and contrasts intermediary liability in both copyright regimes. In the U.S. and European regimes, there is a realistic understanding that intermediaries, like ISPs, play an important role in preventing and stopping copyright infringement. While the United States has come to accommodate intermediaries more through DMCA safe harbor provisions,⁴ EU law has focused more on the interests of authors and publishers by providing a high level of copyright protection. This has increased the burden on EU intermediaries to proactively prevent infringement and has created uncertainty as to the extent of reasonable and necessary measures.

I. BRIEF OVERVIEW OF EUROPEAN UNION LAW

Before analyzing the differences between intermediary liability regimes in the United States and the EU, it is necessary to first understand the EU's supranational nature. To that end, this Part reviews the legislative process and the interplay of national courts and the European Court of Justice ("ECJ").

2. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* (Feb. 13, 2014), <http://eur-lex.europa.eu/legal/content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

3. Case C-314/12, *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH* (Mar. 27, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0314&from=EN>.

4. 17 U.S.C. § 512 (2012). Service providers can also receive immunity for other causes of action, such as defamation and false information, as long as certain conditions are met. 47 U.S.C. § 230 (2012).

A. THE EUROPEAN UNION—LEGISLATIVE PROCESS AND ADJUDICATION

1. *Introduction*

One of the EU's key objectives is to develop a Union-wide, harmonized "single market"⁵ which allows the free movement of people, goods, services, and capital.⁶ The goal is to allow individuals to "live, work, study or retire" in any EU country ("Member State"), for consumers to benefit from increased competition and a wider choice of goods, and for businesses to operate easily and cheaply within the EU.⁷ The EU has deemed the protection and harmonization of intellectual property rights an "essential element" to remove restrictions on the freedom of movement of goods and services and to reduce anti-competitive practices.⁸ Therefore, the EU's single-market objective creates an incentive to reduce differences between copyright protection regimes of different EU nations and to "reduce barriers to trade and to adjust the framework to new forms of exploitation."⁹ Under the EU Treaties, Member States must adopt, implement, and enforce all of the current EU rules, including "directives" on intellectual property law.

2. *EU Legislative Process—Creating Directives*

To understand the differences in intermediary liability, it is worth exploring the legislative process to enact directives, which serve as an important source of EU law and shape the drafting of laws at the national level. First, the national heads of all Member States, who form the European Council, set the EU's overall political direction. Three institutions create laws together: 1) The European Parliament ("Parliament"), directly elected by EU citizens; 2) the European Council of Ministers ("Council of Ministers"); and 3) the European Commission ("Commission"), which consists of Commissioners from each Member State. The EU can pass several types of binding legislative acts:

5. Eur. Comm'n, *General policy framework*, THE EU SINGLE MARKET, http://ec.europa.eu/internal_market/top_layer/index_en.htm (last updated Oct. 10, 2014).

6. *Id.*

7. *Id.*

8. Eur. Comm'n, *Intellectual Property*, THE EU SINGLE MARKET, http://ec.europa.eu/internal_market/intellectual-property/index_en.htm (last updated Oct. 3, 2014).

9. Eur. Comm'n, *Copyright and Neighbouring Rights*, THE EU SINGLE MARKET, http://ec.europa.eu/internal_market/copyright/index_en.htm (last updated Oct. 3, 2014).

regulations, directives, and decisions.¹⁰ These acts take precedence over national law and are binding on national authorities.¹¹ A directive is a legislative act that sets out a goal for EU countries to achieve. It “directs” Member States to achieve the result, but leaves it up to each Member State to determine how to implement the directive in national laws.¹²

The legislative process to pass a directive starts with the Commission, which creates and publishes Green Papers “to stimulate discussion on given topics at [the] European level.”¹³ The Commission invites “relevant parties . . . to participate in the consultation process and debate.”¹⁴ After input from the relevant parties, the Commission creates a draft of a directive and presents it to the Parliament.¹⁵ If Parliament’s majority approves the draft, the Council of Ministers will then vote on it. If the Council of Ministers’ necessary majority approves the Parliament’s proposed act, it becomes a directive.¹⁶ Otherwise, these two legislative bodies can adopt and modify the proposed directive through certain procedures until both agree on one version.¹⁷

Once the EU’s legislature adopts the directive, each Member State is responsible for implementing it within a certain timeframe. Due to each Member State implementing the directive separately, differences can exist

10. See *Regulations, Directives and other acts*, EUROPA, http://europa.eu/eu-law/decision-making/legal-acts/index_en.htm (last visited Jan. 23, 2015).

11. See Eur. Comm’n, *Monitoring the application of Union law*, EUROPEAN COMMISSION AT WORK, http://ec.europa.eu/eu_law/introduction/treaty_en.htm (last updated Sept. 9, 2014).

12. EUROPA *Regulations*, *supra* note 10.

13. *Glossary—Green Paper*, EUROPA, http://europa.eu/legislation_summaries/glossary/green_paper_en.htm (last visited Mar. 20, 2015).

14. The relevant parties include Member States, public bodies, NGOs, companies, and citizens. See, e.g., Eur. Comm’n, *Public Consultation 2009 – 2010 Creative Content in a European Digital Single Market: Challenges for the Future*, AUDIOVISUAL AND MEDIA POLICIES, http://ec.europa.eu/archives/information_society/avpolicy/index_en.htm (last updated Apr. 12, 2012). For a public consultation example, see *Public Consultations: Green Paper on copyright in the knowledge economy (16.07.2008)*, THE EU SINGLE MARKET (July 16, 2007), http://ec.europa.eu/internal_market/copyright/copyrightinfo/index_en.htm#maincontentSec2. For an example of a public hearing, see *Public Hearing On Private Copying Levies*, EUR. COMMISSION, http://ec.europa.eu/internal_market/copyright/docs/levy_reform/programme_hearing_en.pdf. For an example of a stakeholder dialogue, see *Final Plenary Meeting*, LICENSES FOR EUROPE (Nov. 13, 2013), <http://ec.europa.eu/licences-for-europe-dialogue/en/content/final-plenary-meeting>.

15. KAREN DAVIS, UNDERSTANDING EUROPEAN UNION LAW 59-60 (4th ed. 2011).

16. *Id.*

17. *Id.*

between different EU countries. Questions may arise as to whether a national law or a national court's decision interpreting the law is in line with the goals of European directives, leading the ECJ to rule on the issue and create a uniform interpretation of EU laws.

3. *The ECJ in the Copyright Litigation Context*

As the highest court in the EU's judicial branch, the ECJ interprets EU law to create uniformity among all EU countries.¹⁸ The Court rules on a variety of controversies, including requests for preliminary rulings that occur when a national court asks the ECJ to interpret a point of EU law.¹⁹

The reference (or request) for a preliminary ruling is open to all Member States' national judges. Although national courts are the first line of interpretation and protection of EU law, a national court may refer a case already underway nationally to the ECJ in order to question the interpretation or validity of a national law under European law. For example, a party to a national litigation can argue that a national law violates a European directive. The national court could then stay its proceedings and request a ruling from the ECJ concerning the interpretation of European law. The question is often specific, for example: "Is Article *X* of a Directive *Y* to be interpreted as prohibiting a national law to obligate a Member State's citizens to do *Z*?" The ECJ will then interpret European law. For example, it could answer, "Article *X* of Directive *Y* precludes a Member State from obliging its citizens to do *Z*." After the ECJ makes its findings, the national court will resume its case and take into account the answer to the question asked.²⁰

II. HOW THE EU AND UNITED STATES ATTEMPTED TO SOLVE THE SAME PROBLEM, UPDATING COPYRIGHT LAWS IN THE DIGITAL AGE, AND ARRIVED AT DIFFERENT OUTCOMES

To better understand today's divergences in intermediary liability, this Note first provides a quick overview of the WIPO treaties followed by a

18. *Court of Justice of the European Union*, EUROPA, http://europa.eu/about-eu/institutions-bodies/court-justice/index_en.htm (last visited Jan. 25, 2015).

19. *The reference for a preliminary ruling*, EUROPA, http://europa.eu/legislation_summaries/institutional_affairs/decisionmaking_process/114552_en.htm (last updated Feb. 20, 2013).

20. See Davis, *supra* note 15, at 89 ("A referring national court will . . . be bound by the ruling of the Court of Justice and is obliged to apply the ruling obtained to the case before it.").

brief history of the DMCA and the EU's Copyright and E-Commerce Directives, prior to reviewing European and U.S. caselaw.

A. WIPO TREATIES ON COPYRIGHT

In 1989, WIPO,²¹ the UN agency that promotes IP development around the world, decided to prepare a possible revision to one of the treaties it oversees, the Berne Convention.²² Over the next few years, the form and objectives of this possible revision changed. Instead, WIPO drafted two new copyright treaties, which have dramatically influenced intellectual property laws throughout the world.²³

1. *WIPO Copyright Treaty*

The WIPO Copyright Treaty ("WCT") is important because it is the first treaty to tackle digital copyright protection. In 1996, WIPO's diplomatic conference began addressing copyright issues in the digital age.²⁴ While the WCT adopted provisions of previous copyright treaties, like requiring signatories to apply the Berne Convention with respect to points of attachment, national treatment, and subject matter, it also broadened copyrightable subject matter to include computer programs and compilations of data that constitute intellectual creations.²⁵ The WCT also expanded the scope of rights to adjust to modern business practices. Authors gained the exclusive right to exploit the commercial rental of their works and the exclusive right to authorize any communication to the public.²⁶ Perhaps most novel, the WCT was the first treaty that imposed

21. WIPO's mission is to "lead the development of a balanced and effective international intellectual property (IP) system that enables innovation and creativity for the benefit of all." WIPO, *What is WIPO?*, INSIDE WIPO, <http://www.wipo.int/about-wipo/en> (last visited Mar. 20, 2015).

22. Ralph Oman, *Berne Revision: The Continuing Drama*, 4 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 139, 140-41 (1993). On the history of the Berne Convention, see PAUL GOLDSTEIN & P. BERNT HUGENHOLTZ, *INTERNATIONAL COPYRIGHT: PRINCIPLES, LAW, AND PRACTICE* 34-38, (3d ed. 2013). To learn more about the Berne Convention, see WIPO, *Summary of the Berne Convention for the Protection of Literary and Artistic Works (1886)*, WIPO ("The Berne Convention deals with the protection of works and the rights of their authors. It is based on three basic principles and contains a series of provisions determining the minimum protection to be granted . . ."), http://www.wipo.int/treaties/en/ip/berne/summary_berne.html (last visited Mar. 20, 2015).

23. See GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 46.

24. See *id.* at 46, 60.

25. See WIPO Copyright Treaty, arts. 4-5, Dec. 20, 1996, S. TREATY DOC. No. 105-17, 36 I.L.M. 65 (1997) [hereinafter WCT].

26. See *id.* at arts. 6-9. This is most analogous to the U.S. copyright's public performance right. See, e.g., Jane C. Ginsburg, *U.S. Compliance With the International*

obligations concerning technological protection measures on its signatories. Signatories must provide adequate legal protection and remedies to prohibit circumvention of technological measures aimed at stopping infringement.²⁷

2. *WIPO Performances and Phonograms Treaty*

Similar to the WCT, the WIPO Performances and Phonograms Treaty (“WPPT”) came into existence at a time when neighboring rights²⁸ treaties were inadequate to respond to the digital dissemination of works, as consumers started to use new forms of content delivery, particularly the internet.²⁹ The WPPT provides broad public distribution rights, including protection for fixed and unfixed performances.³⁰ In addition to the expansion of rights, Article 18 of the treaty requires signatories to provide “adequate legal protection . . . against the circumvention of effective technological measures that are used by performers . . . that restrict acts . . . which are not authorized by the performers[.]”³¹ Furthermore, Article 19 of the WPPT, like Article 12 of the WCT, calls for enforcement of laws that prohibit inducement of actions prohibited in the previous article.³² Particularly, both the WCT and the WPPT implicitly enforce a sort of intermediary liability to provide remedies against unauthorized distribution or communication to the public of copyrighted works.³³

Right of Communication to the Public After Aereo: Who Is “the Public”?, THE MEDIA INSTITUTE (Aug. 21, 2014), <http://www.mediainstitute.org/IPI/2014/082114.php>.

27. WCT, *supra* note 25, at art. 11.

28. Continental Europe’s civil law copyright regime initially required authorship to receive exclusive rights. Over time, it became difficult to grant rights to those involved in creating works, such as music producers, performers, and movie studios, since authorship was tied to an individual creator. Civil law copyright regimes thus adopted the concept of neighboring or related rights to grant those who are not authors certain exclusive rights. *See generally* Goldstein & Hugenholtz, *supra* note 22, at 21.

29. *See* GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 60.

30. WIPO Performances and Phonograms Treaty, arts. 8, 9, 12, Dec. 20, 1996, S. TREATY DOC. No. 105-17, 36 I.L.M. 76 (1997) [hereinafter WPPT].

31. *Id.* art. 18.

32. *Id.* art. 19.

33. “Contracting Parties shall provide adequate and effective legal remedies against any person knowingly performing [actions] that [] will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty[.]” WCT, *supra* note 25, at art. 8; WPPT, *supra* note 30, at art. 19.

B. IMPLEMENTING THE WIPO TREATIES—ADAPTATION OF
COPYRIGHT TO THE DIGITAL AGE

While the United States and EU both implemented the WCT and WPPT, it appears that American online intermediaries were able to lobby more successfully for “safe harbors” than were their European counterparts. Both the WCT and WPPT partially addressed the effect of technological changes on copyright law at a time when U.S. and EU legislatures were looking to incorporate the digital revolution into their copyright regimes.

1. *Lobbying Efforts Behind the 1998 Digital Millennium Copyright Act*

Copyright holders may have dominated early lobbying efforts for strong intermediary liability under the DMCA, but after initial proposed legislation, opposition groups provided sufficient pushback, resulting in negotiations that led to safe harbors for OSPs.

In 1992, then-Patent Commissioner Bruce Lehman chaired a Working Group on Intellectual Property to make recommendations for copyright law changes due to the advent of the “Information Superhighway.”³⁴ Lehman, who had previously lobbied on behalf of the software industry, held public hearings and issued a draft “Green Paper”³⁵ that proposed strong rights for copyright holders. Notably, the report included finding copyright infringement whenever a copyrighted work is loaded into random-access memory without the copyright owner’s express permission, thereby making most transmissions of copyrighted works “public performances” and characterizing any transaction in which a user obtains a copy of copyrighted works a “distribution.”³⁶ Congress introduced legislation based on this Green Paper with bipartisan support.

³⁷

While supporters of the bills expected quick enactment,³⁸ OSPs, consumer organizations, hardware manufacturers, and telephone companies came out in strong opposition. Support soon began to dwindle,

34. See JESSICA LITMAN, DIGITAL COPYRIGHT 89–90 (2001).

35. Green Papers are tentative government reports that address a specific issue, like copyright law in the twenty-first century, after taking input from relevant parties, their discussions, and their proposals. Other nations and supranational bodies, like the EU, also use Green Papers for similar purposes.

36. Litman, *supra* note 34, at 90–93.

37. *Id.* at 94.

38. *Id.* at 122.

and copyright holders began negotiating with those deemed necessary to appease.³⁹ These negotiations included the movie industry, the music industry, book and software publishers, OSPs, telephone companies, TV and radio broadcasters, and computer manufacturers.⁴⁰

Eventually, copyright holders and service providers reached a deal: OSPs would not be liable for infringing transmissions made by customers as long as they had no reason to suspect infringement was taking place, and OSPs would shut down copyright violations once notified.⁴¹ In turn, these OSPs would turn over identifying information of accused copyright violators.⁴²

2. *EU Directives in Response to the Internet Age and Lobbying Efforts*

Two pieces of EU legislation are relevant to the adoption of copyright laws in the digital age: the E-Commerce Directive and the Copyright Directive. The E-Commerce Directive attempted to harmonize laws governing online services, and the Copyright Directive enacted the WIPO treaties.

a) The E-Commerce Directive

In 2000, the European Parliament adopted Directive 2000/31/EC to regulate certain legal aspects of the newly-emerged digital age, particularly the development of electronic commerce.⁴³ Among other things, this directive harmonizes rules governing service providers that Member States previously regulated separately.⁴⁴ The directive extends safe harbor

39. *Id.* at 122, 125–26.

40. *Id.*

41. *Id.* at 135.

42. *Id.* Under the DMCA, conduits (ISPs), online hosts, and linking and search engine tools fall within the safe harbor if conditions are met. 17 U.S.C. § 512 (2012).

43. *See generally* Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce, in the Internal Market, 2000 O.J. (L 178) 1 [hereinafter E-Commerce Directive].

44. Catherine Seville, EU Intellectual Property Law and Policy 47 (2009). The directive seeks to promote “information society services,” that is, any service normally provided for remuneration, at a distance, by electronic means. The directive notes that these services were hampered by a number of legal obstacles: divergences in national legislation and legal uncertainty as to which national rules apply. Thus, the directive creates a legal framework to ensure the free movement of these “information society services” between Member States. E-Commerce Directive, *supra* note 43, at pmb1., recitals 1–2, 5.

protections to ISPs when 1) the service provider is a “mere conduit,” on the condition that the provider does not initiate the copyright infringing transmission; 2) the service provider, in its role to transmit, caches the data for the sole purpose of making the transmission efficient; or 3) the service provider offers hosting services used to make protected works available online.⁴⁵

There are differences, however, between the DMCA and the E-Commerce Directive.⁴⁶ The directive provides immunity to fewer online service providers than does the DMCA. Services covered include online information services (online newspapers), online sellers of products and services, and basic intermediary services, such as internet access, transmission, and web-hosting services.⁴⁷ Some Member States have refused to extend the directive’s safe harbor protection to search engines.⁴⁸ These discrepancies between Member States are due to the nature of directives: each Member State has to implement national legislation to achieve the goals of the Directive.⁴⁹ Unlike the DMCA, the directive immunizes service providers from monetary damages, but does not limit injunctive relief.⁵⁰

45. E-Commerce Directive, *supra* note 43, at arts. 12–14.

46. *See* Goldstein & Hugenholtz, *supra* note 22, at 342.

47. *See* Eur. Comm’n, *E-Commerce Directive: Introduction of the Directive*, EU Single Market, http://ec.europa.eu/internal_market/e-commerce/directive/index_en.htm (last updated Oct. 3, 2014).

48. *Metro. Int’l Sch. Ltd. v Design Technica Corp.*, [2009] EWHC 1765 (QB) (holding that while Google does not fall under the e-commerce directive safe harbor, it is nonetheless not liable for libel); *see also* Thibault Verbiest et al., *Study on the Liability of Intermediaries*, Service Contract ETD/2006/IM/E2/69.

49. The E-Commerce safe harbors provide protection for transmission, caching, or hosting. Since a search engine does not fall neatly within these safe harbors, it is left up to the Member States to interpret the potential search engine protections under the directive. Spain and Portugal have enacted legislation to extend the article 15 “hosting” protection to search engines, provided certain conditions are met. Austria and Bulgaria have extended search engines article 12 “mere conduit” safe harbor protections to search engines, provided certain conditions are met. The United Kingdom legislature has been silent on the issue and at least one UK court has refused to extend E-Commerce safe harbors to a search engine. *Metro. Int’l Sch. Ltd.*, [2009] EWHC (QB) 1765 at [100]–[113]. For a discussion of these divergences, *see* GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 341–43.

50. GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 343; Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, 2001 O.J. (L 167) 10 [hereinafter Copyright Directive].

b) The 2001 Copyright Directive

The 2001 directive “on the harmonisation of certain aspects of copyright and related rights in the information society” also implemented the WIPO treaties.⁵¹ This directive, which is the most-debated and most-lobbied directive to date⁵² focuses on three basic exclusive rights, namely those of 1) reproduction, 2) communication to the public, and 3) distribution.⁵³

In 1995, the Commission published a Green Paper discussing the new developments in the information society, concluding that a high level of intellectual property rights should be maintained.⁵⁴ Similar to copyright holders in the United States, copyright holders in the EU influenced the debate from the start. Corporate representatives for content owners participated in the working group and created the report that was subsequently incorporated in the Green Paper.⁵⁵

Unlike the DMCA where finding a compromise was necessary for successful enactment, exclusive rights for copyright holders increased while the EU legislature debated the law, including the oft-cited objective to provide a high level of copyright protection.⁵⁶ “[L]obbyists representing the interests of users . . . found themselves outmatched by representatives of the entertainment industry.”⁵⁷ The increase of exclusive rights during the legislature’s debates, user interest groups being outmatched by copyright holder lobbyists, and lack of evidence of negotiations between copyright holders and OSPs indicate that no such negotiations were necessary to enact the Copyright Directive.

51. GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 70 n.301.

52. BENJAMIN FARRAND, NETWORKS OF POWER IN DIGITAL COPYRIGHT LAW AND POLICY: POLITICAL SALIENCE, EXPERTISE AND THE LEGISLATIVE PROCESS 38 (2014).

53. SEVILLE, *supra* note 44, at 51–52.

54. *Id.* at 50.

55. Farrand, *supra* note 52, at 93–94. *But see* David Coen, Lobbying the European Union: Institutions, Actors, and Issues § 14.3.2.2 (2009) (mentioning that the group consisted of telecom business groups, which may have had contrary interest to copyright holders).

56. Farrand, *supra* note 52, at 94; Copyright Directive, *supra* note 50.

57. Farrand, *supra* note 52, at 94.

III. *SVENSSON*—LINKING TO A WEBSITE CAN BE A COMMUNICATION TO THE PUBLIC

The *Svensson* decision arguably falls in line with the Copyright Directive's goal of affording a high level of copyright protection. In its decision, the ECJ uses the "new public" concept, which is introduced in the following background case.

A. UNDERSTANDING THE "NEW PUBLIC"—*SGAE V. RAFAEL HOTELES*

In 2006, the ECJ held that a hotel violated copyright holders' exclusive communication to the public right by forwarding a TV signal to its hotel rooms; this transmission was seen as the hotel providing copyrighted works to a "new public," hotel patrons, without authorization.⁵⁸ In this case, plaintiff copyright holders filed suit in a Spanish court against a hotel chain, arguing that the use of TV sets in the hotel rooms were communications of copyrighted works to the public.⁵⁹ After receiving the case from the national court, the ECJ affirmed its previous definition of "public" as "an indeterminate number of potential viewers" and held that a large number of successive guests in multiple hotel rooms constituted the "public" within the meaning of the Directive.⁶⁰

Next, the ECJ analyzed whether the plaintiff right holders had previously authorized broadcasting to this particular public.⁶¹ Using the non-binding Guide to the Berne Convention,⁶² the Court analogized the situation at hand to one previously covered in the Guide: when a copyright holder broadcasts his copyrighted work, he has a target audience in mind.⁶³ When an intermediary re-broadcasts the work to those that are not part of the original target audience, it is an independent act through which the broadcasted work is communicated to a "new public," thereby requiring another authorization by the copyright holder.⁶⁴ The ECJ found that plaintiffs did not target hotel guests as their audience, the hotel lacked

58. Case C-306/05, Sociedad General de Autores y Editores de España (SGAE) v. Rafael Hoteles SA, 2006 E.C.R. I-11543, 11562.

59. *Id.* at 11552–53.

60. *Id.* at 11557.

61. *Id.* at 11558.

62. WORLD INTELLECTUAL PROPERTY ORGANIZATION, GUIDE TO THE BERNE CONVENTION FOR THE PROTECTION OF LITERARY AND ARTISTIC WORKS (1978).

63. *SGAE*, 2006 E.C.R. I-11543 at 11558.

64. *Id.* at 11558–59.

the authorization to communicate to this “new public,” and thus found infringement.⁶⁵

B. *SVENSSON*—HYPERLINKS ARE AN ACT OF COMMUNICATION OF COPYRIGHTED WORKS

In *Svensson*, the ECJ held that providing a hyperlink to a copyrighted work is a “communication” within the Copyright Directive’s exclusive communication to the public right.⁶⁶ Defendant Retriever Sverige operated a website that charged its members a monthly fee for providing curated content.⁶⁷ That is, members could select topics, and the website would give each member a list of links based on the member’s specified interests.⁶⁸ When the user clicked on one of the links, he would be redirected to another site to access the content.⁶⁹ There was a question of fact as to whether a user would realize that the links redirected him to another separate page.⁷⁰ Plaintiffs were journalists for the *Göteborgs-Posten* whose articles were printed in the newspaper and available on the newspaper’s website for free, some of which were read by Retriever Sverige’s members.⁷¹

Plaintiffs brought a suit against Sverige before the Stockholm District Court to obtain compensation due to defendant’s unauthorized use of plaintiff’s copyrighted works.⁷² The Stockholm District Court rejected the plaintiff’s application, and on appeal, plaintiffs argued that the website infringed their exclusive right to make their copyrighted works “available to the public” because defendant had enabled its members to access plaintiffs’ articles through its website.⁷³ Defendant took the position that providing a list of internet links to other websites was not a “transmission

65. *Id.* at 11560–62.

66. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* ¶ 42 (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

67. *Id.* at ¶ 8.

68. *Id.*

69. *Id.*

70. *Id.* This is typically achieved through loading up another website within a “frame” of the current website (i.e. a page within a page). This is akin to Google’s framing of pictures located on other servers in *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146 (9th Cir. 2007). See *infra* note 95 and accompanying text.

71. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* ¶. 8 (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>

72. *Id.* at ¶ 9.

73. *Id.* at ¶¶ 10–12.

of any protected work.”⁷⁴ Rather, it merely “indicat[ed] to its clients the websites on which the works that [were] of interest to them [could be] found.”⁷⁵

The Swedish Court of Appeal stayed its proceedings and referred several questions to the ECJ.⁷⁶ In essence, the Swedish court asked if the act of providing a hyperlink to a website with copyrighted works would constitute a “communication to the public” of the copyright works on said website, an exclusive right granted to the copyright owner under Article 3(1) of the Copyright Directive.⁷⁷ Second, the Swedish court asked if there was a difference in outcome to the first question if the website with the copyrighted works made its content freely accessible without restrictions.⁷⁸ Third, the Swedish court asked if there would be any difference if after clicking on the link, the user saw the copyrighted works in such a way so as to give the impression that the works were part of the linking website.⁷⁹

The ECJ addressed these three questions in a single analysis. It first noted that every act of communication of a work to the public has to be: 1) an “act of communication,” and 2) to the “public.”⁸⁰ With regard to the “act of communication” requirement, the ECJ cited prior case law specifying that this term must be construed broadly to comply with the Copyright Directive’s policy objectives, particularly the high level of protection for copyright holders.⁸¹ Referring to its decision in *SGAE*, the ECJ stated that making content “available to the public” in such a way that members of the public could access the content if they so desired indeed constitutes an “act of communication.”⁸² The ECJ then concluded that the

74. *Id.* at ¶ 12.

75. *Id.*

76. *Id.* at ¶ 13.

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.* at ¶ 16. In *ITV Broadcasting v. TV Catchup*, the ECJ held that defendant’s business, a service that lets UK TV subscribers receive live streams through the web, which the subscribers would receive through their TVs, was a communication to a new public because the retransmission by TV Catchup was a different company than the broadcasters, transmitting without the authorization of the broadcasters. Thus, each new type of transmission or retransmission must be authorized individually. Case C-607/11, *ITV Broad. v. TV Catchup* ¶¶ 21, 31 (Mar. 7, 2013), available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62011CJ0607&from=EN>.

81. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* ¶ 17 (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

82. *Id.* at ¶ 19 (citing Case C-306/05, *Sociedad General de Autores y Editores de España (SGAE) v. Rafael Hoteles SA*, 2006 E.C.R. I-11543 ¶ 43).

scenario of this case did in fact constitute making content available to the public in this manner. “[T]he provision of clickable links to protected works must be considered to be ‘making available’ and, therefore, an ‘act of communication’,[sic] within the meaning of [Article 3(1) of the Copyright Directive].”⁸³

The ECJ’s analysis implies that, unlike the facts in *SGAE*,⁸⁴ an act of communication exists even if no actual copyrighted work is transmitted.⁸⁵ Here, the hyperlinks pointed to the location of another website which the user could then access, assuming the other website made its content available to all users.⁸⁶ Yet, the ECJ found that hyperlinks made copyrighted works available within the meaning of an “act of communication.”⁸⁷

The ECJ then examined the second element of the exclusive right, namely that the communication be made to a “public.” Following *SGAE*, the ECJ defined the term “public” as “an indeterminate number of potential recipients” implying a “fairly large number of persons.”⁸⁸ Applying this rule to the facts of the case at hand, the ECJ held that Retriever Sverige’s act of communication, providing links on its website, was aimed at all potential users of the website, and was therefore directed to “an indeterminate and fairly large number of recipients.”⁸⁹ However, in order to fall within the “communication to the public” right under Article 3(1) of the Copyright Directive, defendant’s communication would have to address a “new public,” that is “a public that was not taken into account by the copyright holders when they authorised the initial communication to the public.”⁹⁰

The ECJ then found that defendant’s hyperlinks addressed exactly the same public the plaintiffs contemplated, since the original content from the *Göteborgs-Posten* news website was available to all members of the

83. *Id.* at ¶ 20.

84. *SGAE*, 2006 E.C.R. I-11543 at 11552; Case C-607/11, *ITV Broadcasting v. TV Catchup* ¶¶ 10-13 (Mar. 7, 2013), <http://eur-lex.europa.eu/legalcontent/EN/TXT/HTML/?uri=CELEX:62011CJ0607&from=EN>.

85. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* ¶ 12 (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

86. *Id.* ¶ 8.

87. *Id.* ¶ 20.

88. *Id.* ¶ 21.

89. *Id.* ¶ 22.

90. *Id.* ¶ 24.

public who wished to access the website and its copyrighted works.⁹¹ Furthermore, the ECJ held that a user's belief or disbelief that copyrighted works were housed on the same website as the links was irrelevant in determining whether or not the linking website had communicated copyrighted works to a new public.⁹² However, if the copyright holder at a later time restricted access to its website, making it no longer available to the public and the defendant continued to provide the works to its members, then the members would constitute a new public, fulfilling both elements of a "communication to the public."⁹³

The ECJ thus ruled that "Article 3(1) of Directive 2001/29 must be interpreted as meaning that the provision on a website of clickable links to works freely available on another website [did] not constitute an act of communication to the public[.]"⁹⁴

C. COMPARISON TO THE UNITED STATES—*PERFECT 10, INC. V. AMAZON.COM*

The U.S. case most analogous to *Svensson* is *Perfect 10, Inc. v. Amazon.com*, best known for holding that displaying thumbnail images in Google search results did not infringe the copyright of the original images because Google's use of the images was "highly transformative" and therefore fell within the fair use exception.⁹⁵ In *Perfect 10*, the Ninth Circuit also upheld the lower court's decision that in-line links and framing did not constitute a violation of plaintiff's right to perform or display a work publicly.⁹⁶ Specifically, the Ninth Circuit found that, in providing in-line links to images on another server and framing around these images, "Google transmits or communicates only an address which directs a user's browser to the location where a copy of the full-size image is displayed. Google does not communicate a display of the work itself."⁹⁷ According to one commentator, the Ninth Circuit thus endorsed the view

91. *Id.* ¶ 27–28.

92. *Id.* ¶ 29.

93. *Id.* ¶ 31.

94. *Id.* ¶ 32.

95. *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1163, 1168 (9th Cir. 2007).

96. *Id.* at 1160. *But see* *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 325 (S.D.N.Y. 2000) (holding that defendants knowingly linking to sites that automatically commence the process of downloading the circumvention software where a user is transferred by defendants' hyperlinks would amount to "transferring" the software to the user themselves, since the website had no other content except for the circumvention software).

97. *See Perfect 10*, 508 F.3d. at 1161 n.7.

even though framing of and deep linking to these images made it appear as if Google was hosting them, these practices do not constitute infringement of the copyright in the full-sized images.⁹⁸

IV. *UPC TELEKABEL*—ISP CAN BE ORDERED TO BLOCK INFRINGING WEBSITES

In *UPC Telekabel*, the ECJ upheld a national law requiring ISPs to block infringing websites by balancing the rights of the participants: the ISP, the copyright holders who seek to stop infringement, and internet users who use the ISP to connect to the internet. To better understand the Court's analysis, the following two ISP liability cases shed light on the interplay of the parties' "fundamental rights."⁹⁹

A. PREVIOUS ISP LIABILITY CASES ON BALANCING FUNDAMENTAL EU RIGHTS

1. *Courts Must Balance Fundamental EU Rights*—Promusicae de Música de España (Promusicae) v. Telefónica de España

In *Productores de Música de España (Promusicae) v Telefónica de España SAU*, the ECJ held that ISP customers' right of privacy could outweigh a copyright holder's right to ISP customer information to file civil suits against individual infringers.¹⁰⁰ Spanish copyright holder collective Promusicae brought an action against ISP Telefónica to obtain its customers' personal information with the goal of filing lawsuits against internet users who infringed Promusicae members' copyrights by downloading music through file-sharing software KaZaA.¹⁰¹

98. For the "server theory" in this case, see Jane C. Ginsburg, *Take Down/Stay Down: RIP in France? But Little Solace for Google...*, THE MEDIA INSTITUTE (Aug. 6, 2012), <http://www.mediainstitute.org/IPI/2012/080612.php>. Professor Ginsburg argues that the Ninth Circuit implicitly endorsed the view that there cannot be infringement when the copyrighted work is not copied to the OSP's server, but rather, the OSP merely loads the images into the user's browser directly from the copyright holder's authorized server. *Id.*

99. See generally Charter of Fundamental Rights of the European Union, Dec. 7, 2000, 2000 O.J. (C 364) 1. This charter articulates the universal values, such as dignity, solidarity, freedom, and equality, on which the EU is founded. *Id.* Relevant rights include the protection of personal data, freedom to conduct a business, and the right of property, including intellectual property. *Id.*

100. Eur. Comm'n, *Case C-275/06 Productores de Música de España (Promusicae) v Telefónica de España SAU*, judgment of 29 January 2008, SUMMARIES OF IMPORTANT JUDGMENTS (last updated July 2008), http://ec.europa.eu/dgs/legal_service/arrets/06c275_en.pdf.

101. *Id.*

The ECJ held that it was “necessary to reconcile the requirements of the protection of different fundamental rights in the case, . . . the right to the protection of personal data and an effective remedy [to protect the copyright owner’s fundamental right to property].”¹⁰² Thus, the ECJ assigned the task of balancing these conflicting rights, protection of personal data and the effective remedy of IP rights, back to the national court.¹⁰³

2. *Internet Users’ and ISP’s Rights Can Outweigh Copyright Holder Rights*—SABAM v. Scarlet Extended

In *SABAM v. Scarlet Extended*, the Court held that a national court could not order an ISP to monitor all data in its network and filter any copyright-infringing content because it was not a fair balance of the fundamental rights in question.¹⁰⁴ Copyright collection society SABAM sued Belgian ISP Scarlet Extended to stop its clients’ current copyright infringement and to prevent future infringement by blocking the transmission of files containing copyrighted musical works through peer-to-peer software.¹⁰⁵ Specifically, SABAM sought an order requiring Scarlet to make it impossible for its customers to send or receive such files and for Scarlet to provide SABAM details of the measures it would apply to comply with the judgment.¹⁰⁶ The Belgian court in the first instance ruled for SABAM, finding that internet users had infringed the plaintiff’s copyrights and appointed an expert to investigate plaintiff’s proposed technical solutions.¹⁰⁷ Scarlet appealed, and the national court referred the case to the ECJ, asking whether the ISP’s or the ISP customer’s fundamental rights would be violated if the ISP had to implement a system to monitor all communication of all its customers in order to prevent copyright infringement.¹⁰⁸

The ECJ held that a court order requiring an ISP to pay, implement, and maintain a costly system which indiscriminately filters all electronic communications passing through its services to identify and block the

102. *Id.*

103. *Id.*

104. Case C-70/10, *Scarlet Extended SA v. Société Belge des auteurs, compositeurs et éditeurs (SABAM)*, 2011 E.C.R. I-12006, 12028.

105. *Id.* at 12017–18. Specifically, under Belgian law a national court may issue an injunction against intermediaries whose services are used by a third party to infringe a copyright. *Id.*

106. *Id.* at 12018.

107. *Id.* at 12019. While the ISP did not infringe plaintiff’s copyright, under the E-Commerce Directive the ISP may have to provide injunctive relief. *Id.*

108. *Id.*

unlawful transmission of copyrighted works would infringe the ISP's fundamental freedom to conduct its business.¹⁰⁹ Second, the ECJ held that such a filtering system could infringe the ISP's customers' fundamental rights to protection of personal data and the right to receive or impart information, since such a system could easily identify individual customers.¹¹⁰ Third, the injunction in question could "potentially undermine freedom of information" as the filtering system could potentially block lawful communications.¹¹¹

B. *UPC TELEKABEL*—ISPs HAVE A DUTY TO BLOCK INFRINGING WEBSITES

In 2010, film production companies Constantin Film Verlei and Wega filed suit in Vienna's Commercial Court against Austrian ISP UPC Telekabel ("UPC").¹¹² The plaintiffs sought a preliminary injunction ordering UPC to block its customers' access to a website, Kino.to.¹¹³ The website in question made copyright protected movies available for download and streaming without the authorization of the copyright-holding plaintiffs.¹¹⁴ Although it was not known how many, if any, UPC users accessed the website, the Commercial Court nonetheless ordered UPC to block the site's "domain name and current IP . . . address and any other IP address of that site of which UPC Telekabel might be aware."¹¹⁵

On appeal, the Higher Regional Court in Vienna partially upheld the order of the lower court, finding that "Article 81(1a) of the [Austrian copyright law] had to be interpreted in light of Article 8(3) of the

109. *Id.* at 12026–27.

110. *Id.* at 12027.

111. *Id.* at 12027–28.

112. Case C-314/12, *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH*, ¶ 8 (Mar. 27, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0314&from=EN>.

113. *Id.* Under § 81(a1) of Austria's copyright law, if the infringer uses the services of an intermediary, the intermediary shall also be liable to an injunction. *Id.*

114. *Id.* ¶ 11.

115. *Id.* ¶ 12. For example, when a user types in the domain name "berkeley.edu" the user's browser connects to a Domain Name Server that translates these human-readable addresses (domain names) to the actual address, an IP address such as 134.97.0.178. Thus, even if UPC blocked access to "Kino.to," users would still be able to type in the IP address directly. That may be the reason the Commercial Court enjoined UPC to block to domain name and all IP addresses that derive from the domain name through domain name servers.

Directive 2001/29.”¹¹⁶ The appellate court held that UPC was an “intermediary whose services were used” to infringe a copyright of another, allowing plaintiffs to request injunctive relief, as long as the ISP could choose the means to block access to the copyright infringing website.¹¹⁷ UPC appealed to the Austrian Supreme Court, arguing that it could not be an intermediary under Article 8(3) of the Copyright Directive because it had no business relationship with the infringing website, nor was there any proof that UPC subscribers actually visited the website.¹¹⁸ The Supreme Court stayed its proceedings and requested a ruling from the ECJ.¹¹⁹

The ECJ first addressed whether a copyright infringing website is “using the service” of the ISP under Article 8(3) of Directive 2001/29, making the ISP an intermediary.¹²⁰ If the ECJ found the ISP to be an intermediary, then injunctive relief would be possible under the directive.¹²¹ The ECJ broadly defined an intermediary as “any person who carries a third party’s infringement of a protected work or other subject-matter in a network.”¹²² Next, the ECJ stated that policy considerations behind Directive 2001/29 “to guarantee rightholders a high level of protection” would require including within this definition situations where a copyright infringer places content on the internet.¹²³ The ECJ found that ISPs were “inevitable actor[s] in any transmission of infringement over the Internet between one of its customers and a third party . . .”¹²⁴ Therefore, “an internet service provider . . . is an intermediary whose services are used to infringe a copyright . . . within the meaning of Article 8(3) of Directive 2001/29.”¹²⁵ Furthermore, to “exclude internet service providers from the

116. *Id.* ¶ 14; see Copyright Directive, *supra* note 50, at art. 8(3) (stating that “Member States shall ensure that rightholders are in a position to apply for an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right.”).

117. *UPC Telekabel*, Case C-314/12 ¶ 14.

118. *Id.* ¶¶ 15–16.

119. *Id.* ¶ 17.

120. *Id.* ¶ 23.

121. *Id.* ¶ 26.

122. *Id.* ¶ 30.

123. *Id.* ¶ 31.

124. *Id.* ¶ 32.

125. *Id.* (citing Case C-557/07, *LSG-Gesellschaft zur Wahrnehmung von Leistungsschutzrechten GmbH v. Tele2 Telecomm. GmbH*, 2009 E.C.R. I-1227). *LSG-Gesellschaft* held that an ISP is indeed an intermediary and subsequently found that Member States could require ISPs to give copyright owners contact information of infringing customers for civil litigation purposes, as long as Member States interpret the

scope of Article 8(3) . . . would substantially diminish the protection of rightholders sought by that directive . . .”¹²⁶ The ECJ also looked to the text of the directive, stating that nothing in Article 8(3) indicated a requirement of a specific relationship between the infringer and the intermediary.¹²⁷

The ECJ also addressed the issue of lack of proof that UPC customers actually accessed the infringing website. The court clarified that seeking injunctive relief under Article 8(3) does not require the copyright holder to show that some of the intermediary’s customers actually accessed an infringing website, since the Copyright Directive’s purpose includes the prevention of infringement.¹²⁸ As the ECJ previously noted in *SABAM*, the key factor was not actual dissemination of copyrighted works, but that the copyrighted work was *made available* to the public.¹²⁹

The other question the ECJ analyzed was whether an injunction requiring an ISP to block access to an infringing website (without specifying the measures the ISP has to take) would violate EU fundamental rights.¹³⁰ The fundamental rights at issue here were: 1) the right to conduct a business and freely use one’s own economic, technical, and financial resources under Article 16 of the Charter; 2) “the freedom of information of internet users[,]” protected by Article 11 of the Charter; and 3) the copyrights and related rights protected by Article 17(2) of the Charter.¹³¹

The ECJ acknowledged that the injunction in question would restrict the ISP’s free use of resources since the ISP would have to take potentially expensive compliance measures that could have a considerable impact on the business.¹³² “However, such an injunction [would not] infringe the very substance of the freedom of an internet service provider . . . to conduct a business”¹³³ because the ISP could choose how to implement the injunction, and the ISP could avoid liability by showing that it had taken

relevant directives in a way that is a fair balance struck between the different fundamental rights in question. *LSG-Gesellschaft*, 2009 E.C.R. I-1227 ¶ 47.

126. *UPC Telekabel*, Case C-314/12 ¶ 35.

127. *Id.*

128. *Id.* ¶ 36; *see also SABAM*, 2011 E.C.R. I-12006 at 12028 (holding that the infringement occurred by having the TV sets *available* to the public patrons of the hotel).

129. *UPC Telekabel*, Case C-314/12, ¶ 36.

130. *Id.* ¶ 42.

131. *Id.* ¶ 47.

132. *Id.* ¶ 50.

133. *Id.* ¶ 51.

“all reasonable measures.”¹³⁴ The ECJ reasoned that, since the ISP is merely the intermediary used by the infringing website, it should not be required to make “unbearable sacrifices.”¹³⁵ Rather, it must be possible for an addressee of such an injunction to make a showing that “all measures taken were indeed those which could be expected of him to prevent the proscribed result.”¹³⁶

Second, the ECJ considered the freedom of access to information of internet users, stipulating that whatever measure an intermediary decided to adopt, it would have to strictly target the infringing website without affecting users who use the ISP for lawful access to information.¹³⁷ The ECJ further held that national courts must be able to verify that intermediaries are not interfering with the user’s right to freedom of information, and internet users must be able to assert their rights before the national court once the ISP’s measure have taken effect.¹³⁸ Third, citing *SABAM*, the ECJ acknowledged that although intellectual property rights were protected under Article 17(2) of the Charter of Fundamental Rights of the European Union, that right was not absolute, and injunctions need not stop infringement altogether.¹³⁹ Rather, an injunction would be sufficiently effective if it discouraged users to access the infringing website.¹⁴⁰

The ECJ concluded that an intermediary, such as the ISP in this case, could be enjoined from making an infringing website accessible, even if some users could circumvent the access restrictions, so long as users are not deprived of their fundamental right to lawfully access information.¹⁴¹

C. COMPARISON TO THE UNITED STATES—VIACOM INTERNATIONAL INC. V. YOUTUBE, INC.

While no U.S. case is similar to *UPC Telekabel, Viacom International Inc. v. YouTube, Inc.* shows the burdens copyright holders face when arguing that DMCA safe harbor provisions should not apply, and illustrates their duty to send take-down notices to intermediaries, and the lack of injunctive relief available. In this Second Circuit case, content owner Viacom filed an infringement action against YouTube, which

134. *Id.* ¶ 53.

135. *Id.* ¶¶ 53–54.

136. *Id.*

137. *Id.* ¶¶ 55–56.

138. *Id.* ¶ 57.

139. *Id.* ¶ 61.

140. *Id.* ¶ 62.

141. *Id.* ¶ 66.

allows users to upload videos on its website for public viewing.¹⁴² The court overturned the lower court's grant of summary judgment, finding that a factual issue existed as to whether YouTube had actual knowledge of specific infringing activity, which would disqualify YouTube from the DMCA safe harbor.¹⁴³ On remand, Viacom argued that YouTube bore the burden of proving that it did not receive adequate takedown notices for copyright-infringing material on its website. Citing the DMCA statute, the lower court held that the burden of proving knowledge or awareness of specific infringing acts was plaintiff's responsibility.¹⁴⁴

It is worth highlighting that YouTube had begun experimenting with a content identification and filtering system in 2007 which would automatically detect infringing content during the upload procedure.¹⁴⁵ The content identification process became available a few years later to all content owners. Viacom only attempted to collect damages for infringements prior to the roll-out of this system, which may have indicated to observers and the court that previous intermediary liability issues were drastically reduced, maybe even ceased to exist, because of the new filtering system.¹⁴⁶

V. ANALYSIS OF DIFFERENCES BETWEEN THE U.S. AND EU REGIMES

While both the United States and the EU passed laws to adjust copyright laws to the digital era, the high level of protection sought under the Copyright Directive and the comparatively weaker safe harbors under the E-Commerce Directive than those under the DMCA may cause European courts to afford European copyright holders stronger protections than their American counterparts. These stronger protections in turn create a higher burden for intermediaries under the European regime. The desired high level of protection may also explain broader,

142. *Viacom Int'l, Inc. v. YouTube, Inc.*, 676 F.3d 19 (2d Cir. 2012).

143. *Id.* at 32.

144. *Viacom Int'l Inc. v. YouTube, Inc.*, 940 F. Supp. 2d 110, 115 (S.D.N.Y. 2013), *appeal withdrawn* Mar. 19, 2014.

145. David King, *Latest content ID tool for YouTube*, GOOGLE OFFICIAL BLOG (Oct. 15, 2007), <http://googleblog.blogspot.com/2007/10/latest-content-id-tool-for-youtube.html>.

146. See generally Peter S. Menell, *Assessing the DMCA Safe Harbors: The Good, the Bad, and the Ugly*, MEDIA INSTITUTE (Aug. 31, 2010), <http://www.mediainstitute.org/IPI/2010/090110.php>. Content ID filtering automatically detects infringing content being uploaded and allows the copyright holder to either block the video, or generate revenue through ads surrounding the video.

copyright holder friendly interpretation of the rights, like the different outcomes regarding hyperlinks in *Svensson* and *Perfect 10*, potentially leaving European fundamental rights as the backstop of intermediary liability.¹⁴⁷

Both regimes also understood the importance of intermediaries to stop and prevent the new ways the internet could enable copyright infringement, even if the magnitude of the world wide web was not fathomed when enacting the DMCA or the directives. The question thus was not whether intermediaries could be held liable for infringement, but to what degree intermediaries ought to play a role in copyright enforcement. The outcome was similar systems where intermediaries were granted safe harbors under certain conditions, though differences exist as to how to qualify for safe harbor protection and what protections safe harbors provide.

A. POST-*SVENSSON* AND *UPC TELEKABEL*, A “HIGH LEVEL” OF PROTECTION CONTINUES TO BENEFIT COPYRIGHT HOLDERS IN THE EU

1. *Copyright Holders Benefit From Strong Protection Under the Copyright Directive*

As previously stated, these strong exclusive rights may be in part the result of 1) copyright holders participating in the drafting process of Copyright Directive, and 2) more lopsided lobbying efforts while the European Parliament considered the draft of the directive.¹⁴⁸ By comparison, the DMCA stalled despite early progress by copyright holders, because opposition groups created an effective counter lobby. The success of these opposing groups eventually forced negotiations between these competing interests, creating more robust safe harbors for intermediaries.¹⁴⁹

In the EU, however, the Copyright Directive provides copyright holders the ability to enforce their rights even if the OSPs bear the costs: “Member States shall ensure that rightholders are in a position to apply for

147. See generally P. Bernt Hugenholtz & Martin R.F. Senftleben, *Fair Use In Europe: In Search Of Flexibilities* (Nov. 14, 2011), available at <http://ssrn.com/abstract=1959554>. Hugenholtz and Senftleben argue that a measure of flexibility should be (re)introduced in national copyright systems in Europe. *Id.* Furthermore, while legal doctrines external to copyright, such as freedom of expression and information, can be used as a limit on copyrights, the permitted exceptions to the Copyright Directive should provide ample flexibility when implemented nationally. *Id.*

148. See *supra* Section II.B.

149. See *id.*

an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right.”¹⁵⁰ At the same time, the E-Commerce Directive leaves open the possibility for Member States to require OSPs to stop or prevent an infringement. Each of the safe harbor provisions—for the “mere conduit,” “caching,” and “hosting” scenarios—states that “[t]his Article shall not affect the possibility for a court or administrative authority, in accordance with Member States’ legal systems, of requiring the service provider to terminate or prevent an infringement.”¹⁵¹

Thus, the EU copyright regime operates under two relevant directives, one which seeks a high level of protection and requires a Member State to provide injunctive relief to copyright holders against intermediaries, and the other which allows for such relief within its safe harbor provisions. A plausible interpretation may therefore be that the strong wording of the Copyright Directive and the E-Commerce Directive’s permission for granting injunctive relief to copyright owners add up to more duties for entities that fall within these safe harbor provisions. A study on the implementation and effect in Member States’ laws of the Copyright Directive adds support, showing that the directive offers rights holders a “higher level of protection than is required under the international treaties that bind Member States.”¹⁵²

Svensson and *UPC Telekabel* seem to confirm such an interpretation by finding that hyperlinks can constitute copyright infringement and by finding ISPs liable for blocking access to copyright infringing websites. In comparison, the court in *Perfect 10* concluded that hyperlinks are not a communication of copyrighted works, and copyright holders cannot compel ISPs to block the access to copyright infringing websites. Rather,

150. Copyright Directive, *supra* note 50, at art. 8(3).

151. E-Commerce Directive, *supra* note 43, at arts. 12(3), 13(3), 14(3).

152. Lucie Guibault, Guido Westkamp, and Thomas Riber-Mohn explain:

The Directive offers right holders in the European Union a higher level of protection than is required under the international treaties that bind the Member States. The reproduction right is wider in its definition than it internationally is for authors (in the Berne Convention) and holders of related rights (WPPT, Rome Convention, TRIPS). The making available right conforms to WCT and WPPT norms, albeit that those instruments do not recognize a making available right for broadcasting organisations and producers of first fixations of films.

LUCIE GUBAULT ET AL., STUDY ON THE IMPLEMENTATION AND EFFECTS IN MEMBER STATES’ LAWS OF DIRECTIVE 2001/29/EC ON THE HARMONISATION OF CERTAIN ASPECTS OF COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION 165 (2007).

under the DMCA the right holder must contact the website host, which could be outside any U.S. court's jurisdiction, to take down the infringing content.¹⁵³ However, this is not to say that the U.S. legislature has not contemplated increasing ISP liability.¹⁵⁴

2. Fewer Entities Qualify for the EU's Online Service Provider Safe Harbors Than for Those of the DMCA

While Article 2(b) of the E-Commerce Directive defines a "service provider" as "any natural or legal person providing an information society service," that definition does not automatically cover "information location tools" (search engines) as does the DMCA.¹⁵⁵ Some Member States enacted legislation to give search engines the E-Commerce Directive's safe harbor protections while other Member States' national courts found that search engines do not qualify for such protection.¹⁵⁶

As the internet and user behavior evolve, newly emerging intermediaries like content curators may find themselves with fewer protections in the EU than the United States.¹⁵⁷ *Svensson* may have given us a glimpse.¹⁵⁸ At no point in time did the defendant argue nor did the Court consider, that a content curator could be a new type of OSP,

153. 17 U.S.C. § 512 (2012). If the website host is outside U.S. jurisdiction, copyright holders have little opportunity to stop the infringement because they cannot seek an injunction against ISPs. This focus on hosts has led to increased bilateral agreements between the United States and other countries. For example, torrent website Demonoid was arguably taken down by Ukrainian authorities to better relationships with the United States. *See Ukraine Takes Down Demonoid As A Gift To The US Government*, TECHDIRT (Aug. 6, 2012, 2:35 PM), <https://www.techdirt.com/articles/20120806/12575219946/ukraine-takes-down-demonoid-as-gift-to-us-government.shtml>.

154. Mark Hachman, *New Bill Would Require U.S. ISPs to Block Pirate Sites*, PCMAG.COM (Sept. 20, 2010, 4:21 PM), <http://www.pcmag.com/article2/0,2817,2369402,00.asp> (describing Senator Patrick Leahy's efforts to introduce the new legislation to block access to websites by ordering domestic ISPs to block infringing websites).

155. 17 U.S.C. § 512; *see also* GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 342.

156. GOLDSTEIN & HUGENHOLTZ, *supra* note 22, at 342. Some member states have categorized search engines as "Online Service Providers" (OSPs) within the meaning of the E-Commerce Directive, giving them access to safe harbor protections. *Id.* at 342-43.

157. *See, e.g.*, Steve Rosenbaum, *User-Generated Content Is Dead - As Video Evolves*, FORBES (July 14, 2014, 3:57 PM), <http://www.forbes.com/sites/stevenrosenbaum/2014/07/14/user-generated-content-is-dead-as-video-evolves/>.

158. *See generally* Case C-466/12, *Nils Svensson v. Retriever Sverige AB* (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

deserving access to safe harbor protections.¹⁵⁹ The internet now contains more information than could be parsed by any one person and continues to add more information daily.¹⁶⁰ Content curators are arguably becoming increasingly important middle-men to give users actual access to online content, finding the relevant needle in the virtual haystack. Although no U.S. case is directly on point, projecting the court's rationale in *Perfect 10* and arguing that content curators like Google are OSPs, future content curators may indeed find themselves with safe harbor protections in the United States but not in the EU.¹⁶¹

3. *Even With Safe Harbor Protection, EU Intermediary Liability is Broader Than in the United States*

Even with safe harbor protections under the E-Commerce Directive, an OSP's affirmative duty to stop and prevent infringement creates increased liability for European OSPs than their counterparts face in the United States.

While *SABAM* may have at first appeared to be a victory for intermediaries, the ECJ's focus on fundamental rights, as opposed to the E-Commerce Directive's safe harbor provisions, impacted the scope of the analysis with regards to ISPs. The analysis now depends on the balancing of the fundamental rights of the stakeholders: 1) the ISP, 2) the copyright holders, and 3) the users.¹⁶² Compared to *SABAM*, it may have been easier for the Court in *UPC Telekabel* to put the burden of preventing

159. That is not to say that such an argument was not tried during the national court proceedings.

160. See generally *Total number of Websites & Size of the Internet as of 2013*, FACTSHUNT (Jan. 2014), <http://www.factshunt.com/2014/01/total-number-of-websites-size-of.html>; Christopher Roberts, *The size of the Internet – and the human brain*, TECHNOLOGY BLOGGERS (May 28, 2013), <http://www.technologybloggers.org/science/how-many-human-brains-would-it-take-to-store-the-internet/>. It is quite difficult to estimate the size of the internet. First, one has to decide for a metric. Is it number of webpages? The number of domains? If so, would a Facebook page count? Is it the number of bytes? If so, does it account for increasingly better compression technology? Is a movie adaptation equal to the book even if the size of each is vastly different? Using bytes as a crude approximation, Eric Schmidt indicated that the size of the internet in 2004 was roughly five exabytes (or five billion gigabytes). This number is approximated to be around one Yottabyte (or one quadrillion gigabytes) today.

161. That is not to say that the national courts would not consider the fundamental rights of these companies. After all, the goal of the single market is to increase competition and consumer choice.

162. Case C-314/12, *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH*, ¶ 46 (Mar. 27, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0314&from=EN>.

infringement on the ISP because the burden was lower. In *SABAM*, the injunctive relief order required the ISP to track all data packages and filter those with copyright infringing material, creating a huge burden on the ISP to finance and implement such a technology, potentially interfering with the ISP users' right to communicate with one another. In *UPC Telekabel*, the rights of the users were less relevant, since the infringing website at issue only provided unauthorized access to copyrighted movies.¹⁶³ UPC was merely ordered to block access to a website which made available copyrighted works without authorization. Second, in *SABAM* the injunctive order required the ISP to give the plaintiff the information of users who infringed the plaintiff's copyrights, which the ECJ found as a violation of the users' fundamental right of privacy. In contrast, the plaintiff in *UPC Telekabel* made no such requests. In short, *UPC Telekabel* shows that fundamental rights of stakeholders draw the current limits on intermediary liability.¹⁶⁴

European ISPs likely face increased costs, such as costs to study and implement technological measures to follow court orders, legal costs, and legal uncertainty. In comparison, a U.S. ISP has yet to be ordered to block access to a website due to copyright infringement.¹⁶⁵ While American ISPs have engaged in voluntary efforts to curb copyright violation through peer-to-peer file sharing, they have not faced court orders to prevent access to copyright infringing websites.¹⁶⁶ *UPC Telekabel* and previous cases demonstrate European ISPs do not share the same fortune. Since injunctive relief is possible despite the E-Commerce Directive's safe-harbor, the question turns on whether the fundamental rights of the relevant parties are properly balanced. The high level of protection in the Copyright Directive makes it seem that the balancing analysis might add some weight on the side of the copyright holders and therefore against the intermediaries. Unlike ISPs in the United States, European ISPs may

163. *Id.* ¶¶ 51-54.

164. *Id.* ¶ 66.

165. No U.S. lawsuit seeking to injunctive relief to block a website due to copyright infringement was found.

166. American ISPs worked with copyright holders to implement the "Copyright Alert System" to curb online infringement. *See generally* Ctr. for Copyright Info., *The Copyright Alert System*, THE CENTER FOR COPYRIGHT INFORMATION, <http://www.copyrightinformation.org/the-copyright-alert-system/> (last visited Mar. 11, 2015).

therefore have the additional burden to implement measures to protect copyright holders.¹⁶⁷

The complication that arises for European ISPs lies in determining which block requests are permissible in light of the relevant fundamental rights. For example, a national court could order an ISP to block a website that streams infringing movies but also contains non-infringing information regarding an upcoming election. Even if the ISP complies, under *UPC Telekabel*, national courts must be able to check that intermediaries are not interfering with their users' right to freedom of information.¹⁶⁸ In other words, a national court may find a particular injunction to be a fair balance of the relevant fundamental rights and order the ISP to implement measures to satisfy the injunction. Even if the ISP complies with the injunction, "national procedural rules must provide a possibility for internet users to assert their rights before the court . . ."¹⁶⁹ The ISP therefore faces additional uncertainty. It may have to prove in subsequent litigation that its measures do not unduly interfere with users' fundamental rights.

Since *UPC Telekabel* affords internet users the ability to challenge an ISP's measures to comply with an injunction before the national courts, the ISP's costs could increase even further if the national court changes its order due to such challenges.¹⁷⁰ Using the previous hypothetical, if the ISP blocks access to an entire domain which has links to copyright infringing movies but which also contains information on candidates in an upcoming election, a court may find a block on the entire domain a violation of the users' fundamental right to access information. Thus, the ISP first expended resources to comply with the initial court order when a copyright holder sought injunctive relief, then expended resources to justify its measures when an internet user challenged the order, only to change or undo its actions because the court in the second proceeding finds that the ISP users' rights have been violated. Essentially, *UPC Telekabel* creates legal uncertainty as to whether a block order will remain valid, since a party beyond the right holder and the intermediary, namely

167. Assuming the injunctive relief strikes a fair balance between the fundamental rights of the parties, including those of the users.

168. Case C-314/12, *UPC Telekabel Wien GmbH v. Constantin Film Verleih GmbH*, ¶¶ 56–57 (Mar. 27, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0314&from=EN>.

169. *Id.* ¶ 57.

170. *Id.*

an ISP customer, could challenge an ISP's actions in response to court orders.

Finally, the court in *UPC Telekabel* gave little guidance on the measures an ISP must take to comply with an injunction. Although the court may have been motivated by a desire not to constrain ISPs excessively, this lack of guidance burdens ISPs with further uncertainty. Using the previous hypothetical, does the ISP have to block individual pages of a website, even if the costs are substantially higher than those of blocking the entire domain? The only guidance the ECJ provided on this point is that ISPs may argue that a block order would violate its fundamental rights, by showing that it undertook all reasonable steps. The court acknowledged that a block order could be circumvented and accepted such a result as long as the measures "have the effect of preventing unauthorised access to the protected subject-matter or, at least, of making it difficult to achieve and of seriously discouraging internet users" to access a copyright infringing website.¹⁷¹ However, the opinion lacks clarity as to how difficult an ISP must make user access to an infringing website. Is a blocking of infringing websites sufficient? Or must the ISP also block access to VPN servers and services known to connect to infringing websites?¹⁷² What if only part of a website contains infringing content, and other parts provide non-infringing content? Here, the lack of minimum standards for ISPs to achieve when they receive a block order, combined with the lack of safe harbors to protect them, creates legal uncertainties that U.S. ISPs may never face because they cannot be ordered to provide injunctive relief once all safe harbor conditions are met.

171. *Id.* ¶ 66.

172. For example, both Netflix.com and Hulu.com (which show copyright protected movies and TV shows) are only available to U.S. customers. A VPN connection allows a user from Europe to see Netflix content. Some users have reported that Hulu has blocked the IP addresses of well-known VPNs, making the streaming of its content to a European user less likely. This shows that stronger protection, blocking of well-known VPN IP addresses, is indeed possible and utilized. *See, e.g., Hulu Is Now Detecting PLA VPN Addresses*, PRIVACY ONLINE FORUMS (Oct. 2014), <https://www.privateinternetaccess.com/forum/discussion/2980/hulu-is-now-detecting-pia-vpn-access>.

B. BROAD COMMUNICATION TO THE PUBLIC RIGHT INCREASES
THE BURDEN ON INTERMEDIARIES

1. *Allowing Hyperlinks to be a Communication to the Public Increases
the Burden on European Intermediaries*

The ECJ in *Svensson* articulated that a hyperlink to copyrighted material is a communication of those works and can violate the copyright holder's communication to the public right if the hyperlink targets a "new public."¹⁷³

One could regard the "new public" requirement as a safety net for intermediaries, since a publication on the internet and subsequent linking, as in *Svensson*, did not constitute copyright infringement.¹⁷⁴ After all, the ECJ ruled in favor of the content curator, not the copyright holder.¹⁷⁵ However, several aspects of the *Svensson* decision create the potential for increased duties for intermediaries. First, the ECJ equated a hyperlink with providing direct access to works.¹⁷⁶ Second, the ECJ noted that if a copyright holder, after making its content available to all internet users, decided to restrict access to its website, making its content no longer available to the public, and the intermediary circumvented the restricted access, the "new public" element would be met. The intermediary would then infringe the copyright holder's exclusive right to "communicate to the public."¹⁷⁷ Unfortunately, the ECJ did not specify what restrictions would suffice to change the intended target public, nor elaborate what circumvention means.

For example, a newspaper website uses a portal that requires visitors to provide their email address to access online articles, without requiring any sort of authentication if someone accesses the article's webpage directly.¹⁷⁸ Thus, if someone knows the URL of an individual article webpage, the

173. Case C-466/12, *Nils Svensson v. Retriever Sverige AB* ¶ 31 (Feb. 13, 2014), <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62012CJ0466&from=EN>.

174. *Id.* ¶¶ 27–28.

175. *Id.* ¶ 42.

176. *Id.* ¶ 18.

177. *Id.* ¶¶ 31–32.

178. There are several ways to avoid search indexing. Adding a robots.txt file is commonly to the root of one's domain (e.g. www.btlj.org/robots.txt) would prevent Google search crawlers to parse the contents. Another way is to use a portal or online database since search engine crawlers cannot reach information behind query forms or online databases. See Rand Fishkin, *12 Ways to Keep Your Content Hidden from the Search Engines*, THE MOZ BLOG (Jan. 15, 2008), <http://moz.com/blog/12-ways-to-keep-your-content-hidden-from-the-search-engines>.

article could be accessed without entering through the portal. And assume that a content curator uses the website portal to access the articles and creates hyperlinks to the article pages. From the perspective of the newspaper, these articles were never searchable and can only be accessed through the website's portal, arguably restricting the intended "public" of these articles to those who agreed to share their email address with the newspaper. Would the content curator's linking to URLs constitute a "new public"? Here, an argument is conceivable that the content curator circumvented restrictions. Arguably, the content curator was aware of such a portal and should have known better. But what if the newspaper website, initially portal-free, decided to later create a portal to collect its readers' email addresses. If the hypothetical content curator linked to the individual webpages prior to the implementation of the portal, an argument is conceivable that the content curator circumvented added restrictions without even knowing of their existence. In contrast, not only did the Ninth Circuit in *Perfect 10* adopt a "server theory" that found no infringement for linking to images on another server for commercial gain, but the court also found that use of thumbnails stored on local servers qualified as fair use.¹⁷⁹

But, it would be inaccurate to depict the United States as an intermediary haven. Under current interpretations of the DMCA, any "effective" access-prevention measure could potentially trigger anti-circumvention provisions of the DMCA.¹⁸⁰ Yet, there has been no case decided where the copyright holder introduced weak restrictions after the initial linking. Using our previous hypothetical—an online newspaper that initially published all articles online and then implemented weak access controls—it is conceivable that a U.S. content curator could fall into a similar "trap" like its hypothetical European counterpart.

2. *Post-Svensson, Internet Archives and Libraries Could Face Liability*

Post-*Svensson*, non-profit organizations like archive.org, which seek to create an internet library to offer permanent access to websites for researchers, historians, and scholars, may be held liable for copyright infringement. The purpose of these archiving organizations is to preserve online content that may otherwise disappear due to lack of maintenance by website owners.

179. *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1168 (9th Cir. 2007).

180. *See* 17 U.S.C. § 1201 (2012).

For example, a newspaper website initially offers all of its article webpages without any restrictions and without any measures to block indexing. Over time, archive.org's web-crawlers parse the newspaper's article webpages and store them for the future. If the newspaper decides to create a "paywall" that only allows paying members to see these previously freely-available article pages, then archive.org may instantly infringe the newspaper's exclusive right of communication to the public in the EU. After all, archive.org makes its content available to all internet users, even those who do not pay the newspaper website to access its contents.

In contrast, in the United States, archive.org's actions may fall under the fair use exception.¹⁸¹ In the United States, fair use of a copyrighted work depends on 1) the purpose and character of the use; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion used in relation to the work as a whole; and 4) the effect of the use upon the potential market or value of the copyrighted work.¹⁸² First, the non-profit character of internet archives and libraries may tilt the purpose and character factor in favor of the archiving non-profits. The second factor could help either side, though Congress seems open to idea of preservation regardless of the type of works.¹⁸³ The third factor would likely weigh against fair use, since these archives attempt to create a snapshot of the entire internet. The fourth factor, often deemed the most important factor, is difficult to assess. If every user starts using archives.com to locate articles that have recently been put behind paywalls, it would certainly impact the market for these articles. However, if archives are used similar to the use of newspaper on film in libraries, the market may not be impacted at all. Due to the vague nature of the fair use doctrine and lack of case law on internet archives, it is difficult to provide a definitive answer.

VI. CONCLUSION

Svensson and *UPC Telekabel* highlight the European copyright regime's focus on a high level of protection, thereby imposing a higher burden on European intermediaries than their U.S. counterparts. Likely affected by the more successful lobbying efforts of copyright holders, European

181. Whether online archives fall under the fair use exception is beyond the scope of this Note. For an introduction on this subject, see Mary Minow, *Digital Preservation and Copyright*, COPYRIGHT & FAIR USE (Nov. 10, 2003), http://fairuse.stanford.edu/2003/11/10/digital_preservation_and_copyr/.

182. 17 U.S.C. § 107.

183. See Minow, *supra* note 181.

copyright laws appear to be more willing to enlist the help of intermediaries to combat copyright infringement. Although both the U.S. and EU copyright regimes provide safe harbors for OSPs, fewer intermediaries fall within the definition of an OSP under European law than under the DMCA, potentially increasing the intermediary's cost of doing business in the EU. Even with safe harbor protections, European OSPs are only safe from damages and must comply with injunctive relief, like blocking infringing websites, thereby leading to added costs and uncertainty. Finally, the high level of protection under the EU Copyright Directive allows for a more expansive reading of the exclusive rights granted to copyright owners, allowing hyperlinks to potentially infringe exclusive rights.

THE REVOLUTION WAS NOT TELEVISED: EXAMINING COPYRIGHT DOCTRINE AFTER *AEREO*

Dallas T. Bullard[†]

The rapid advancement of technology has put tremendous strain on the language of the Copyright Act, the majority of which was written nearly half a century ago.¹ The judiciary has struggled to craft workable interpretations of an increasingly creaky statutory regime.² This strain manifested with particular prominence in the Supreme Court's recent decision in *American Broadcasting Cos. v. Aereo, Inc.*,³ a case focusing on copyright's public performance right as applied to an automated system that retransmitted broadcast television signals. At the most basic level, the service operated by capturing over-the-air television signals and retransmitting them over the internet to customers, who could view over-the-air television content on any internet-capable device.⁴

Aereo represents the latest chapter in an ongoing battle between upstart technology companies and incumbent media industries.⁵ The battleground is copyright law. The belligerents are new startups that seek to increase access to television content, and the broadcast television industry, which seeks to preserve its longstanding business practices.⁶

These emerging services, most prominently Aereo, have generated substantial legal controversy. Over the last few years, as Aereo and a rival company (FilmOn X) expanded into markets throughout the United States, broadcasters followed with lawsuits alleging copyright

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1. See, e.g., Pamela Samuelson, *Preliminary Thoughts on Copyright Reform*, 2007 UTAH L. REV. 551, 553–55 (2007).

2. See *id.* at 552 (“Virtually every week a new technology issue emerges, presenting questions that existing copyright rules cannot easily answer.”).

3. 134 S. Ct. 2498 (2014).

4. *Id.* at 2503.

5. See Ken Auletta, *Can Aereo Disrupt the TV Business?*, NEW YORKER (Feb. 18, 2013), <http://www.newyorker.com/news/news-desk/can-aereo-disrupt-the-tv-business>; Maxwell Wessel, *The Inevitable Disruption of Television*, HARV. BUS. REV. (Aug. 27, 2012), <https://hbr.org/2012/08/the-inevitable-disruption-of-t/>.

6. See Wessel, *supra* note 5.

infringement.⁷ Conflicting decisions were reached by district courts in the First, Ninth, and D.C. Circuits.⁸ The Second Circuit held, following its circuit precedent,⁹ that Aereo did not infringe the copyrights of broadcasters.¹⁰ Though no circuit split yet existed, the considerable controversy among lower courts set the stage for Supreme Court intervention.¹¹ And in early 2014, the Supreme Court granted certiorari in the Second Circuit case.¹²

At the center of the controversy is U.S. copyright law's public performance right. The Copyright Act of 1976 provides that copyright holders have the exclusive right, "in the case of . . . motion pictures and other audiovisual works, to perform the copyrighted work publicly."¹³ In the case of motion pictures and other audiovisual works, "show[ing] [a work's] images in any sequence or . . . mak[ing] the sounds accompanying [the work] audible" constitutes a performance.¹⁴ A "public performance" can occur in two ways. First, an actor can "perform or display [the work] at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered."¹⁵ Second, an actor can "transmit or otherwise communicate a performance . . . of the work . . . by means of any device or process, whether the members of the public capable of receiving the performance

7. See Eriq Gardner, *Aereo Hit with Second Lawsuit in Utah*, HOLLYWOOD REP. (Oct. 25, 2013, 2:41 PM), <http://www.hollywoodreporter.com/thr-esq/aereo-hit-second-lawsuit-utah-651031>; Jeff John Roberts, *Aereo Expands South and West: TV Streaming Service Announces New Launch Dates*, GIGAOM (Aug. 8, 2013, 5:36 AM), <https://gigaom.com/2013/08/08/aereo-expands-south-and-west-tv-streaming-service-announces-new-launch-dates/>; Ira Teinowitz, *FilmOn Expands to 16 Markets, Despite Court Ruling*, THEWRAP (Sept. 24, 2013, 7:26 PM), <http://www.thewrap.com/filmon-expands-to-16-markets-despite-court-ruling/>.

8. See, e.g., *Fox Television Stations, Inc. v. FilmOn X, LLC*, 966 F. Supp. 2d 30, 52 (D.D.C. 2013) (order granting preliminary injunction); *Hearst Stations, Inc. v. Aereo, Inc.*, 977 F. Supp. 2d 32, 41 (D. Mass. 2013) (order denying preliminary injunction); *Fox Television Stations, Inc. v. BarryDriller Content Sys., PLC*, 915 F. Supp. 2d 1138, 1149 (C.D. Cal. 2012) (order granting preliminary injunction).

9. *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 140 (2d Cir. 2008) (holding that an online DVR system does not infringe content producers' copyright).

10. *WNET, Thirteen v. Aereo, Inc.*, 712 F.3d 676, 689–90 (2d Cir. 2013), *rev'd sub nom.* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014).

11. Kevin Goldberg, *Aereo Armageddon Ahead?*, COMMLAWBLOG (Dec. 18, 2013), <http://www.commlawblog.com/2013/12/articles/broadcast/aereo-armageddon-ahead/>.

12. *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 896 (2014) (order granting certiorari).

13. 17 U.S.C. § 106 (2012).

14. 17 U.S.C. § 101 (2012).

15. *Id.*

or display receive it in the same place or in separate places and at the same time or at different times.”¹⁶ The latter definition, commonly referred to as the Transmit Clause, was the focal issue of *Aereo*.¹⁷ Under that clause, in order to infringe the exclusive right of public performance, an actor must (1) “perform” the work and (2) do so “to the public.”¹⁸

The application of the Transmit Clause to the technology at issue in *Aereo* presents some troublesome doctrinal problems. At the Supreme Court, the Justices first grappled with the question of whether *Aereo*, a relatively passive retransmitter, “performed” at all within the meaning of the Transmit Clause.¹⁹ The analytical challenge in this instance is primarily attributable to the automated nature of *Aereo*’s technology.²⁰ *Aereo* established a system where users could rent antennae from *Aereo* to watch broadcast television over the internet.²¹ In such an instance, is *Aereo* a liable performer or merely an equipment provider? The Court also confronted the issue of whether or not *Aereo*’s individualized transmissions, whereby a given user had her own antenna and her own transmission, rendered performances of the underlying works “public.”²²

The Court answered both questions affirmatively, and thus *Aereo* was found to infringe.²³ On remand, the district court granted a preliminary injunction,²⁴ and a few months later, *Aereo* shuttered its business and entered bankruptcy proceedings.²⁵ The Supreme Court decision, which relied primarily on the legislative history of the Copyright Act to reach a purposive interpretation of the public performance right,²⁶ leaves open several questions. The Court, wary of the potential reach of its decision, approached the issue with a great degree of caution.²⁷ In doing so, the

16. *Id.*

17. *See Aereo*, 134 S. Ct. at 2502.

18. *Id.* at 2504.

19. *Id.* at 2506.

20. *Id.* at 2514 (Scalia, J., dissenting); *see also* *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 131 (2d Cir. 2008).

21. *Aereo*, 134 S. Ct. at 2503.

22. *Id.* at 2507–08.

23. *Id.* at 2510–11.

24. *Am. Broad. Cos, Inc. v. Aereo, Inc.*, Nos. 12-cv-1540, 12-cv-1543, 2014 WL 5393867, at *10 (S.D.N.Y. Oct. 23, 2014).

25. Emily Steel, *Aereo Concedes Defeat and Files for Bankruptcy*, N.Y. TIMES (Nov. 21, 2014), <http://www.nytimes.com/2014/11/22/business/aereo-files-for-bankruptcy.html>.

26. *See Aereo*, 134 S. Ct. at 2504, 2507.

27. Eleanor Lackman, *Symposium: Preferring Substance Over Form and Nature Over Manner, Supreme Court Finds that Aereo Runs Afoul of the Purposes of the Copyright Act*, SCOTUSBLOG (June 26, 2014, 4:23 PM) <http://www.scotusblog.com/>

Court sought to answer only the question immediately before it.²⁸ As a result, the impact of the case is not instantly apparent, but this fact does not render the case doctrinally insignificant. The much-awaited case should not be dismissed as a *sui generis* decision without future application. The Court, by implication and by explicit suggestion, provided identifiable guidance to future courts as to the general contours of the public performance right, and how it may be applied in future cases.

This Note examines the doctrinal impact of *Aereo* by explaining the case and its implications for the public performance right. Though the Court sought to cabin its holding, it exerts force on existing doctrine. This Note will show that the Court's decision achieved two doctrinal results: (1) it transformed the "volitional conduct" test for establishing direct copyright liability into a proximate cause inquiry, and (2) it clarified what constitutes the "public" for purposes of the Transmit Clause, focusing on the relationship between the recipient of a transmission and the underlying copyrighted material.

Part I describes the technological system employed by the Aereo service. Part II outlines the legal background for both elements of the Copyright Act's exclusive right to perform works to the public. Part III details the procedural history of *Aereo* and discusses the Supreme Court's decision. Part IV details how the volitional conduct test and the nature of the "to the public" has been altered by the Court's decision in *Aereo*. Part V concludes.

I. TECHNICAL BACKGROUND

In order to understand the doctrinal challenges occasioned by Aereo's service, it is first necessary to understand the basics of its technology. Aereo's service permitted subscribers to watch and record broadcast television content over the internet.²⁹ For a fee, users could view over-the-air broadcasts on any internet-capable device, such as a desktop computer,

2014/06/symposium-preferring-substance-over-form-and-nature-over-manner-supreme-court-finds-that-aereo-runs-afoul-of-the-purposes-of-the-copyright-act/ ("The Court took efforts to limit its holding to just the technology at bar, but the question remains as to whether the opinion is as narrow as the Court hoped.").

28. *Aereo*, 134 S. Ct. at 2510 (Though the history that "led to the enactment of the Transmit Clause [informed the Court in this instance, said history] does not determine whether different kinds of providers in different contexts also 'perform.'").

29. Steven J. Vaughan-Nichols, *What is Aereo and Why Does It Have the TV Networks in an Uproar?*, ZDNET (Apr. 10, 2013, 1:24 PM), <http://www.zdnet.com/article/what-is-aereo-and-why-does-it-have-the-tv-networks-in-an-uproar/>.

mobile handset, or tablet.³⁰ Aereo's survival hinged on its technological peculiarities. In each market it served, Aereo maintained warehouses containing thousands of dime-sized, independently-operating antennae which were installed on large circuit boards.³¹ This technologically inefficient structure arose in response to the Second Circuit's decision in *Cartoon Network LP v. CSC Holdings, Inc.*³² (commonly referred to as the "Cablevision" case), the details of which will be discussed in Part II.C.³³

The user of the Aereo service, upon loading the application, was met with a programming guide not unlike those provided by cable and satellite companies.³⁴ The user could select a program to "Watch" and/or "Record."³⁵ Upon selecting "Watch," Aereo tuned the user's assigned antenna (which was shared with no other user) to the appropriate frequency, in order to capture an over-the-air broadcast signal.³⁶ The service then transcoded the captured signal and stored the content on a hard disk.³⁷ Storage space on these hard disks was reserved and allocated to a specific user and was not shared.³⁸ Aereo then streamed the stored data to the user over the internet.³⁹ In the event that the user selected only to "Watch" the program, the data was promptly erased from the storage disks after viewing.⁴⁰ This process enabled the subscriber to watch over-the-air programming with a small delay.⁴¹ While watching the program,

30. Jordan Crook, *Aereo Switches Up Pricing: \$8/Month For 20 Hours Of DVR, \$12/Month For 60 Hours Starting May 15*, TECHCRUNCH (May 13, 2013), <http://techcrunch.com/2013/05/13/aereo-switches-up-pricing-8month-for-20-hours-of-dvr-12month-for-60-hours-starting-may-15/>; Vaughan-Nichols, *supra* note 29.

31. *See* WNET, *Thirteen v. Aereo, Inc.*, 712 F.3d 676, 682 (2d Cir. 2013), *rev'd sub nom.* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014).

32. 536 F.3d 121 (2d Cir. 2008).

33. *See* Rebecca Giblin & Jane C. Ginsburg, *We Need to Talk about Aereo: Copyright-Avoiding Business Models, Cloud Storage and a Principled Reading of the "Transmit" Clause 7* (Columbia Law and Econ. Working Paper No. 480, 2014), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2443595 ("Aereo built its system in reliance on the Second Circuit's interpretation of the transmit clause in *Cartoon Networks v. CSC Holdings*."); Jessica J. Lehrman, *The Second Circuit's Aereo Math: One Copy + One Subscriber ≠ Public Performance*, SOCIALLYAWARE (May 21, 2013), <http://www.sociallyawareblog.com/2013/05/21/the-second-circuits-aereo-math-one-copy-one-subscriber-%E2%89%A0-public-performance/>.

34. *WNET*, 712 F.3d at 681.

35. *Id.* at 681–82.

36. *Id.*

37. *Id.* at 682.

38. *Id.* at 683.

39. *Id.* at 682.

40. *Id.* at 681–82.

41. *Id.* at 681.

the user could play, pause, rewind, and fast-forward (to a point near-contemporaneous with the over-the-air broadcast).⁴² If a user chose to “Record” a program, the service would operate as usual, but would retain the data stored on the hard disk.⁴³

II. LEGAL BACKGROUND

The Supreme Court did not rely much on precedent or on a close reading of the statute’s text, focusing instead on the statute’s purpose as revealed in its legislative history.⁴⁴ However, while the Court did not situate its holding within any preexisting copyright framework, the opinion may have considerable impact on future applications of the Transmit Clause. To best understand the potential nature of this impact, it is first important to establish the pre-*Aereo* status of the relevant legal doctrines.

A. THE STATUTE AND ITS LEGISLATIVE HISTORY

The current statutory regime surrounding the public performance right was enacted, in part, as a response to the Supreme Court’s decisions in *Teleprompter Corp. v. Columbia Broadcasting System, Inc.*⁴⁵ and *Fortnightly Corp. v. United Artists Television, Inc.*⁴⁶ At issue in those cases was community antenna television (“CATV”), the predecessor to contemporary cable television.⁴⁷ CATV services would erect antennae at favorable geographic locations and retransmit broadcast signals by cable to the residents of communities with poor signal reception.⁴⁸ In both cases, the Court found that these retransmissions did not infringe a performance right.⁴⁹ In holding for the defendant CATV company, the Supreme Court in *Fortnightly* stated:

If an individual erected an antenna on a hill, strung a cable to his house, and installed the necessary amplifying equipment, he would not be “performing” the programs he received on his television set. . . . The only difference in the case of CATV is

42. *Id.* at 682.

43. *Id.*

44. *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498, 2504, 2507 (2014).

45. 415 U.S. 394 (1974).

46. 392 U.S. 390 (1968); *see Aereo*, 134 S. Ct. at 2505–06 (citing H.R. REP. NO. 94-1476, at 86–87 (1976)).

47. *Aereo*, 134 S. Ct. at 2504–06.

48. *See Teleprompter*, 415 U.S. at 399–400.

49. *Id.* at 412–13; *Fortnightly*, 392 U.S. at 400–01.

that the antenna system is erected and owned not by its users but by an entrepreneur.⁵⁰

The Supreme Court held that under the language of the then-applicable 1909 Copyright Act, cable television retransmissions of over-the-air signals did not constitute a “performance.”⁵¹ In reaction to this, Congress therefore introduced the Transmit Clause in the 1976 Copyright Act to expand the scope of the exclusive right of public performance.⁵² The Transmit Clause provides that copyright holders have the exclusive right to “transmit or otherwise communicate a performance . . . of the work . . . by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.”⁵³ In adopting this language, Congress intended to encompass, within the scope of the 1976 Copyright Act, the capture and retransmission of television signals by a single entrepreneurial entity to a number of subscribers.⁵⁴

The legislative history did not only address the cable technology that existed at the time of drafting, but also appeared to have predicted the type of technologies at issue in both *Cablevision* and *Aereo*:

[A] performance made available by transmission to the public at large is “public” even though the recipients are not gathered in a single place, and even if there is no direct proof that any of the potential recipients was operating his receiving apparatus at the time of the transmission. The same principles apply whenever the potential recipients of the transmission represent a limited segment of the public, such as the occupants of hotel rooms. . . . ; they are also applicable where the transmission is capable of reaching different recipients at different times, as in the case of sounds or images stored in an information system and capable of being performed or displayed at the initiative of individual members of the public.⁵⁵

Additionally, Congress enacted § 111, which provides that “cable systems” are entitled to a compulsory license to retransmit over-the-air broadcasts, provided they comply with the other requirements of the section,

50. *Fortnightly*, 392 U.S. at 400.

51. *Id.* at 400–01.

52. *See Aereo*, 134 S. Ct. at 2505–06.

53. 17 U.S.C. § 101 (2012).

54. *See Aereo*, 134 S. Ct. at 2505–06.

55. H.R. REP. NO. 90–83, at 29 (1967).

including a prohibition on modifying the content of the signal.⁵⁶ This statutory scheme confirms that the retransmissions of over-the-air television signals by a cable system are public performances under the Copyright Act.⁵⁷

B. PERFORMANCE AND VOLITION CASES

In the case of any performance, there must be a performer. The question of who is the legally relevant performer for a given performance can be a particularly vexing one. The emergence of automated systems, like the one in *Aereo*, has complicated the issue considerably. An entity may craft a system that, upon the direction of a user, undertakes transmissions or other tasks automatically. Automated systems respond indiscriminately to user input, so it becomes unclear for purposes of copyright liability who the performer is: the engineer or the end user.⁵⁸

The “volitional conduct” doctrine, which seeks to solve this analytical difficulty, is derived from caselaw beginning in the 1990s. The genesis of the doctrine is *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*⁵⁹ In that case, a user on a Usenet newsgroup (also called a bulletin board system or “BBS”) posted copyrighted material from the Church of Scientology.⁶⁰ At issue was the possible liability of the BBS’s internet service provider (“ISP”).⁶¹ In addressing the liability of the ISP, the court was clearly concerned that a holding that rendered the ISP liable would likely endanger many services that merely “set[] up and operat[ed] a system” and involved no further “human intervention.”⁶² To

56. 17 U.S.C. § 111 (2012); *Aereo*, 134 S. Ct. at 2506.

57. *Aereo*, 134 S. Ct. at 2506 (“Section 111 is primarily ‘directed at the operation of cable television systems and the terms and conditions of their liability for the retransmission of copyright works’. . . .” (quoting H.R. REP. NO. 94-1476, at 88 (1976))).

58. It should be noted that this question pertains to the question of who can be held *directly* liable for copyright infringement. This is distinct from theories of secondary liability, which allow a party to be held liable for contributing to or inducing the direct infringement of another party. See *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005) (discussing induced infringement); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (discussing contributory infringement). The scope of secondary liability, not addressed by the *Aereo* Court or any lower courts confronted with *Aereo*’s technology, is outside the ambit of this Note.

59. 907 F. Supp. 1361, 1365 (N.D. Cal. 1995); Terry Hart, *Symposium: Series Finale for Aereo, but Will There Be a Spin-off?*, SCOTUSBLOG (June 26, 2014, 3:10 PM), <http://www.scotusblog.com/2014/06/symposium-series-finale-for-aereo-but-will-there-be-a-spin-off/>.

60. *Netcom*, 907 F. Supp. at 1365–66.

61. See *id.* at 1366.

62. *Id.* at 1372, 1368, 1372–73.

limit such extensive liability, Judge Whyte held that there “should still be *some element of volition or causation* which is lacking where a defendant’s system is merely used to create a copy by a third party.”⁶³ And so was born the so-called “volitional conduct” or “volition” doctrine.⁶⁴ Applying the test to the case before him, Judge Whyte ruled that the element of volition was lacking when an alleged infringer’s system is “merely used to create a copy by a third party” and that a finding of liability was not sensible where the third party could be held directly liable for the same act.⁶⁵ The Court also emphasized that an ISP provides only “*access* to the Internet,” instead of “suppl[ying] a product . . . by control[ling] the content of information available.”⁶⁶

In many respects, the result in *Netcom* was quite intuitive. The court was unwilling to hold liable a service operator for what was essentially the conduct of its users.⁶⁷ Requiring there to be some sort of volition or deliberate action on the part of the service provider “beyond providing access to the internet” seemed a sensible solution for the court.

However, the status of the doctrine became uncertain several years later when Congress, partly to afford greater protection to “online service providers,” enacted the Digital Millennium Copyright Act of 1998 (“DMCA”).⁶⁸ The DMCA contained “safe harbors” (immunity from liability) for online service providers, provided that they complied with certain statutory requirements.⁶⁹ The enactment of the DMCA safe harbors which—like the volitional conduct doctrine—aim to protect service-providing entities from liability arising from the conduct their users,⁷⁰ prompted an important question: does the volition requirement survive the DMCA?

The Fourth Circuit addressed this question directly in *CoStar Group, Inc. v. LoopNet, Inc.*⁷¹ In that case, the plaintiff contended that the volitional conduct doctrine was superseded by the DMCA.⁷² The Fourth

63. *Id.* at 1370 (emphasis added).

64. *See, e.g.,* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498, 2512–13 (2014) (Scalia, J., dissenting); Hart, *supra* note 59.

65. *Netcom*, 907 F. Supp. at 1370, 1372.

66. *Id.* at 1372.

67. *Id.* at 1372–73.

68. *See* 17 U.S.C. § 512 (2012); S. REP. NO. 105–190, at 19 (1998).

69. *See* 17 U.S.C. § 512.

70. *See* S. REP. NO. 105–190, at 19 (1998) (In enacting the DMCA, Congress sought “to leave current law in its evolving state and . . . to create a series of ‘safe harbors,’ for certain common activities of service providers.”).

71. 373 F.3d 544 (4th Cir. 2004).

72. *Id.* at 548.

Circuit disagreed, holding that Congress intended the safe harbor provisions of the DMCA “to be a floor, not a ceiling of protection” and that the volitional conduct requirement survived the enactment of the DMCA.⁷³ The court noted that the DMCA explicitly provided for non-exclusivity, meaning that the failure to meet the requirements for the safe harbors does not preclude the deployment of any other defenses.⁷⁴ According to the court, Congress had not supplanted the volitional conduct requirement by simply “codifying” *Netcom* in the DMCA, and further concluded that while early drafts of the DMCA explicitly sought to codify *Netcom*, the version eventually passed by Congress amounted instead to a “compromise between the earlier version and the concerns of copyright-holders.”⁷⁵ On these bases, the court held (and other courts have since agreed)⁷⁶ that the DMCA did not supplant the volitional conduct test set forth in *Netcom*.⁷⁷ However, some commentators argue that the volitional conduct test, as articulated in *CoStar* and later cases, did not survive the DMCA.⁷⁸

73. *Id.* at 555.

74. *Id.* at 552 (quoting 17 U.S.C. § 512(l)). The court further concluded that Congress did not intend, in passing the DMCA to “preclude[] ISPs from relying on an entire strain of case law.” *Id.*

75. *Id.* at 548, 552–55.

76. Surprisingly, very few courts have addressed the question of whether Congress eliminated the volitional conduct doctrine through the enactment of the DMCA. Aside from the Fourth Circuit in *CoStar*, the question has been squarely addressed in only a few cases. *See, e.g.*, Soc’y of Holy Transfiguration Monastery, Inc. v. Gregory, 689 F.3d 29, 59 (1st Cir. 2012) (not questioning the existence of a “passive involvement” defense, even in the absence of the DMCA’s safe harbors); Ellison v. Robertson, 357 F.3d 1072, 1076 (9th Cir. 2004) (“But [r]ather than embarking on a wholesale clarification of” the various doctrines of copyright liability, Congress opted ‘to leave current law in its evolving state’ (quoting S. REP. NO. 105-190, at 19 (1998))); Perfect 10, Inc. v. Cybernet Ventures, Inc., 213 F. Supp. 2d 1146, 1174 (C.D. Cal. 2002) (“These ‘safe harbors’ do not affect the question of ultimate liability under the various doctrines of direct, vicarious, and contributory liability.” (citing H.R. REP. NO. 105-551(II), at 50 (1998); S. REP. NO. 105-190, at 19 (1998))). Despite the lack of analysis, courts continue to treat the DMCA as a supplement to existing liability principles, rather than a supplanting amendment.

77. *CoStar*, 373 F.3d at 552.

78. *See, e.g.*, 4 MELVILLE NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 12B.06[B][2][c][i], 13.08[C] (2014) (arguing that the DMCA supplanted *Netcom*, so that *Netcom*’s principles should only be applied to the extent that they are embodied in Congress’s amendments); *Reply Comments on “Making Available” Study, Sent by Motion Picture Association of America & Recording Industry Association of America to Copyright Office Request for Additional Comments* 7 (Sept. 15, 2014), http://copyright.gov/docs/making_available/comments/docket2014_2/reply/MPAA_RIAA.pdf.

Following *Netcom* and *CoStar*, district and appellate courts have struggled to apply the doctrine of volitional conduct consistently.⁷⁹ While the doctrine has most frequently arisen in right of reproduction cases, it may be implicated in any case concerning direct liability.⁸⁰ However, absent intervening conduct on the part of a defendant,⁸¹ the cases have produced a somewhat coherent standard, one that was—prior to *Aereo*—quite formalistic. This standard was clearly articulated in a decision that was frequently cited by other courts: *Cablevision*.⁸²

Before *Aereo*, *Cablevision* stood as the most significant decision on the volitional conduct doctrine. The technology at issue (that had not yet been implemented), the remote storage DVR (“RS-DVR”), operated like an ordinary set-top DVR, but stored recorded content remotely in server hard

79. Eleanor M. Lackman & Scott J. Sholder, *The Role of Volition in Evaluating Direct Copyright Infringement Claims Against Technology Providers*, 22 BRIGHT IDEAS 3, 7–8 (2013).

80. *See* Am. Broad. Cos. v. *Aereo*, 134 S. Ct. 2498, 2512 (2014) (Scalia, J., dissenting) (“Every Court of Appeals to have considered an automated-service provider’s direct liability for copyright infringement has adopted th[e] [volitional conduct] rule.”); Lackman & Sholder, *supra* note 79. Additionally, even though nearly all of the volitional conduct cases address the right of reproduction, none make a workable distinction between volitional copying and volitional performance. While some courts have paid lip service to the possibility that the right of reproduction and the right of public performance may vary in the context of the volitional conduct requirement, there is very little analysis on the subject. *See, e.g.*, *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 134 (2d Cir. 2008) (stating that the “definitions that delineate the contours of the reproduction and performance rights vary,” referencing that “perform” is statutorily defined, while “reproduce” and “copy” are not). The volitional conduct test did not develop from specific statutory language, but rather from the issue of who “acts” for purposes of direct infringement. There appears to be no meaningful distinction. Therefore, for purposes of this Note, the reproduction volition cases will be considered applicable to public performance volition cases.

81. *See* *Soc’y of Holy Transfiguration Monastery, Inc. v. Gregory*, 689 F.3d 29, 56 (1st Cir. 2012) (finding that the defendant, through an agent, “performed several acts to ensure that copies of the Works were available on his server and posted to his Website”); *CoStar Grp., Inc. v. LoopNet, Inc.*, 373 F.3d 544, 550 (4th Cir. 2004) (holding that an ISP “should not be found liable” for the actions of a subscriber, unless there is “intervening conduct of the ISP”); *Arista Records LLC v. Usenet.com, Inc.*, 633 F. Supp. 2d 124, 148–49 (S.D.N.Y. 2009) (finding that the defendants “actively engaged” in the infringing process, because the defendants “took active steps, including both automated filtering and human review, to remove access to certain categories of content, and to block certain users” and “took active measures to create servers dedicated to mp3 files and to increase the retention times of newsgroups containing digital music files”). *But see* *Capital Records, LLC v. ReDigi Inc.*, 934 F. Supp. 2d 640, 657 (S.D.N.Y. 2013) (holding that because “ReDigi’s founders programmed their software to choose copyrighted content,” the volitional element was satisfied).

82. *Cartoon Network*, 536 F.3d at 131–33.

disk space allocated to each subscriber.⁸³ When a user selected the programming of her choosing, Cablevision initiated a transmission to the user's corresponding hard disk space.⁸⁴ Each user could then receive an individual transmission from an individual copy of the content they chose to record.⁸⁵

The Second Circuit acknowledged that the challenge of the case was whether Cablevision was directly liable for "maintaining a system that exists only to produce a copy," or whether a customer was directly liable for "ordering that system to produce a copy of a specific program."⁸⁶ The court sided with Cablevision in concluding that the user *made* the copy, and relied primarily on an analogy to an offline VCR.⁸⁷ The court declared it clear that it is "the operator of a VCR, the person who actually *presses the button* to make the recording, [who] supplies the necessary element of volition," rather than the manufacturer or owner of the machine.⁸⁸ The court further stated that the actions of Cablevision were not "sufficiently proximate to the copying to displace the customer as the person who 'makes' the copies."⁸⁹ In so holding, the court emphasized that Cablevision maintained no control "over what programs [were] made available on individual channels or when those programs [would] air."⁹⁰ This analysis placed substantial significance on the selection of content. *Cablevision* is thus a prime example in the line of cases adopting a rigid rule which can be described as a who "presses the . . . button" test.⁹¹ If a performance

83. *Id.* at 124–25.

84. *Id.*

85. *Id.*

86. *Id.* at 131. The court did not see fit to analyze the volitional conduct requirement in the context of the public performance right since the court concluded that even if there were a performance by Cablevision, it was not a public one. *Id.* at 134–35.

87. *Id.* at 131.

88. *Id.* (emphasis added).

89. *Id.* at 132.

90. *Id.*

91. See 2 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 7.0.2 (3d ed. Supp. 2015); *Reply Comments on "Making Available" Study, Sent by Copyright Alliance to Copyright Office Request for Additional Comments 2–3*, http://copyright.gov/docs/making_available/comments/docket2014_2/reply/Copyright_Alliance.pdf. A number of other circuits adopted similar or identical reasoning. See, e.g., *Fox Broad. Co., Inc. v. Dish Network L.L.C.*, 747 F.3d 1060, 1067 (9th Cir. 2014) (The Defendant's "program creates the copy only in response to the user's command" and therefore, "the user . . . makes the copy."); *Parker v. Google, Inc.*, 242 F. App'x. 833, 836–37 (3d Cir. 2007) (holding that "a plaintiff must allege volitional conduct on the part of the defendant" and that an ISP should not be held liable for the actions of its subscribers, absent "intervening conduct [by] the ISP"); *CoStar Grp., Inc. v. LoopNet, Inc.*, 373 F.3d 544, 550 (4th Cir. 2004) (holding that direct liability requires something more than "mere ownership of a

occurs at the direction of a user—for instance, if the user selects the content—then it is the user who is the relevant performer.

C. PERFORMING “TO THE PUBLIC” CASES

While many cases have interpreted the “public” element of the public performance right, this Note requires an examination of only one line of cases: those embracing the so-called one-user/one-copy standard.⁹² Like volition, this standard—though employed in previous cases⁹³—appeared most prominently in *Cablevision*. A brief explanation of the court’s holding regarding “to the public”⁹⁴ in that case is crucial to understanding the majority’s decision in *Aereo*.

The facts of *Cablevision* are briefly outlined above.⁹⁵ Most significantly, the service allowed users to receive, through Cablevision’s system, individual transmissions from individual copies made for each subscriber.⁹⁶ The court concluded, after an extensive analysis of the Transmit Clause, that whether or not Cablevision performed, its performance was not public.⁹⁷ In reaching this conclusion, the court reasoned that the key question was “who precisely is ‘capable of receiving’ a particular transmission of a performance.”⁹⁸ In other words, for the *Cablevision* court, the “it” in the clause “whether the members of the public capable of receiving the performance or display receive *it* in the same place or in separate places and at the same time or at different times” referred to a

machine” and that there must be a showing of “actual infringing conduct with a nexus sufficiently close and causal to the illegal copying.”).

92. Lois F. Wasoff, *The Aereo Decision—Exploring the Implications*, WIPO MAG. (Sept. 2014), http://www.wipo.int/wipo_magazine/en/2014/05/article_0003.html.

93. *Columbia Pictures Indus., Inc. v. Redd Horne, Inc.*, 749 F.2d 154, 159 (3d Cir. 1984) (holding that when the “*same copy*” of a work is “repeatedly played . . . by different members of the public,” this constitutes a public performance) (citing 2 MELVILLE NIMMER, NIMMER ON COPYRIGHT § 8.14[C][3]) (1983)). In an oft-cited district court case, the court ruled that private transmissions to individual hotel guests at different times constitute a performance to the public. *On Command Video Corp. v. Columbia Pictures Indus.*, 777 F. Supp. 787, 790 (N.D. Cal. 1991). However, this case dealt specifically with private transmissions originating from the same copy of a work. *Id.* at 788.

94. The term “to the public,” as used throughout this paper refers to the statutory language in the Transmit Clause: “to transmit or otherwise communicate a performance . . . of the work . . . to the public.” 17 U.S.C. § 101 (2012) (emphasis added).

95. *See supra* Section II.B.

96. *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 135 (2d Cir. 2008).

97. *Id.* at 139–40.

98. *Id.* at 135.

given transmission, rather than all transmissions of the underlying work.⁹⁹ In the case of Cablevision, since an individual, unique copy was created at the request of each subscriber, Cablevision's transmissions were not to the public.¹⁰⁰ The court further held that transmissions of the same underlying work were not to be aggregated as one performance, unless the transmissions originated from the same *copy* of the underlying work.¹⁰¹ In short, Cablevision had been successful in crafting a system that delivered private performances to its users.

III. THE DECISION IN *AEREO*

In early 2012, Aereo, Inc. launched an unlicensed broadcast television retransmission service employing a new technological system that sought to comply with (or circumvent, as broadcasters argued)¹⁰² U.S. copyright law.¹⁰³ Shortly after the launch of Aereo, a copycat service dubbed Aereokiller (later renamed FilmOn X) emerged.¹⁰⁴ Broadcast television copyright holders immediately filed suits against both companies, which had started to establish services in markets across the country.¹⁰⁵ In March 2012, two groups of copyright holders and broadcast companies filed separate complaints against Aereo in the Southern District of New York, alleging infringement of the right of public performance, infringement of

99. 17 U.S.C. § 101 (emphasis added); *Cartoon Network*, 536 F.3d at 135. Several commentators criticized this aspect of the decision. See, e.g., 2 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 7.7.2 (3d ed. Supp. 2015) (“The error in the Second Circuit’s construction of the transmit clause was to treat ‘transmissions’ and ‘performance’ as synonymous, where the Act clearly treats them as distinct—and different—operative terms.”); Jeffrey Malkan, *The Public Performance Problem in Cartoon Network LP v. CSC Holdings, Inc.*, 89 OR. L. REV. 505, 532 (2010) (“The statute does not say ‘capable of receiving the transmission.’ Switching the words ‘performance’ and ‘transmission’ changed the outcome of the case . . .”).

100. *Cartoon Network*, 536 F.3d at 139–40.

101. *Id.* at 138.

102. Jacob Kastrenakes, *Aereo Loses to Broadcasters in Supreme Court Fight for Its Life*, THE VERGE (June 25, 2014, 10:09 AM), <http://www.theverge.com/2014/6/25/5801052/aereo-supreme-court-ruling>.

103. Eriq Gardner, *Aereo, Ivi and the Legal Road That Will Determine the Future of TV Cord-Cutting*, HOLLYWOOD REP. (Feb. 15, 2012, 2:14 PM), <http://www.hollywoodreporter.com/thr-esq/aereo-ivi-tv-chord-cutting-291395>.

104. Paul Sweeting, *FilmOn May Turn Out to Be an Aereo-killer After All*, GIGAOM RES. (Sept. 6, 2013, 9:34 AM), <http://research.gigaom.com/2013/09/filmon-may-turn-out-to-be-an-aereo-killer-after-all/>.

105. WNET, *Thirteen v. Aereo, Inc.*, 712 F.3d 676, 683 (2d Cir. 2013), *rev'd sub nom.* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014); *Fox Television Stations, Inc. v. BarryDriller Content Sys., PLC*, 915 F. Supp. 2d 1138, 1140 (C.D. Cal. 2012); Gardner, *supra* note 7.

the right of reproduction, and contributory infringement.¹⁰⁶ On March 13, 2012, the broadcasters moved for a preliminary injunction.¹⁰⁷ The motion was also limited to “aspects of Aereo’s service that allow subscribers to view Plaintiff’s copyrighted television programs contemporaneously with the over-the-air broadcast of these programs.”¹⁰⁸ On July 11, 2012, the district court denied the motion, and an appeal of that decision followed.¹⁰⁹ The Second Circuit agreed with the lower court.¹¹⁰ Finding that *Cablevision* controlled, the court ruled that Aereo was not engaging in a public performance, but many private ones.¹¹¹ Since each subscriber had her own antenna and her own copy of a work, she was receiving her own private transmissions.¹¹² The Second Circuit believed this shielded Aereo from liability.¹¹³

While the broadcasters continued to wage battles in other courts across the country, they filed a petition for a writ of certiorari on October 11, 2013.¹¹⁴ And in January of 2014, the Supreme Court granted certiorari.¹¹⁵ On July 28th, following months of anticipation, the Court issued its ruling.¹¹⁶ The Court, in a 6–3 decision, sided with the broadcaster petitioners, and reversed and remanded the case.¹¹⁷ Justice Breyer wrote the majority opinion, joined by Chief Justice Roberts, Justices Kennedy, Ginsburg, Sotomayor, and Kagan.¹¹⁸ Justice Scalia authored the dissent, joined by Justices Thomas and Alito.¹¹⁹ While the Second Circuit and the district court had devoted most of their attention to the “to the public” aspect of the public performance right, the main issue of contention

106. *Am. Broad. Cos. v. Aereo, Inc.*, 874 F. Supp. 2d 373, 375–76 (S.D.N.Y. 2012), *rev’d sub nom.* *WNET, Thirteen v. Aereo, Inc.*, 712 F.3d 676, 682 (2d Cir. 2013), *rev’d sub nom.* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014).

107. *Id.* at 376.

108. *Id.*

109. *WNET*, 712 F.3d at 680.

110. *Id.*

111. *Id.* at 690.

112. *Id.*

113. *Id.*

114. *American Broadcasting Companies, Inc. v. Aereo, Inc.*, SCOTUSBLOG, <http://www.scotusblog.com/case-files/cases/american-broadcasting-companies-inc-v-aereo-inc/> (last visited Feb. 2, 2015).

115. *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 896 (2014) (order granting certiorari).

116. *Id.*; Harry Cole, *Aereo Update: Supreme Court Rules for Broadcasters!*, COMMLAWBLOG (June 25, 2014), <http://www.commlawblog.com/2014/06/articles/broadcast/aereo-update-supreme-court-rules-for-broadcasters/>.

117. *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498, 2502–03 (2014).

118. *Id.* at 2502.

119. *Id.*

between the majority and the dissent was whether Aereo performed at all. To answer this and other questions, the majority relied primarily on the public performance right's legislative history.

A. MAJORITY OPINION

Justice Breyer, writing for the majority, acknowledged that the case required the Court to answer two questions: (1) does Aereo perform, and (2) if so, does it do so publicly?¹²⁰ In addressing the first question, Justice Breyer recognized that the Copyright Act provided little guidance as to whether it is the user or the equipment supplier who “performs” for purposes of the Copyright Act.¹²¹ The Court held, however, that in light of the statute's legislative history, a service “that engages in activities like Aereo's performs.”¹²²

The Court detailed the legislative history surrounding the Transmit Clause and § 111 and concluded that Congress sought to “bring the activities of cable systems within the scope of the Copyright Act.”¹²³ Following that conclusion, the Court held that Aereo's activities were “substantially similar to those of the CATV companies.”¹²⁴ Like CATV, Aereo used its own equipment to sell a service “that allow[ed] subscribers to watch television programs” and did so by “receiv[ing] programs that have been released to the public and carr[ying] them by private channels to additional viewers.”¹²⁵ Accordingly, Aereo's activities were, like the activities of cable companies, within the scope of the Copyright Act; Aereo performed.¹²⁶

While this reasoning may have been sufficient by itself, the Court went on to address arguments advanced by Aereo and by the dissent. First, the Court remarked that it made no difference whether content is broadcasted continuously or in response to a subscriber's request.¹²⁷ In other words, whether the television signal “lurked behind the screen, ready to emerge when the subscriber turned the knob” or whether a click “activate[d] machinery” to route signals to “Aereo's subscribers over the

120. *Id.* at 2504.

121. *Id.*

122. *Id.*

123. *Id.* at 2504–06.

124. *Id.* at 2506.

125. *Id.* (quoting *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390, 400 (1968)).

126. *Id.* at 2506–07.

127. *Id.* at 2507.

Internet” made no difference to the subscriber, to the broadcaster, or to the Copyright Act.¹²⁸

The “to the public” aspect of the decision, though the most contentious issue in the lower courts, was disposed of rather quickly by the majority.¹²⁹ *Aereo*’s argument, accepted by the Second Circuit, was that each transmission was receivable by only one subscriber, and its performance was therefore private.¹³⁰ The Supreme Court, analogizing *Aereo*’s technology to that of a cable system, rejected this argument.¹³¹ The Court dismissed, without much discussion, the “behind-the-scenes way in which *Aereo* deliver[ed] television programming” as insufficient to distinguish *Aereo*’s technology meaningfully from that of traditional cable providers.¹³² The Court then explicitly held that “the Clause suggests that an entity may transmit a performance through multiple, discrete transmissions.”¹³³ An entity may perform publicly through “one or several transmissions, [even] where the performance is of the same work.”¹³⁴ To complete this discussion, Justice Breyer mentioned several analogies, including sending “a message to one’s friends, . . . whether [by] send[ing] separate identical e-mails to each friend or a single e-mail to all at once.”¹³⁵ The existence of a user-specific copy made no difference to the majority, as it regarded such as only a “process’ of transmitting a performance.”¹³⁶

*Aereo*¹³⁷ and various amici¹³⁸ were concerned that the holding in the *Aereo* decision could reach and adversely affect other technologies, such as

128. *Id.*

129. *See id.* at 2508–09. The dissent did not address the question at all, finding that *Aereo* did not perform. *Id.* at 2515 n.3 (Scalia, J., dissenting).

130. *Id.* at 2508 (majority opinion).

131. *Id.* at 2509.

132. *Id.* at 2508.

133. *Id.* at 2509.

134. *Id.*

135. *Id.*

136. *Id.*

137. Brief for Respondent at 48–49, *Aereo*, 134 S. Ct. 2498 (No. 13–461).

138. *See, e.g.*, Brief of Business Software Alliance as Amicus Curiae in Support of Neither Party at 13–25, *Aereo*, 134 S. Ct. 2498 (2014) (No. 13–461); Brief of Center for Democracy & Technology et al. as Amici Curiae in Support of Neither Party at 9–12, *Aereo*, 134 S. Ct. 2498 (2014) (No. 13–461); Brief of Computer & Communications Industry Association & Mozilla Corporation as Amici Curiae in Support of Respondent at 10–21, *Aereo*, 134 S. Ct. 2498 (2014) (No. 13–461); Brief of FilmOn X, LLC et al. as Amici Curiae in Support of Affirmance at 27–28, *Aereo*, 134 S. Ct. 2498 (2014) (No. 13–461). The concern is ongoing among commentators. *See, e.g.*, David Kravets, *Analysis: Aereo’s Death Leaves Cloud Computing Hanging in the Balance*, ARS TECHNICA (June 25, 2014, 1:36 PM), <http://arstechnica.com/tech-policy/2014/06/analysis-aereos-death-leaves-cloud-computing-hanging-in-the-balance/>; Matthew Schruers, *Symposium: Aereo*

cloud computing. In response to those concerns, the majority briefly elaborated on several ways in which future technologies could distinguish themselves from Aereo. First, the Court noted that an entity performs only when “it communicates contemporaneously perceptible images and sounds of a work.”¹³⁹ Second, the Court was careful to note that in cases involving other technologies, the “user’s involvement” with the equipment and “selection of content” could impact the question of whether the equipment provider performs.¹⁴⁰ Third, the holding does not necessarily “extend to those who act as owners or possessors of” the underlying work.¹⁴¹ Fourth, it remains an open question whether “the public performance right is infringed when the user of a service pays primarily for something other than the transmission of copyrighted works, such as the remote storage of content.”¹⁴²

In summation, the majority rested its reasoning not directly on the text of the statute, but on the text of the statute’s legislative history. The ambiguities of the statutory language were easily resolved by looking to legislative history that provided specific guidance about cable systems to which Aereo bore a vivid resemblance. The holding was narrow, but to assuage concerns about uncertainty, the majority pointed to several considerations which may come into play in future cases involving new technologies and the public performance right.

B. DISSENTING OPINION

The dissent, authored by Justice Scalia, focused entirely on the performance aspect of the public performance right. Where the majority found that Aereo did perform under the Copyright Act, the dissent would have held that Aereo, a passive equipment provider, did not engage in volitional conduct as required for liability.¹⁴³

In support of this conclusion, the dissent relied explicitly on the volitional conduct line of cases, stating that direct liability requires “volitional conduct” and that “the volitional-act requirement demands

Copyright Decision Creates Uncertainty for the Cloud, SCOTUSBLOG (June 26, 2014, 12:55 PM), <http://www.scotusblog.com/2014/06/symposium-aereo-copyright-decision-creates-uncertainty-for-the-cloud/>; Mitch Stoltz, *Symposium: Aereo Decision Injects Uncertainty into Copyright*, SCOTUSBLOG (June 27, 2014, 2:18 PM), <http://www.scotusblog.com/2014/06/symposium-aereo-decision-injects-uncertainty-into-copyright/>.

139. *Aereo*, 134 S. Ct. at 2510.

140. *Id.* at 2507.

141. *Id.* at 2510.

142. *Id.* at 2511.

143. *Id.* at 2512–14 (Scalia, J., dissenting).

conduct directed to the plaintiff's copyrighted material."¹⁴⁴ The dissent distinguished direct liability from the secondary liability seen in cases like *Sony Corp. of America v. Universal City Studios, Inc.*¹⁴⁵ and *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*¹⁴⁶ In the context of secondary liability, "defendants [are held] responsible for infringement by third parties."¹⁴⁷

In cases implicating the volitional conduct requirement, the dissent suggested that "[m]ost of the time [the] issue will come down to who selects the copyrighted content: the defendant or its customers."¹⁴⁸ In the former instance, the defendant has itself "trespassed on the exclusive domain of the copyright owner," while in the latter instance, the customer is the relevant actor.¹⁴⁹ Like the majority, the dissent deployed a comparative metaphor: the distinction between copy shops and video-on-demand services.¹⁵⁰ The dissent would have direct liability attach to the service provider in the former instance—where the service selected content—but not in the latter—where the customer selected the content.¹⁵¹ Applying this standard to *Aereo*, the dissent argued that *Aereo* did "not 'perform' for the sole and simple reason that it d[id] not make the choice of content."¹⁵²

The dissent then set out to discredit the approach put forth by the majority. Justice Scalia characterized the majority's reasoning as employing a looks-like-cable standard, undergirded by an improper reliance on legislative history.¹⁵³ In support of this criticism, the dissent noted that the legislative history was derived from just one House Report and that there were "material differences" between CATV and *Aereo*'s services: most significantly, that CATV retransmitted all channels persistently, while *Aereo* transmitted content only at the direction of a user.¹⁵⁴ Lastly, the dissent reiterated its charge that the court's decision disrupted the settled doctrine that direct liability hinges on "volitional conduct directed at the copyrighted work."¹⁵⁵

144. *Id.* at 2512.

145. 464 U.S. 417 (1984).

146. 545 U.S. 913 (2005).

147. *Aereo*, 134 S. Ct. at 2512 (Scalia, J., dissenting).

148. *Id.* at 2513.

149. *Id.* (quoting *CoStar Grp., Inc. v. LoopNet, Inc.*, 373 F.3d 544, 500 (4th Cir. 2004)).

150. *Id.*

151. *Id.* at 2514.

152. *Id.*

153. *Id.* at 2515.

154. *Id.*

155. *Id.* at 2516.

C. SCOPE AND APPLICABILITY OF THE DECISION

In the wake of *Aereo*, some have argued that the decision applies a special *sui generis* standard to cable companies (or technologies that *look like* cable).¹⁵⁶ This view, while finding some basis in the text of the opinion, is untenable.

The majority opinion notes on several occasions that its holding is limited. When holding that *Aereo* performed, the Court stated that the “history of cable broadcast transmissions . . . informs [the] conclusion that *Aereo* ‘perform[s],’ but does not determine whether different kinds of providers in different contexts also ‘perform.’”¹⁵⁷ Additionally, as discussed throughout this Note, the Court repeatedly provided various grounds on which the holding in *Aereo* could be distinguished from future cases.¹⁵⁸

This limiting language may appear to restrict the Court’s holding to cable or cable-like systems, but that restriction is not supported by the statute. First of all, the public performance right does not distinguish between the types of technology at issue.¹⁵⁹ In fact it does the opposite, by using the technology-neutral phrase “any device or process.”¹⁶⁰ Second, although the legislative history is replete with references to CATV,¹⁶¹ that emphasis is explained by the fact that CATV was the main impetus for the public performance amendments and, further, was one of the few

156. See, e.g., *Capitol Records, Inc. v. MP3tunes, LLC*, 48 F. Supp. 3d 703, 719 (S.D.N.Y. 2014) (“Because the third-party domains here are not ‘substantially similar’ to a community antenna television provider, they are beyond *Aereo*’s reach.”); *Reply Comments on “Making Available” Study, Sent by Public Knowledge & Electronic Frontier Foundation to Copyright Office Request for Additional Comments* 4 (Sept. 15, 2014), http://copyright.gov/docs/making_available/comments/docket2014_2/reply/PK_EFF.pdf; David Post, *Symposium: A Win, Though a Narrow One (Thanks to Breyer, J.), for Copyright Owners*, SCOTUSBLOG (June 26, 2014, 3:47 PM), <http://www.scotusblog.com/2014/06/symposium-a-win-though-a-narrow-one-thanks-to-breyer-j-for-copyright-owners/>; Mitchell Zimmerman, *Copyright Alert: ABC v. Aereo: What the Supreme Court Decided - And What It Did Not*, FENWICK & WEST LLP (June 25, 2014), <https://www.fenwick.com/publications/Pages/Copyright-Alert-ABC-v-Aereo-What-the-Supreme-Court-Decided-And-What-It-Did-Not.aspx>.

157. *Aereo*, 134 S. Ct. at 2510.

158. *Id.* at 2507, 2510–11.

159. See Giblin & Ginsburg, *supra* note 33, at 3 (“It is undesirable for legal outcomes to depend so heavily on technical design,” so the Copyright Act should be read to “enable[] copyright’s exclusive rights to remain effective without discouraging technological innovation.”).

160. 17 U.S.C. § 101 (2012).

161. *Aereo*, 134 S. Ct. at 2504–05.

cable-delivered public performance technologies in existence at the time.¹⁶² Moreover, the statute makes explicit reference to possible future technologies: “as in the case of sounds or images stored in an information system and capable of being performed or displayed at the initiative of individual members of the public.”¹⁶³ Taking all this into account, there does not seem to be anything that makes cable doctrinally special, aside from it being the primary technology to which Congress was reacting when it drafted the 1976 Copyright Act.

Additionally, *stare decisis* and a generally applicable statute belie the notion that there can be some sort of ticket-valid-for-this-day-only ruling.¹⁶⁴ Congress crafted the public performance right in response to the rise of CATV, but did not craft it to encompass *only* CATV and its technological analogues.¹⁶⁵ And while the Court’s opinion resolved the dispute for the parties before it in *Aereo*, the disposition does not apply *only* to those parties. When the Court announces an opinion, it becomes precedent, suitable for consumption by lower courts hungry for guidance.¹⁶⁶ Given the confusion among lower courts prior to *Aereo*, the Court’s discussion regarding the contours of the public performance right—despite its disclaimers—will be examined by lower courts.

The Court’s position can best be summarized by the following passage: “[q]uestions involving cloud computing, . . . DVRs, and other novel issues not before the Court, as to which ‘Congress has not plainly marked [the]

162. *Evolution of Cable Television*, FCC.GOV, <http://www.fcc.gov/encyclopedia/evolution-cable-television> (last visited Feb. 11, 2015).

163. H.R. REP. NO. 90-83, at 29 (1967).

164. See BENJAMIN N. CARDOZO, *THE NATURE OF THE JUDICIAL PROCESS* 149 (1921). Also, the Second Circuit sought to limit the *Cablevision* case to its facts. As *Aereo* demonstrates, that attempt was rather unsuccessful. See Lackman, *supra* note 27. Where there is precedent that could logically be extended to a novel and challenging fact pattern, courts—finding no clear point of distinction other than attempts in dicta to limit a holding—will do as logic commands. Cf. *Maryland v. King*, 133 S. Ct. 1958, 1989 (2013) (“The Court disguises the vast (and scary) scope of its holding by promising a limitation it cannot deliver. . . . At the end of the day, *logic will out*.” When there arises a future case, “the Court will predictably (and quite rightly) say, ‘We can find no significant difference between this case and *King*.”).

165. The statute is cast in terms that are technologically neutral. 17 U.S.C. § 101 (2012) (“To ‘perform’ a work means to . . . render . . . it, either directly or by means of *any device or process* . . .” (emphasis added)).

166. *Anastasoff v. United States*, 223 F.3d 898, 899–900 (8th Cir. 2000) (Arnold, J.), *vacated as moot*, 235 F.3d 1054. *But see* *Hart v. Massanari*, 266 F.3d 1155 (9th Cir. 2001) (Kozinski, J.).

course,' should await a case in which they are squarely presented."¹⁶⁷ The majority's decision is cautious to limit the immediate scope of its holding, since it relied on a specific aspect of the legislative history.¹⁶⁸ That does not preclude the future application of *Aereo*, nor does it mean the outcome in *Aereo* is limited to cable technologies. The Court is apprehensive about applying a grossly outdated statute to new, complex technology. So it treads carefully and incrementally. While it limited its holding to the technology at issue, it did not do so blithely. It resolved the case before it, but went on to explain how future cases may be decided, and in doing so, altered the contours of some existing copyright doctrines.

IV. THE IMPACT OF *AEREO* ON EXISTING COPYRIGHT DOCTRINE

In deciding *Aereo*, the majority focused on the overwhelming similarity of *Aereo* to a cable company and on the legislative history aimed directly at the latter technology. With such a clear legislative guide, Justice Breyer was not obliged to grapple with the challenging questions occasioned by diffuse, automated systems. Assuming the holding has applicability beyond the limited context of cable TV and services that resemble cable TV, *Aereo* marks a potentially significant reinterpretation of one of copyright's most important exclusive rights: the right of public performance.

As for volitional conduct, the Court's holding, though devoid of any explicit volitional conduct analysis, effectively alters (and likely lowers) the standard of volition that was espoused in cases like *Cablevision*. While the contours of the doctrine are still very much uncertain, there appears to be a move closer toward a proximate cause analysis. As for the question of what constitutes performance "to the public," the Second Circuit's one-user/one-copy approach to the "public" aspect of the right of public performance has been clearly discarded. In addition, the Court has provided some guidance as to who, in future cases, may constitute "the public."

167. *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498, 2511 (2014) (quoting Brief for United States as Amicus Curiae in Support of Petitioners at 34, *Aereo*, 134 S. Ct. 2498 (2014) (No. 13-461) (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 341 (1984))).

168. *See also* Brainerd Currie, *Married Women's Contracts: A Study in Conflict-of-Laws Method*, 25 U. CHI. L. REV. 227, 245 (1958) ("Like an Alpinist ascending an unknown slope, [a judge may leave] inconspicuous little handholds to facilitate his retreat if the route should lead to danger.").

A. VOLITIONAL CONDUCT AND PERFORMANCE

The majority devoted little attention to the text of the statute or to the volitional conduct doctrine, choosing instead to rest its conclusion on *Aereo*'s similarity to the CATV systems addressed by the statute's legislative history.¹⁶⁹ Given that the majority did not even address the volitional conduct doctrine, the status of the doctrine appears somewhat murky. However, a close examination of the decision evinces a number of principles.

First, to the extent the volitional conduct doctrine maintains vitality, it is clear that the interpretation espoused by the dissent is untenable. Justice Scalia declared that the requirement that a defendant engage in volitional conduct is "firmly grounded in the Act's text, which defines 'perform' in active, affirmative terms."¹⁷⁰ Flowing from this reading, the dissent argued, is the conclusion that the Copyright Act requires a sort of push the button or selection of content test.¹⁷¹ That is, if an entity does not select the content, it is not a volitional actor, and therefore *Aereo* did not perform. This standard, previously articulated in cases like *Cablevision*, was rejected by the majority.¹⁷² The Court expressly noted that the mere "turn[ing] [of] the knob" and the determination of whether a user prompts the initiation of a transmission are both irrelevant to the direct liability inquiry.¹⁷³

However, recognizing that the dissent's approach is not the state of the law after *Aereo* does little to elucidate the practical consequences of *Aereo*. Though the Court made no explicit statement, it seems to have discarded the bright-line volitional conduct test, in favor of a more free-form proximate cause inquiry. Not only is the result in *Aereo* consistent with this reading, Justice Breyer outlined several factors to be considered in determining whether a given entity "performs" for purposes of the Copyright Act.

The Court first drew a distinction between an entity that merely supplies equipment and one that "engages in activities like *Aereo*'s."¹⁷⁴ Therefore, a finding of liability requires something more than the bare furnishing of equipment. Precisely what actions may transform an equipment supplier into an *Aereo* remains nebulous. *Aereo*, a relatively passive entity, was found to perform; but from the opinion, it's not

169. *See Aereo*, 134 S. Ct. at 2504–06.

170. *Id.* at 2512 (Scalia, J., dissenting).

171. *Id.* at 2514.

172. *Id.* at 2508–09 (majority opinion).

173. *Id.* at 2507.

174. *Id.* at 2504.

immediately clear what Aereo did to reach some threshold beyond supplying equipment. In fact, there seems to be little distinction between the passive activities of Aereo and those of Cablevision, yet Aereo failed to be shielded from liability by leaving many of the pertinent and final actions—initiating a given transmission—to its users. This marks a departure from the prevailing volitional conduct cases, but one with a sensible justification.

Without any express statement thereof, the Court appears to be endorsing a type of proximate cause test. The Court recognized that there was infringement effectuated through the use of an automated system. The perplexing question was whether it was the engineer of the system or the user of the system that should be deemed the performer. The Court needed to determine who *most* caused the infringement to occur, or: whose “conduct has been so significant and important a cause that [he or she] should be legally responsible.”¹⁷⁵ This approach to determining direct liability has been endorsed not only by some commentators,¹⁷⁶ but by Judge Whyte himself in *Netcom*: “there should still be some element of volition or *causation*.”¹⁷⁷ While most courts have focused on the language of “volitional conduct,” the key analytical weight is best derived from “causation.” When the infringement of an exclusive right has occurred, a court must determine whether the end user or the system operator has caused the infringement. While there are numerous and diverse but-for causes, the conduct of one party will constitute a cause “with a nexus sufficiently close and causal to the illegal copying that one could” deem it the proximate one.¹⁷⁸

While copyright infringement is a strict liability wrong,¹⁷⁹ proximate cause is frequently an element of strict liability torts.¹⁸⁰ In the case of

175. *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 132 (2d Cir. 2008) (quoting *W. PAGE KEETON ET AL., PROSSER AND KEETON ON TORTS* § 42 (5th ed. 1984)). The Second Circuit also formulated the inquiry as whose conduct has been “more proximate to the creation of illegal copying.” *Id.* Essentially, the court conceived of the volitional conduct standard as a type of proximate cause test, borrowed from general tort law.

176. Terry Hart, *Making Copies! Retiring the Volitional Conduct Test in Favor of Proximate Causation*, COPYHYPE (Apr. 7, 2014), <http://www.copyhype.com/2014/04/making-copies-retiring-the-volitional-conduct-test-in-favor-of-proximate-causation/>; see also Stoltz, *supra* note 138.

177. *Religious Tech. Ctr. v. Netcom On-Line Commc’n Serv.s, Inc.*, 907 F. Supp. 1361, 1370 (N.D. Cal. 1995) (emphasis added).

178. See *CoStar Grp., Inc. v. LoopNet, Inc.*, 373 F.3d 544, 550 (4th Cir. 2004).

179. See *Faulkner v. Nat’l Geographic Soc’y*, 576 F. Supp. 2d 609, 613 (S.D.N.Y. 2008) (“Copyright infringement is a strict liability wrong in the sense that a plaintiff need

copyright infringement, the putative infringer must *cause* the infringing event to transpire. This question does not typically arise since the identity of the infringer is often quite clear.¹⁸¹ The purpose of this analysis is not to determine merely who pushed the button or turned the dial, but rather who is to be held liable for encroachment into the copyright holder's exclusive domain. In reaching this conclusion, courts rely not on logic, but on legal line-drawing, the purpose of which is to show who is close enough to the event to be considered the most important cause.¹⁸² In the proximate cause inquiry, the structure of the content-delivery system, any ongoing control exercised by its engineers, the user's interaction with the technology, and the user's selection of content may all be relevant to the determination of who is the most important cause in a chain of events which caused a performance to occur.

The Court did think aloud about what this proximate cause inquiry might look like. It did so by mentioning some factors that may be taken into consideration in the proximate cause analysis. Though there are apparently no bright-line rules, courts can—through an interpretive framework—determine who has sufficiently caused the infringement for purposes of direct liability. Within this context, it is important to note that it is irrelevant whether the various causes of infringement “have been accomplished through human intervention or through the intervention of . . . automated processes.”¹⁸³

not prove wrongful intent or culpability in order to prevail”); *Religious Tech. Ctr. v. Netcom On-Line Commc'n Servs., Inc.*, 907 F. Supp. 1361, 1370 (N.D. Cal. 1995) (stating that “copyright is a strict liability statute”); A. Samuel Oddi, *Contributory Copyright Infringement: The Tort and Technological Tensions*, 64 NOTRE DAME L. REV. 47, 52 (1989) (“Liability for direct infringement is imposed on a strict liability basis.”).

180. *See* *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687, 712 (1995) (O'Connor, J., concurring) (There was no “no indication that Congress,” upon enacting a statute, “intended to dispense with ordinary principles of proximate causation. Strict liability means liability without regard to fault; it does not normally mean liability for every consequence, however remote, of one's conduct.” (citing *W. PAGE KEETON ET AL.*, *PROSSER AND KEETON ON TORTS* 559–60 (5th ed. 1984))); *DAN DOBBS ET AL.*, *DOBBS' LAW OF TORTS* § 199 n.5 (2d ed. 2014) (“Proximate cause rules or some close analog have been applied, for example, in some strict liability cases”).

181. *See* *Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498, 2513 (2014) (Scalia, J., dissenting).

182. *Palsgraf v. Long Island R.R.*, 162 N.E. 99 (N.Y. 1928) (Andrews, J., dissenting) (“What we do mean by the word ‘proximate’ is, that because of convenience, of public policy, of a rough sense of justice, the law arbitrarily declines to trace a series of events beyond a certain point. This is not logic. It is practical politics.”).

183. 2 PAUL GOLDSTEIN, *GOLDSTEIN ON COPYRIGHT* § 7.0.2 (3d ed. Supp. 2015).

First, the Court apparently attached some significance to the fact that Aereo used its own equipment and its own facilities to retransmit content to its users.¹⁸⁴ This emphasis suggests that the volition calculus may change in instances where a retransmitter like Aereo does not actually establish a system that is in its possession and under its control. For instance, the result may have been different if Aereo chose to sell antennae to users, which could then (for a subscription fee) be used to watch shows using the Aereo web interface, with the program content transcoded and written to the user's own hard drive.¹⁸⁵ The key thrust of this factor is there is a willingness to find that a given entity is the relevant performer when its own¹⁸⁶ equipment has initiated the transmissions at issue.

Second, the majority remarked that the user's involvement with the technology and the "selection of the content transmitted may well bear on" the determination of whether an entity "performs."¹⁸⁷ The opinion contains no explanation of these phrases, and the latter seems ostensibly to contradict the Court's previous holding that the user's act of selecting content is not relevant to the question of whether one performs.¹⁸⁸ Since this dicta is bereft of almost any explanation, those who hope to derive a workable rule are left to rely almost entirely on conjecture. The Court seems to be intimating that although "turning the knob" does not automatically render an end-user a "performer," that act of knob-turning or otherwise selecting content is not irrelevant to the volition analysis. If a service chooses which content is available to its users, that fact may bear on whether its actions are the proximate cause in the performance of copyrighted material.

From these factors emerges an analysis that resembles a proximate cause inquiry wherein legal liability is rooted in the determination of who is best deemed to have caused an infringement to occur. While the Court never stated this explicitly, courts and commentators in search of a standard to determine the relevant performer will look to the case's

184. *Aereo*, 134 S. Ct. at 2506 ("Aereo uses its own equipment, housed in a centralized warehouse, outside of its users' homes.").

185. A similar service is employed by a company called Simple.TV. That service "includes either one or two HDTV tuners that record TV to a[n] external storage that you provide." *Frequently Asked Questions*, SIMPLE.TV, <https://us.simple.tv/faq#q1> (last visited Feb. 23, 2015).

186. The Court did not elaborate on what is meant by "its own," but it presumably referred to control, rather than actual ownership, since the subscribers in *Aereo* rented the equipment controlled by Aereo. In a scenario where a service like Aereo *sold* antennae, but maintained *control* over them, it is not clear how this factor would weigh.

187. *Aereo*, 134 S. Ct. at 2507.

188. *Id.*

outcome and to the Court's suggestions. And what the opinion reveals is not that the Court has "jettisoned . . . by implication"¹⁸⁹ the limiting principles of the volitional conduct doctrine, but that the doctrine needs to be recalibrated. The action of pressing the button is not a shortcut to liability, but one factor to be considered in a proximate cause inquiry. In *Aereo*, the defendant operated its service from its own facilities.¹⁹⁰ Additionally, *Aereo* limited the type of content available to its users.¹⁹¹ This exercise of control influenced the outcome of the analysis, and it hearkens back to Judge Whyte's distinction in *Netcom* between a service that merely provides *access* to content and one that *supplies* content in some meaningful way.¹⁹²

In this theoretical framework, liability is not premised solely on who has selected the content or who has provided the last bit of human intervention, but from who, upon considering a number of factors, may be most accurately deemed to have *caused* the infringing performance. And while the Court did not delve into any comparisons or explain how this analysis may be applied in different contexts, it seems that the Court has not foreclosed the possibility that there *can* still exist a mere supplier of equipment who transmits copyrighted content to end users. That is, a passive entity could be saved from liability by the proximate cause formulation of the "volitional conduct" doctrine. The previous formalistic conceptualization of the doctrine has been eliminated in favor of a more expansive proximate cause framework.

To summarize, it is not evident what the boundary between performance and non-performance is, but if the *Aereo* decision is to have any weight at all, it appears the threshold for performance is a relatively low one. And while there are apparently no bright-line rules, the opinion begins to outline the contours of a test. If the threshold for whether a given entity performs a copyrighted work is indeed a low one, there is

189. *Fox Broad. Co. v. Dish Network LLC*, No. CV 12-4529 DMG (SHx), 2015 U.S. Dist. LEXIS 23496, at *33 (C.D. Cal. Jan. 21, 2015).

190. *Aereo*, 134 S. Ct. at 2503.

191. In the case of *Aereo*, the service limited the type of content available in the sense that it chose a specific type of input source: over-the-air television signals. *See id.* Given that most broadcasted programs are subject to copyright, the user's selection may be less significant than in the instance of, for example, an ISP. In the case of *Aereo*, the user is only given access to linear streams of copyrighted content, while in the case of an ISP, the user has been given access to nearly limitless bodies of content.

192. *See Religious Tech. Ctr. v. Netcom On-Line Comm'n Servs., Inc.*, 907 F. Supp. 1361, 1372 (N.D. Cal. 1995).

great significance attached to the latter part of the Court's holding: whether a given performance is to the public.

B. PERFORMING "TO THE PUBLIC"

As with the Court's holding regarding whether Aereo performed, numerous commentators have criticized the Court's "to the public" holding as embracing an unworkable "looks like cable" test that may imperil future technologies.¹⁹³ This is not so. Although the Court supported its reading with legislative history, it ultimately concluded that the statute encompassed the activities undertaken by Aereo.¹⁹⁴ That is, when a service transmits copyrighted content to members of the public, it is engaging in a public performance. And while the majority was cautious about the possible breadth of its decision, it saw fit to offer some potential guideposts in the determination of whether a given performance is a public one.

First, and perhaps of the most immediate significance, the Court made clear that the "to the public" interpretation adopted by the Second Circuit has been retired.¹⁹⁵ To put it tersely, the Court held that there is no statutory justification for the one-user/one-copy interpretation. The disaggregation of a performance, through multiple transmissions, does not shield an entity from liability. The statute makes no distinction between a performance of a work through one transmission or through one million. In reaching this conclusion, Justice Breyer relied primarily on the fact that the end result of a disaggregated transmission is identical to that of a single aggregated transmission.¹⁹⁶ To further bolster this conclusion, Justice Breyer made several illustrative analogies, detailed in Section III.A *supra*.

However, the mere dismissal of *Cablevision* does little to illuminate the contours of the public performance right, particularly in context of services

193. See e.g., Kevin Drum, *Supreme Court: Aereo Looks Just Like Cable TV, So It Has to Follow the Same Laws as Cable TV*, MOTHER JONES (June 25, 2014, 1:17 PM), <http://www.motherjones.com/kevin-drum/2014/06/supreme-court-aereo-looks-just-cable-tv-so-it-has-follow-same-laws-cable-tv>; Mike Masnick, *Supreme Court Uses The Bizarre 'Looks Like A Cable Duck' Test To Outlaw Aereo*, TECHDIRT (June 25, 2014, 9:48 AM), <https://www.techdirt.com/articles/20140625/09340227683/supreme-court-uses-bizarre-looks-like-cable-duck-test-to-outlaw-aereo.shtml>; Matthew Schruers, *Symposium: Aereo Copyright Decision Creates Uncertainty for the Cloud*, SCOTUSBLOG (June 26, 2014, 12:55 PM), <http://www.scotusblog.com/2014/06/symposium-aereo-copyright-decision-creates-uncertainty-for-the-cloud/>.

194. *Aereo*, 134 S. Ct. at 2511.

195. *Id.* at 2507–10.

196. *Id.* at 2508–09.

bearing little resemblance to *Aereo* or traditional cable systems. While the Court rested its holding narrowly on *Aereo*'s similarity to CATV, it went on to articulate what may come to be valuable guidance on what constitutes a performance "to the public."¹⁹⁷ Given the increasing prominence of video streaming services, cloud storage, and other content delivery methods—all of which may be found to perform—this aspect of the public performance right is of paramount importance. Recognizing the potentially precarious status of many technologies, the majority advanced several ways in which the activities of other services may be differentiated from those of *Aereo*: a user's underlying relationship to the work and whether the user pays primarily for something other than copyrighted content.¹⁹⁸

The Court stated that the determination of whether a set of people (to which the work is performed) "constitute[s] the public . . . depends upon their relationship to the underlying work."¹⁹⁹ Justice Breyer then attempted to substantiate this assertion by crafting an analogy: a valet who returns cars to their owners can be distinguished from a car dealership that provides cars to the public.²⁰⁰ This language serves as a point of distinction between locker services and streaming services. In the former instance, there are individualized private transmissions of the same underlying work, while in the latter instance, transmissions of the underlying work are to be aggregated as one performance (and thus a public one). The distinction hinges on whether a given service is more analogous to a valet or a dealership. And therein lies the key analytical difficulty introduced by the majority. The Court did not wrangle with the question, but the key difference seems to be whether a service acts as a viewing apparatus for content supplied by the user, or as an intermediary for content originating from a source outside the user's control. Like a valet, a service of the former category delivers content back to the user who supplied it. And like a dealership, a system of the latter category supplies content to the user, who receives it, at the first instance, from the service.

The key question, for the Court, is who, as between the user and the service provider, may be described as "owner[] or possessor[] of the underlying work[]."²⁰¹ While there may be something intuitive about the above analysis, the practical application of this "ownership" test may

197. See Lackman, *supra* note 27.

198. *Aereo*, 134 S. Ct. at 2510–11.

199. *Id.* at 2510 (quotation marks omitted).

200. *Id.*

201. *Id.*

present considerable challenges. For one, the majority does not make clear what exactly is meant by “ownership.” The Copyright Act does not define “owners” or “possessors” and the Court’s reference to the term seems, “at best, very imprecise.”²⁰² It seems unlikely that the Court equated ownership with authorization to view, as the viewers in *Aereo* had the legal authority—by nature of over-the-air broadcasts—to view the copyrighted works at issue (though only in a certain manner, as evidenced by the Court’s holding). Instead, the Court was likely referring to some sort of pre-existing access. In cases where a consumer already has an electronic or physical copy of a work (or has gained, at some other instance, access to the work) they have a distinct status. When an entity transmits an underlying work to many such “owners” of that particular work, there may be many private performances rather than a single public performance. In other words, under the ownership test it appears that certain “members of the public”²⁰³ are segmented off and transformed into individuals of a different legal status. When an entity transmits to them in a certain context, it is not in their capacity as “members of the public.”²⁰⁴ In other words, an individual to whom a service transmits copyrighted content will be considered a “member of the public” when the transmitting entity could be considered a content supplier. In such instances, its many transmissions are to disparate, indeterminate members of the public. But when it performs to owners who have supplied their own content inputs, the performing entity’s service acts like a virtual VCR, the fruits of which—though borne of the same tree—are enjoyed by separate and distinct owners (predetermined recipients), rather than by collective members of the public.

For purposes of clarification, we can look to several illustrative examples. If 1,000 unrelated people each store a digital copy of the same episode of a television show in their remote storage folders, does a service like Dropbox²⁰⁵ publicly perform when each person plays the episode, whether at different places at different times or in the same place at the same time? To put it abstractly, are all these transmissions to be aggregated into the same performance, thus rendering the performance a

202. *Reply Comments on “Making Available” Study, Sent by Jane C. Ginsburg to Copyright Office Request for Additional Comments* 7 (Sept. 3, 2014), http://copyright.gov/docs/making_available/comments/docket2014_2/reply/Ginsburg_Jane.pdf; *see* 17 U.S.C. § 101 (2012).

203. 17 U.S.C. § 101.

204. *Id.*

205. *Dropbox Tour*, DROPBOX, <https://www.dropbox.com/tour/1> (last visited Feb. 27, 2015).

public one? The *Aereo* Court’s “ownership test” suggests that the answer to that question may be no. However, when a service like Netflix,²⁰⁶ itself a supplier of content, transmits a single episode to one thousand unrelated people, these one thousand unrelated people—receiving content, at the first instance, from Netflix—comprise members of the public, and the performance *is* likely a public one.

The Court’s reading of the statute may pack a great deal of analysis into the “public” component of the statutory language. And it does so by introducing an unexpected heuristic: ownership. Though novel in its exact articulation, this interpretation is not unprecedented. A variation on this analysis was employed by the dissent in the Second Circuit’s decision that preceded *Aereo*. There, the dissent drew a distinction between *Aereo*, which had no license to retransmit the copies it “produce[d] . . . to transmit . . . to its subscribers,” and Cablevision, which had a license to retransmit material and “promoted its RS-DVR as a mechanism for recording and playing back programs.”²⁰⁷ After *Aereo*, the district court in *Fox. Broad. Co. v. Dish Network LLC*²⁰⁸ has employed precisely the analysis proposed by Justice Breyer. In the case, Fox sued Dish for allowing its users to stream broadcast programming over the internet using a service called Dish Anywhere.²⁰⁹ Dish had a license to retransmit the copyrighted content over their standard video service, but not *over the internet* to its subscribers. In deciding against the broadcasters in a motion for summary judgment, the district judge emphasized that Dish could be distinguished from *Aereo*, because it had a license for its “initial retransmissions of the [over-the air] programming [content],” and because the subscriber could only “gain access to . . . authorized recorded content.”²¹⁰ By contrast, *Aereo* carried programs that “had been released to the public and carried them by private channels to additional viewers.”²¹¹ Thus, *Aereo* supplied content to its subscribers at the first instance, while Dish allowed users to privately perform works that they already possessed. At this point, it remains to be seen how courts will apply *Aereo*, but this approach finds support in the language of the statute and the opinion in *Aereo*.

206. *How Does Netflix Work?*, NETFLIX, <https://help.netflix.com/en/node/412> (last visited Feb. 27, 2015).

207. WNET, *Thirteen v. Aereo, Inc.*, 712 F.3d 676, 702 (2d Cir. 2013) (Chin, J., dissenting), *rev’d sub nom. Am. Broad. Cos. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014).

208. No. CV 12-4529 DMG (SHx), 2015 U.S. Dist. LEXIS 23496 (C.D. Cal. Jan. 21, 2015).

209. *Id.* at *4–5.

210. *Id.* at *35.

211. *Id.* at *34–35.

The second consideration mentioned by the majority in *Aereo*—whether the user pays primarily for something other than the retransmission of copyrighted content²¹²—is somewhat baffling. Again, the Court made no effort to expound on the precise nature of this inquiry, so we are left to guess. As a result, it isn't clear how this would hook into the statutory language. At best, it seems duplicative of the previous analysis pertaining to ownership or possession in the underlying content. In the case of Dropbox, the user pays primarily for storage capability, rather than content. In the context of something like the RS-DVR, perhaps the user pays primarily for recording capability, rather than content. While primarily paying for something other than copyrighted content may be characteristic of systems that do not perform to the public, it is hard to imagine what this adds to the previous analysis. Further, it is unclear how a user's payment for features beyond transmission could render private what is an otherwise public performance. While this may serve as a later basis for distinguishing *Aereo* from other cases, it is unclear what the systems in those cases would look like, or how this consideration would comport with the statute.

V. CONCLUSION

The Copyright Act of 1976 sits in an awkward position. New technological realities, anticipated by neither drafters nor judges, have exerted tremendous strain on language authored shortly after the emergence of color TV.²¹³ Yet the statute remains the primary governing law in the area of copyright. Confronted with a challenging technology and ambiguous statutory language, the Supreme Court in *Aereo* looked to legislative history to divine the intent behind that language. There, the Court discovered a convenient path to an intuitive result. Congress sought to encompass the activities of a service like *Aereo* when it amended the Copyright Act, and so, the Court could work backwards: if *Aereo* was liable, it must have performed and it must have performed to the public. In arriving at this conclusion, the Court potentially altered the volitional conduct doctrine and the nature of “public” performances. Fearful of the effects of a broad ruling, the Court carefully limited its holding, but not without offering some lessons. This guidance may be of significant

212. *Aereo*, 134 S. Ct. at 2510–11.

213. See Samuelson, *supra* note 1, at 553–55; *The Color Revolution: Television in the Sixties*, TELEVISION OBSCURITIES, <http://www.tvobscurities.com/articles/color60s/> (last visited Jan. 22, 2015).

importance, given that the Court did not engage much with existing copyright doctrine or the statute's text.

The *Aereo* case can be plausibly read to have a measurable effect on the public performance right. The volitional conduct doctrine, espoused in a nearly uninterrupted line of cases, has been altered by the Court. Though not done so explicitly, the Court's opinion defies the somewhat formalistic volitional conduct standard developed by the lower courts.²¹⁴ Additionally, the Court has discarded the faulty one-user/one-copy rule. And to alleviate concerns about cloud-storage and other technologies, the Court proposed two ways to categorize performances in future cases. These analytical guideposts may prove vital in later cases involving performing technologies that, while implicating the public performance right, differ substantially from *Aereo*.

The true impact of the *Aereo* decision will be revealed in the future, and only by the ongoing evolution of copyright law. What is immediately evident is that the Court experienced discomfort about *Aereo*'s activities, but was understandably apprehensive about handing down a broad rule. The result is a decision that may later be cited either for broad pronouncements regarding statutory interpretation, or as a one-off rule, relegated to its factual context.

214. See *Aereo*, 134 S. Ct. at 2512 (Scalia, J., dissenting).

MARVEL V. KIRBY: A CLASH OF COMIC BOOK TITANS IN THE WORK MADE FOR HIRE ARENA

Meredith Annan House[†]

The Avengers. Captain America. The X-Men. The Fantastic Four. A list of the works that artist Jack Kirby contributed to reads like a marquee of recent blockbuster movies.¹ But the battles these superheroes waged on the big screen were not the only ones in the comic book universe: until recently, Jack Kirby's estate and Marvel Comics battled it out in a lengthy five-year litigation over the rights to 262 highly valuable comic books to which Kirby contributed.

Jack Kirby was a prolific, path-breaking comic book artist who freelanced for Marvel Comics ("Marvel") in the 1950s and 1960s. In 2009, his children sent termination notices to Marvel to recapture the copyrights to their deceased father's works. Marvel responded by filing a declaratory action to establish that Kirby's contributions were works made for hire² under the 1909 Copyright Act ("1909 Act") and hence ineligible for copyright termination. Marvel further argued that Kirby had transferred any prior termination rights in an agreement dated nearly forty years earlier. The District Court for the Southern District of New York ruled in Marvel's favor, holding that the works were works made for hire.³ The Court of Appeals for the Second Circuit affirmed.⁴ Many comic book fans were outraged over Kirby's family's loss. Kirby's children timely filed a

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1. *Marvel Worldwide, Inc. v. Kirby*, No. 10 Civ. 141(CM)(KNF), 2010 WL 1655253, at *1 (S.D.N.Y. Apr. 14, 2010) ("Between 1958 and 1963, Kirby collaborated with other individuals engaged by Marvel to contribute to the creation of many now-treasured comic books, featuring such familiar and enduring characters as the Fantastic Four, the Incredible Hulk and the X-Men . . .").

2. Complaint, *Marvel Worldwide, Inc. v. Kirby*, No. 10 CV 141, 2010 WL 194759 (S.D.N.Y. Jan. 8, 2010).

3. *Marvel Worldwide, Inc. v. Kirby*, 777 F. Supp. 2d 720 (S.D.N.Y. 2011).

4. *Marvel Characters, Inc. v. Kirby*, 726 F.3d 119 (2d Cir. 2013).

certiorari petition with the U.S. Supreme Court,⁵ but the parties settled the case before the Court ruled on the petition.⁶

The courts rooted their decisions in the instance and expense test. This test is a common law tool to determine whether a work is considered a work made for hire under the 1909 Act; if it is, then the employer, rather than the creator, owns the copyright to the work. To be a work made for hire, “the employer [must] both constitute the motivating factor for the work’s creation [‘instance’] and [pay] the creator a sum certain rather than royalties [‘expense’].”⁷ Various circuits have used the instance and expense test since 1965, and the test is the predominant method to analyze the classification of a work under the 1909 Act. Yet critics have decried its application as consistently denying creators’ rights to their works and therefore unfairly benefitting employers.⁸

This Note considers the underlying doctrinal question posed by the *Marvel* litigation and concludes that the Southern District of New York and the Second Circuit reached the appropriate outcome. Though it has a troubled history and is routinely misapplied by courts, the instance and expense test generally arrives at the correct outcome and prevents chilling effects on the entertainment industry. The test preserves the entertainment industry’s ability to prosper because it reduces its legal risk; yet from a non-economic standpoint, the instance and expense test continually harms characters’ creators and frustrates Congress’s efforts to restore copyright equality under the 1976 Copyright Act (“1976 Act”).⁹ Part I of this Note provides background by discussing the history of the comic book industry, the 1909 Act’s work made for hire doctrine, and the transfer termination regime under both copyright Acts. Part II provides a history and overview of *Marvel Characters, Inc. v. Kirby*, with a focus on the courts’ analysis of the work made for hire doctrine under the 1909 Act.

5. See Petition for Writ of Certiorari at 1, *Kirby v. Marvel Characters, Inc.* (U.S. Mar. 21, 2014) (No. 13-1178), 2014 WL 1275190, at *1.

6. See Michael Cavanaugh, *Marvel, Jack Kirby’s heirs ‘amicably’ settle legal battle over superhero-character rights*, WASHINGTON POST (Sept. 26, 2014, 10:10 AM), <http://www.washingtonpost.com/news/comic-riffs/wp/2014/09/26/marvel-jack-kirbys-heirs-settle-legal-battle-over-superhero-character-rights/>; Dominic Patten, *Marvel & Jack Kirby Heirs Settle Legal Battle Ahead of Supreme Court Showdown*, DEADLINE HOLLYWOOD (Sept. 26, 2014), <http://deadline.com/2014/09/jack-kirby-marvel-settlement-lawsuit-supreme-court-hearing-841711>.

7. 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 5.03 (Matthew Bender, rev. ed. 2010).

8. See *infra* Section III.A.

9. See, e.g., Peter S. Menell & David Nimmer, *Judicial Resistance to Copyright Law’s Inalienable Right to Terminate Transfers*, 33 COLUM. J.L. & ARTS 227, 227–30 (2010).

Part III explores criticisms levied at the instance and expense test, its use in previous comic book cases, and proposes statutory changes that would be both more equitable to authors and more faithful to Congress's intentions from the 1976 Act revisions. Part IV concludes.

I. BACKGROUND

Copyright is grounded in Article I, § 8 of the U.S. Constitution, which grants Congress the power to “promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”¹⁰ The Framers intended this power to encourage the production of new art, thus enriching public life.¹¹ At the same time, a tension exists between public enjoyment of art and ensuring artists are fairly compensated for their work. This tension is particularly true in the work made for hire context. The limited monopoly that copyright grants authors is a means to achieve the ends of public availability of art, but is unavailable for works made for hire. As such, artists who create pieces that are works made for hire do not receive any monopoly for their work; instead, the employer or commissioner of the work possesses the monopoly, unless stipulated otherwise.

As background for the analysis, Section I.A traces the history of the comic book industry and explores the process by which most comic books, including the works at the issue in this case, were created. Section I.B examines the 1909 Act and the legislative and judicial backdrop behind the instance and expense test. Section I.C describes the pertinent provisions of the 1976 Act. Section I.D discusses the differing termination regimes under both copyright acts.

10. U.S. CONST. art. I, § 8, cl. 8.

11. *See, e.g.*, *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340, 349 (1991) (“It may seem unfair that much of the fruit of the compiler’s labor may be used by others without compensation. As Justice Brennan has correctly observed, however, this is not ‘some unforeseen byproduct of a statutory scheme.’ . . . It is, rather, ‘the essence of copyright,’ . . . and a constitutional requirement.”) (citing *Harper & Row v. Nation Enters.*, 471 U.S. 539, 589 (1985) (Brennan, J., dissenting)); H.R. REP. NO. 60-2222, at 7 (1909) (“[Congress’s] copyright legislation . . . is not based upon any natural right that the author has in his writings . . . but upon the ground that the welfare of the public will be served. . . [n]ot . . . for the benefit of the author, but primarily for the benefit of the public, such rights are given. . .”).

A. COMIC BOOK CONTEXT

The Golden Age of Comics began in the 1930s and lasted through the late 1940s.¹² During this time, young Jewish artists—like Kirby—flocked to the comics industry because of anti-Semitic “quotas” established in other echelons of the publishing industry.¹³ However, the seedy underbelly to the labor practices of the early industry left many comic book illustrators—particularly young Jewish artists like Kirby—working in subpar conditions.¹⁴ Lack of other options forced artists like Kirby to accept these low wages and poor conditions, which in turn allowed comic book publishers to take advantage of their bargaining position and secure higher profits.¹⁵ But the late 1950s and 60s, widely considered to be the Silver Age of Comics, did not have widespread comic book sweatshops.¹⁶ The Silver Age is renowned for being the era in which many of the most

12. See *A Brief History of Comics - Golden Age & Silver Age*, FLIMGEEKS, <http://flimgeeks.com/2009/a-brief-history-of-comics-golden-age-silver-age/> (last visited Feb. 13, 2014); *The Golden Age of Comics*, PBS.COM, <http://www.pbs.org/opb/historydetectives/feature/the-golden-age-of-comics/> (last visited Apr. 24, 2015).

13. See Graham Lawson, *Even Picasso could be found reading them*, THE TIMES OF ISRAEL (Aug. 10, 2012, 5:13 PM), <http://www.timesofisrael.com/even-picasso-could-be-found-reading-them-comics-stan-lee-art-spiegelman/>. Jewish families, wishing their sons to enter solid professions such as medicine or law, did not exactly warm to the idea of their sons eking out a living drawing cartoons in a comic strip sweatshop. For their part, said offspring, who were seeking to establish careers as illustrators, often found themselves excluded from advertising agencies and newspaper syndicates due to anti-Semitic “quotas.” The comics industry, however, in part owned by Jews, welcomed them with open arms—albeit with somewhat closed fists.

14. See, e.g., *ENCYCLOPEDIA OF COMIC BOOKS AND GRAPHIC NOVELS* 352 (M. Keith Booker ed. 2010) (“By the late 1930s . . . Kirby began . . . working in the sweatshop studios of Victor Fox at Fox Features Syndicate.”); *THE CAMBRIDGE COMPANION TO MODERN AMERICAN CULTURE* 400 (Christopher Bigsby ed. 2006) (“the superhero—Superman, Batman, and dozens more created by 1940—as drawn by overwhelmingly Jewish youngsters in sweatshop studios of Greater New York”); PAUL BUHLE, *FROM THE LOWER EAST SIDE TO HOLLYWOOD: JEWS IN AMERICAN POPULAR CULTURE* 107 (Verso 2004).

15. See Lawson, *supra* note 13.

16. For a breakdown of each of the comic book eras, see *Archetypes, Commercialism, and Hollywood: A History of the Comic Book*, RANDOM HISTORY (Mar. 18, 2008), <http://www.randomhistory.com/1-50/033comic.html>.

iconic comic book characters were created.¹⁷ Kirby, a contributor to many such icons, worked for Marvel during this Silver Age.¹⁸

Of critical importance to the *Kirby* litigation, comic books were not typically the product of solitary endeavor. Rather, teams of creative people worked on them from start to finish. In the earlier days of the Golden Age, teams developed comic books in an assembly-line process in New York City factories.¹⁹ In the Silver Age, writer Stan Lee conceived of the “Marvel Method,” which changed the creation process but still required a team of creators. With the Marvel Method, Lee would give a general plot summary to an artist to illustrate, which kept the artists busy and paid, instead of leaving them waiting around for Lee to finish entire story drafts before illustrating.²⁰ Typically, Lee would first describe the plot to an artist (like Kirby), and the artist would then “pencil” the story, laying out panels on the pages, breaking down the story into digestible panels, and drawing the characters within the panels.²¹ The artist would then turn in the pages to a writer (Lee) to create the script based on the panels.²² Next, a letterer would fill in dialogue where the writer had indicated, and then another artist would “ink” the pages, going over the pencil with marker.²³ Finally, another artist would colorize them.²⁴ This meant that at an absolute minimum, two people worked on a comic, but typically many more contributed to the book.²⁵

As the comic book industry matured, it became very profitable, transforming from a niche subculture into a massively popular mainstream

17. *A Brief History of Comics*, COMICSPECTRUM.COM, https://comicspectrum.com/Brief_History_of_Comics.html#Silver (last visited Apr. 21, 2015) (explaining that the Silver Age churned out icons like Spider-Man, the Avengers, X-Men, and the Fantastic Four).

18. *See* *Marvel Worldwide, Inc. v. Kirby*, 777 F. Supp. 2d 720, 731 (S.D.N.Y. 2011).

19. *See* RANDY DUNCAN & MATTHEW J. SMITH, *THE POWER OF COMICS: HISTORY, FORM AND CULTURE* 114 (Bloomsbury Academic 2009).

20. *See id.*

21. *See id.* at 115 (describing in detail each step of the process).

22. *See id.*

23. *See id.*

24. *See id.*

25. *See* MARK CHIARELLO & TODD KLEIN, *THE DC COMICS GUIDE TO COLORING AND LETTERING COMICS* (Watson-Guptill 2004); iFanboy, *Letterers, Colorers, and Inkers*, REVISION3 (Mar. 9, 2010), <https://revision3.com/ifanboy/lettercolorink>; Susana Polo, *DC Comics' New Creator Royalty Plan Means More Credit Where Credit Is Due*, THE MARY SUE (Jun. 24, 2014, 6:32 PM), <http://www.themarysue.com/dc-comics-pay-structure>.

genre with a diverse following.²⁶ Characters and storylines from popular comic books grew and evolved into an ever-expanding universe of movies, television shows, and video games.²⁷ Once solely a comic book publisher, Marvel became the epicenter of one of the most valuable creative industries by churning out video games, films, board games, theme parks, live shows, and television programs.²⁸ The Walt Disney Company bought Marvel for \$4.64 billion in 2009²⁹—and just two weeks after announcing this, the Kirby children filed their termination notices.³⁰ As of this writing, Marvel Studios (now with distribution run by Walt Disney Studios Motion Pictures) has announced eleven upcoming movies, signifying that this immensely profitable comic book genre is not fading away any time soon.³¹

B. WORKS MADE FOR HIRE UNDER THE COPYRIGHT ACT OF 1909

Both the 1909 Act and the 1976 Act are relevant to this case. The 1909 Act controls the initial ownership of the Kirby works because they were created prior to January 1, 1978, the effective date for the 1976 Act. However, the 1976 Act controls the heirs' possible termination rights, since the 1976 Act retroactively grants termination rights to authors or

26. See Gus Lubin, *The Comic Book Industry Is On Fire, And It's About More Than Just The Movies*, BUSINESS INSIDER (Aug. 24, 2014, 11:57 AM), <http://www.businessinsider.com/the-comic-book-industry-is-on-fire-2014-8>.

27. See Alexandra Gibbs, *Why Comic Books Are Big Business*, CNBC (Dec. 30, 2014, 2:24 AM), <http://www.cnbc.com/id/102272227>.

28. See, e.g., DISNEY INFINITY: 2.0 EDITION, <https://infinity.disney.com/game-info> (last visited Dec. 23, 2014); THE MARVEL EXPERIENCE TOUR, <http://themarvel-experiencetour.com/> (last visited Dec. 23, 2014); *The Incredible Hulk Coaster*, UNIVERSAL ORLANDO RESORT, <https://www.universalorlando.com/Rides/Islands-of-Adventure/The-Incredible-Hulk-Roller-Coaster.aspx> (last visited Dec. 23, 2014).

29. Brooks Barnes & Michael Cieply, *Disney Swoops Into Action, Buying Marvel for \$4 Billion*, N.Y. TIMES (Aug. 31, 2009), <http://www.nytimes.com/2009/09/01/business/media/01disney.html>.

30.

On August 31, 2009, the Walt Disney Company announced that it had agreed to acquire Marvel's ultimate parent. . . . Two weeks later, on or about September 16, 2009, the Kirby Heirs sent approximately forty-five Termination Notices relating to the Works to Marvel and other Marvel-related and unrelated entities.

Marvel Worldwide, Inc. v. Kirby, No. 10 Civ. 141(CM)(KNF), 2010 WL 1655253, at *1 (S.D.N.Y. Apr. 14, 2010).

31. See Marc Graser, *Marvel Announces Next Phase of Superhero Movies*, CHICAGO TRIBUNE (Oct. 29, 2014, 9:22 PM), <http://www.chicagotribune.com/entertainment/chi-marvel-superhero-movies-20141029-story.html>.

heirs whose works are governed by the 1909 Act and were assigned to another party.³²

The legislative history of both the 1909 Act and the 1976 Act elucidates the purposes of the drafters. At their core, both Acts express the continued desire to uphold the fundamental objectives of copyright law: the Acts take clear steps to enhance the public's access to creative works and encourage creativity, while also promoting settled expectations and certainty of copyright ownership.³³ The 1976 Act, however, strived to protect authors in ways the 1909 Act failed to do, by explicitly defining a work made for hire, altering the termination provisions, and trying to redistribute some of the power that courts had begun giving to publishers with their interpretation of the instance and expense test.³⁴

This attempt to better equalize the tension between authors and publishers is evident in how the 1909 Act and the 1976 Act differ in their determination of what constitutes a work made for hire. The 1909 Act's work made for hire doctrine is brief and ambiguous: the sole reference to work made for hire in the entire Act is that "in the interpretation and construction of this title . . . the word 'author' shall include an employer in the case of works made for hire."³⁵ Because the 1909 Act did not define "work made for hire" or "employer," the courts had to interpret the meaning of these terms.

At first, courts held that the 1909 Act's work made for hire provision applied only to an employee's work created in the regular course of his employment. Commissioned works, on the other hand, were presumed to impliedly give the copyright bundled with the work itself to the hiring party.³⁶ One of the more significant decisions addressing these ambiguities was in *Yardley v. Houghton Mifflin Co.*,³⁷ where the city of New York commissioned an artist to paint a mural on the side of a school building.³⁸ The *Yardley* court held that a commissioned worker impliedly grants his

32. See 17 U.S.C. § 304(c) (2012); see also *infra* Section I.B (discussing the differing termination regimes).

33. See *supra* notes 7–11 and accompanying text.

34. See Lydia Pallas Loren, *Renegotiating the Copyright Deal in the Shadow of the "Inalienable" Right to Terminate*, 62 FLA. L. REV. 1329, 1342–49 (2010); Menell & Nimmer, *supra* note 9.

35. 17 U.S.C. § 26 (repealed 1976), reprinted in 5 NIMMER & NIMMER, *supra* note 7, § 26.

36. See, e.g., *Comty. for Creative Non-Violence v. Reid*, 490 U.S. 730, 744 (1989) (discussing the history of work made for hire under the 1909 Act).

37. *Yardley v. Houghton Mifflin Co.*, 108 F.2d 28 (2d Cir. 1939).

38. See *id.* at 29.

copyright along with the commissioned work to the party that commissioned the work for the first copyright term, but that the worker that created the commissioned work still controls the renewal rights after the first twenty-eight years end.³⁹ The *Yardley* rule transplanted the general principle for photographic portraits—the person commissioning the work impliedly receives the copyright in addition to the work itself—and translated it to other kinds of artwork.⁴⁰

Over time, courts lessened the emphasis on the employer/commissioner distinction and instead developed the formal instance and expense test to determine if a work is made for hire under the 1909 Act. The “instance” prong is satisfied when a court finds that an employer was “the motivating factor in producing the work,”⁴¹ demonstrable by the degree to which the hiring party could exercise supervisory control (e.g. reject, accept, influence) over the work.⁴² The “expense” prong asks whether the hiring party shouldered the expense of the creation of the work.⁴³ The Second Circuit finds this prong satisfied “where a hiring party simply pays an independent contractor a sum certain for his or her work.”⁴⁴ Works created prior to January 1, 1978 that satisfy both prongs are works made for hire, and the employer holds the copyright to the work.

1. *Tracing the Instance and Expense Test and the Legislative History of the 1909 Act*

The instance and expense test did not appear out of thin air. Tracing back its evolution, from its development in the legislative history of the 1909 Act to its establishment in mid-twentieth century caselaw, demonstrates how both publishers and creators have, for better or for worse, generally settled expectations regarding works made for hire under the 1909 Act. The phrase “instance and expense” first originates in an

39. *See id.* at 30–31.

40. *See id.*

41. *Siegel v. Nat'l Periodical Publ'ns. Inc.*, 508 F.2d 909, 914 (2d Cir. 1974) (internal citations omitted).

42. *See Playboy Enters., Inc. v. Dumas*, 53 F.3d 549, 554 (2d Cir. 1995); *Estate of Hogarth v. Burroughs, Inc.*, No. 00 CIV. 9569(DLC), 2002 WL 398696, at *18 (S.D.N.Y. Mar. 15, 2002).

43. *See, e.g., Marvel Worldwide, Inc. v. Kirby*, 777 F. Supp. 2d 720, 741 (S.D.N.Y. 2011).

44. *Id.* (citing *Playboy*, 53 F.3d at 555).

early copyright case decided prior to the 1909 Act: *Hanson v. Jaccard Jewelry Co.*, a case decided in 1887.⁴⁵

The notion of “instance and expense” later resurfaces in the legislative history of the 1909 Act, where a participant in the drafting process requested “an exception [to the default notion of authorship be] made [on] behalf of the person at whose *expense* such works were made.”⁴⁶ Richard Bowker, the vice president of the American Authors’ Copyright League, also advocated for the definition of ‘author’ to include “a corporate body with respect to the publications of such corporation, and a person or persons at whose instance and expense a composite work is produced.”⁴⁷

Encyclopedia publishers expressed the strongest concerns about rights to work made for hire creations during the drafting of the 1909 Act, as many contributors are needed to create encyclopedias. The publishers’ apprehension focused on the renewal term, not the initial grant of the work to the publisher.⁴⁸ Both in the law prior to the 1909 Act and in the 1909 Act, an author’s renewal term passed to his statutory heirs if he died before the renewal term began, even if he had previously assigned the renewal rights to someone else.⁴⁹ Encyclopedia publishers worried that if the contributors died after writing their respective pieces of the encyclopedia, the contributors’ statutory successors legally own the contributors’ renewal terms, even if the encyclopedia publisher had been assigned the renewal term.⁵⁰ Thus, to retain control over the rights of their encyclopedias, the publishers would have to track down all of the statutory successors.⁵¹

The Ninth Circuit was the first circuit to expressly employ the instance and expense test, in the 1965 case *Lin-Brook Builders Hardware v. Gertler*.⁵² *Lin-Brook* also signified a massive shift in the work made for hire landscape: for the first time, a court explicitly expanded the work made for hire doctrine beyond the traditional employer-employee relationship to

45. *Hanson v. Jaccard Jewelry Co.*, 32 F. 202, 202 (C.C.E.D. Mo. 1887) (“From these and other facts it is obvious that the pamphlet in question was compiled and published at the *instance and expense* of the railroad company . . .”) (emphasis added).

46. 2 LEGISLATIVE HISTORY OF THE 1909 COPYRIGHT ACT 188 (B. Fulton Brylawski & Abe Goldman eds., 1976) (emphasis added).

47. *Id.* at 143–44.

48. See Catherine L. Fisk, *Authors at Work: The Origins of the Work-for-Hire Doctrine*, 15 YALE J.L. & HUMAN. 1, 63 (2003).

49. See *id.* at 63 n.224 (discussing the history of the renewal rights).

50. See *id.* at 63 (citing 1 LEGISLATIVE HISTORY OF THE 1909 COPYRIGHT ACT 54–56 (B. Fulton Brylawski & Abe Goldman eds., 1976)).

51. See *id.*

52. *Lin-Brook Builders Hardware v. Gertler*, 352 F.2d 298, 300 (9th Cir. 1965).

relationships with independent contractors.⁵³ This case involved a hardware company, Lin-Brook, which advertised their wares with catalogues illustrated by an artist, Baxter, whom the company had hired as an independent contractor.⁵⁴ A competing hardware company began advertising with a similar catalog and Lin-Brook sued for copyright infringement.⁵⁵ The trial court decided that Lin-Brook could not bring a claim of copyright infringement, holding that since Baxter was an independent contractor he was the true “proprietor of the copyright.”⁵⁶ The Ninth Circuit rejected this argument, holding that

when one person engages another, *whether as employee or as an independent contractor*, to produce a work of an artistic nature, [] in the absence of an express contractual reservation of the copyright in the artist, the presumption arises that the mutual intent of the parties is that the title to the copyright shall be in the person at whose *instance and expense* the work is done.⁵⁷

The court cited *Yardley*,⁵⁸ *Grant v. Kellogg Co.*,⁵⁹ and *Dielman v. White*⁶⁰ as authority for the instance and expense test,⁶¹ although none of these cases explicitly use the phrase. Rather, these cases can at most be described as following the instance and expense line of reasoning. All of these cases involved commissioned works: the art mural in *Yardley* was done at the instance and expense of New York City;⁶² the “gnomes,” better known as the Rice Krispie elves “Snap, Crackle, and Pop” in *Grant* were commissioned by the Kellogg Company;⁶³ and the Library of Congress commissioned the mosaic in *Dielman*.⁶⁴ The *Dielman* court explained:

53. *See id.*; *see also* Twentieth Century Fox Film Corp. v. Entm’t Distrib., 429 F.3d 869, 877–78 (9th Cir. 2005) (analyzing numerous cases across multiple circuits that as a result of *Lin-Brook* now use the instance and expense test on independent contractor situations).

54. *See Lin-Brook*, 352 F.2d at 299.

55. *See id.*

56. *Id.* at 300.

57. *Id.* (emphasis added).

58. *Yardley v. Houghton Mifflin Co.*, 108 F.2d 28 (2d Cir. 1939).

59. *Grant v. Kellogg Co.*, 58 F. Supp. 48 (S.D.N.Y. 1944).

60. *Dielman v. White*, 102 F. 892 (C.C.D. Mass. 1900).

61. *See Lin-Brook*, 352 F.2d at 300.

62. *See Yardley*, 108 F.2d at 29.

63. *See Grant*, 58 F. Supp. at 52–53 (“[T]he idea and theme [or *instance*] were Kellogg’s . . . to accomplish [catching the eye of the consumer] Kellogg spent large sums of money [or *expense*], and Grant was the recipient of a substantial part of it for his effort.”). Interestingly, the court in *Grant* references Superman, a DC Comics character, and the comic strip world (though a slightly less collaborative process than comic books) generally:

In general, when an artist is commissioned to execute a work of art not in existence at the time the commission is given, the burden of proving that he retains a copyright in the work of art executed, sold, and delivered under the commission rests heavily upon the artist himself. If a patron gives a commission to an artist, there appears . . . a very strong implication that the work of art commissioned is to belong unreservedly and without limitation to the patron.⁶⁵

The instance and expense test first appeared in the Second Circuit (often referred to as “the *de facto* Copyright Court of the United States”)⁶⁶ in *Brattleboro Publishing Co. v. Winmill Publishing Corp.*⁶⁷ But this mention seems to be the result of a mistake by the court, as the opinion cites to the 1964 edition of Professor Melville Nimmer’s copyright treatise as authority for the test.⁶⁸ The phrase “instance and expense” is nowhere to be found in the treatise edition cited; Nimmer himself explains that the cited passage from the 1964 edition stated only: “The foregoing provision of Sec. 26 must be read as creating a presumption of copyright in the employer which may be rebutted only by a preponderance of evidence of a contrary agreement as between the parties.”⁶⁹ Partly as a result of this misattribution, critics have decried the continued use⁷⁰ of the test and it

The gnomes and their names, if they can be said to have been invented by plaintiff, were drawn for Rice Krispie advertising. They had not been, in the Grant form, exploited or used by him before. It was in that advertising that they had any significance, and for that matter, any value. They had acquired no secondary meaning, as being Grant's; they were Kellogg's. They had not been publicized except to forward Rice Krispie sales, and never had any personality or characteristic except as Rice Krispie salesmen. *They lived no life like Mutt & Jeff, Buster Brown and his dog, Jiggs, Superman, Betty Boop, Sparkplug, and other inhabitants of the comic strip world.* They had no significance except as decoys to beguile the public into reading about Rice Krispies.

Id. at 52 (emphasis added).

64. *See Dielman*, 102 F. at 892.

65. *Id.* at 894.

66. *Easter Seal Soc’y for Crippled Children & Adults of La., Inc. v. Playboy Enters.*, 815 F.2d 323, 325 (5th Cir. 1987).

67. *Brattleboro Publ’g Co. v. Winmill Publ’g Corp.*, 369 F.2d 565 (2d Cir. 1966).

68. *See id.* at 567 (“Professor Nimmer, in his treatise on copyright law, states that there is a presumption in the absence of an express contractual reservation to the contrary, that the copyright shall be in the person at whose *instance and expense* the work is done. Nimmer on Copyright 238 (1964).”) (emphasis added).

69. 1 NIMMER & NIMMER, *supra* note 7, § 5.03 n.171b.

70. *See* Part III.A *infra* for a discussion of the criticisms levied at the test.

has been the subject of much controversy.⁷¹ It was not until the *Marvel* case—nearly fifty years after the initial error—that the Second Circuit fully acknowledged the mistake and corrected the authority of the instance and expense test to *Lin-Brook*.⁷²

Most circuits have adopted the instance and expense test. In addition to the Second and Ninth Circuits, the First Circuit, Fifth Circuit, and Seventh Circuit also use the instance and expense test.⁷³ District courts in the Third Circuit, Fourth Circuit, Sixth Circuit, Seventh Circuit, Eighth Circuit, and Eleventh Circuit all have cited and used the instance and expense test as well.⁷⁴ The Tenth Circuit declined to adopt the test,⁷⁵ however, and there is no mention of the test in the Federal Circuit or D.C. Circuit caselaw.

The three circuits that hear the vast majority of copyright cases (the Second Circuit, Fifth Circuit, and Ninth Circuit) all utilize the instance and expense test and have done so for nearly half a century.⁷⁶ But because not all circuits follow the instance and expense test, there is no national consensus.⁷⁷

71. The Second Circuit itself recognized the criticisms in the instant case, and acknowledged that a recent Supreme Court case (“*CCNV*,” discussed *infra* in Part III.A) appears to disapprove of the instance and expense test. See *Marvel Characters, Inc. v. Kirby*, 726 F.3d 119, 139 n.8 (2d Cir. 2013).

72. See *Kirby*, 726 F.3d at 138.

73. See, e.g., *Forward v. Thorogood*, 985 F.2d 604, 606 (1st Cir. 1993); *Evans Newton Inc. v. Chi. Sys. Software*, 793 F.2d 889, 894 (7th Cir. 1986); *Murray v. Gelderman*, 563 F.2d 773, 775–76 (5th Cir. 1977).

74. See, e.g., *Brumley v. Brumley & Sons, Inc.*, No. 3:08-CV-1193, 2010 WL 1439972, at *5 (M.D. Tenn. Apr. 9, 2010); *Corwin v. Walt Disney Co.*, No. 6:02-cv-1377-Orl-19KRS, 2004 WL 5486639, at *14 (M.D. Fla. Nov. 12, 2004); *In re Marvel Entm’t Grp., Inc.*, 254 B.R. 817, 828 (Bankr. Del. 2000); *Armento v. Laser Image, Inc.*, 950 F. Supp. 719, 731–32 (W.D.N.C. 1996); *Arthur Retlaw & Assocs., Inc. v. Travenol Labs., Inc.*, 582 F. Supp. 1010, 1012 (N.D. Ill. 1984); *Hanson v. Jaccard Jewelry Co.*, 32 F. 202, 202 (E.D. Mo. 1887).

75. See *Michael Found., Inc. v. Urantia Found.*, 61 Fed. Appx. 538, 549 (10th Cir. 2003). *But see* *Hughey v. Palographics Co.*, No. 75-F-481, 1976 WL 21079, at *8 (D. Colo. Jan. 20, 1976).

76. See, e.g., *Murray v. Gelderman*, 563 F.2d 773, 775–76 (5th Cir. 1977); *Brattleboro Publ’g Co. v. Winmill Publ’g Corp.*, 369 F.2d 565, 567 (2d Cir. 1966); *Lin-Brook Builders Hardware v. Gertler*, 352 F.2d 298, 300 (9th Cir. 1965); see also Patrick Murray, *Heroes-for-Hire: The Kryptonite to Termination Rights under the Copyright Act of 1976*, 23 SETON HALL J. SPORTS & ENT. L. 411, 426 (2013).

77. Although Marvel’s attorneys disagree:

In short, this case presents a factbound application of a test uniformly adopted by the lower courts under a statute that does not apply to works created after 1978. It implicates no circuit split, no judicial

C. THE 1976 ACT: ATTEMPTING TO REMEDY THE AMBIGUITIES OF WORK MADE FOR HIRE

With the 1976 Act, Congress aimed to remedy the power disparity between publishers and creators. This imbalance had grown significantly in the work made for hire arena with the emergence of the instance and expense test. Congress made two critical changes of relevance to this case: it altered the work made for hire definition and the modification of termination provisions.⁷⁸ Partly in response to the criticisms of the 1909 Act's failure to define works made for hire, the 1976 Act explicitly defined what constitutes a work made for hire in order to restrict some of the overly broad rights of the commissioning party.⁷⁹ The 1976 Act enumerates nine categories that constitute a work made for hire in 17 U.S.C. § 101, and defines copyright ownership of a work made for hire under § 201(b).⁸⁰ These definitions promote settled expectations and reduce judiciary power by lessening the possibility of a circuit split better than the 1909 Act.⁸¹

The new definitions in the 1976 Act aimed to meet the recognized need to resolve the problems created by, and litigation stemming from, the 1909 Act. The work made for hire categories in the 1976 Act were the product of intense debate, evidenced by a dense morass of congressional testimony and legislative history, and a careful balance between the

taking, no due process violation, and no grave matter of separation of powers. It does not remotely merit this Court's review.

Brief in Opposition at 2, *Kirby v. Marvel Characters, Inc.*, 135 S. Ct. 42 (2014) (No. 13-1178), 2014 WL 4090436, at *2.

78. The change in copyright terms and termination provisions in the 1976 Act is discussed in Section I.C *infra*.

79. See 17 U.S.C. § 101 (2012); Menell & Nimmer, *supra* note 9.

80. The act defines a work made for hire as

(1) a work prepared by an employee within the scope of his or her employment; or (2) a work specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire.

17 U.S.C. § 101 (2012).

81. There remains confusion of the scope of enumerated categories—such as compilations or contributions to a collective work. This is particularly problematic with respect to sound recordings. See generally David Nimmer and Peter S. Menell, *Sound Recordings, Works for Hire, and the Termination-of-Transfers Time Bomb*, 49 J. COPYRIGHT SOC'Y 387 (2001).

interests of authors and publishers.⁸² A few notable conflicts emerge from the legislative history to the 1976 Act.

Congress ordered an exhaustive study on works made for hire in 1958 in anticipation of revisions to copyright law.⁸³ The study found that at the time the 1909 Act was promulgated, the primary works made for commission were photographic portraits.⁸⁴ The general rule for ownership of copyright in photographic portrait at the time was that the employer of the photographer owned both the photographic portrait itself and the rights to the photographic portrait under an implied agreement theory.⁸⁵ The study tracked the legislative history of work made for hire and found that a 1906 memorandum draft bill defined “author” as either a commissioner of a photographic portrait by a photographer or “[a]n employer, in the case of a work produced by an employee during the hours for which his salary is paid, subject to any agreement to the contrary.”⁸⁶ The memorandum draft bill made no explicit mention of a work for hire—or commissioned works generally.⁸⁷ The study also examined the caselaw surrounding works made for commission (as is the case with most, if not all, of the comic book cases), including *Yardley*, where the Second Circuit had applied the same general principle for copyright in photographic portraits to commissioned works of art.⁸⁸

The study also examined how other countries had dealt with works made for hire; at the time of the study’s release, only China and Venezuela generally vested copyright ownership in the person who commissioned the work.⁸⁹ Other countries had more limited versions of this approach, vesting ownership in the commissioning party for some classes of works,

82. See 6 GEORGE S. GROSSMAN OMNIBUS COPYRIGHT REVISION HISTORY 983, 995 (2001) (statement of Adolph Schimel regarding H.R. 4347) (“The Register recognized the validity of these views of motion picture producers and distributors, as well as similar views of publishers of literary and musical materials . . . ‘the definition [of works made for hire] now in section 101 represents a carefully worked out compromise aimed at backing legitimate interests on both sides.’”).

83. BERGE VARMER, S. COMM. ON THE JUDICIARY, 86TH CONG., COPYRIGHT LAW REVISION STUDY NO. 13 WORKS MADE FOR HIRE AND ON COMMISSION 123 (Comm. Print 1958).

84. See *id.* at 130.

85. See *id.*; see also *Altman v. New Haven Union Co.*, 254 Fed. 113 (D.C. Conn. 1918) (stating this general rule); *Lumiere v. Pathe Exch., Inc.*, 275 Fed. 428 (2d Cir. 1921); *Lumiere v. Robertson-Cole Distrib. Corp.*, 280 Fed. 550 (2d Cir. 1922).

86. VARMER, *supra* note 83 at 128.

87. See generally *id.*

88. See *supra* Part I.B.1; see also VARMER, *supra* note 83, at 130.

89. VARMER, *supra* note 83, at 138–39.

such as photographs or photographic portraits.⁹⁰ The study concluded that because works prepared under commission had not been the subject of either legal revision efforts or much litigation, the 1909 Act's work made for hire doctrine "ha[d] operated satisfactorily," but at the same time cautioned that it was uncertain whether the reasoning in the few litigated cases of photographs and works of art would extend to other types of works.⁹¹

In the 1976 Act's legislative history, the film industry expressed many of the same concerns that the encyclopedia industry had expressed in the debates leading up to the 1909 Act.⁹² Hearings for copyright revision continued through the 1960s. Adolph Schimel, representing the Motion Picture Association of America ("MPAA"), testified before Congress on behalf of the production side of the publishers in 1965.⁹³ The industry giants had major concerns about avoiding financial impracticability with respect to works made for hire.⁹⁴ Much like comic books at issue in *Marvel*, films are not an individual project; filmmaking requires hundreds of people who all contribute to one final product. Allowing each contributor to avoid a work made for hire classification and thereby later exercise his reversion or termination right would either bankrupt the film company or force the company to withdraw the film from public access.⁹⁵ Schimel claimed that these proposed versions of § 201(b)'s work made for hire definition and constraining termination rights in § 203 to contractual matters ensures settled expectations.⁹⁶

The 1961 proposed revision retained nearly the entirety of the 1909 Act's work made for hire principles, but did not define an employer as an author.⁹⁷ A later version again defined an employer as an author, as explained by the Copyright Register's 1965 Supplementary Report: "In the course of drafting, however, it became clear that there are great advantages of convenience and simplicity in assimilating employers to 'authors' for all purposes. . . . [F]ailure to identify the employer as 'author' might have

90. *Id.* at 139 (citing 12(2) of the Canadian Act of 1921, 4(3) of the U.K. Act, Article 88 of the Italian Copyright Law of 1942, and Articles 24 and 25 of the Japanese Copyright Law of 1899).

91. Varmer, *supra* note 83, at 142.

92. *See supra* notes 48–49 and accompanying text.

93. *See* 6 GEORGE S. GROSSMAN OMNIBUS COPYRIGHT REVISION HISTORY, *supra* note 82, at 983–1052 (2001).

94. *See id.*

95. *See id.* at 1047.

96. *See id.* at 1048.

97. *See id.* at 1016.

unintended consequences”⁹⁸ The proposed revisions to § 201(b) of the 1976 Act⁹⁹ were praised for providing more equal bargaining power between employees and employers than the 1909 Act had provided.¹⁰⁰ The proposed revision protected employers from being held hostage by employees and possible competitive uses, while still allowing employees to contract for rights.¹⁰¹ Although authors and publishers disagreed on many parts of the work made for hire doctrine, one mutually agreed-upon provision was inserting “in writing” into § 201(b)’s work made for hire clause¹⁰² to avoid uncertainty, future litigation, and potential Statute of Frauds issues.¹⁰³

Another proponent of maintaining the status quo to benefit the motion picture industry, and to a larger degree to benefit corporations and employers generally, was Edward Sargoy, then-president of the Copyright Society of the United States.¹⁰⁴ His commentary on the 1958 Varmer Work-For-Hire Study supported the “employer as author” idea, stating that “[t]here are so many creative and artistic talents that can and do contribute today to the production of a work of intellectual and artistic creation, that a basic definition [of an employer being the author] . . . is . . . fundamental.”¹⁰⁵ These arguments echo the concerns of the encyclopedia publishers in the 1909 Act’s legislative history, and permeate the arguments of publishers and other employers.

D. EVOLVING TERMINATION REGIMES

Whether a work is deemed a work made for hire determines whether its author (or statutory successors) can exercise termination provisions to reclaim his copyright. In an attempt to better protect authors, the 1976 Act retroactively granted pre-1978 works termination of transfer rights

98. *Id.*

99. 17 U.S.C. § 201(b) (2012) (“In the case of a work made for hire, the employer or other person for whom the work was prepared is considered the author for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them, owns all of the rights comprised in the copyright.”).

100. *See* 6 GEORGE S. GROSSMAN OMNIBUS COPYRIGHT REVISION HISTORY, *supra* note 82, at 1016–17 (2001).

101. *See id.*

102. *See id.* at 1034 (“We concur with the authors and publishers of literary and musical materials, and their performing rights society, in urging this amendment.”).

103. *See id.*

104. *See id.* at 1051.

105. VARMER, *supra* note 83, at 151.

and a shift to a unitary copyright term—but not to works made for hire.¹⁰⁶ Because of this exception, the determination of work made for hire status of the works in the *Kirby* case was of central importance; if the instance and expense test was not satisfied, then the works were not works made for hire, and Kirby's children could thus validly exercise their termination of transfer rights.

The 1909 Act (and all other American copyright law preceding it) had a two-term consecutive copyright structure, where an author could renew his copyright after the first copyright term ended by exercising his “reversion right.”¹⁰⁷ Reversion rights are rights to a copyrighted work that would automatically revert back to the creator (or, if the creator was dead, to his statutory successors) of the copyrighted work upon copyright renewal.¹⁰⁸ This automatic “flip” was what had worried both encyclopedia publishers and the film industry.¹⁰⁹ The reversion right was a well-intentioned but poorly executed way for authors “to have a second opportunity to market their works after an original sale of copyright.”¹¹⁰ Congress recognized that most works were incapable of being properly economically evaluated before their exploitation, and because of this, authors were “necessarily . . . in a poor bargaining position when initially negotiating the sale of copyright.”¹¹¹ Giving authors a renewal option to a second copyright term would theoretically give them a second chance to enjoy the successes of a work. But because of the initial unequal bargaining power between authors and publishers, authors oftentimes waived or assigned away their reversion rights and so were unable to benefit from the second copyright term.

The 1909 Act gave authors and their heirs the use of reversion rights to repossess works they had sold earlier, so long as they exercised these rights during the copyright's renewal term. The maximum term of protection for a copyright under the 1909 Act was fifty-six years, comprised of the original twenty-eight years of copyright protection after

106. See Melville B. Nimmer, *Termination of Transfers Under the Copyright Act of 1976*, 125 U. PENN. L. REV. 948, 954 (1977) (“[A] grant from author to employer of rights in a work made for hire is not subject to the termination provisions regardless of when it is executed.”).

107. See *id.* at 949 n.3 (1977).

108. Lionel Bently & Jane C. Ginsburg, *The Sole Right Shall Return to the Authors: Anglo-American Authors Reversion Rights from the Statute of Ann to Contemporary U.S. Copyright*, 25 BERKELEY TECH. L.J. 1475, 1561 (2010).

109. See generally *id.*

110. Nimmer, *supra* note 106, at 949.

111. *Id.* at 950.

registration and a right to renew for another twenty-eight year term.¹¹² If the author died during the first twenty-eight years, then the right to renew automatically reverted back to his heirs, even if the author had previously sold the renewal right with the work.¹¹³ Under § 24 of the 1909 Act, authors retained the right to renew the copyright even after selling their work, presuming they did not sell the renewal right along with the work.¹¹⁴ This regime created problems with authors holding producers of successful films hostage (as these films are classified as derivative works), although the extent to which this occurred is debatable.¹¹⁵ Indeed, some argue that authors were still disadvantaged under the reversionary right regime because although they could renegotiate “with the enhanced leverage of knowing the market valuation of the copyrighted work . . . [i]n practice, copyright renewal proved difficult and confusing due to unwieldy renewal formalities, which often led to works lapsing into the public domain.”¹¹⁶

The 1976 Act replaced reversion rights with termination rights to better capture the goals of copyright and to end the litigation caused by unclear reversion rights in the 1909 Act.¹¹⁷ Congress also added the termination rights to the 1976 Act to place authors in a more balanced position with publishers.¹¹⁸ These termination rights evolved out of the reversion rights of the 1909 Act.¹¹⁹ But unlike reversion rights, which could be waived or contracted away, termination rights are inalienable.¹²⁰ The Supreme Court noted that “the termination right was expressly intended to relieve authors of the consequences of ill-advised and

112. See generally Bently & Ginsburg, *supra* note 108.

113. See *id.*

114. See *id.*

115. See *id.*

116. See Adam R. Blankenheimer, Comment, *Of Rights and Men: The Re-Alienability of Termination of Transfer Rights in Penguin Group v. Steinbeck*, 24 BERKELEY TECH L.J. 321, 325 (2009) (citing Stephen W. Tropp, *It Had to Be Murder or Will Be Soon—17 U.S.C. § 203 Termination of Transfers: A Call for Legislative Reform*, 51 J. COPYRIGHT SOC'Y U.S.A. 797, 802 (2004) (“[T]he formalities associated with registration of the renewal term often led to forfeiture”).

117. See *id.* at 325–26; see also *infra* note 118.

118. H.R. REP. NO. 94-1476, at 124 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5740.

119. Howard B. Abrams, *Who's Sorry Now? Termination Rights and the Derivative Works Exception*, 62 U. DET. J. URB. L. 181, 209–11 (1985).

120. Or at least in theory inalienable, although some recent cases have evinced courts' hesitancy to limit freedom of contract. See Blankenheimer, *supra* note 116, at 322 (discussing the failures of the holding in *Penguin Group Inc. v. Steinbeck*, 537 F.3d 193, 204 (2d Cir. 2008)).

unremunerative grants that had been made before the author had a fair opportunity to appreciate the true value of his work product.”¹²¹

Congress implemented a single copyright term in the 1976 Act instead of the dual term of the previous regime. The term of protection for a natural author was extended to the author’s life plus fifty years, and the work for hire copyright term was extended to seventy-five years.¹²² With this extension, authors and their heirs could terminate copyright grants for works created before January 1, 1978 (the date the 1976 Act went into effect) during a five-year period after the fifty-sixth year of protection.¹²³ During the drafting process, Congress noted that the “extended term represents a completely new property right, and there are strong reasons for giving the author, who is the fundamental beneficiary of copyright under the Constitution, an opportunity to share in it.”¹²⁴ A second termination provision in § 203 gives authors and their heirs the ability to terminate copyright grants made after January 1, 1978 during a five-year period after the thirty-fifth year of protection.¹²⁵ In 1998, Congress passed the Sonny Bono Copyright Term Extension Act (“CTEA”), which further extended the term of protection for copyrights and granted a third termination provision.¹²⁶ It allows authors and heirs to terminate copyright grants that occurred before January 1, 1978 during the five years after the seventy-fifth year of protection.¹²⁷ However, all of the above termination rights explicitly exclude works made for hire.¹²⁸

If a pre-1976 Act work is not a work made for hire, then the author is eligible under the 1976 Act to exercise termination rights, even if the

121. *Mills Music, Inc. v. Snyder*, 469 U.S. 153, 172–73 (1985).

122. 17 U.S.C. § 304(d)(2). *See also* Blankenheimer, *supra* note 116, at 327.

123. 17 U.S.C. § 304(c)(3) (2012).

124. H.R. REP. NO. 94-1476, at 140 (1976).

125. 17 U.S.C. § 203(a) (2012).

126. *See* 17 U.S.C. § 304(b), (d) (2012).

127. *See* 17 U.S.C. § 304(d)(2) (2012).

128. 17 U.S.C. § 203(a) (2012) (“In the case of any work *other than a work made for hire*, the . . . grant of a transfer or license of copyright or of any right under a copyright, executed by the author on or after January 1, 1978, . . . is subject to termination under the following . . .”) (emphasis added); 17 U.S.C. § 304(c) (2012) (“In the case of any copyright subsisting in either its first or renewal term on January 1, 1978, *other than a copyright in a work made for hire*, the . . . grant of a transfer or license of the renewal copyright or any right under it, executed before January 1, 1978 . . .”) (emphasis added); 17 U.S.C. § 304(d) (2012) (“In the case of any copyright *other than a work made for hire*, subsisting in its renewal term on the effective date of the Sonny Bono Copyright Term Extension Act for which the termination right provided in subsection (c) has expired by such date . . .”) (emphasis added).

author had transferred his or her copyright interest to another party.¹²⁹ Termination rights allow an author or statutory successor the option to end an earlier assignment of the work by the author if they seek termination in the designated temporal window and comply with other statutory requirements.¹³⁰ Congress changed reversion rights to termination rights in the 1976 Act in an attempt to give authors more equal footing with publishers because creators were waiving or assigning away their reversion rights.¹³¹

II. *MARVEL CHARACTERS, INC. V. KIRBY*

Jack Kirby is a name known throughout the comic book world and popular culture. His iconic status made *Marvel* a high-profile case with a lot of emotionally charged, and at times distorted, media coverage.¹³² Working as a freelance artist for Marvel, Kirby created and worked on world-famous characters now worth billions of dollars. Some of these characters are part of billion-dollar movie franchises—Kirby worked on the Avengers, Spider-Man, Thor, Iron Man, and the X-Men, among other characters.¹³³ This case centers on the rights to 262 of Kirby's works published by Marvel between 1958 and 1963.¹³⁴ The rights are now worth much more money than they were in the 1960s due to the use of characters in these movie franchises.¹³⁵

129. See 17 U.S.C. § 304(c) (2012) (“In the case of any copyright subsisting in either its first or renewal term on January 1, 1978, *other than a copyright in a work made for hire . . .*”) (emphasis added).

130. See 17 U.S.C. §§ 203(a), 304(c)–(d) (2012).

131. See Murray, *Heroes-for-Hire*, *supra* note 76; Blankenheimer, *supra* note 116, at 321 (explaining the holding in *Fred Fisher Music Co. v. M. Witmark & Sons*, 318 U.S. 643, 656–59 (1943)).

132. See *Marvel Worldwide, Inc. v. Kirby (Marvel I)*, 777 F. Supp. 2d 720, 725 (S.D.N.Y. 2011) (citations omitted). Judge McMahon explained:

Contrary to recent press accounts and editorials, this case is not about whether Jack Kirby or Stan Lee is the real “creator” of Marvel characters, or whether Kirby (and other freelance artists who created culturally iconic comic book characters for Marvel and other publishers) were treated “fairly” by companies that grew rich off the fruit of their labor. It is about whether Kirby's work qualifies as work-for-hire under the Copyright Act of 1909, as interpreted by the courts, notably the United States Court of Appeals for the Second Circuit.

Id.

133. See Barnes & Cieply, *supra* note 29.

134. See *Marvel I* at 731; see also *Marvel Characters, Inc. v. Kirby (Marvel II)*, 726 F.3d 119, 127 (2d Cir. 2013).

135. See *supra* notes 26–29 and the accompanying text.

Kirby briefly created works for Timely Comics, the predecessor to Marvel, in 1939 or 1940.¹³⁶ Kirby left the company, but returned in 1958 and began drawing comics to submit to Marvel.¹³⁷ Stan Lee, another icon in the comic book world, was Marvel's editor at the time. As such, he "developed the ideas and stories for all of Marvel's comic books . . . he assigned artists to work on comic books, edited or changed their work, set deadlines . . . and . . . gave artists direction and guidance about the stories they were assigned to draw."¹³⁸

Even with the use of Lee's Marvel Method, the freelance artists still did not work "on speculation."¹³⁹ The artists only drew the pages, were "always constrained by Lee's plot outlines, and Lee retained the right to edit or alter their work, or to reject the pages altogether and not publish them."¹⁴⁰ Kirby worked as an independent contractor, was paid a flat fee by Marvel for each page, and never received any royalties.¹⁴¹ In 1972, Kirby and Marvel signed an agreement assigning any rights that Kirby "*may have or control*" to Marvel.¹⁴²

Kirby died in 1994, leaving behind four children.¹⁴³ In 2009, these four statutory successors sent termination notices to Marvel under § 304(c) of the 1976 Act, attempting to end their father's assignment of copyrights to Marvel in the 1958 to 1963 time period.¹⁴⁴ They presented the 1972 agreement between Kirby and Marvel as evidence that the works at issue were not created under the "work made for hire" meaning of the Copyright Act of 1909.¹⁴⁵ Marvel filed suit, seeking a declaratory judgment that the termination notices were invalid, and asserted that Kirby never owned the copyrights so he could not have assigned them away.¹⁴⁶ Marvel defended the 1972 agreement as simply a protective measure: the word "may" negated any implication of copyright held by

136. *See Marvel I* at 731.

137. *See id.* at 732.

138. *Id.* at 731.

139. *See Marvel II*, 726 F.3d 119, 141 (2d Cir. 2013) (explaining that "on speculation" means working on comic book pages before any creative direction was given by Lee, and not staying "within the scope of Marvel's assignments and titles"). For a detailed explanation of the Marvel Method, see *supra* Section I.A.

140. *Marvel I*, 777 F. Supp. 2d at 732.

141. *See id.* at 732, 742.

142. *Id.* at 734, 745.

143. *See id.* at 724.

144. *See Marvel II*, 726 F.3d at 127.

145. *See Marvel I*, 777 F. Supp. 2d at 736–37.

146. *See Marvel II*, 726 F.3d at 127.

Kirby.¹⁴⁷ Marvel further claimed that it has always owned the copyrights at issue because Kirby's drawings were "works made for hire" under the 1909 Act.¹⁴⁸ Kirby's children filed a motion for summary judgment, arguing that the termination notices were valid, effective, and that the rights to the works were now under their control.¹⁴⁹

The Southern District of New York granted summary judgment in favor of Marvel, finding that the two-pronged instance and expense test under the 1909 Act was satisfied.¹⁵⁰ The court acknowledged the problem of stale evidence and heavy reliance on Stan Lee's testimony, but noted that "many matters about which Lee testified are corroborated by testimony from other freelance artists and writers."¹⁵¹ The Kirby children appealed, but the Second Circuit affirmed the district court's judgment for Marvel.¹⁵² The Second Circuit found Stan Lee's involvement—including his Marvel Method and the fact that he allegedly had the ideas for most of the characters—determinative.¹⁵³ The Kirbys appealed again,¹⁵⁴ and had a writ of certiorari pending to the Supreme Court. But on September 26, 2014, the parties "amicably resolved their legal disputes" for an undisclosed settlement sum.¹⁵⁵ In late October 2014, Jack Kirby's name began appearing on comic books, now crediting him as a co-creator, along with Stan Lee.¹⁵⁶ This change is presumably one of the stipulations of the settlement agreement.

III. MAKING SENSE OF THE DOCTRINE

At the heart of this case is the questioned validity of the instance and expense test and the multiple tensions it has created: between Congress and the judiciary, between publishers and creators, and between precedent and policy. Its criticisms are valid, particularly when noting the power

147. See *Marvel I*, 777 F. Supp. 2d at 744–46.

148. See *Marvel II*, 726 F.3d at 127.

149. Memorandum of Law in Support of Defendants' Motion for Summary Judgment at 1, *Marvel Worldwide, Inc. v. Kirby*, 777 F. Supp. 2d 720 (S.D.N.Y. 2011).

150. See *Marvel I*, 777 F. Supp. 2d at 738–43.

151. *Id.* at 736.

152. *Marvel II*, 726 F.3d at 124.

153. See *id.* at 140–43. See also Murray, *Heroes-for-Hire*, *supra* note 76, at 430 n.144 (illustrating what Lee and Kirby did respectively for each work at issue).

154. Petition for Writ of Certiorari at 1, *Kirby v. Marvel Characters, Inc.* (U.S. Mar. 21, 2014) (No. 13-1178), 2014 WL 1275190, at *1.

155. Cavna, *supra* note 6.

156. See Kevin Melrose, *Marvel Titles Now Include Jack Kirby Creator Credit*, ROBOT 6 COMIC BOOK RESOURCES (Oct. 30, 2014, 6:55 AM), <http://robot6.comicbookresources.com/2014/10/marvel-titles-now-include-jack-kirby-credit>.

disparity between publishers and creators. Yet precedent and continued public access to works tilt in the instance and expense test's favor. Section III.A discusses the various criticisms levied at the test. Section III.B examines other comic book cases as possible precedent, and Section III.C proposes a statutory amendment that would retain the instance and expense test while simultaneously granting particular authors some monetary equality.

A. CRITICISM OF THE INSTANCE AND EXPENSE TEST

The Second Circuit's mistaken attribution, subsequent adoption, and continued application of the instance and expense test has been questioned. One such critic is the Supreme Court, who in *Community for Creative Non-Violence v. Reid* ("CCNV") criticized the test, finding it to be inherently overbroad.¹⁵⁷ In *CCNV*, a freelance artist, Reid, had created a statue for CCNV, a nonprofit organization.¹⁵⁸ Post-completion, the parties disagreed as to whether to take the statue on tour and how best to make repairs.¹⁵⁹ Both parties then filed competing copyright registration certificates, and litigation ensued to determine copyright ownership.¹⁶⁰ After various appeals, the Supreme Court granted certiorari to resolve a circuit split in the interpretation of the 1976 Act's work made for hire definition.¹⁶¹ The district court (among others) that decided *CCNV* had relied on the instance and expense test caselaw from the 1909 Act to resolve 1976 Act cases that came before it.¹⁶² The Supreme Court rejected this reliance on the instance and expense caselaw, instead using agency law principles to determine whether a work is a work made for hire.¹⁶³ The Court, using statutory interpretation, held that Congress intended for the definitions in the 1976 Act to "be understood in light of the general common law of agency."¹⁶⁴ It criticized the instance and expense test (referred to in the opinion as the "actual control" test, or the "right to direct and supervise" test, which stemmed from *Aldon Accessories Ltd. v. Spiegel, Inc.*¹⁶⁵, a case decided under the 1976 Act) as too broad by its own terms.¹⁶⁶ Justice Marshall, writing for a unanimous Court, explained that

157. *Comm. for Creative Non-Violence v. Reid*, 490 U.S. 730, 741–42 (1989).

158. *See id.* at 730.

159. *See id.* at 735.

160. *See id.*

161. *See id.* at 736.

162. *See id.* at 735, 741.

163. *See id.* at 750–51.

164. *See id.* at 740–41.

165. 738 F.2d 548 (2d Cir. 1984).

166. *See CCNV*, 490 U.S. at 748–50.

“hiring parties . . . [can] unilaterally obtain work-made-for-hire rights . . . as long as they directed or supervised the work, a standard that is hard not to meet when one is a hiring party.”¹⁶⁷

Two of the leading copyright treatises have also noted the misattribution of the instance and expense test from *Brattleboro* and found *CCNV* to be the correct interpretation of the 1909 Act’s work made for hire test.¹⁶⁸ They have questioned the validity and expansion of the instance and expense test, with Nimmer going so far as to argue that the instance and expense test was effectively overruled by *CCNV*.¹⁶⁹ However, subsequent decisions by circuit courts have rejected these interpretations of *CCNV* as non-binding, continuing instead to use the instance and expense test.¹⁷⁰ The Second Circuit (where *Marvel* was decided) has been particularly resistant to follow *CCNV*, explaining that:

CCNV was not concerned with the status of commissioned works under the 1909 Act. The language that mentions such works is a brief historical account . . . because we agree with Judge Gee’s observation in *Easter Seal Society* that any distinction in the case law under the 1909 Act between employees and independent contractors ‘was erased long before the 1976 Act’s arrival,’ we conclude that the historical review in *CCNV*, if dictum at all, is dictum of a weak variety, and not grounds to relieve us from our obligation to follow *Picture Music* and *Playboy*.¹⁷¹

So, too, is the Ninth Circuit dismissive of *CCNV*, claiming that because “[n]o part of [*CCNV*]’s decision rests on the meaning of the work-for-hire provision in the 1909 Act . . . its commentary [is] non-binding dicta.”¹⁷²

The Nimmer treatise also disagrees with the outcome of *Marvel* for a variety of reasons. Nimmer appears to disagree with the continued use of the instance and expense test generally after *CCNV*.¹⁷³ He also criticizes

167. *Id.* at 750.

168. See 3 NIMMER & NIMMER, *supra* note 7, §§ 9.03[D], 9.28.2–9.28.3. (“wrong both on principle and under the rule of the early cases”); 2 WILLIAM PATRY, PATRY ON COPYRIGHT § 5.45 (“worst features of [the] presumptive ‘instance and expense’ approach”).

169. See NIMMER & NIMMER, *supra* note 7, 168§§ 9.32–9.34.

170. See *Twentieth Century Fox Film Corp. v. Entm’t Distrib.*, 429 F.3d 869, 878 (9th Cir. 2005); *Estate of Hogarth v. Burroughs, Inc.*, 342 F.3d 149, 162–63 (2d Cir. 2003).

171. *Hogarth*, 342 F.3d at 162–63.

172. *Twentieth Century Fox*, 429 F.3d at 878.

173. See Nimmer, *supra* note 106.

the Second Circuit's application of the instance and expense test in *Marvel*.¹⁷⁴ Nimmer agrees with the Second Circuit that the "instance" prong is satisfied when the employer is the primary motivating factor behind the work's creation,¹⁷⁵ but the "expense" prong is where the Second Circuit and Nimmer differ. Nimmer contends that:

Plainly, it is the expense of *creation*, rather than publication, that is relevant . . . for if funding publication could convert a manuscript into a work made for hire, then the category would soon subsume all published material—given the universal custom of publishers to fund printing, distribution, advertising, etc.¹⁷⁶

However, the Second Circuit found the expense of publication determinative in *Marvel*.¹⁷⁷ The court held that the expense prong was satisfied because although both parties took on risks, "Marvel's payment of a flat rate and its contribution of both creative and production value . . . is enough to satisfy the expense requirement."¹⁷⁸ The court quickly dismissed the fact that Kirby paid for the tools he used to create the work.¹⁷⁹ Even though Kirby had "undertaken all of the costs of producing the drawings," the Second Circuit found that the drawings were not free-standing, and instead "built on . . . titles and themes that Marvel had expended resources to establish—and in which Marvel held rights—and they required both creative contributions and production work that Marvel supplied."¹⁸⁰ The court found the payment scheme, in which Kirby was never paid royalties and instead was paid a certain sum every time he submitted a work (even if ultimately unpublished), to be determinative.¹⁸¹ This reasoning follows the precedent from *Playboy Enterprises v. Dumas*,¹⁸² where a freelance artist was paid a flat sum for each of his works published in *Playboy* magazine; the Second Circuit found that arrangement sufficient to meet the "expense" prong of the test.¹⁸³ The court noted that "[conversely,] where

174. See 1 NIMMER & NIMMER, *supra* note 7, § 5.03 n.171c.

175. See *id.*

176. *Id.* (emphasis added).

177. See *Marvel Characters, Inc. v. Kirby (Marvel II)*, 726 F.3d 119, 142–143 (2d Cir. 2013).

178. *Id.* at 143.

179. *Id.*

180. *Id.* at 142–43.

181. *Id.* at 143.

182. *Playboy Enters., Inc. v. Dumas*, 53 F.3d 549 (2d Cir. 1995).

183. See *id.* at 555.

the creator of a work receives royalties as payment, that method of payment generally weighs against finding a work-for-hire relationship.”¹⁸⁴

B. COMIC BOOK PRECEDENT

Perhaps part of the Second Circuit’s ruling was influenced by prior comic book cases, which almost unanimously found in favor of comic book publishers with regard to works made for hire. These cases are also worth examining because they have similar fact patterns to *Marvel* and are also governed by the 1909 Act and 1976 Act.

One of the Second Circuit’s first encounters with the comic book industry was in *Siegel v. National Periodical Publications, Inc.*¹⁸⁵ *Siegel* involved the universally known character Superman, created by Jerome Siegel and Joseph Shuster.¹⁸⁶ At issue were Superman works from the years 1938 to 1943.¹⁸⁷ In 1938, Warner Brothers, after seeing the Superman comics in a newspaper, contracted with Siegel and Shuster and directed them to “expand and reformat their material” for Warner Brothers.¹⁸⁸ In 1969, Siegel and Shuster sued when the initial copyright term was expiring, claiming they owned the renewal right.¹⁸⁹ A court found otherwise, holding that a previous agreement they signed in 1938 had validly assigned away their renewal right.¹⁹⁰ Litigation began again in 1997 when Siegel’s surviving family and Shuster’s surviving nephew sent termination notices to DC Comics.¹⁹¹ The parties tried to settle but could not agree to terms to regrant the Superman license; the Siegels filed suit.¹⁹²

The Central District of California essentially divided the rights to different Superman works.¹⁹³ The court found that the Siegel family could reclaim particular Superman comics as well as the initial two weeks’ work

184. *Id.*

185. *Siegel v. Nat’l Periodical Publ’ns, Inc.*, 508 F.2d 909 (2d Cir. 1974). This litigation has stretched into recent years despite its inception in the 1970s. *See Siegel v. Warner Bros. Entm’t Inc.*, 690 F. Supp. 2d 1048 (C.D. Cal. 2009); *Siegel v. Warner Bros. Entm’t Inc.*, 658 F. Supp. 2d 1036 (C.D. Cal. 2009); *Siegel v. Time Warner, Inc.*, 496 F. Supp. 2d 1111 (C.D. Cal. 2007).

186. *Siegel*, 508 F.2d at 910.

187. *Siegel*, 658 F. Supp. 2d at 1042.

188. Anthony Cheng, *Lex Luthor Wins: How the Termination Right Threatens to Tear the Man of Steel in Two*, 34 COLUM. J.L. & ARTS 261, 271 (2011).

189. *See id.* at 273.

190. *See Siegel v. Nat’l Periodical Publ’ns, Inc.*, 364 F. Supp. 1032, 1036–37 (S.D.N.Y. 1973), *aff’d by*, 508 F.2d 909 (2d Cir. 1974).

191. *See Siegel v. Warner Bros. Entm’t Inc.*, 542 F. Supp. 2d 1098, 1114 (C.D. Cal. 2008).

192. *See id.* at 1116.

193. *See Siegel*, 658 F. Supp. 2d at 1095.

of comic strips that Siegel and Shuster had created prior to their employment with DC Comics.¹⁹⁴ However, DC Comics retained the rights to the works made from 1938 to 1943 because they were works made for hire.¹⁹⁵

Marvel itself is no newcomer to battles over rights to comic book characters, and has not won every battle.¹⁹⁶ Marvel purchased the rights to Captain America from his creator Joe Simon in 1940 for a “fixed page rate plus a twenty-five percent share of the profits of the comic books.”¹⁹⁷ Unlike Kirby in *Marvel*, Simon had unquestionably created Captain America prior to his employment with Timely, meaning the analysis could not use the instance and expense framework.¹⁹⁸ Simon then verbally assigned his interest in Captain America to Marvel.¹⁹⁹ In 1967, Simon sued Timely and its owners seeking a declaratory judgment that he held the copyright to the Captain America character and stories.²⁰⁰ In 1969, the parties reached a settlement agreement wherein Simon assigned away all of his rights and stated that his contribution to Captain America was a work made for hire.²⁰¹ In 1999, Simon served termination notices on Marvel, seeking to reclaim his copyrights; Marvel then filed for a declaratory judgment that the termination notices were invalid.²⁰² The Second Circuit found that the 1969 settlement agreement constituted an “agreement to the contrary” under § 304(c)(5) of the 1976 Act, so Simon was not bound by the agreement.²⁰³ Further, because the settlement agreement had occurred nearly a decade prior to when termination rights were promulgated under the 1976 Act, a jury would have to decide if Simon was entitled to exercise his rights.²⁰⁴ The court thus held that the ex post work made for hire settlement agreement did not bar Simon from exercising termination provisions to recapture his rights to Captain

194. *See id.*

195. *See id.* at 1036, 1075. Though outside the scope of this Note, the fragmentation of the Superman character was of great concern to comic book fans, and similar concerns were raised about the characters at issue in this case, had Kirby’s children successfully terminated rights.

196. *See, e.g., Marvel Characters v. Simon*, 310 F.3d 280, 282 (2d Cir. 2002).

197. *Id.*

198. *See id.* at 282.

199. *See id.* At the time, Marvel was doing business as Timely Comics.

200. *See id.* at 283.

201. *See id.* at 283–84.

202. *See id.* at 285.

203. *See id.* at 290–92.

204. *See id.* at 292 (“It will be up to a jury to determine whether Simon was the author of the Works and, therefore, whether he can exercise § 304(c)’s termination right.”).

America.²⁰⁵ Simon and Marvel then promptly settled, with Simon again granting all of his rights to Captain America to Marvel.²⁰⁶

Similarly, in *Archie Comic Publications, Inc. v. DeCarlo*, comic book artist Daniel DeCarlo performed freelance work for Archie Comic Publications in the 1950s and filed suit in 2000, seeking declaratory judgment to establish his ownership rights.²⁰⁷ Archie Comic Publications disagreed, claiming that his contributions were works for hire under the 1909 Act—therefore, he had no rights.²⁰⁸ The comic at issue was the well-known Sabrina the Teenage Witch series.²⁰⁹ As in *Marvel*, the Sabrina works had been transformed into wildly successful television shows and movies, and the decades-long time lapse between when the works were created and when the suit was filed resulted in a stale evidence problem.²¹⁰ Further parallels include facts in the record that Richard Goldwater, a co-owner at Archie Comic Publications, came up with the ideas for the characters and stories, much like Stan Lee and the Marvel Method.²¹¹ DeCarlo, like Kirby, also never received royalties.²¹² The court found that because Archie Comic Publications “retained editorial and stylistic control over anything submitted” and that DeCarlo received payment for each assignment, Archie Comic Publications satisfied the instance and expense test.²¹³ Therefore, as in *Marvel*, Archie Comic Publications retained ownership over the works.²¹⁴

These other comic book cases seem to inform the outcome of *Marvel*. As unfortunate and unfair as it may be for creators, these cases have created precedent for comic book publishers and illustrators alike that would have been upended had *Marvel* been decided differently. The consistent application of the instance and expense test to comic book works under the 1909 Act, regardless of its fairness to creators, seemingly all but foreclosed an alternate outcome for *Marvel* due to the Second Circuit’s continued use of the instance and expense test.

205. *See id.*

206. Bloomberg News, *Dispute Over Captain America Is Settled*, N.Y. TIMES (Sept. 30, 2003), <http://www.nytimes.com/2003/09/30/business/media/30MARV.html>.

207. *Archie Comic Publ’ns, Inc. v. DeCarlo*, 258 F. Supp. 2d 315 (S.D.N.Y. 2003).

208. *See id.* at 328.

209. *See id.* at 328–34.

210. *See id.* at 320–22.

211. *See id.* at 320.

212. *See id.* at 322, 325.

213. *See id.* at 328.

214. *See id.* at 315.

C. POSSIBLE CHANGES: THRESHOLD ROYALTIES

Theory, policy, and precedent tilt the scales heavily in favor of publishers retaining the rights in work made for hire situations. However, an outcome that leaves creators and their statutory successors with absolutely nothing does raise fundamental issues of economic equity and fairness, particularly in the case of ex post runaway successes. Even if Kirby's works were definitively works made for hire and there was no argument about the legitimacy of the instance and expense test, who could have predicted at the time of creation that fifty years later Marvel would so massively profit from them? Although the instance and expense test seems appropriate as a matter of dynamic efficiency when looking forward from the time of creation of a work, in hindsight the wild success of Kirby's works makes the test's outcome seem massively unjust. It is therefore desirable to seek some middle ground to even the playing field for creators, without forcing them to instigate costly uncertain litigation to reclaim disputed rights or receive monetary benefits. One might speculate that the Kirby children likely received a hefty settlement sum; even if so, however, they still had to endure nearly five years of litigation (and the costs therein) to obtain it. Settlement agreements are simply too inefficient and too uncertain for creators or statutory successors to rely upon as a mechanism of fair compensation.

One possible means of achieving a more equitable outcome in situations like Kirby's would be to supplement the common-law instance and expense test with an unwaivable statutory threshold to trigger royalty payments that could operate with the benefit of hindsight. More specifically, if a creator or statutory successor governed by the 1909 Act could demonstrate that his work made for hire creation generated profits for the publisher exceeding a predetermined threshold floor (established by statute, e.g. \$2 million, adjusted for inflation), then the publisher must pay some small pre-established percentage of the profit over this floor. The pre-established percentage would be small, likely below two percent, to discourage publishers from engaging in questionable accounting practices. Because the payout would be relatively insignificant to the publishers, the burden of engaging in deceptive "Hollywood accounting" would outweigh the payment. To better protect all creators, this statutory royalty would be an entirely distinct separate right. If applied to the case at hand, Kirby's successors could have presented evidence of his contributions to some of Marvel's characters and demonstrated that the characters each individually generated profits surpassing the threshold, thus entitling them to the pre-established profit percentage.

Realistically, there will certainly be practical limitations to implementing such a solution. For one, it is unlikely as a political matter that Congress would address this imbalance in the future since this problem is confined to the 1909 Act. Second, the solution is difficult to implement and evaluate: for example, should the profits from each individual work the individual works (e.g., a comic book) be required to surpass the statutory threshold, or should the profits from all works containing a given character be aggregated? It would be hard to demonstrate that a single comic book cover standing alone—even if it was the first appearance of a now-popular character—is inextricably linked to today's profits. Thus, such a statutory solution would undoubtedly create more line-drawing problems, much like the instance and expense test. Moreover, evaluation of the amount a particular creator's work contributed to a character would require case-by-case analysis and yet more arbitrary line drawing, again similarly to the instance and expense test. For example, Kirby worked on some characters' first comic book appearances with varying degrees of influence. Stan Lee deemed Kirby's drawing of Spiderman to be too muscular and went with Stan Ditko's rendering instead, but Kirby later drew the cover for Spiderman's first issue following Ditko's Spiderman style.²¹⁵ A factfinder would be hard pressed to apportion credit accurately in this instance.

Finally, one of the biggest hurdles would be ensuring that creators are not prevented from demonstrating achievement of a statutory profit threshold in the face of infamous Hollywood accounting practices that understate profits.²¹⁶ Indeed, this fairly common Hollywood practice²¹⁷ routinely circumvents analogous profit-threshold bonuses for actors, raising the possibility that similar tactics could be used in the comic book industry, particularly in light of purchases of comic book properties by large movie studios. However, it is unclear how ominous or realistic this threat is for two reasons. First, if the royalty percentage is minimal (1 to 2 percent), then it may not be worthwhile for publishers to engage in deceptive accounting practices when the potential payout is so little.

215. See, e.g., ROY THOMAS, *ALTER EGO, THE COMIC BOOK ARTIST COLLECTION* 56 (2001).

216. For an explanation of how filmmakers are shortchanged by this practice (and so it would likely extend to this proposed amendment), see Mike Masnick, *Hollywood Accounting: How A \$19 Million Movie Makes \$150 Million... And Still Isn't Profitable*, TECHDIRT (Oct. 19, 2012, 8:44 AM), <https://www.techdirt.com/articles/20121018/01054720744/hollywood-accounting-how-19-million-movie-makes-150-million-stil-isnt-profitable.shtml>.

217. See *id.*

Second, the music industry has audit rights in place for artists whose works are being licensed or monetized that are aimed squarely at preventing this type of problem.²¹⁸ A similar audit right for creators could remedy this concern here.

Notwithstanding potential administrability issues, both equity and general copyright principles would support this proposal. It could prevent chilling on the publishers' side, since they would have notice of this buy-out clause and its possible required payments in the future. This solution is fairer to creators because even if there is unequal bargaining power at the outset, this disparity does not govern the entirety of compensation for the work. Instead, the creators get a second chance at reassessment later if the work turns out to be immensely profitable. Conversely, although the publishers face the possible threat of a future royalty payment, they do gain the certainty of being able to commercially exploit the work without fear of losing any ownership rights, since the right is limited to possible royalties and not nearly as ambitious as that of the 1976 Act's termination or reversion rights. Because the rights would therefore remain with the publisher without being prohibitively expensive, this solution would also promote copyright's goal of ensuring broad access to the public.

IV. CONCLUSION

The long-standing struggle to strike a balance between protecting publishers' settled expectations and fairly remunerating artists and their heirs continues. While the original legal basis for the instance and expense test is not without some question, as Nimmer and others have shown, the doctrine has helped to achieve copyright's primary goal of benefitting the public by making creative works broadly available. The test's benefits of increased efficiency and broader access to works, particularly when applied to works with multiple contributors, like comic books, underscores its ability to resolve small-scale anticommons problems. Further, its consistent application to comic book cases sets a strong precedential presumption that has settled expectations. A different approach could result in fragmentation of the characters and create a general chilling effect on the entertainment industry. There remain, however, serious questions as to whether the doctrine fully comports with legislative provisions and policies supporting reclaiming of rights by authors and their statutory

218. Lon Sorensen, *California's Recording Industry Accounting Practices Act, SB 1034: New Auditing Rights for Artists*, 20 BERKELEY TECH. L.J. 933 (2005).

successors. Nevertheless, resolution of that question by the Supreme Court or Congress will have to wait. For now, at least, the X-Men, Avengers, and the rest of the Marvel universe will continue their epic battles solely on the big screen.

PETRELLA V. METRO-GOLDWYN-MAYER, INC.:
IS EQUITY IN COPYRIGHT LAW
DOWN FOR THE COUNT?

Jordyn Ostroff[†]

Raging Bull, a 1980 film depicting the rise and fall of Italian-American middleweight boxer Jake LaMotta, is considered by many to be an icon of American film. Directed by Martin Scorsese and starring Robert DeNiro, the film chronicles LaMotta's grueling climb to the national boxing championship, and the jealous, self-destructive rages that ultimately destroyed him.¹ The film appears on nearly every list of the "best" films, including film critic Roger Ebert's "Ten Greatest Films of All Time," *TIME Magazine's* "All-Time 100 Movies," and the American Film Institute's "100 Greatest American Movies of All Time," to name just a few.² Although the film earned eight Oscar nominations, it initially underperformed at the box office.³ However, Metro-Goldwyn-Mayer, Inc. ("MGM") continued to make the film available in various formats, and it eventually earned a substantial profit.⁴ In 2009, twenty-nine years after the initial release of *Raging Bull*, the daughter of the author of the film's screenplay sued the film studio for copyright infringement.⁵ Her suit was timely filed within the Copyright Act of 1976's ("Copyright Act") three-year statute of limitations, since she sought relief only for MGM's

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1. RAGING BULL (Metro-Goldwyn-Mayer, Inc. 1980).

2. See, e.g., Roger Ebert, *Ten Greatest Films of All Time*, ROGER EBERT'S JOURNAL (Apr. 1, 1991), <http://www.rogerebert.com/rogers-journal/ten-greatest-films-of-all-time>; Richard Corliss & Richard Schickel, *ALL-TIME 100 Movies*, TIME MAG. (last visited Dec. 22, 2014), <http://web.archive.org/web/20110628234513/http://www.time.com/time/specials/packages/completelist/0,29569,1953094,00.html>; *AFI's 100 Greatest American Movies of All Time*, AM. FILM INST. (last visited Dec. 22, 2014), <http://www.afi.com/100years/movies.aspx>.

3. Vincent Canby, *Raging Bull (1980)*, N.Y. TIMES (last visited Dec. 22, 2014), <http://www.nytimes.com/movies/movie/40104/Raging-Bull/overview>.

4. *Petrella v. Metro-Goldwyn-Mayer, Inc. (Petrella II)*, 134 S. Ct. 1962, 1970 (2014); see *Raging Bull*, BOX OFFICE MOJO, <http://boxofficemojo.com/movies/?id=ragingbull.htm> (last visited Dec. 22, 2014).

5. *Petrella II*, 134 S. Ct. at 1971.

allegedly infringing conduct that occurred within the three years prior to her suit.⁶ Her lawsuit eventually found its way to the Supreme Court, via the Ninth Circuit.

In *Petrella v. Metro-Goldwyn-Mayer, Inc.*, the Supreme Court held that the equitable defense of laches is not available to defendants in copyright infringement suits for legal relief brought within the Copyright Act's three-year statute of limitations.⁷ The Court also found that "extraordinary circumstances" surrounding a delayed suit might warrant, at the very outset of the litigation, curtailment of the equitable relief that might be awardable.⁸ However, the consequences of the delayed suit in *Petrella* did not warrant such curtailment.⁹ The Court thus overturned the Ninth Circuit's decision in the case, settling a complex circuit split over the application of laches to preclude adjudication of copyright claims brought within the Copyright Act's limitations period.¹⁰ By overturning the Ninth Circuit's decision with such a broad rule, the Court significantly restricted a tool long wielded by the judicial branch that, even if rarely employed, played a crucial role in "bring[ing] about a fair result" in "a regime based upon statutes of limitations."¹¹

Laches is "[a]n equitable doctrine by which some courts deny relief to a claimant who has unreasonably delayed or been negligent in asserting a claim."¹² The doctrine works to ensure that stale claims can eventually be laid to rest; that litigation can be decided on credible, available evidence; and that potential defendants are not unfairly prejudiced by plaintiffs' delays in bringing suits.¹³ Laches and statutes of limitations thus have similar underlying rationales.¹⁴ However, laches is an equitable defense, and its application to bar a lawsuit is flexible and fact specific.¹⁵ Statutes of limitations, on the other hand, are legal in nature and function more rigidly to bar a lawsuit brought after a period of time fixed by statute.¹⁶

6. *Id.* at 1967–68.

7. *Id.* at 1967–68, 1978.

8. *Id.* at 1977.

9. *Id.* at 1978.

10. *Id.* at 1979; *see infra* notes 43–48.

11. *Petrella II*, 134 S. Ct. at 1985–86 (Breyer, J., dissenting).

12. BLACK'S LAW DICTIONARY 659 (10th ed. 2014).

13. 6 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 20:54 (West 2014) (citing *Envtl. Def. Fund, Inc. v. Alexander*, 614 F.2d 474, 481 (5th Cir. 1980)).

14. *Id.*

15. *Id.*

16. *Id.*

In Part I, this Note explores the evolution of laches in copyright law. Part II discusses the Supreme Court's *Petrella* decision in more detail. In Part III, this Note contends that the Court's decision weakened an important safeguard of fairness in copyright infringement suits, which will likely result in a chilling effect in creative industries and new uncertainty for potential defendants as the door opens for plaintiffs to bring belated copyright lawsuits. Part IV examines the implications of the *Petrella* decision for areas of intellectual property law other than copyright. Part V explores some mitigating factors that may soften the impact of the Court's decision. Part VI concludes by observing that the Court would have better served the policies underlying U.S. intellectual property law by coming to a narrower decision.

I. THE EVOLUTION OF LACHES IN COPYRIGHT LAW

Intellectual property law, including copyright law, has a “mixed heritage.”¹⁷ Congress has passed detailed statutes governing this area, but the judiciary has historically played a central role in clarifying the statutory language via a continuously evolving common law.¹⁸ The origins of copyright law in particular are rooted in the common law.¹⁹ Some have argued that the judiciary has a special responsibility to review copyright cases actively in light of the ambiguity of the Copyright Act enacted by Congress.²⁰ Even in the face of an increasingly detailed Copyright Act, copyright law continues to be heavily shaped by judicial decisions that are not necessarily strictly anchored to the text of the statutes.²¹ As the copyright term has grown longer, courts have found ways to limit copyright law, and in certain cases to deny protection entirely, via judicially created doctrines.²²

17. Peter S. Menell, *The Mixed Heritage of Federal Intellectual Property Law and Ramifications for Statutory Interpretation*, in INTELLECTUAL PROPERTY AND THE COMMON LAW 63 (Shyamkrishna Balganesh, ed. 2013).

18. *See id.* at 63; *see also* Shyamkrishna Balganesh, *The Pragmatic Incrementalism of Common Law Intellectual Property*, 63 VAND. L. REV. 1543 (2010).

19. Balganesh, *supra* note 18, at 1562.

20. *See, e.g.*, PATRY, *supra* note 13, at § 2:8; Balganesh, *supra* note 18, at 1545 (observing that each common law regime in intellectual property law is “tailored to the specific circumstances under which protection is deemed necessary. Unlike the one-size-fits-all federal copyright and patent statutes, these regimes allow courts to adopt a far more nuanced approach to intellectual property protection.”).

21. Menell, *supra* note 17, at 73.

22. *See id.* at 68–69; Balganesh, *supra* note 18, at 1545 ([T]he common law method . . . develops the law incrementally . . . allowing future courts to extend, limit, or at times altogether deny protection when circumstance and context change.”).

Laches, with long roots in courts of equity, is one such judicially created doctrine.²³ In 1893 the Supreme Court observed, “Courts of equity, it has often been said, will not assist one who has slept upon his rights, and shows no excuse for his laches in asserting them.”²⁴ Thus, laches is an affirmative defense invoked when the plaintiff’s unreasonable delay in bringing a civil suit prejudices the defendant, either by compromising the defendant’s ability to defend against the suit or due to the defendant’s reliance on the expectation that the plaintiff would not bring suit since she had not yet done so.²⁵ The defense predates statutes of limitations, allowing courts of equity to deny relief if a plaintiff unreasonably and unfairly delayed bringing an otherwise colorable claim.²⁶ As statutes of limitations began to populate the legislative landscape, laches continued to be a common defense in equity in the United States.²⁷ When the Federal Rules of Civil Procedure merged law and equity in 1938,²⁸ laches remained a popular defense in civil cases, albeit one more commonly invoked against equitable claims.²⁹ Equitable defenses like laches give courts “recourse to principles of justice to correct or supplement the law as applied to particular circumstances[,]” allowing judges some discretion alongside the literal application of statutory laws.³⁰

The use of laches to defend against claims of copyright infringement predates Congress’s enactment of the Copyright Act’s statute of limitations in 1957.³¹ Prior to 1957, federal courts relied on states’ limitations statutes and sometimes allowed laches to limit those periods.³² However, not all states had copyright statutes, and so federal courts had to choose which state limitations provision to apply to copyright claims.³³ This resulted in disparate limitations periods—ranging from one to ten

23. PATRY, *supra* note 13, at § 20:54.

24. *Lane & Bodley Co. v. Locke*, 150 U.S. 193, 201 (1893).

25. PATRY, *supra* note 13, at § 20:54.

26. Jason R. Swartz, *When the Door Closes Early: Laches as an Affirmative Defense to Claims of Copyright Infringement*, 76 U. CIN. L. REV. 1457, 1459 (2008).

27. *Id.*

28. FED. R. CIV. P. 2 (“There shall be one form of action to be known as the ‘civil action.’”).

29. Swartz, *supra* note 26, at 1459; *see Petrella II*, 134 S. Ct. 1962, 1985 (2014) (Breyer, J., dissenting) (“A federal civil action is subject to both equitable and legal defenses.”). *But see* *Holmberg v. Armbrrecht*, 327 U.S. 392, 395 (1946) (noting that in actions at law, “[i]f Congress explicitly puts a limit upon the time for enforcing a right which it created, there is an end of the matter”).

30. BLACK’S LAW DICTIONARY, *supra* note 12, at 656.

31. *Petrella II*, 134 S. Ct. at 1968.

32. *Id.*

33. PATRY, *supra* note 13, at § 20:11.

years—from state to state, and even within the same district.³⁴ This lack of national uniformity led to forum shopping as plaintiffs chose the state with the longest available limitations period.³⁵ To resolve the limitations-period disparity, Congress enacted the Copyright Act's statute of limitations.³⁶ The federal limitations period is codified, as amended, in § 507(b) of the Copyright Act.³⁷

The Copyright Act is silent on the application of equitable doctrines, including laches.³⁸ During hearings prior to the enactment of § 507(b) Congress did consider explicitly addressing the application of equitable doctrines to the limitations period.³⁹ But ultimately, Congress chose not to address the issue because it expected that the “[f]ederal district courts, generally, would recognize these equitable defenses anyway.”⁴⁰

Although “laches has an illustrious pedigree across the circuits as a defense to a charge of copyright infringement”⁴¹ and has been applied to bar suits brought within the statute of limitations, the federal circuit courts’ interpretation of the Copyright Act’s silence varied widely.⁴² The Fourth Circuit entirely rejected laches as an affirmative defense in copyright infringement suits, finding the juxtaposition of the judicially created doctrine with the legislative act incompatible with the principle of separation of powers.⁴³ The Tenth Circuit allowed laches in copyright cases but limited the defense’s application to “rare cases,” out of deference to the Copyright Act’s three-year statute of limitations.⁴⁴ Similarly, the Sixth Circuit allowed laches in copyright cases, but only in “unusual cases” in which the relief sought would work “*unjust hardship*” on third parties or defendants.⁴⁵ The Sixth Circuit modeled its approach after the Seventh

34. *Id.*

35. *See id.*

36. *Id.* at § 20:12.

37. 17 U.S.C. § 507(b) (2012) (“No civil action shall be maintained under the provisions of this title unless it is commenced within three years after the claim accrued.”).

38. *Petrella II*, 134 S. Ct. 1962, 1982 (2014) (Breyer, J., dissenting).

39. S. REP. NO. 1014, at 3 (1957) (quoting the House Judiciary Committee); *see* PATRY, *supra* note 13, at § 20:12.

40. *Id.*

41. MELVILLE B. NIMMER, NIMMER ON COPYRIGHT § 12.06(A) (Matthew Bender ed. 2014). For a more detailed discussion of the different circuits’ approaches to laches in copyright suits, *see id.*

42. PATRY, *supra* note 13, at § 20.55 n.1 (“There [were] a healthy number of opinions applying laches within the limitations period.”).

43. *Lyons P’ship L.P. v. Morris Costumes, Inc.*, 243 F.3d 789, 798 (4th Cir. 2001).

44. *Jacobsen v. Deseret Book Co.*, 287 F.3d 936, 951 (10th Cir. 2002).

45. *Chirco v. Crosswinds Cmtys., Inc.*, 474 F.3d 227, 236 (6th Cir. 2007).

Circuit's approach to laches, which also allowed laches in actions for both legal and equitable relief (both in the copyright context and more generally).⁴⁶ The Second and Ninth Circuits also allowed laches to bar copyright cases. The Second Circuit had an open approach to laches, allowing the defense since an oft-cited 1916 district court opinion by Judge Learned Hand articulated the inequity inherent in unreasonably delayed suits.⁴⁷ The Ninth Circuit's approach to laches was "the most lenient" for defendants invoking the defense, allowing laches to bar both past and future claims,⁴⁸ and requiring a defendant claiming laches to meet only a very low evidentiary threshold.⁴⁹

The Ninth Circuit discussed its "lenient" standard extensively in 2001 in *Danjaq LLC v. Sony Corp.*⁵⁰ *Danjaq* articulated three elements a defendant had to show to successfully invoke a laches defense. The first element was delay, measured from when the plaintiff knew or should have

46. NIMMER, *supra* note 41, at § 12.06(A) ("[The Sixth Circuit] decided to follow the Seventh Circuit's lead from outside the copyright context: 'just as various tolling doctrines can be used to lengthen the period for suit specified in a statute of limitations, so laches can be used to contract it.'" (quoting *Teamsters & Emp'rs Welfare Trust of Ill. v. Gorman Bros. Ready Mix*, 283 F.3d 877, 881 (7th Cir. 2002))). The Seventh Circuit held in *Gorman* that the defense of laches could be argued "regardless of whether the suit is at law or in equity, because, as with many equitable defenses, the defense of laches is equally available in suits at law." *Gorman*, 283 F.3d at 881.

47. NIMMER, *supra* note 41, at § 12.06(A). In *Haas v. Leo Feist*, Judge Hand explained,

It must be obvious to every one familiar with equitable principles that it is inequitable for the owner of a copyright, with full notice of an intended infringement, to stand inactive while the proposed infringer spends large sums of money in its exploitation, and to intervene only when his speculation has proved a success. Delay under such circumstances allows the owner to speculate without risk with the other's money; he cannot possibly lose, and he may win.

Haas v. Leo Feist, 234 F. 105, 108 (S.D.N.Y. 1916). More recently, a district court in the Second Circuit "declined 'to hold that laches can *never* be a bar to a copyright infringement claim for damages filed within the Act's three-year limitations period.'" NIMMER, *supra* note 41, at § 12.06(A) (quoting *Lego A/S v. Best-Lock Constr. Toys*, 874 F. Supp. 2d 75, 92 (D. Conn. 2012)).

48. Swartz, *supra* note 26, at 1465–67.

49. *Petrella v. Metro-Goldwyn-Mayer, Inc. (Petrella I)*, 695 F.3d 946, 959 (9th Cir. 2012) (Fletcher, J., concurring) (noting that the defendant does not have to prove the plaintiff had actual knowledge of the defendant's infringement, only that the plaintiff "should have known"); see Robert Zitnik, *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 695 F.3d 946 (9th Cir. 2012), 24 DEPAUL J. ART, TECH. & INTELL. PROP. L. 505, 516 (2014).

50. *Danjaq LLC v. Sony Corp.*, 263 F.3d 942 (9th Cir. 2001).

known of the alleged infringement.⁵¹ The second element required that the delay be unreasonable, which was determined by looking to the cause of the delay.⁵² Acceptable reasons for delay included exhausting the administrative process for relief and determining if the costs of bringing suit were justified by the alleged infringement.⁵³ Unacceptable reasons included purposely delaying suit until the infringement was profitable so the plaintiff could then capitalize on the defendant's efforts.⁵⁴ Finally, the third element of the test required the defendant to show that the plaintiff's unreasonable delay caused evidentiary or expectations-based prejudice.⁵⁵ In the Ninth Circuit, if any part of the defendant's infringing actions took place outside of the three-year statute of limitations, the court presumed that laches barred the plaintiff's claim.⁵⁶

II. *PETRELLA V. METRO-GOLDWYN MAYER, INC.*: THE SUPREME COURT STEPS IN

It was against this backdrop that *Petrella* found its way to the Supreme Court, presenting the Court with an opportunity to settle the circuit split regarding application of laches in copyright cases. In settling that split, the Court decided that laches is completely unavailable to defendants in copyright claims for legal relief properly brought within the three-year limitations period.⁵⁷ The Court granted certiorari after the Ninth Circuit affirmed the District Court for the Central District of California's decision to grant Metro-Goldwyn-Mayer's laches-based motion to dismiss Paula Petrella's copyright infringement suit.⁵⁸ At issue in *Petrella* was the popular and critically acclaimed film *Raging Bull*, based on a screenplay written by Frank Petrella and boxing champion Jake LaMotta.⁵⁹ The 1963 copyright registration identifies Frank Petrella as the sole author of the work.⁶⁰ MGM acquired motion picture rights, released the film in 1980, and continues to market the film in various formats.⁶¹ Paula Petrella

51. *Id.* at 952.

52. *Id.* at 954.

53. *Id.*

54. *Id.*

55. *Id.* at 955.

56. *Petrella I*, 695 F.3d 946, 951 (9th Cir. 2012) (quoting *Miller v. Glenn Miller Prods., Inc.*, 454 F.3d 975, 997 (9th Cir. 2006)).

57. *Petrella II*, 134 S. Ct. 1962, 1967 (2014).

58. *Petrella I*, 695 F.3d at 956.

59. *Petrella II*, 134 S. Ct. at 1970.

60. *Id.*

61. *Id.* at 1970–71.

(“Petrella”), Frank Petrella’s daughter, renewed the copyright in the screenplay in 1991, after her father passed away.⁶² In 1998, her attorney notified MGM that Petrella had renewed the copyright seven years earlier, and that any further exploitation by MGM of the work or works derived from it infringed her rights.⁶³ The attorney and MGM continued to exchange letters for the next two years, during which Petrella repeatedly threatened legal action and MGM repeatedly denied the validity of her claim.⁶⁴

Nine years after the exchange of letters and eighteen years after she renewed the copyright in the work, Petrella filed a copyright infringement suit against MGM, seeking monetary and injunctive relief.⁶⁵ MGM moved for summary judgment, claiming that laches barred the claim because Petrella’s eighteen-year delay was unreasonable and prejudicial.⁶⁶ Granting MGM’s motion, the district court found that MGM had suffered “expectations-based prejudice” by engaging in business transactions, plans, and relationships based on the assumption that Petrella would not file suit, since she had not filed suit when she originally threatened to do so.⁶⁷ MGM also asserted it had suffered evidentiary prejudice, since in the eighteen years Petrella delayed bringing suit, three witnesses key to the facts underlying the alleged infringement became unavailable: Frank Petrella’s wife died, Jake LaMotta’s ex-wife died, and LaMotta himself became incapacitated and incapable of testifying.⁶⁸ When the Ninth Circuit affirmed the district court’s decision, it declined to review the issue of evidentiary prejudice, finding the expectations-based prejudice to be sufficient.⁶⁹ It cited precedent that required it to presume laches barred any suit in which part of the alleged wrongful conduct

62. *Id.* at 1971. Paula Petrella renewed the copyright pursuant to *Stewart v. Abend*, which held that when an author dies before the renewal period for his copyright, his successors are entitled to the renewal rights even if the author already assigned the renewal rights to another party, in part in order to provide the author’s family a “new estate” upon his death. *Stewart v. Abend*, 495 U.S. 207, 219–20 (1990).

63. *Petrella II*, 134 S. Ct. at 1971.

64. *Id.* One of MGM’s defenses against Petrella’s accusations of copyright infringement was the claim that Frank Petrella and Jake LaMotta actually collaborated on the screenplay, and as such, MGM had the necessary rights via its agreement with LaMotta. *Petrella I*, 695 F.3d 946, 950 (9th Cir. 2012).

65. *Petrella II*, 134 S. Ct. at 1971.

66. *Id.*

67. *Petrella I*, 695 F.3d at 953–54.

68. *Petrella II*, 134 S. Ct. at 1972; Brief for Respondents at 52, *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 1962 (2014) (No. 12-1315).

69. *Petrella I*, 695 F.3d at 953.

occurred outside the limitations period.⁷⁰ It also found that Petrella's delay was unreasonable because she had simply waited to sue until MGM turned a profit on *Raging Bull*, while MGM continued to invest in the film, believing it had valid ownership.⁷¹

Petrella appealed the decision to the Supreme Court.⁷² Writing for the majority, Justice Ginsburg reversed the Ninth Circuit's decision, finding that applying laches—"an entirely judicial creation"⁷³—to bar a suit that was timely brought within a statute of limitations set by Congress would "tug against the uniformity Congress sought to achieve when it enacted § 507(b)."⁷⁴ The Court characterized laches as a "gap-filling, not legislation-overriding" defense, asserting that, despite the presence of the defense of laches in the Federal Rules of Civil Procedure, the Court had never given laches the expansive role MGM claimed for it.⁷⁵

The Court first found that although MGM and the Ninth Circuit faulted Petrella for "waiting to sue until the film *Raging Bull* 'made money,'" there is actually nothing requiring copyright owners to "challenge each and every actionable infringement . . . And there is nothing untoward about waiting to see whether an infringer's exploitation undercuts the value of the copyrighted work."⁷⁶ Justice Ginsburg explained that the limitations period in § 507(b), operating according to the separate-accrual rule, already strikes an appropriate balance between a plaintiff's interest in bringing only worthwhile claims and a defendant's interest in a safe harbor for old infringements.⁷⁷ Under the separate-accrual rule, the three-year statute of limitations begins again from each of the defendant's individual infringing actions.⁷⁸ This limits the plaintiff's recovery of damages to acts that occurred within the limitations period.⁷⁹ The Court also noted that the doctrine of equitable estoppel remained available to protect a defendant in situations in which a copyright owner made intentionally

70. *Id.* at 951 (citing *Miller v. Glenn Miller Prods., Inc.*, 454 F.3d 975, 997 (9th Cir. 2006)).

71. *Id.* at 953.

72. *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 134 S. Ct. 50 (2013) (granting petition for writ of certiorari).

73. *Petrella II*, 134 S. Ct. at 1972 (citing *Petrella I*, 695 F.3d at 958 (Fletcher, J., concurring)).

74. *Id.* at 1975.

75. *Id.* at 1974–75 ("[W]e have never applied laches to bar in their entirety claims for discrete wrongs occurring within a federally prescribed limitations period.").

76. *Id.* at 1975.

77. *Id.*

78. PATRY, *supra* note 13, at § 20.23.

79. *Id.*

misleading statements about whether or not she would bring suit and the defendant then relied on those statements.⁸⁰ Finally, the Court rejected MGM's contention that lengthy delays from the initial alleged infringement would result in lost or degraded evidence, as the author and witnesses for the defendant died.⁸¹

Although the Court determined that the Ninth Circuit and the district court had erred by applying laches to bar a suit for damages and injunctive relief timely brought within the copyright owner's term of copyright protection and Congress's statute of limitations, the Court maintained that in "extraordinary circumstances," the "consequences of a delay in commencing suit might be of sufficient magnitude to warrant, at the very outset of litigation, curtailment of the relief equitably awardable."⁸² That said, the circumstances of *Petrella* did not warrant such curtailment because Petrella had notified MGM of her copyright claims before MGM invested significant time and money into *Raging Bull*, and the relief Petrella sought would not result in destruction of the film or unjust hardship on innocent parties.⁸³

Justice Breyer, joined by Chief Justice Roberts and Justice Kennedy, authored a dissent that discussed at length the inequity that would result from the Court's decision.⁸⁴ He noted that, while laws like statutes of limitations are uniform, the circumstances of each case are not, which is why federal courts have historically stepped in to apply laches in certain situations.⁸⁵ In particular, Justice Breyer pointed to the inequity inherent in cases in which plaintiffs wait to bring suits until key witnesses die, or until the defendants' derivative works become profitable and plaintiffs will be assured a share of those profits.⁸⁶ The majority, on the other hand, found these exact same scenarios unproblematic.⁸⁷ Justice Breyer also noted that in cases in which a defendant sells or reproduces a work continuously, the separate-accrual rule allows a plaintiff to bring a suit every three years until the lengthy copyright term expires.⁸⁸ While Justice

80. *Petrella II*, 134 S. Ct. at 1077.

81. *Id.* at 1076 (observing that Congress must have been aware of this risk when it chose to provide for reversionary renewal rights exercisable by an author's heirs).

82. *Id.* at 1977.

83. *Id.* at 1978.

84. *Id.* at 1979–86 (Breyer, J., dissenting).

85. *Id.* at 1979.

86. *Id.* at 1980.

87. *Id.* at 1974–75.

88. *Id.* at 1981

Breyer saw potential unfairness in this scenario,⁸⁹ the majority asserted that this scenario is actually unlikely to occur because if a plaintiff successfully proves infringement, she is likely to receive injunctive relief that halts the defendant's continuous infringing activity.⁹⁰

Justice Breyer disagreed with the majority's premise that the Copyright Act's silence on laches indicated Congress did not intend for laches to apply in copyright lawsuits.⁹¹ He argued that Congress's silence is consistent with the application of laches because, since courts had frequently applied the defense prior to the statute of limitations taking effect, Congress undoubtedly expected courts would continue to do so afterwards.⁹² By allowing laches to bar only claims for equitable relief, and not claims for legal relief, Justice Breyer also argued that the majority chose to disregard the standards of modern litigation; since 1938 actions "at law" and actions "in equity" have simply become the "civil action," "subject to both equitable and legal defenses."⁹³ Laches may play only a small role in a copyright regime based on statutes of limitations, but that role, Justice Breyer argued, is an important one that should not be categorically eliminated.⁹⁴

III. CHIPPING AWAY AT EQUITY IN COPYRIGHT LAW

The Court's decision in *Petrella* substantially limits an important instrument for achieving equitable results in copyright infringement lawsuits. A review of the case demonstrates that the Court's decision was far too broad—likely an overreaction to the particular, sympathetic facts of the case and the Ninth Circuit's permissive, potentially problematic approach to laches. By overcorrecting the course, the Court leaves lower courts and potential defendants to belated copyright infringement lawsuits with few remedial and protective measures. As a result, creative industries will likely see a chilling effect and face new uncertainties as plaintiffs begin bringing lawsuits based on old alleged infringements.

89. *Id.* at 1981.

90. *Id.* at 1976 n.19.

91. *Id.* at 1982.

92. *Id.* Indeed, the congressional hearings on enacting a statute of limitations in the Copyright Act indicate that Congress did expect that federal courts would continue to apply equitable defenses, even if Congress did not expressly address equitable defenses in the statute. S. REP. NO. 1014, at 2–3 (1957).

93. *Petrella II*, 134 S. Ct. at 1985.

94. *Id.* at 1985–86.

A. AN OVERREACTION TO THE NINTH CIRCUIT'S RULING

The scope of the Court's decision was surprising in light of the Justices' apparent skepticism of the plaintiff's position during oral arguments.⁹⁵ During the arguments, the Justices expressed doubt that the application of laches really frustrates statutes of limitations, that the distinction between law and equity remains valid, and that movie producers would continue to produce the same films without the protection of laches.⁹⁶ So how did the Court ultimately come to such a surprising decision? As discussed in Part I, the Ninth Circuit's framework for applying laches in copyright cases was the most lenient,⁹⁷ which may have been problematic for the Court. For example, the Ninth Circuit had established a "relatively easy burden"⁹⁸ for a defendant to prove laches: The defendant only had to prove the plaintiff had constructive knowledge of the alleged infringement during the delay, not actual knowledge.⁹⁹ The oral argument transcript demonstrates that the Court was indeed concerned with the Ninth Circuit's laches standard. For example, Justice Kagan pressed MGM's lawyer about the Ninth Circuit's presumption that if any part of an infringing action occurred outside the statute of limitations then laches barred the suit.¹⁰⁰ Expressing skepticism about the propriety of a burden-shifting presumption triggered by a criterion as inflexible as the limitations period, she said "I guess partly that suggests a burden of persuasion, but partly it suggests just a kind of starting position . . . that if there was conduct outside the limitations period it would be prejudicial. And . . . I want to know why that would be."¹⁰¹ When the lawyer explained the Ninth Circuit's presumption as a way of dealing with the evidentiary prejudice that might result from a delayed suit, Justice Kagan responded, "One can agree with that and not think that if conduct happened three years and two days earlier that the burden of

95. Ronald Mann, *Argument Recap: Justices Dubious of Untimely Copyright Suits*, SCOTUSBLOG (Jan. 22, 2014, 10:45 AM), <http://www.scotusblog.com/2014/01/argument-recap-justices-dubious-of-untimely-copyright-suits/>.

96. *Id.*

97. *Petrella I*, 695 F.3d 946, 958 (9th Cir. 2012) (J. Fletcher, concurring) ("Our circuit [the Ninth Circuit] is the most hostile to copyright owners of all the circuits.").

98. Jacqui Bogucki, *Copyright Law—A Challenge to the Ninth Circuit's Fight Applying Laches in Raging Bull Suit*, 66 S.M.U. L. REV. 391, 393 (2013).

99. See Zitnik, *supra* note 49, at 516.

100. Transcript of Oral Argument at 36–38, *Petrella v. Metro-Goldwyn-Mayer, Inc.*, 934 S. Ct. 1962 (2014) (No. 12-1315).

101. *Id.* at 38.

coming forward and the necessity to give a reason flips to the other side.”¹⁰²

Furthermore, the Ninth Circuit had drawn a very blurry line between reasonable and unreasonable justifications for delay.¹⁰³ On the one hand, as the *Danjaq* court reasoned, delay would be reasonable if intended to “determine whether the scope of the proposed infringement will justify the cost of litigation.”¹⁰⁴ On the other hand, delay would be unreasonable if it was intended to “capitalize on the value of the alleged infringer’s labor, by determining whether the infringing action will be profitable.”¹⁰⁵ The Supreme Court may have recognized how tenuous this distinction was and found it problematic.

However, copyright law is littered with doctrines that are similarly unclear and court determined.¹⁰⁶ For example, the fair use doctrine is notoriously difficult to apply, and although it is codified in the Copyright Act, its nuances are largely judicially determined.¹⁰⁷ The rules of co-authorship are also “grossly underspecified” and “courts have struggled” to determine their application.¹⁰⁸ Arguably, even the most basic mechanism of copyright infringement liability in copyright law—the substantial similarity doctrine—turns on a very vague analytical framework; the Copyright Act itself does not even define “infringement.”¹⁰⁹ Yet, the Court has routinely upheld these doctrines. One might wonder why, in this instance, the Court decided it needed to draw a hard and fast line that disallows judges to use their discretion in applying laches to bar claims for legal relief.¹¹⁰

102. *Id.* at 39 (referring to the Copyright Act’s three-year statute of limitations). Justice Kagan also asked MGM’s lawyer, “Do you concede that [the Ninth Circuit’s] presumption is wrong?” and “Do you agree with it?” *Id.* at 36–37.

103. *See* Zitnik, *supra* note 49, at 516.

104. *Danjaq LLC v. Sony Corp.*, 263 F.3d 942, 954 (9th Cir. 2001).

105. *Id.*

106. Shyamkrishna Balganes, *Unplanned Coauthorship*, 100 VA. L. REV. 1683, 1746 (2014) (noting that “courts routinely undertake” inquiries that might seem “overly subjective”).

107. 17 U.S.C. § 107 (2012); PATRY, *supra* note 13, at § 10:1.50.

108. Balganes, *supra* note 106, at 1699.

109. PATRY, *supra* note 13, at § 9.1; *id.* at § 9:3 (“[C]opyright infringement is a statutory tort, the contours of which have been left up to the courts to fill in.”); *id.* at § 9:64 (“No copyright statute, going back to the 1710 English Statute of Anne, has ever defined the degree or type of reproduction that will give rise to infringement.”).

110. *See Petrella II*, 134 S. Ct. 1962, 1975 (2014) (“Inviting individual judges to set a time limit other than the one Congress prescribed, we note . . . would tug against the uniformity Congress sought to achieve when it enacted § 507(b).”).

Possibly, the particular facts of the *Petrella* case also persuaded the Court to make such a broad ruling in response to the Ninth Circuit's laches doctrine. Indeed, the *Petrella* case presented many complicating factors that may have justified the Supreme Court's serious reconsideration of the Ninth Circuit's ruling. For example, the record shows that the plaintiff gave MGM adequate—even repeated—notice of her ownership of the copyright and MGM's alleged infringement.¹¹¹ During her correspondence with MGM, MGM apparently represented to Petrella that the film was not profitable and would likely never be profitable, perhaps leading her to determine that the scope of infringement would not justify a lawsuit.¹¹² During oral arguments, Justice Sotomayor's questions for MGM's lawyer demonstrated skepticism about how unfair the delayed suit truly was for MGM.¹¹³ For example, in response to the lawyer's argument that Petrella wanted to "skim the cream" off MGM's profits, Justice Sotomayor asked, "What's so bad about that?"¹¹⁴ She also pointed to the fact that MGM had affirmatively told Petrella it was not making any money on the film, and she asked why MGM did not simply seek a declaratory judgment when it first heard from Petrella eighteen years before she filed suit.¹¹⁵

Finally, Petrella was herself a sympathetic plaintiff: She is the daughter of the original copyright owner, and thus a member of the exact class of copyright owners that copyright policy intends to protect via doctrines like that of *Stewart v. Abend*.¹¹⁶ Petrella's reasons for delaying her suit against MGM were also sympathetic. She explained that she was occupied with caring for her disabled brother and dying mother and that her family did not have the money for litigation.¹¹⁷ If the laches case that came to the Supreme Court had been one involving a copyright assignee who was completely unrelated to the author, and who quietly waited on the sidelines until the use of the work became profitable before pouncing with an infringement suit, one can imagine that the outcome might have been different. While the results of this particular case may seem just, the

111. *Id.* at 1971.

112. *Id.* at 1972 n.10. This illustrates the difficulties inherent to *Danjaq's* distinction between permissible and nonpermissible reasons for delay. *Danjaq LLC v. Sony Corp.*, 263 F.3d 942, 954 (9th Cir. 2001).

113. Transcript of Oral Argument, *supra* note 100, at 32–33.

114. *Id.* at 32.

115. *Id.* at 32–33.

116. *See Petrella II*, 134 S. Ct. at 1968, 1971; *Stewart v. Abend*, 495 U.S. 207, 219–20 (1990).

117. *Petrella I*, 695 F.3d 946, 952 (9th Cir. 2012).

implications of the Court's decision will echo beyond this case and its parties.

B. THE REMAINING PROTECTIONS ARE INSUFFICIENT

Although potential defendants and the courts that try them still have some ways of guarding against unreasonably delayed copyright suits, the Supreme Court's broad decision weakened a defense that the Court itself said served a crucial "gap-filling" function.¹¹⁸ Potential defendants may, for example, employ smarter business practices to ward off lawsuits and, if those lawsuits take place, minimize the evidentiary prejudice they might face.¹¹⁹ Precautions like retaining documents and otherwise keeping excellent records of each step of the creative process, as well as keeping in touch with former employees, will ensure that potential defendants both create and preserve necessary evidence.¹²⁰ Requiring third parties with whom they work to sign comprehensive indemnification agreements will prevent some lawsuits before they even start.¹²¹ Companies like MGM can also proactively protect themselves from belated suits by seeking declaratory judgments (as Justice Sotomayor suggested MGM should have done)¹²² or more aggressively negotiating licenses to preemptively protect themselves.

However, considering the "clearance culture" that already exists in the entertainment industry, one might wonder how much more companies like MGM can really do.¹²³ Studios already do far more than is required by law to ensure that all copyrighted or trademarked material is cleared with the rights-holders.¹²⁴ This culture "imposes burdens well beyond the law and has become a self-perpetuating and self-serving system of self-censorship."¹²⁵ Asking the entertainment industry to take an even more proactive approach to copyright clearance, as the *Petrella* decision does, may further discourage creation at the outset. Furthermore, the costs of

118. *Petrella II*, 134 S. Ct. at 1974.

119. See, e.g., Brad R. Newberg, 'Raging Bull' Decision Breathes New Life Into Late-Breaking Copyright Suits, FORBES (June 2, 2014, 9:52 AM), <http://www.forbes.com/sites/danielfisher/2014/06/02/raging-bull-decision-breathes-new-life-into-late-breaking-copyright-suits/>.

120. *Id.*

121. *Id.*

122. Transcript of Oral Argument, *supra* note 100, at 33.

123. Daniel Nazer, *A Glance Inside the Clearance Culture*, CTR. FOR INTERNET AND SOC'Y (CIS) BLOG (Apr. 26, 2012, 1:33 PM), <http://cyberlaw.stanford.edu/blog/2012/04/glance-inside-clearance-culture>.

124. *Id.*

125. *Id.*

taking these kinds of self-protective actions can be prohibitively high, especially for smaller companies and individuals.¹²⁶ Thus, the *Petrella* decision may have an indirect chilling effect on the entertainment industry beyond the chilling effect directly caused by the weakened state of the defense of laches.

Of course, some protections remain inherent in the statutory and common law of the copyright regime. For example, defendants remain protected to some extent by the statute of limitations itself, which only allows a plaintiff to bring suit within three years of an infringing action, and therefore only allows the plaintiff to collect damages going back three years.¹²⁷ However, without the protection of laches, the statute of limitations can actually be used against defendants. This is because the statute of limitations operates according to the separate-accrual rule, and functions as a rolling period, meaning that the limitations period begins anew with each allegedly infringing action.¹²⁸ As Justice Breyer noted in his dissent, if a defendant continues to reproduce and distribute an allegedly infringing work, the separate accrual rule might allow a plaintiff to sue repeatedly—every three years—and collect the defendant’s profits each time until the copyright term expires.¹²⁹ As such, the statute of limitations could conceivably work against a defendant instead of to protect him.

Defendants might also be protected by the (somewhat) limited term of copyright protection. Once that term elapses, copyright owners can no longer bring suits for infringement, and so companies are free to capitalize on works that enter the public domain.¹³⁰ However, the term of copyright protection is extremely long compared to, for example, the term of protection for patent rights.¹³¹ The *Petrella* Court also noted that the doctrine of equitable estoppel remains a tool in a defendant’s arsenal.¹³² Estoppel is another affirmative defense that, like laches, can bar a claim completely. The defense requires that the plaintiff affirmatively mislead

126. See, e.g., Robert Kirk Walker, *Negotiating the Unknown: A Compulsory Licensing Solution to the Orphan Works Problem*, 35 CARDOZO L. REV. 983, 1002 (2014).

127. 17 U.S.C. § 507(b) (2012).

128. *Petrella II*, 134 S. Ct. 1962, 1969 (2014) (“Each time an infringing work is reproduced or distributed, the infringer creates a new wrong. Each wrong gives rise to a discrete claim that accrues at the time the wrong occurs.” (internal quotations omitted)).

129. *Id.* at 1979–80 (Breyer, J., dissenting).

130. 17 U.S.C. § 302 (duration of copyright for works created after 1978); *id.* § 304 (duration of copyright for works created before 1978).

131. 35 U.S.C. § 154 (2012).

132. *Petrella II*, 134 S. Ct. at 1977.

the defendant into thinking there will be no lawsuit, allowing the defendant to take actions in reliance on that misrepresentation.¹³³ Like laches, estoppel is an equitable defense with a long history of application to legal claims.¹³⁴ However, while delay may be a factor in an estoppel defense, it is not sufficient to establish the defense.¹³⁵ As Justice Breyer's dissent notes, the doctrines of equitable estoppel and laches are fundamentally different, with the former hinging on active misrepresentation and the latter hinging on unreasonable delay.¹³⁶ He asks, "Where due to the passage of time, evidence favorable to the defense has disappeared or the defendant has continued to invest in a derivative work, what misleading representation by the plaintiff is there to estop?"¹³⁷ Furthermore, successful claims of equitable estoppel are rare.¹³⁸ Thus, even if the defense of equitable estoppel remains available for actions both at law and in equity, there is a gap that, after *Petrella*, is no longer filled by laches. Cases with facts like those in *Petrella* may land directly in this gap, notwithstanding this particular case's sympathetic facts and plaintiff.¹³⁹

C. INSUFFICIENT PROTECTIONS MAY HAVE A CHILLING EFFECT IN CREATIVE INDUSTRIES

As a result of the insufficient protections available to potential defendants against unreasonably delayed copyright suits, industries that rely on copyrighted works may hesitate to invest time and money into works knowing that they might be sued as soon as their efforts begin to turn a profit.¹⁴⁰ Even Justice Kagan, who ultimately joined the Court's

133. *Id.*; PATRY, *supra* note 13, at § 20:58.

134. *Petrella II*, 134 S. Ct. at 1977.

135. *Id.*

136. *Id.* at 1985.

137. *Id.*; Samuel Bray, *A Little Bit of Laches Goes a Long Way: Notes on Petrella v. Metro-Goldwyn-Mayer, Inc.*, 67 VAND. L. REV. EN BANC 1 (2014):

It is true that in extreme cases of laches a defendant can also raise the defense of estoppel, because with enough time delay shades into the misrepresentation that estoppel requires. But there are less extreme cases, cases where the plaintiff is guilty of prejudicial delay but not misrepresentation (and is thus subject to laches but not estoppel).

Id. at 8.

138. PATRY, *supra* note 13, at § 20:58.

139. Bray, *supra* note 137, at 8.

140. Newberg, *supra* note 119; Todd McCormick & Jason M. Joyal, *How 'Raging Bull' Case Could Impact Entertainment Industry*, LAW360 (July 2, 2014, 10:08 AM), <http://www.law360.com/articles/552689/how-raging-bull-case-could-impact-entertainment-industry> ("A plaintiff can now 'wait and see' if exploitation of the copyrighted work is worth suing over, and if it is, can time a lawsuit so as to capitalize on any profits.").

majority, asked during the oral arguments, “Who in their right mind would go ahead and make this [investment] year after year if a huge amount of money is going to be paid to this copyright owner who delayed for 30 years[?]”¹⁴¹ Although Petrella did initially contact MGM in the 1990s, she did not file a lawsuit until 2009, which happened to closely follow the release of MGM’s twenty-fifth anniversary edition of the *Raging Bull* DVD, and a corresponding increase in DVD sales.¹⁴² Justice Breyer cited exactly these kinds of circumstances in his explanation of why laches may be a necessary defense in some cases:

Suppose . . . the plaintiff has deliberately waited for the death of witnesses who may prove the existence of understandings about a license to reproduce a copyrighted work Or, suppose the plaintiff has delayed bringing suit because he wants to avoid bargaining with the defendant up front over a license. . . . Or, suppose the plaintiff has waited until he becomes certain that the defendant’s production bet paid off . . . and that the plaintiff has a chance of obtaining, say an 80% share of what is now a 90% pure profit stream.¹⁴³

Indeed, there are many examples from the lower courts of cases brought under such circumstances.¹⁴⁴ Companies weighing the risks against the rewards may ultimately decide not to re-release older films, since copyright claims might then come out of the woodwork long after the initial release.¹⁴⁵

This adverse effect will be particularly severe for projects involving orphan works, or works whose owners cannot be identified or found by entities that need the owners’ permission to make use of the works.¹⁴⁶

141. Transcript of Oral Argument, *supra* note 100, at 20.

142. Newberg, *supra* note 119.

143. *Petrella II*, 134 S. Ct. 1962, 1980 (2014).

144. *See, e.g.*, *Chirco v. Crosswinds Cmty, Inc.*, 474 F.3d 227, 235 (6th Cir. 2007) (plaintiffs “deliberately delayed” bringing a claim that a condominium design infringed the plaintiff’s copyright, brought within the statute of limitations, but only after the condos were built and sold and families had moved in); *Danjaq LLC v. Sony Corp.*, 263 F.3d 942, 954 (9th Cir. 2001) (plaintiff had “no sufficient justification for” his delayed claim that seven James Bond films infringed the plaintiff’s copyright, brought nineteen to thirty-six years after the films’ releases and after many key players in their creation had died); *Jackson v. Axton*, 25 F.3d 884 (9th Cir. 1994) (claim of co-authorship of a song brought seventeen years after the plaintiff became aware of his claim, after the original lyrics sheet was lost, the recording studio closed, and the defendant had arranged his business around the song).

145. McCormick & Joyal, *supra* note 140.

146. U.S. COPYRIGHT OFFICE, REPORT ON ORPHAN WORKS 1 (2006), *available at* <http://www.copyright.gov/orphan/orphan-report-full.pdf>.

Companies are already more hesitant to invest in projects dependent on orphan works because of the threat of incurring liability for damages and other expenses from lawsuits.¹⁴⁷ In the wake of the *Petrella* decision, would-be users of orphan works must also fear the threat of unknown and unfindable owners appearing late in the game, after investments have been made and works produced, to bring lawsuits. Would-be users of orphan works also cannot hedge their risks by tracking down the works' owners to negotiate licenses or assess the dangers of using the work.

These risks are compounded for projects that involve multiple orphan works because the creators of these projects must fear the potential expense of multiple lawsuits from multiple copyright owners, and the creators face an even more impossible task of tracking down the owners for each of the multiple works.¹⁴⁸ The BBC, for example, already has millions of hours of archival broadcasts that it cannot make available because it does not know who owns the rights.¹⁴⁹ The *Petrella* decision represents a step towards increasing the frequency of this kind of scenario, in which copyright law chills the public's access to content.

D. NEW UNCERTAINTY AS PLAINTIFFS BRING BELATED LAWSUITS

Even before the *Petrella* decision, courts were seeing an increasing number of similarly delayed lawsuits due to new technologies that extend the shelf-life of creative works, allowing for their continued release and re-release in new formats.¹⁵⁰ Defendants in these cases frequently found refuge behind the defense of laches, especially in the Ninth Circuit, where many of these cases were brought.¹⁵¹ Now, in the wake of the Court's

147. Walker, *supra* note 126, at 999; Louis Menand, *Crooner in Rights Dispute: Are Copyright Laws Too Strict?*, NEW YORKER, Oct. 20, 2014 ("In the case of many books and photographs, the rights holders are unknown And so, for fear of being sued and having their work pulped or otherwise erased from the universe, people avoid the risk.")

148. Walker, *supra* note 126, at 1000.

149. Menand, *supra* note 147.

150. Newberg, *supra* note 119.

151. *Id.*; see, e.g., *Danjaq LLC v. Sony Corp.*, 263 F.3d 942 (9th Cir. 2001) (holding that laches barred in their entirety copyright infringement claims related to the James Bond franchise); *Jackson v. Axton*, 25 F.3d 884 (9th Cir. 1994) (holding that laches barred a co-authorship claim related to the song "Joy to the World"); *Shea v. Fantasy, Inc.*, No. C 02-02644 RS, 2003 WL 881006 (N.D. Cal. Feb. 27, 2003) (holding that laches barred damages and injunctive relief in a copyright infringement claim related to a photograph of Lenny Bruce); *Ory v. Country Joe McDonald*, No. CV 01-8177 NM (ALJx), 2003 WL 22909286 (C.D. Cal. Aug. 5, 2003) (holding that laches barred damages and injunctive relief in a copyright infringement claim related to a Vietnam War protest song); *Mappa Music Co. v. Universal-Polygram Int'l Pub. Inc.*, No. CV 00-6593 ABC (ALJx), 2001 WL 1868083 (C.D. Cal. Dec. 17, 2001) (holding that laches barred

decision denying the availability of laches in claims for legal relief, courts may see new life given to claims that were previously unlikely to succeed due to laches.¹⁵²

The entertainment industry's fears of plaintiffs "coming out of the shadows to claim ownership rights" is illustrated in particular by a suit recently filed against the band Led Zeppelin.¹⁵³ *Skidmore v. Zeppelin* was filed May 31, 2014, several weeks after the *Petrella* decision was handed down and just as the iconic Led Zeppelin song "Stairway to Heaven" was being re-released.¹⁵⁴ The complaint alleges that the 1971 song's opening guitar riff was copied from a song by the band Taurus.¹⁵⁵ Although the guitarist from Taurus and others apparently knew of Led Zeppelin's alleged infringement for years, no one filed a lawsuit until 2014.¹⁵⁶ *Petrella* may give new life to belated claims like this one—brought nearly forty years after the alleged infringement began—and even though plaintiffs can only collect damages going back three years (pursuant to § 507(b)), for works as successful as "Stairway to Heaven," three years might yield a substantial collection,¹⁵⁷ especially when claims are strategically timed to coincide with the release of the work in a new format or edition.

Another recently filed suit that may have been barred by laches prior to the *Petrella* decision concerns a high-profile, highly lucrative image from the sports world: Nike, Inc.'s "Jumpman" logo, depicting a silhouette of Michael Jordan leaping to dunk a basketball.¹⁵⁸ Jacobus Rentmeester originally took the photograph on which the logo is based for *Life Magazine* in 1984.¹⁵⁹ Rentmeester claims he came to a deal with Nike for use of the image, but the deal expired in 1987 and for the past twenty-

a declaratory judgment of ownership claim related to the song "Gonna Get Along Without Ya Now").

152. McCormick & Joyal, *supra* note 140. The entertainment industry fears that "the *Petrella* decision will potentially revive old disputes that had been previously forgotten or considered too old to have merit. Federal Courts may now see an increase in copyright infringement filings." *Id.*

153. *Id.*; Complaint of Michael Skidmore, *Skidmore v. Zeppelin*, Docket No. 2:14-cv-03089 (E.D. Pa. May 31, 2014).

154. McCormick & Joyal, *supra* note 140.

155. *Skidmore*, Docket No. 2:14-cv-03089.

156. *Id.*; McCormick & Joyal, *supra* note 140.

157. David Post, *Does The Stairway to Heaven Go Through The Eastern District of Pennsylvania?*, WASH. POST (Oct. 30, 2014) <http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/10/30/does-the-stairway-to-heaven-go-through-the-eastern-district-of-pennsylvania/>.

158. Bill Donahue, *With Nike Logo Case, 'Raging Bull' Ruling Rears Its Head*, LAW360 (Jan. 28, 2015, 7:21 PM) <http://www.law360.com/ip/articles/615656>.

159. *Id.*

eight years Nike has continued to use the image on numerous products without paying him.¹⁶⁰ Filed in January 2015, the lawsuit seeks profits from Nike associated with the Jordan brand, which earned \$3.2 billion in retail sales in 2014 alone, and injunctive relief to halt Nike's current sales of Jordan-brand products.¹⁶¹ A suit like this might have been barred by laches, since Rentmeester did nothing to protect his rights for twenty-eight years, but *Petrella* gives plaintiffs like Rentmeester new hope, and defendants like Nike new uncertainty. Even if Nike can invoke laches to bar an injunction,¹⁶² the company still faces enormous monetary liability.

The *Petrella* decision may also force courts to revise previous rulings that barred claims due to laches.¹⁶³ For example, a federal judge in the Central District of California found in 2013 that a copyright infringement suit against the rapper Jay-Z related to the song "Big Pimpin'" was barred by laches because the plaintiff failed to bring suit until nearly eight years after Jay-Z's popular song was first released.¹⁶⁴ In July 2014, however, the judge vacated her holding that laches barred the plaintiff's claims, noting that *Petrella* "represents substantial change in the law governing laches," and opens the door for the plaintiff to recover profits from Jay-Z.¹⁶⁵

IV. *PETRELLA* IN PATENT AND TRADEMARK LAW

The implications of *Petrella* are even more significant for patent law, which has historically found a greater use for laches. The Patent Act of 1952 ("Patent Act") contains a six-year statute of limitations for collecting damages.¹⁶⁶ Like the Copyright Act, the Patent Act is silent on laches.¹⁶⁷ However, the Federal Circuit has consistently recognized that laches may

160. *Id.*

161. Darren Rovell, *Nike Sued over Michael Jordan Logo*, ABC NEWS (Jan. 23, 2015, 10:39 PM) <http://abcnews.go.com/Sports/nike-sued-michael-jordan-logo/story?id=28444530>.

162. *See Petrella II*, 134 S. Ct. 1962, 1977 (2014) (allowing that in "extraordinary circumstances" laches may still bar equitable relief awardable).

163. Newberg, *supra* note 119 (suggesting several ways in which *Petrella* might influence future litigation, including reviving once-barred claims, refocusing cases in which laches was once assumed to be determinative, and making old claims viable once again despite degradation of evidence).

164. *Fahmy v. Jay-Z*, No. CV 07-5715 CAS (PJWx), 2013 WL 6254230 (C.D. Cal. Dec. 3, 2013).

165. *Fahmy v. Jay-Z*, 2:07-cv-05715-CAS(PJWx), at 7 (C.D. Cal. July 21, 2014) <http://www.scribd.com/doc/236059440/Raging-Jayz>.

166. 35 U.S.C. § 286 (2012).

167. *Id.* § 282.

bar collection of damages in patent infringement lawsuits.¹⁶⁸ In the face of a strict liability infringement rule¹⁶⁹ and a significant trolling problem,¹⁷⁰ laches gives judges in patent infringement suits the necessary “discretionary power . . . to limit the defendant’s liability for infringement by reason of the equities between the particular parties.”¹⁷¹

Although the *Petrella* Court mentioned the well-settled rule that laches is available to bar damages that accrue prior to the lawsuit in patent infringement cases, it did so only in passing. In a footnote, the Court merely stated the rule, articulated by the Federal Circuit in *A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, and observed that the Court “[has] not had occasion to review the Federal Circuit’s position,”¹⁷² leaving open the issue of *Petrella*’s influence on patent law. A laches case has confronted the Federal Circuit since the *Petrella* ruling, but the Federal Circuit found that the decision did not apply to patent suits,¹⁷³ and so it remains to be seen to what extent the *Petrella* ruling will ultimately influence patent infringement litigation.

That said, although the statutes of limitations in the Copyright Act and the Patent Act are worded differently, the effects are the same: Both restrict a plaintiff’s recovery for infringement to the harm occurring within the specified number of years prior to filing suit.¹⁷⁴ As such, it is not clear why the reasoning in *Petrella* would not also apply in the patent law context. Furthermore, the *Petrella* Court’s reasoning directly contradicts

168. *A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020, 1028–30 (Fed. Cir. 1992). In the wake of *Petrella*, the Federal Circuit quietly affirmed that laches is still available in patent infringement suits. *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 767 F.3d 1339, 1345 (Fed. Cir. 2014). The *SCA Hygiene* court merely said that *Petrella* did apply to patent law because the Supreme Court had not yet reviewed the Federal Circuit’s position on laches, and so “*Petrella* notably left *Aukerman* intact.” *Id.* However, the Federal Circuit recently vacated the *SCA Hygiene* opinion and granted SCA’s petition for rehearing en banc. Order on Petition for Rehearing En Banc, *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, No. 2013-1564, 2014 WL 7460970 (Fed. Cir. Dec. 30, 2014).

169. 35 U.S.C. § 271.

170. See, e.g., Gene Sperling, *Taking on Patent Trolls to Protect American Innovation*, THE WHITE HOUSE BLOG (June 4, 2013, 1:55 PM) <http://www.whitehouse.gov/blog/2013/06/04/taking-patent-trolls-protect-american-innovation>.

171. *Aukerman*, 960 F.2d at 1030 (emphasis in original).

172. *Petrella II*, 134 S. Ct. 1962, 1974 n.15 (2014).

173. See *supra* note 168.

174. 17 U.S.C. § 507(b) (2012); 35 U.S.C. § 286; Todd Vare, ‘Raging Bull’ Copyright Opinion May Impact Patent Cases, LAW360 (May 27, 2014, 12:30 PM) <http://www.law360.com/articles/541533/-raging-bull-copyright-opinion-may-impact-patent-cases>.

the Federal Circuit's reasoning in *Aukerman*. First, the *Petrella* Court interpreted the Copyright Act's silence on laches to mean laches is not available, while the *Aukerman* court interpreted the Patent Act's similar silence to mean laches *is* available.¹⁷⁵ Second, the *Petrella* Court found that laches, applied according to the court's discretion, could not coexist with a congressionally enacted statute of limitations, while the *Aukerman* court found that an "equitable defense [of laches] under section 282 and the arbitrary [statute of limitations] of section 286 *do not conflict*."¹⁷⁶ It therefore seems likely that, if given the opportunity, the Supreme Court would find that the *Petrella* ruling applied to the patent realm as well.¹⁷⁷

Unlike the Copyright Act and the Patent Act, the Lanham Act explicitly provides for the application of laches in trademark infringement suits, in actions for both damages and injunctive relief.¹⁷⁸ The wider availability of laches in trademark suits makes sense in light of the potentially "infinite duration" of trademark protection, as compared to the limited term of patent protection.¹⁷⁹ Although there is no statute of limitations in the Lanham Act, courts have found that laches is available in trademark infringement suits even when the suit is brought within the analogous state statute of limitations.¹⁸⁰ The availability of laches encourages trademark owners to actively police their marks, which is consistent with the policy of avoiding consumer confusion in the marketplace.¹⁸¹ It is unlikely that the *Petrella* decision will have a significant impact on the availability of laches in trademark infringement suits since the Lanham Act does not have a congressionally enacted statute of limitations that might conflict with the application of laches, and in fact specifically provides for the defense of laches. The *Petrella* Court mentioned trademark law only in passing, but in a footnote implied that

175. Contrast *Petrella II*, 134 S. Ct. at 1973–75 with *Aukerman*, 960 F.2d at 1029–30.

176. Contrast *Petrella II*, 134 S. Ct. at 1975 with *Aukerman*, 960 F.2d at 1030–31 (emphasis added).

177. *Vare*, *supra* note 174.

178. Lanham Act, 15 U.S.C. § 1115(b)(9) (2012).

179. *Aukerman*, 960 F.2d at 1040.

180. *E.g.*, *Hot Wax, Inc. v. Turtle Wax, Inc.*, 191 F.3d 813, 821–22 (7th Cir. 1999).

181. *Id.* at 826 (“[T]here is a strong public interest in the prevention of misleading advertisements. The availability of an equitable defense in Lanham Act cases, therefore, must be considered in light of the consuming public’s right to be free from confusion with respect to product marketing and advertisements.”); *Aukerman*, 960 F.2d at 1040 (“[T]he public interest in avoidance of confusion in the market place may lead a court to grant an injunction against trademark infringement on laches alone.”).

the *Petrella* decision is indeed consistent with the Lanham Act and the application of laches in trademark law.¹⁸²

V. BUT WHAT EFFECT WILL *PETRELLA* REALLY HAVE?

It remains to be seen to what extent *Petrella* will truly chill creative industries or encourage stale copyright claims. Indeed, while the Court disallowed laches in claims for legal relief brought within the statute of limitations, it left open the possibility that a plaintiff's delay still has some role to play in copyright lawsuits, in addition to playing a potential role via the doctrine of equitable estoppel.¹⁸³ First, the Court allowed that in "extraordinary circumstances . . . the consequences of a delay in commencing suit may be of sufficient magnitude to warrant, at the very outset of litigation, curtailment of relief equitably awardable."¹⁸⁴ The Court implied that such circumstances might include requested equitable relief that would "work an *unjust* hardship' upon the defendants and third parties" or require "total destruction of the work."¹⁸⁵ Since, in *Petrella*, the plaintiff notified MGM of her copyright claims before MGM invested in creating the new edition of *Raging Bull*, and the plaintiff's requested relief would not require total destruction of the film, the Court found that the circumstances of the case were not sufficient to curtail equitable relief at the outset of the litigation in this case.¹⁸⁶

Second, the Court indicated that a plaintiff's delay might also continue to play a role at the remedial phase, during which courts might take the delay into account when "determining appropriate injunctive relief and assessing profits."¹⁸⁷ While the defendant's reliance on the plaintiff's delay is apparently a crucial factor to consider at this stage, the Court obscured the real significance of reliance with a footnote: "While reliance or its absence may figure importantly in [*Petrella*], we do not suggest that reliance is in all cases a *sine qua non* for adjustment of injunctive relief or profits."¹⁸⁸ "Such a vague instruction is unlikely to give defendants any comfort" until it is better defined by the courts, if it ever is.¹⁸⁹

182. *Petrella II*, 134 S. Ct. 1962, 1974 n.15 (2014).

183. *Id.* at 1977.

184. *Id.*

185. *Id.* (citing *Chirco v. Crosswinds Cmty., Inc.*, 474 F.3d 227, 236 (6th Cir. 2007); *New Era Publ'ns Int'l v. Henry Holt & Co.*, 873 F.2d 576, 584-85 (2d Cir. 1989)).

186. *Id.*

187. *Id.* at 1978

188. *Id.* at 1978 n.22.

189. Newberg, *supra* note 119.

VI. CONCLUSION

Overall, the *Petrella* Court's broad ruling barring the use of laches against copyright infringement claims brought within the statute of limitations is inconsistent with the policy behind the U.S. intellectual property statutory framework, rooted in the U.S. Constitution: "to promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."¹⁹⁰ Art. I, § 8, cl. 8 prioritizes progress, which is hindered when creative industries do not have access to the works they need to release—and re-release in new formats—iconic works like *Raging Bull*. As this Note demonstrates, the Court's decision in *Petrella v. Metro-Goldwyn-Mayer, Inc.* creates the wrong incentive for creators by discouraging creative uses of works and encouraging increased clearance-culture paranoia. It increases the already significant costs of producing creative works by increasing the risks of unpredictable, delayed lawsuits, especially for uses involving orphan works. If the Court decides to extend *Petrella's* holding on laches to the realm of patent law, the implications will be similar for creators who depend on the incentives created by patent protection. Allowing laches in circumstances that warrant the defense is consistent with the Constitution's mandate that copyright protection last for only "limited Times," so that works may enter the public domain and benefit everyone.¹⁹¹ When an author unreasonably delays in protecting his copyright, it is right that the public should nonetheless benefit from the work by allowing other users willing to invest money and effort into exploitation of the work to do so.¹⁹² As courts frequently quote, "vigilantibus non dormientibus aequitas subvenit": equity aids the vigilant, not those who sleep on their rights."¹⁹³

Since the Supreme Court constrained a defense crucial to such policy considerations, Congress should now act to correct the course. Indeed, the Court largely premised its broad decision on Congress's silence with regard to laches in copyright lawsuits.¹⁹⁴ Although the legislative history behind the Copyright Act's statute of limitations implies that Congress assumed federal courts would continue to apply equitable defenses such as laches, the Act itself does not expressly address laches. If Congress had directly addressed the issue in the text of the Copyright Act, as it did

190. U.S. CONST. art. I, § 8, cl. 8.

191. *Id.*

192. Swartz, *supra* note 26, at 1477.

193. PATRY, *supra* note 13, at § 20:54.

194. *Petrella II*, 134 S. Ct. 1962, 1968–70 (2014).

when it enacted § 1115(b)(9) of the Lanham Act, it is unlikely that the *Petrella* Court would have reached the same decision. Copyright law's lengthy term of protection resembles the potentially endless term of protection in trademark law, and so as in trademark suits, laches should be available to defendants in copyright suits.¹⁹⁵ Thus, in order to better serve the policy underlying art. I, § 8, cl. 8 of the U.S. Constitution, Congress should now consider enacting a provision in the Copyright Act clearly stating that laches is available to defendants in copyright infringement suits for both legal and equitable relief. By further defining the parameters of when laches should apply, Congress could simultaneously take into account some of the concerns expressed by the *Petrella* Court, successfully settle the inter-circuit confusion surrounding the application of the defense, and preserve an important equitable tool.

195. See *A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020, 1040 (Fed. Cir. 1992) (discussing the availability of laches in trademark law).

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NEW TENTH CIRCUIT STANDARDS: COMPETITIVE KEYWORD ADVERTISING AND INITIAL INTEREST CONFUSION IN *1-800 CONTACTS V. LENS.COM*

John Benton Russell[†]

Since the advent of search engines, companies have used their competitors' trademarks to manipulate search engine results and increase exposure to consumers online.¹ This practice, called "competitive keyword advertising," originally used keyword meta tags now obsolete,² but today occurs through systems like Google AdWords.³ The AdWords system allows businesses to create advertisements and bid on specific keywords, so that when users enter these specific keywords into Google's search engine, the search returns the created advertisement along with other ads on the results page.⁴ Almost any keyword is available for bidding—including a competitor's trademarks.⁵ Thus, through this system companies can bid on their competitors' trademark, even without the competitors' permission.

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1. *See, e.g., 1-800 Contacts, Inc. v. Lens.com, Inc. (1-800 Contacts)*, 722 F.3d 1229 (10th Cir. 2013) (involving a suit over Lens.com's purchase of nine keywords similar to 1-800's trademark); *Network Automation, Inc. v. Advanced Sys. Concepts, Inc.*, 638 F.3d 1137 (9th Cir. 2011) (involving a suit for declaratory judgment of non-infringement after a business bid on a competitor's trademarked keyword); *Brookfield Commc'ns, Inc. v. W. Coast Entm't, Inc.*, 174 F.3d 1036 (9th Cir. 1999) (involving a suit over the use of a trademarked term in website meta tags).

2. *See* 5 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 25A:3 (4th ed. 2012).

3. Eric Goldman, *More Evidence that Competitive Keyword Advertising Benefits Trademark Owners*, FORBES, (July 31, 2013, 9:49 AM), <http://www.forbes.com/sites/ericgoldman/2013/07/31/more-evidence-that-competitive-keyword-advertising-benefits-trademark-owners/>.

4. *See Advertising on Google AdWords: An Overview for Advertisers*, GOOGLE SUPPORT (last visited Feb. 2, 2015), <https://support.google.com/adwords/answer/1704410?hl=en>.

5. *See* Eric Goldman, *How Much Does 1-800 Contacts Hate Competitive Keyword Advertising? \$1.1M Worth!?*, TECHNOLOGY & MARKETING LAW BLOG (May 19, 2010) (describing a \$1.1 million cap 1-800 placed on its litigation expenses), http://blog.ericgoldman.org/archives/2010/05/how_much_does_1.htm; *see also* Greg

Because competitive keyword advertising makes unauthorized use of a competitor's trademark, the practice gives rise to claims of trademark infringement.⁶ These claims invoke the Lanham Act, a statute prohibiting the commercial use of a competitor's trademark when such use causes a likelihood of consumer confusion.⁷ Claimants must prove likelihood of consumer confusion ("LOC") through several factors; one of these factors is "evidence of actual confusion," which depends on anecdotal or survey evidence.⁸ Yet while survey evidence is easier to gather than specific, concrete examples of actual consumer confusion, courts have broad discretion to strike poorly constructed surveys. Furthermore, even if a survey survives a motion to strike, it must reveal a convincing rate of actual consumer confusion to prove LOC.⁹

When plaintiffs present evidence of actual confusion in an attempt to prove LOC in a competitive keyword advertising case, they generally allege that consumer confusion takes the form of initial interest confusion ("IIC").¹⁰ IIC occurs when the unauthorized use of a trademark attracts a consumer's interest by causing initial source confusion, whether or not the confusion results in an actual sale.¹¹ Historically, courts have ruled on IIC as a type of confusion that fits neatly within the LOC analysis.

Lastowka, *Google's Law*, 73 BROOK. L. REV. 1327, 1362 (indicating that Google has allowed companies to bid on competitors' trademarks since 2004). Google does restrict the use of keywords if they violate its AdWord's policies on prohibited content. *See Adwords Policies*, GOOGLE SUPPORT (last visited Feb. 25, 2015), <https://support.google.com/adwordspolicy/answer/6008942?rd=1>.

6. *See, e.g., 1-800 Contacts*, 722 F.3d at 1229 (involving AdWord litigation); *Network Automation*, 638 F.3d at 1137 (involving AdWord litigation); *Australian Gold, Inc. v. Hatfield*, 436 F.3d 1228 (10th Cir. 2006) (involving meta tag litigation); *Promatek Indus., Ltd. v. Equitrac Corp.*, 300 F.3d 808 (7th Cir. 2002) (involving meta tag litigation); *Brookfield*, 174 F.3d at 1036 (involving meta tag litigation).

7. Lanham Act § 43(a), 15 U.S.C. § 1125 (2012).

8. *Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864 n.8 (10th Cir. 2008) ("Evidence of actual confusion is often introduced through the use of surveys . . ."); *see also* Barton Beebe, *An Empirical Study of the Multifactor Tests for Trademark Infringement*, 94 CAL. L. REV. 1581, 1641 (2006) (referencing thirty-four cases in which judges credited survey evidence).

9. *See Vail Assocs.*, 516 F.3d at 864–65 n.8 (describing multiple factors that make a survey inadmissible and describing the courts' discretion); *see also* FED. R. EVID. 702 (outlining the specific requirements for reliable expert testimony).

10. *See, e.g., 1-800 Contacts*, 722 F.3d at 1234; *Network Automation*, 638 F.3d at 1142; *Australian Gold*, 436 F.3d at 1238; *Brookfield*, 174 F.3d at 1062.

11. 4 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 23:6 (4th ed. 2014).

However, near the turn of the twenty-first century, courts began ruling on competitive keyword advertising cases.¹² At this time, they seized on the IIC doctrine as a convenient concept to describe the user's experience with search engine ads; however, instead of following the LOC framework, the Seventh, Ninth, and Tenth Circuits ruled that the unauthorized use of a trademark in competitive keyword advertising caused IIC merely by diverting consumers.¹³

The Tenth Circuit's decision in *1-800 Contacts, Inc. v. Lens.com, Inc.* ("*1-800 Contacts*") illustrates a recent judicial rejection of these earlier competitive keyword advertising rulings; rather than focusing on consumer diversion, the court placed IIC firmly within the LOC analysis and focused on the evidence of the actual confusion factor in making its decision.¹⁴ It then made actual confusion nearly impossible to prove by capping the probable rate of confusion at the ratio of clicks on an ad against the number of times that ad appeared, as this ratio is usually well below a probative level.¹⁵ Importantly, the Tenth Circuit chose to make this ruling rather than affirming a sound district court holding, indicating that the judicial shift was deliberate.¹⁶

Part I of this Note will trace the development of internet-based trademark law and the relevant evidentiary standards for proving likelihood of confusion. Part II will discuss the *1-800 Contacts* case, first by examining the District of Utah's decision to strike survey evidence and rule in favor of Lens.com. Then Part II will describe the Tenth Circuit's ruling, also in favor of Lens.com but on different grounds. Finally, Part III

12. See *Brookfield*, 174 F.3d at 1062 (a ruling from 1999 on competitive keyword advertising through meta tags of a competitor's trademark).

13. See *id.* (ruling that meta tags of a competitor's trademark caused IIC through diversion, even though users were not confused); see also, e.g., *Australian Gold*, 436 F.3d at 1239 (citing *Brookfield*, 174 F.3d at 1062); *Promatek Indus., Ltd. v. Equitrac Corp.*, 300 F.3d 808, 812 (7th Cir. 2002) (citing *Brookfield*, 174 F.3d at 1062, 1064).

14. See generally *1-800 Contacts*, 722 F.3d at 1229. For examples of the trend in general, see *Network Automation*, 638 F.3d at 1154 (rejecting the diversion standard and focusing on evidence of actual confusion); see also *Lamparello v. Falwell*, 420 F.3d 309, 316 (4th Cir. 2005) (explicitly rejecting *Brookfield*); *Playboy Enters., Inc. v. Netscape Commc'ns Corp.*, 354 F.3d 1020, 1034–36 (9th Cir. 2004) (Berzon, J., concurring) (explaining that purchasing a trademarked AdWord without using it deceptively in an advertisement is permissible competitive behavior).

15. Eric Goldman, *Tenth Circuit Kills the Initial Interest Confusion Doctrine—1-800 Contacts v. Lens.com*, Technology & Marketing Law Blog (July 18, 2013) (explaining that click-through rates seldom rise above 3 percent), http://blog.ericgoldman.org/archives/2013/07/tenth_circuit_k.htm; *1-800 Contacts*, 722 F.3d at 1244 (implying that a rate less than 7.6 percent could weigh against LOC).

16. See *id.* at 1229.

evaluates *1-800 Contacts* in light of current trademark and evidentiary law and proposes that the Tenth Circuit's acceptance of search engine data and its focus on proof of actual confusion will make success difficult for plaintiffs in future competitive keyword advertising cases.

I. TRADEMARK IN THE AGE OF SEARCH ENGINES

Claims of trademark infringement in cases of competitive keyword advertising and the use of trademarks as meta tags have required courts to apply trademark law and precedent to a new medium: internet search engines.¹⁷ Early applications of the IIC doctrine in these cases refused to acknowledge the effect of the user's interactions with search engines and resulted in an internet-based IIC doctrine favoring trademark plaintiffs.¹⁸ However, judges in the last decade have acted to correct these earlier rulings and have created standards of interpretation and proof that now favor defendants in competitive keyword advertising cases.¹⁹

Section I.A will describe the Lanham Act and the multifactor LOC test. Next, Section I.B will examine how the LOC test applies in the Tenth Circuit, paying attention to the "evidence of actual confusion" factor and the standards of proof—including survey evidence—that can support actual confusion. Finally, Section I.C will review the IIC doctrine's development from part of the LOC analysis to a simple, almost separate claim in competitive keyword advertising cases, before courts once again placed it within the LOC framework.

A. TRADEMARKS, THE LANHAM ACT, AND AN INTRODUCTION TO LOC

The basic purpose of a trademark is to help a consumer distinguish between similar goods in a competitive market environment through a "system of trade symbols that identify and distinguish each competitor's wares."²⁰ These symbols allow the consumer to make purchases based on the qualities they associate with a particular seller.²¹ Without exclusive

17. See *Brookfield*, 174 F.3d at 1036 (one of the first cases applying LOC and IIC to the internet).

18. See *id.*; see also Jennifer E. Rothman, *Initial Interest Confusion: Standing at the Crossroads of Trademark Law*, 27 CARDOZO L. REV. 105, 122–23 (2005) (indicating that *Brookfield* allowed plaintiffs to prove IIC without a showing of confusion).

19. See *Network Automation, Inc. v. Advanced Sys. Concepts, Inc.*, 638 F.3d 1137, 1147–48 (9th Cir. 2011).

20. 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 3:5 (4th ed. 2014).

21. Lastowka, *supra* note 5, at 1362.

trademark rights, multiple companies could use similar marks and cause consumers who rely on trademarks to accidentally associate the positive qualities of one company's product with a different company's potentially inferior product. To avoid this type of confusion, the Lanham Act implements a system of exclusive rights to a trademark.²²

1. *The Lanham Act*

The Lanham Act regulates “deceptive and misleading uses [of trademarks] and . . . prevent[s] unfair competition, fraud, and deception. . . .” by providing trademark owners with a cause of action for trademark infringement.²³ Section 32(a) of the Lanham Act provides a claim for owners of registered trademarks against those who “use in commerce any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services on or in connection with which such use is *likely to cause confusion*.”²⁴ Section 43(a) extends this same protection to unregistered marks, and because the elements of infringement are identical to those in § 32(a), courts will reference the two sections interchangeably when discussing a use that could cause consumer confusion.²⁵ Regardless of registration, the Lanham Act only provides trademark owners with a cause of action for infringement; it does not define which uses are “likely to cause confusion.” That responsibility remains with the courts.²⁶

2. *LOC Framework: Inconsistencies and Overlaps*

The LOC framework is a judicial precedent that sets forth a multifactor test for proving the likelihood of consumer confusion in Lanham Act claims.²⁷ While each circuit recognizes and balances different LOC factors, four factors are consistent in all circuits: (1) the strength of their mark, (2) the similarity of the allegedly infringing mark, (3) the proximity of the marked goods, and (4) evidence of actual confusion in the

22. *See id.* at 1361–62. There are some exceptions to the grant of exclusive use such as comparative advertising, parody, criticism, and commentary. *See* 4 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 24:124 (4th ed. 2014).

23. Rothman, *supra* note 18, at 123 (internal quotations omitted); *see generally* Lanham Act § 32, 15 U.S.C. § 1114 (2012).

24. Lanham Act § 32(a), 15 U.S.C. § 1114(a) (2012) (emphasis added).

25. Lanham Act § 43(a), 15 U.S.C. § 1125(a) (2012). *See 1-800 Contacts*, 722 F.3d at 1242 (“[T]he tests for likelihood of confusion under § 32 and § 43(a) do not differ materially”).

26. Beebe, *supra* note 8, at 1647.

27. *See id.* at 1582.

marketplace.²⁸ A fifth factor, the alleged infringer's intent, also appears in all circuits but the Federal Circuit.²⁹

If courts recognized LOC factors common to all circuits but gave them less weight than LOC factors unique to each circuit, there would be little similarity between the circuits' LOC frameworks; however, empirical data suggests that two of the five common factors have a disproportionate, if not dispositive, effect on outcomes in trademark litigation.³⁰ A cross-circuit study found that findings of "intent to infringe" resulted in rulings of LOC in 97 percent of cases, and a finding of actual confusion resulted in rulings of LOC in 92 percent of cases.³¹ The other three factors had smaller, but not insignificant, dispositive effects ranging from 72 to 84 percent across the circuits;³² thus, the weight given to these common factors indicates at least some similarity in the circuits' application of the LOC framework.³³

B. PROVING LOC IN THE TENTH CIRCUIT

In a Lanham Act claim, "[t]he party alleging infringement has the burden of proving LOC."³⁴ In the Tenth Circuit, plaintiffs meet this burden through six LOC factors set out in *King of the Mountain Sports, Inc. v. Chrysler Corp.*³⁵ Plaintiffs may attempt to show one of these factors—proof of actual confusion—through survey evidence, although courts have broad discretion in admitting surveys, and there is no guarantee that the survey will support the plaintiff's allegations.³⁶

1. King of the Mountain Factors

In *King of the Mountain*, the Tenth Circuit identified six factors for proving LOC in a trademark infringement case:

- (a) the degree of similarity between the marks;
- (b) the intent of the alleged infringer in adopting its mark;

28. *Id.*

29. *Id.* at 1589–90.

30. *Id.* at 1587, 1608.

31. *Id.* at 1608.

32. *Id.* at 1609.

33. *See id.* at 1610.

34. *Jordache Enters., Inc. v. Hogg Wyld, Ltd.*, 828 F.2d 1482, 1484 (10th Cir. 1987).

35. 185 F.3d 1084, 1089–90 (10th Cir. 1999).

36. *See Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864 n.8 (10th Cir. 2008).

- (c) evidence of actual confusion;
- (d) the relation in use and the manner of marketing between the goods or services marketed by the competing parties;
- (e) the degree of care likely to be exercised by purchasers; and
- (f) the strength or weakness of the marks.³⁷

According to the court, none of these factors should be determinative,³⁸ and the relative strength of each factor depends on the context of the situation.³⁹

When examining the similarity of marks, the first factor, the court looks at the parties' trademarks "in the context of the marks as a whole as they are encountered by consumers in the marketplace," and it examines the mark in isolation, not beside the allegedly infringed mark.⁴⁰ The focus when determining the second factor, intent, "is whether [the] defendant had the intent to derive benefit from the reputation or goodwill of [the] plaintiff."⁴¹ The relationship between the goods and manner of marketing, factor four, is significant because similar goods are more likely to cause consumer confusion.⁴² Since caring consumers focus on products rather than the associated trademarks, these consumers can and probably will distinguish between similar marks; thus, the fifth factor allows courts to determine the permissible level of similarity between two marks by analyzing the degree of consumer care in a particular market.⁴³ Finally, the sixth factor implies that a business is more likely to cause confusion by adopting a competitor's mark if the mark is unique and immediately

37. *King of the Mountain*, 185 F.3d at 1089–90. As indicated earlier, these factors are extremely similar to those in other circuits, probably because they all derive from the Restatement (First) of Torts (1938). For discussion of other circuits' factors, see *Rosetta Stone Ltd. v. Google, Inc.*, 676 F.3d 144, 153 (4th Cir. 2012) (setting out nine factors and finding infringement where the trademark appeared in the ad copy); *N. Am. Med. Corp. v. Axiom Worldwide, Inc.*, 522 F.3d 1211, 1220 (11th Cir. 2008) (listing seven factors); *Interpace Corp. v. Lapp, Inc.*, 721 F.2d 460, 463 (3rd Cir. 1983) (providing ten factors); *Sun-Fun Prods., Inc. v. Suntan Research & Dev., Inc.*, 656 F.2d 186, 189 (5th Cir. 1981) (compiling nine factors); *AMF v. Sleekcraft Boats*, 599 F.2d 341, 348–54 (9th Cir. 1979) (listing nine factors).

38. *King of the Mountain*, 185 F.3d at 1090.

39. *Id.*

40. *Id.* (quoting *Beer Nuts, Inc. v. Clover Club Foods Co.*, 805 F.2d 920, 925 (10th Cir. 1986)).

41. *Id.* at 1091 (quoting *Jordache Enters., Inc. v. Hogg Wyld, Ltd.*, 828 F.2d 1482, 1485 (10th Cir. 1987) (quoting *Sicilia Di R. Beibow & Co. v. Cox*, 732 F.2d 417, 431 (5th Cir. 1984))).

42. *Id.* at 1092.

43. *Id.*

recognizable in a market—such a mark is a “strong” mark—than if the mark is only descriptive of the competitor’s good or service, and thus applicable to the market for those goods and services as a whole.⁴⁴

Evidence of actual confusion, the fourth factor, may be the most important factor. *King of the Mountain* held that evidence of actual confusion could help prove LOC, and courts across several circuits view this as the strongest evidence a plaintiff can present in a trademark infringement case.⁴⁵ But the evidence can cut both ways. If a plaintiff can only provide evidence of a few instances of actual confusion, then it may inadvertently prove that there is no likelihood of confusion.⁴⁶ This determination depends upon the number of transactions involved in the case, but when there are a large number of transactions but little evidence of confusion, the evidence tends to indicate that despite ample opportunity, consumers are not actually confused.⁴⁷

The *King of the Mountain* court ultimately found that there was no likelihood of consumer confusion based partially on the *de minimis* anecdotal evidence of actual confusion.⁴⁸ However, plaintiffs in a Lanham Act case have another option to prove actual confusion if anecdotal evidence is *de minimis*; in cases “where evidence of confusion is not available or is not persuasive, the gap can sometimes be filled by a properly

44. *See id.* at 1093.

45. *Id.* at 1092; *see also* *Playboy Enters., Inc. v. Netscape Commc’ns Corp.*, 354 F.3d 1020 (9th Cir. 2004) (“actual confusion is at the heart of the likelihood of confusion analysis”); *Universal Money Ctrs., Inc. v. AT&T Co.*, 22 F.3d 1527, 1534 (10th Cir. 1994) (indicating that evidence of actual confusion as the best evidence for likelihood of confusion); *Grotrian, Helfferich, Schulz, Th. Steinweg Nachf. v. Steinway & Sons (Steinway I)*, 365 F. Supp. 707, 716 (S.D.N.Y. 1973) (“[T]here can be no more positive proof of likelihood of confusion than evidence of actual confusion”), *aff’d*, *Grotrian, Helfferich, Schulz, Th. Steinweg Nachf. v. Steinway & Sons (Steinway II)*, 523 F.2d 1331(2d Cir. 1975).

46. *King of the Mountain*, 185 F.3d at 1092 (seven instances of confusion in the case were *de minimis*); *Syndicate Sales, Inc. v. Hampshire Paper Corp.*, 192 F.3d 633, 638 (7th Cir. 1999) (two anecdotes detailing initial confusion were *de minimis*).

47. The court may go the other way, such as when the Eleventh Circuit held that four documented instances of confusion were probative of confusion when consumers were unlikely to inform the trademark owner of their confusion. *See* 4 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION, § 23:14 (4th ed. 2014) (referring to *AmBrit, Inc. v. Kraft, Inc.*, 805 F.2d 974 (11th Cir. 1986)); *see also* *Binder v. Disability Group, Inc.*, 772 F. Supp. 1172 (C.D. Cal. 2011) (crediting a survey finding evidence of sixteen of seventeen individuals who actually clicked on the defendant’s website after searching for the plaintiff were confused, and, in conjunction with persuasive witness testimony, finding sufficient likelihood of confusion).

48. *King of the Mountain*, 185 F.3d at 1092–93.

conducted survey of the relevant class of prospective customers of the goods or services at issue.”⁴⁹

2. *Proving Actual Confusion Through Survey Evidence*

Courts will accept a well-conducted survey as evidence of actual confusion that in turn acts as evidence of LOC.⁵⁰ The creator of a survey must also be an expert witness, however, as defined by Rule 702 of the Federal Rules of Evidence.⁵¹ Under this Rule, the survey is acceptable evidence if it “is the product of reliable principles and methods” and if the creator can reasonably be called an expert in her field.⁵² These are surprisingly difficult standards to satisfy; therefore, to aid in survey construction and expert selection, the Federal Judicial Center has published a guide on scientific evidence that includes criteria for survey construction and evaluation.⁵³ Commonly contested elements include the appropriateness of the universe of survey respondents,⁵⁴ the bias of the questions,⁵⁵ and the competence of the survey’s creator.⁵⁶

The first and, in some ways, the most determinative characteristic of a survey is its “universe.”⁵⁷ This is “the group of people from which participants in the survey are selected, and thus is the group of people whose perceptions the survey is intended to represent.”⁵⁸ Thus, an appropriate universe is one that includes “a fair sampling of those purchasers most likely to partake of the alleged infringer’s goods or services.”⁵⁹ If survey participants are not likely to consume the alleged infringer’s goods or use its services, their responses cannot be relevant to a

49. See MCCARTHY, *supra* note 47, at § 23:17. See also *Universal Money Centers, Inc. v. AT&T Co.*, 22 F.3d 1527 (10th Cir. 1994) (permitting surveys as actual evidence of confusion).

50. *Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864 n.8 (10th Cir. 2008) (“[e]vidence of actual confusion is also introduced through surveys”). See Beebe, *supra* note 8, at 1641 (referencing thirty-four cases in which judges credited survey evidence).

51. FED. R. EVID. 702 (2012).

52. *Id.*

53. See Shari Seidman Diamond, *Reference Guide on Survey Research*, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 359 (3d ed. 2011).

54. See *id.* at 376.

55. See *id.* at 387.

56. See *id.* at 375.

57. William G. Barber, *The Universe*, in TRADEMARK AND DECEPTIVE ADVERTISING SURVEYS 27 (Shari Seidman Diamond & Jerre B. Swann eds., 2012).

58. *Id.*

59. *Id.* at 29 (quoting *Amstar Corp. v. Domino’s Pizza, Inc.*, 615 F.2d 252, 264 (5th Cir. 1980)).

survey intended to test consumer confusion and could impermissibly skew the results.⁶⁰

Even a survey with the correct universe may be problematic because it must still contain unbiased and well-crafted questions.⁶¹ While courts often perceive open-ended questions as the least biased, surveys generally use closed-ended questions where participants select from a set of predetermined responses.⁶² While courts are suspicious of closed-ended questions and will sometimes assume they are framed to lead a respondent, scholars believe “a question becomes leading only when it leads the respondent to *select* one answer rather than another.”⁶³

Finally, the court often looks to the qualifications of a survey expert when deciding on the survey’s validity.⁶⁴ Given that objectivity is a good expert’s first qualification, disputants should not conduct in-house surveys, especially when they do not have the necessary experience.⁶⁵ This experience includes “academic credentials and relevant publications and work experience,”⁶⁶ although any degree must be in the correct field: a doctorate in “statistics, for example, is too mathematically focused to imbue significant credibility to a trademark study.”⁶⁷

These three factors—universe, questions, and creator qualifications—can contribute to an excellent survey, but when unsatisfied, these factors

60. G. Kip Edwards, *The Daubert Revolution and Lanham Act Surveys*, in TRADEMARK AND DECEPTIVE ADVERTISING SURVEYS 340 (Shari Seidman Diamond & Jerre B. Swann eds., 2012).

61. Jacob Jacoby, *Are Closed-Ended Questions Leading Questions?*, in TRADEMARK AND DECEPTIVE ADVERTISING SURVEYS 261–62 (Shari Seidman Diamond & Jerre B. Swann eds., 2012) (indicating that courts are wary of certain types of questions).

62. *Id.* at 263–64.

63. *Id.* at 267 (emphasis in original). Empirical evidence tends to support these scholars’ belief. *See id.* at 268–70 (indicating that closed-ended questions are proven to work within the relevant field of social science); *see also* FED. R. EVID. 703 (allowing experts to use empirical methods from their respective fields). Nevertheless, closed-ended questions may still create bias if they fail to provide a neutral response, only require a “yes” or “no” as an answer, fail to be fair and balanced by excluding the opposition’s opinions, emphasize one position over the other, use an unbalanced scale, or employ directional or loaded language. *See* Jacoby, *supra* note 61, at 274–80.

64. Jacob Jacoby, Robert L. Raskopf, & Claudia Bogdanos, *Selecting a Survey Expert*, in TRADEMARK AND DECEPTIVE ADVERTISING SURVEYS 57 (Shari Seidman Diamond & Jerre B. Swann eds., 2012).

65. *Id.* at 60.

66. *Id.* at 65.

67. *Id.* Some factors that work in a survey expert’s favor include a background in consumer psychology or behavior, excellent referrals, and a history of studies that display both depth and quality, which all significantly bolster an expert’s credibility. *See id.*

can also cast doubt on the evidentiary quality of the survey. If a court considers a survey unsatisfactory in some way, it has several options.

3. *Solutions for Survey Problems: Weight Versus Admissibility and the Court's Discretion to Strike*

Inevitably, a survey will have some flaws. The general rule in this circumstance, then, is that the flaws influence the survey's weight, not its admissibility—the jury may decide how readily it will accept the evidence.⁶⁸ However, under some circumstances the judge may rule that the survey is too flawed and strike it from the evidence.⁶⁹

A judge can choose not to admit expert testimony under Rule 702, and in the Tenth Circuit, this discretion explicitly extends to survey evidence.⁷⁰ The correct use of this discretion is evident in *Vail Associates, Inc. v. Vend-Tel-Co., Ltd.*, a case where the defendant was able to introduce an expert who testified that the plaintiff's survey suffered from severe methodological flaws that unduly favored the plaintiff.⁷¹ The district court agreed and struck the evidence on reasonable grounds, and because the appellate court had to honor the lower court's Rule 702 discretion absent a "conviction that it [was] arbitrary, capricious, whimsical, manifestly unreasonable, or clearly erroneous," the appellate court affirmed the decision.⁷²

Thus, a court may refuse to admit a poor survey; it must, however, allow parties to present a well-crafted survey, even if the evidence is weak or unhelpful.⁷³ The case then depends on the judge or jury's interpretation of the admitted evidence, which can ultimately harm the submitting party's case.⁷⁴

4. *Interpreting Survey Evidence*

Even if a survey is admissible and free of defect, it may reveal a *de minimis* rate of confusion that indicates a lack of actual consumer

68. *1-800 Contacts*, 722 F.3d at 1246 (citing *Brunswick Corp. v. Spinit Reel Co.*, 832 F.2d 513, 523 (10th Cir. 1987)).

69. *See Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864–65 n.8 (10th Cir. 2008) (noting a district court may refuse to admit unreliable survey evidence).

70. *Id.*

71. *Id.*

72. *Id.* (quoting *Bitler v. A.O. Smith Corp.*, 400 F.3d 1227, 1232 (10th Cir. 2004)) (internal quotations omitted).

73. With some frequency, parties will submit survey evidence that ultimately harms their case. *See Beebe, supra* note 8, at 1641 (describing instances where courts used survey evidence against the submitting party).

74. *See id.*

confusion.⁷⁵ Unfortunately, the circuits have never provided a bright line rule for the *de minimis* threshold. Within the Tenth Circuit, at least, it was certain in the 1990s that a 2.6 percent rate of confusion was *de minimis*, but the court never set a rate at which it would automatically find confusion.⁷⁶ The Seventh Circuit has indicated that a 7.6 percent rate of confusion is insufficient to prove actual confusion.⁷⁷ The Second-Circuit *Grotian, Helferich, Shulz, Th. Steinweg Nachf. v. Steinway & Sons* (“*Steinway II*”) case found an 8.5 percent rate of confusion indicative of actual confusion, but only when there was additional compelling evidence.⁷⁸ Another Second Circuit case set the threshold around 7 percent, but also required further evidence of confusion.⁷⁹ J. Thomas McCarthy, a prominent trademark scholar, indicates that a rate of confusion less than 10 percent is poor evidence for actual confusion, and lower rates can be evidence against confusion.⁸⁰

A survey must thus be both well crafted and probative of a greater than *de minimis* rate of confusion in order for courts to accept it as proof of actual confusion alongside traditional anecdotal evidence.⁸¹ Once evidence of actual confusion has been accepted, it serves as part of the LOC framework.

C. DEVELOPMENT OF THE IIC DOCTRINE: FROM *STEINWAY* TO SEARCH ENGINES

Other considerations fit within the LOC analysis, including the nature of consumer confusion.⁸² Courts have indicated that confusion can occur pre-sale, post-sale, or at the point of sale, and the IIC doctrine reflects judicial attempts to define the scope of pre-sale confusion to include confusion that grabs customers’ attention rather than deceiving them.⁸³

75. 6 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 32:189 (4th ed. 2014).

76. *Universal Money Ctrs., Inc. v. AT&T Co.*, 22 F.3d 1527, 1537 (10th Cir. 1994).

77. *Henri’s Food Prods. Co. v. Kraft, Inc.*, 717 F.2d 352, 358 (7th Cir. 1983).

78. *Steinway I*, 365 F. Supp. at 716.

79. *Goya Foods, Inc. v. Condal Distribs., Inc.*, 732 F. Supp. 453, 457 n.7 (S.D.N.Y. 1990).

80. See MCCARTHY, *supra* note 75, at § 32:189.

81. See *Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 864 n.8 (10th Cir. 2008) (holding that courts may refuse to admit unreliable survey evidence); *Universal Money Ctrs.*, 22 F.3d at 1537 (indicating that *de minimis* survey evidence is not probative of actual confusion).

82. MCCARTHY, *supra* note 47, at § 23:5.

83. See *id.* at §§ 23:5, 23:10 (describing common types of confusion). See also *Steinway I*, 365 F. Supp. at 717 (indicating when IIC occurs).

This Section will track the development of the IIC doctrine from the 1970s to today and its application to competitive keyword advertising.

1. *IIC Before the Internet*

The IIC doctrine arose in 1973 with *Steinway II*, in which a German piano manufacturer sought declaratory judgment that its “Grotian-Steinweg” mark did not infringe upon the well-known U.S. “Steinway” mark.⁸⁴ While the court acknowledged that the similarity of the marks would not confuse purchasers of pianos at the point of sale, there was a risk that the similarity between the Steinweg and Steinway marks might confuse consumers in the earliest stage of the purchasing process when buyers were searching the market for a musical instrument.⁸⁵ The “Grotian-Steinweg” mark could “attract potential customers based on the reputation built up by Steinway. . . . [and s]uch initial confusion work[ed] an injury to Steinway.”⁸⁶ After acknowledging evidence of actual confusion and examining other LOC factors, the court found in favor of Steinway, enjoined Steinweg from using its mark in the United States, and created the IIC precedent that would prove useful to courts ruling on search engine-based trademark infringement more than twenty years later.⁸⁷

2. *Search Engine IIC*

The 1990s saw the first cases involving confusion from competitive keyword advertising, and because the alleged confusion occurred while internet users were searching for a product or service, the IIC doctrine, which applied to the pre-sale consumer experience, was an attractive standard.⁸⁸ Unfortunately, *Brookfield Communications, Inc. v. West Coast Entertainment Corp.*, a 1999 Ninth Circuit decision addressing competitive keyword advertising, misunderstood the concept of IIC.⁸⁹ The ruling created a precedent that warped search engine-based IIC doctrine for several years, after other federal courts cited *Brookfield* when deciding on competitive keyword advertising claims in their own circuits.⁹⁰

84. See *Steinway II*, 523 F.2d at 1334–35.

85. *Id.* at 1342.

86. *Id.*

87. *Id.* at 1344. See *Brookfield Commc’ns, Inc. v. West Coast Entm’t, Inc.*, 174 F.3d 1036, 1063 (9th Cir. 1999) (citing *Steinway II*, 523 F.2d at 1341–42, in a meta tag case).

88. See *Brookfield*, 174 F.3d at 1064.

89. *Id.*

90. See *Australian Gold, Inc. v. Hatfield*, 436 F.3d 1228, 1239 (10th Cir. 2006) (citing *Brookfield*, 174 F.3d at 1061–65, seven years after the ruling).

In the *Brookfield* case, Brookfield Communications, the creator of an entertainment database, owned the “MovieBuff” trademark and brought suit after discovering that West Coast Entertainment, a movie rental chain, intended to use the term MovieBuff in its website meta tags.⁹¹ West Coast’s website would thus appear in the search results when an internet user searched for MovieBuff.⁹² However, users conducting a search for these terms would never see the meta tag, just the search engine link to the clearly labeled West Coast website.⁹³

Despite users’ inability to observe meta tags, the court in *Brookfield* analogized using a competitor’s trademark in an invisible code to visibly displaying a competitor’s trademark in front of a store.⁹⁴ It then compared using a search engine to driving down a highway, where the various website links were like exit signs.⁹⁵ West Coast’s use of the “MovieBuff” meta tag was supposedly similar to a business tricking drivers by advertising for a competitor at the highway exit for the business’s own premises.⁹⁶ According to the court, the drivers would leave the highway too early, find the deceptive business, and would perhaps make a purchase for the sake of convenience.⁹⁷ In this scenario, the drivers were not confused at the time of purchase—they knew exactly from whom they were buying a product—but the IIC diverted drivers, causing a competitor to lose a sale.⁹⁸

The difference between drivers and web surfers is that while an intentionally misleading highway exit sign might confuse the former, the latter know where a search engine link will lead; there is no actual confusion.⁹⁹ The court explicitly recognized this difference in *Brookfield*, acknowledging that “there [was] no source of confusion in the sense that consumers [knew] they [were] patronizing West Coast rather than Brookfield.”¹⁰⁰ Even though the website link, unlike a deceptive exit sign, indicated that it led to West Coast’s website and thus created no LOC, the court concluded “that the Lanham Act bar[red] West Coast from

91. *Brookfield*, 174 F.3d at 1041–42.

92. *Id.* at 1045.

93. *Id.* at 1041–42.

94. *Id.* at 1036.

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.*

99. *See id.* at 1062.

100. *Id.*

including in its meta[]tags any term confusingly similar with Brookfield's mark."¹⁰¹

Like other circuits,¹⁰² the Tenth Circuit followed the Ninth Circuit's approach to competitive keyword-advertising IIC in another case involving meta tags, *Australian Gold, Inc. v. Hatfield*.¹⁰³ Plaintiffs, collectively "Australian Gold," were producers and distributors of tanning lotion who discovered that the Hatfields, a family with several online businesses, were reselling Australian Gold's lotion on multiple websites, placing its trademark in those websites' meta tags, and paying for those websites to appear in premium positions in search results for Australian Gold's mark.¹⁰⁴ Citing *Brookfield*, the court held that the Hatfields' use of the Australian Gold trademarks in the meta tags and the payment for a better search result position created IIC by attempting to divert traffic away from Australian Gold's products.¹⁰⁵

3. *Changes in the Ninth Circuit Doctrine*

Since the rulings in *Brookfield* and similar cases, trademark scholars have noted the misapplication of IIC to claims of competitive keyword advertising,¹⁰⁶ and several circuits have shifted or rejected the *Brookfield* analysis.¹⁰⁷ Without expressly repudiating *Brookfield*, the Ninth Circuit stepped away from competitive keyword-advertising IIC in *Network Automation v. Advanced System Concepts*.¹⁰⁸ The court held that using a trademark as a search engine keyword was not likely to cause IIC, replacing the *Brookfield* highway metaphor with the department store metaphor first articulated in a concurrence in *Playboy Enterprises v. Netscape Communications Corp.*¹⁰⁹ Under this analogy, users were like

101. *Id.* at 1065.

102. *See* *Promatek Indus., Ltd. v. Equitrac Corp.*, 300 F.3d 808, 814 (7th Cir. 2002).

103. *Australian Gold, Inc. v. Hatfield*, 436 F.3d 1228, 1231–32 (10th Cir. 2006).

104. *Id.* at 1231–32, 1239.

105. *Id.* at 1239–40.

106. Rothman, *supra* note 18, at 107–09 (indicating that the IIC doctrine fails to apply key elements of trademark law). *See Brookfield*, 174 F.3d at 1062, 1064–66.)

107. The Ninth Circuit was among the circuits to shift from *Brookfield's* ruling. *See Network Automation, Inc. v. Advanced Systems Concepts, Inc.*, 638 F.3d 1137, 1148 (9th Cir. 2011); *see also Brookfield*, 174 F.3d at 1062. Meanwhile the Fourth Circuit adamantly insists it never recognized IIC. *See Lamparello v. Falwell*, 420 F.3d 309, 316 (4th Cir. 2005).

108. 638 F.3d at 1148.

109. *Id.* (citing with approval *Playboy Enters., Inc. v. Netscape Commc'ns Corp.*, 354 F.3d 1020 (9th Cir. 2004)) (Berzon, J., concurring) (explaining that purchasing a trademarked AdWord without using it deceptively in an advertisement is permissible competitive behavior).

shoppers, the search engine was like a department store, and entering a search term was like asking a salesperson for directions to a specific brand.¹¹⁰ The salesperson would direct the user to the brand, but the user might encounter another, preferable brand in the meantime, probably because the brand owner paid for favorable placement within the store.¹¹¹ The brand owner did not violate the Lanham Act in this scenario by diverting the user “with a clearly labeled, but more prominent display.”¹¹² There was no effort to deceive, and the court held that “it would be wrong to expand the [IIC] theory of infringement beyond the realm of the misleading and deceptive.”¹¹³

The Ninth Circuit’s stance in *Network Automation* conforms more closely to user experiences on the internet than its previous position in *Brookfield*; however, some circuits, including the Tenth Circuit, continued to follow the *Brookfield* court’s example in the application of IIC to competitive keyword advertising.¹¹⁴

II. 1-800 CONTACTS V. LENS.COM

In *1-800 Contacts*, the Tenth Circuit held that Lens.com did not create a LOC by purchasing a search keyword that resembled 1-800’s “1800CONTACTS” trademark.¹¹⁵ While this ruling affirmed the district court’s decision in *1-800 Contacts v. Lens.com* (“*Contacts I*”), it did so on slightly different grounds and also considered Google data as evidence of actual confusion.¹¹⁶ This Section will describe the facts of the case and discuss 1-800 Contacts, Inc.’s (“1-800”) attempt to prove LOC through survey evidence, before detailing the district court’s refusal to admit the survey and its subsequent summary judgment in favor of Lens.com. The Section will then expand on the Tenth Circuit’s decision to examine the struck survey as if it were admissible, and then touch on the court’s choice

110. *Id.*

111. *Id.*

112. *Id.*

113. *Id.*

114. The Tenth Circuit followed *Brookfield* until *1-800 Contacts*. See *Australian Gold*, 436 F.3d 1228, 1239 (10th Cir. 2006) (citing *Brookfield*, 174 F.3d at 61–65); see also *1-800 Contacts*, 722 F.3d at 1245 (distinguishing *Australian Gold*); but see *Promatek Inds., Ltd. v. Equitrac Corp.*, 300 F.3d 808, 812–13 (7th Cir. 2002) (citing with approval *Brookfield*, 174 F.3d at 1062, 1064).

115. *1-800 Contacts*, 722 F.3d at 1229.

116. See generally *id.* at 1234–35, 1244; see also *1-800 Contacts, Inc. v. Lens.com, Inc. (Contacts I)*, 755 F. Supp. 2d 1151 (D. Utah 2010).

to examine evidence from Google as proof against actual confusion in a competitive keyword-advertising suit.

A. FACTS OF THE CASE AND THE EVIDENCE

1-800 is a leading contact retailer that owns the registered trademark “1800CONTACTS.”¹¹⁷ In 2005, the company began a legal dispute with its competitor Lens.com after discovering that a search for “1-800 Contacts” on Google produced AdWord impressions for Lens.com, suggesting that Lens.com had paid for its links to appear when users searched for 1-800.¹¹⁸

Lens.com, unlike 1-800, conducts its business almost exclusively online.¹¹⁹ Discovery in the case revealed that Lens.com had bid on nine AdWords that were similar to 1-800’s trademark, including slight variations such as “1-800 contact lenses” and misspellings of the company’s name like “800 comtacts.com.”¹²⁰ Lens.com did not bid on the actual trademark 1800CONTACTS, nor did it feature the mark in the impression’s ad copy; thus, Google users never saw 1-800’s trademark associated with Lens.com’s own ads.¹²¹

At trial, 1-800 attempted to prove actual consumer confusion through two key pieces of evidence.¹²² The first was the recording of a single phone call made by a customer of Lens.com.¹²³ The customer was canceling her order after realizing that Lens.com was not, in fact, 1-800.¹²⁴ Importantly, at no point in the recording did she indicate how she became aware of Lens.com or claim to make the incorrect order.¹²⁵

The second piece of evidence considered by the court was a survey conducted by Carl Degen that revealed an average consumer confusion rate of 7.4 percent in this case.¹²⁶ Degen is an economist with a bachelor’s and master’s degree in economics, and Ph.D. coursework in the same

117. *1-800 Contacts*, 722 F.3d at 1234.

118. *Id.*

119. *Id.* at 1235.

120. *Id.* at 1237. Note that these bids were only nine of the thousands of bids Lens.com made during this period. *See Contacts I*, 755 F. Supp. 2d at 1176.

121. *1-800 Contacts*, 722 F.3d at 1237.

122. *See id.* at 1240, 1245.

123. *Id.* at 1245.

124. *Id.*

125. *Id.*

126. *Id.* at 1240; *1-800 Contacts*, 722 F.3d at 1247.

subject.¹²⁷ He also has academic training in statistics and a long history of employment at an economic research and consulting firm.¹²⁸ While Degen did have experience conducting surveys, they were primarily related to postal cases and involved a higher degree of statistical and numerical analysis than was useful in a test for consumer confusion.¹²⁹ In fact, before the *1-800 Contacts* case, Degen had never created a survey to test for the likelihood of consumer confusion.¹³⁰

B. THE DISTRICT COURT'S DECISION

The United States District Court for the District of Utah handed down two important decisions in *Contacts I*, the precursor to *1-800 Contacts*.¹³¹ The first significant holding in the case came from a memorandum decision that struck 1-800's survey from evidence because of impermissible flaws in the creator's qualifications and in his execution of the study. The final reported decision granted a motion for summary judgment, since the remaining evidence in the case could not prove LOC.¹³²

1. *The Memorandum Decision Struck Carl Degen's Survey Evidence*

In the memorandum decision, the court exercised its Rule 702 discretion to strike the Degen survey after Lens.com moved to strike the evidence for failing to meet the rule's reliability requirements.¹³³ Citing deficiencies in Degen's background and various flaws in his methodology, the court granted Lens.com's motion.¹³⁴ First, the court ruled that Degen was not a qualified expert in consumer confusion surveys, and that his lack of experience negatively impacted his credibility.¹³⁵ Second, the court held that Degen's survey was overinclusive because it did not limit the pool of respondents to individuals who purchased contact lenses over the internet.¹³⁶

127. Memorandum Decision and Order on Carl Degen Evidence at 2, *1-800 Contacts, Inc. v. Lens.com, Inc.*, 755 F. Supp. 2d 1151 (D. Utah 2010) (No. 2:07-cv-591 CW) [hereinafter Memorandum Decision].

128. *Id.* at 2.

129. *Id.* at 2–3.

130. *Id.*

131. *See* Memorandum Decision, *supra* note 127, at 1; *Contacts I*, 755 F. Supp. 2d at 1181–82.

132. *Id.*

133. Memorandum Decision, *supra* note 127, at 1.

134. *Id.* at 1.

135. *Id.* at 13.

136. *Id.* at 16.

Third, the court took issue with the survey questions' suggestiveness. Degen's survey asked the respondents if an indicated link originated from 1-800-CONTACTS and gave them the options "yes," "no," or "don't know."¹³⁷ This was a closed-ended question, and although closed-ended questions do not always render the survey inadequate, this particular structure failed to offer "exhaustive alternative responses" because no company was named other than 1-800.¹³⁸ Furthermore, the court held that the question itself was ambiguous because 1-800-CONTACTS could have referred to the company or the search term, and some participants might have selected "yes" to indicate a belief that the Lens.com ad originated from the scenario described in the survey.¹³⁹ The court also concluded that even the word "originates" as used in the survey was ambiguous because laypersons and lawyers might interpret it differently.¹⁴⁰

In support of these criticisms, the court heard testimony from Hal Poret, the vice president of a survey research firm, who has a significant background in the field of trademark survey design and a record of presenting acceptable evidence before a court.¹⁴¹ In light of Poret's testimony and the court's independent conclusions, the court found the flaws in Degen's survey to be substantial enough to overcome the general rule that a survey's technical flaws affect its weight instead of its admissibility.¹⁴² Therefore, the court concluded that 1-800 "failed in its burden of establishing that Degen's survey [was] admissible under Rule 702."¹⁴³ With the survey dismissed, the court examined the remainder of 1-800's case.

2. *The District Court Ruling*

After striking the Degen survey, the district court ruled that 1-800 had not adequately shown LOC.¹⁴⁴ While Lens.com used the mark in commerce by purchasing nearly identical AdWords, it could only be liable if that use caused some kind of consumer confusion.¹⁴⁵ The court tested

137. *Id.* at 18.

138. *Id.*

139. *Id.* at 19.

140. *Id.* at 20.

141. *Id.* at 3, 5.

142. *Id.* at 21.

143. *Id.*

144. *Contacts I*, 755 F. Supp. 2d at 1181.

145. *Id.* at 1169–70.

for the likelihood of IIC by applying the six Tenth Circuit factors articulated in *King of the Mountain*.¹⁴⁶

When determining the degree of similarity between the two marks, the district court examined the similarities between the mark and the ad copy, not the AdWord that was invisible to the customer.¹⁴⁷ The court found that other than containing the word “contacts,” which was at most descriptive of the company’s business, the ads were not similar.¹⁴⁸ Thus, the similarity factor was in Lens.com’s favor.¹⁴⁹

The court could not readily assess Lens.com’s intent in purchasing its competitor’s trademark as an AdWord, and the intent factor favored neither party as result. The court noted that bidding on a common misspelling of 1-800’s mark could be an attempt to benefit from the company’s goodwill; however, the 1-800 AdWords represented only a small portion of Lens.com’s advertising efforts—nine of approximately eight thousand AdWords purchased during this time.¹⁵⁰ The court thus considered this factor to be, at most, neutral.¹⁵¹

The remaining four factors were less ambiguous. The court struck the survey, the only evidence of actual confusion available at the time; thus, the evidence of actual confusion factor could not help 1-800.¹⁵² Lens.com did have products and marketing channels that were similar to 1-800’s own, and consumers probably did not exercise great care when choosing a contact supplier—both of these factors weighed in 1-800’s favor.¹⁵³ The court found the trademark strength factor to be irrelevant: while 1-800’s mark was “moderately strong,” Lens.com never placed it in the ad copy and thus did not feature it in a way that might confuse consumers.¹⁵⁴

Given that few of the factors weighed strongly in 1-800’s favor, and most were neutral or weighed strongly for Lens.com, the court granted summary judgment for Lens.com, holding that the nine AdWords

146. *Id.* at 1174. See *King of the Mountain Sports, Inc. v. Chrysler Corp.*, 185 F.3d 1084, 1089–90 (10th Cir. 1999).

147. *Contacts I*, 755 F. Supp. 2d at 1175.

148. *Id.*

149. *Id.*

150. *Id.* at 1176.

151. *Id.*

152. *Id.* at 1176–77.

153. *Id.* at 1177.

154. *Id.* at 1181.

Lens.com purchased did not infringe on 1-800s mark.¹⁵⁵ Dissatisfied with this decision, 1-800 appealed.¹⁵⁶

C. 1-800 CONTACTS AT THE TENTH CIRCUIT

On appeal the Tenth Circuit reexamined 1-800's proof of actual confusion.¹⁵⁷ 1-800 argued that the district court improperly excluded Degen's survey.¹⁵⁸ The Tenth Circuit, like the district court before it, expressed concern regarding the ambiguity of Degen's questions and noted the survey's flaws.¹⁵⁹ However, instead of affirming the lower court's decision to strike the survey, the appellate court ruled on the strength of the survey's results.¹⁶⁰ These results showed a 7.4 percent rate of consumer confusion that was, in the court's view, "fairly low."¹⁶¹ While there were other cases in which surveys with rates as low as 7 percent indicated a chance of confusion, additional evidence contributed significantly to the surveys' probative value.¹⁶² Thus, the court agreed with the Restatement (Third) of Unfair Competition's statement that "surveys *without obvious defects* indicating confusion of seven percent to [fifteen] percent of the sample have been held adequate, *when supported by other evidence*, to prove LOC."¹⁶³ It also adopted McCarthy's view that "when the percentage results of a confusion survey dip below 10 percent, they can become evidence which will indicate that confusion is *not likely*."¹⁶⁴ Because the 7.4 percent rate of confusion was too low and had no additional evidence to support it, the Degen survey received "minimal weight" in the court's analysis.¹⁶⁵

But rather than ending with the Degen survey, the court examined a new type of evidence: Google AdWords data. This data indicated that Lens.com's use of 1-800's mark only generated 1,626 ads for Lens.com

155. *Id.* at 1181-82.

156. *See 1-800 Contacts*, 722 F.3d at 1234 (10th Cir. 2013).

157. *Id.* at 1245-46.

158. Opening Brief of Appellant at 31-34, *1-800 Contacts, Inc. v. Lens.com, Inc.*, 722 F.3d 1229 (10th Cir. 2013) (No. 11-4204) [hereinafter Opening Brief].

159. *See 1-800 Contacts*, 722 F.3d at 1246-47.

160. *Id.*

161. *Id.* at 1247.

162. *Id.* at 1248-49.

163. *Id.* at 1249 (quoting RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 20 (1995)) (quotations omitted) (emphasis added by the court). The court stated that this was the strongest statement it could make in light of earlier cases that found a 7 percent rate of confusion as evidence of actual confusion only because other, stronger factors—including additional survey evidence—indicated LOC. *See id.* at 1148-49.

164. *Id.* (quoting MCCARTHY, *supra* note 75, at § 32:189).

165. *Id.*

over an eight-month period.¹⁶⁶ These 1,626 instances resulted in only twenty-five clicks on the Lens.com ad.¹⁶⁷ This evidence led the court to conclude, even disregarding all other possible motivations a user could have for clicking on the Lens.com ad,¹⁶⁸ that IIC occurred at most 1.5 percent of the time.¹⁶⁹

The Tenth Circuit affirmed the lower court and found “summary judgment for Lens.com was required.”¹⁷⁰ The court also found that 1-800s’ survey evidence could not “sustain a finding of [LOC] in the circumstances presented,”¹⁷¹ nor was 1-800’s anecdotal evidence in any way dispositive.¹⁷² Most damning to 1-800’s case, however, was the data directly from Google’s AdWords program that “overwhelmingly indicate[d] the unlikelihood of confusion.”¹⁷³

III. ANALYSIS OF THE TENTH CIRCUIT AND DISTRICT COURT OPINIONS: AN OPPORTUNITY FOR CHANGE

In *1-800 Contacts*, the Tenth Circuit examined the results of a properly struck survey and then considered search engine data as evidence of actual confusion to create a shift in doctrine that, much like the Ninth Circuit’s *Network Automation* precedent,¹⁷⁴ favors defendants in competitive keyword advertising cases. Because it could have easily affirmed the lower court, it is likely that the Tenth Circuit used *1-800 Contacts* to shift its standard for IIC in competitive keyword advertising towards a more modern understanding of search engines and consumers. Section III.A examines why the district court’s decision to strike the Degan survey and its subsequent summary judgment in favor of Lens.com was proper. Next, Section III.B proposes a justification for the Tenth Circuit’s decision to evaluate Degan’s survey results rather than affirming the lower court’s decision. Finally, Section III.C examines the Tenth

166. *Id.* at 1244.

167. *Id.*

168. For a comprehensive list of suggestions, see Eric Goldman, *Deregulating Relevancy in Internet Trademark Law*, 54 EMORY L.J. 507, 524–25 (2005).

169. *1-800 Contacts*, 722 F.3d at 1244.

170. *Id.* at 1249.

171. *Id.*

172. *Id.* at 1245.

173. *Id.* at 1249.

174. The *Network Automation* standard was significantly more permissive towards defendants than the earlier *Brookfield* “diversion” standard. See *Network Automation, Inc. v. Advanced Systems Concepts, Inc.*, 638 F.3d 1137, 1148 (9th Cir. 2011); see *Brookfield Commc’ns, Inc. v. W. Coast Entm’t, Inc.*, 174 F.3d 1036, 1062 (9th Cir. 1999).

Circuit's new Google statistics test and considers the future of trademark claims in competitive keyword advertising in the Tenth Circuit.

A. FLAWS IN THE DEGEN SURVEY AND A LACK OF ADDITIONAL EVIDENCE MADE THE LOWER COURT'S DECISION EASILY AFFIRMABLE

The lower court's rulings, both in the memorandum decision and in *Contacts I*, were within its judicial discretion. This Section will examine the memorandum decision regarding the Carl Degen survey and the grant of summary judgment.

1. *Rejecting the 1-800 Survey Was Proper*

Precedent in the Tenth Circuit allows district courts to strike survey evidence under Rule 702.¹⁷⁵ Although the courts are to exercise this power with restraint, an appellate court must apply the deferential "abuse of discretion" test when reviewing the lower court's refusal to admit a survey.¹⁷⁶ This deferential standard of review is the likely explanation for the Tenth Circuit's reluctance to explicitly reverse the lower court's decision to strike the Degen survey.¹⁷⁷ Yet comparing this case with *Vail*, especially in the context of accepted evidentiary guidelines for survey creation, indicates that the district court was correct in its decision to strike the survey.¹⁷⁸

Much of a survey's credibility stems from the qualifications of its creator, and Carl Degen was not qualified to create or evaluate a marketing survey.¹⁷⁹ His studies in economics and statistics, while useful in data analysis, were insufficient for the creation of marketing surveys without additional education in consumer psychology or marketing.¹⁸⁰ Furthermore, his portfolio of highly numerical postal service surveys did not substitute sufficiently for experience creating surveys that measure consumer confusion.¹⁸¹

175. *Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864–65 n.8 (10th Cir. 2008).

176. *Id.*

177. *1-800 Contacts*, 722 F.3d at 1246.

178. *Vail Assocs.*, 516 F.3d at 864–65 n.8.

179. *See* Diamond, *supra* note 53, at 375; *see also* Jacoby, *supra* note 64, at 65.

180. Memorandum Decision, *supra* note 127, at 2; *see also* Jacoby, *supra* note 64, at 65.

181. *See* Jacoby, *supra* note 64, at 65.

Hal Poret's testimony was also particularly problematic for the Degen survey.¹⁸² Poret is an expert on trademark surveys, and according to his professional opinion, the Degen survey was flawed in several critical ways.¹⁸³ First, the survey universe included individuals who did not purchase contacts online, a fault that essentially rendered it "irrelevant" by providing the court with data unrelated to the survey's intended targets.¹⁸⁴ Second, the survey contained leading questions that were closed-ended and nearly forced the survey takers to give answers that indicated actual consumer confusion.¹⁸⁵ On these factors alone, the court could and did strike the survey.¹⁸⁶

2. *In Light of this Rejection, the Court's Analysis of the King of the Mountain Factors Was Also Proper*

The rejection of the Degen survey naturally and appropriately led to summary judgment in Lens.com's favor.¹⁸⁷ While little evidence of infringement remained after striking the Degen survey, the district court still performed an adequate analysis of each relevant *King of the Mountain* factor.¹⁸⁸ Of the five common factors that all circuits—excluding the Federal Circuit—consider when determining LOC, the similarity of product and marketing channels is the only one that weighed in 1-800's favor.¹⁸⁹ The other four—similarity of marks, intent of the alleged

182. See Memorandum Decision, *supra* note 127, at 22–23. A major indicator of the memorandum decision's appropriateness beyond the survey's obvious flaws is the similarity between Poret and the expert whose opinion led to the *Vail* ruling. See Memorandum Decision, *supra* note 127, at 13; see also *Vail Assocs., Inc. v. Vend-Tel-Co., Ltd.*, 516 F.3d 853, 864–65 n.8. (10th Cir. 2008). In both *Vail* and *Contacts I*, a recognized professional with greater experience creating marketing surveys harshly criticized contested survey evidence that suffered from multiple forms of bias. See *Vail Assocs.*, 516 F.3d at 864–65 n.8; see also Memorandum Decision, *supra* note 127, at 13. The Tenth Circuit in *Vail* placed great faith in this expert testimony, and ruled that the district court "most assuredly did not abuse its discretion in excluding from trial Vail's survey evidence." *Vail Assocs.*, 516 F.3d at 864–65 n.8. In the face of the Tenth Circuit's willingness to rely on expert testimony to reject unqualified testimony, and considering Carl Degen's inexperience and flaws in his survey, the district court's decision to strike the survey seems completely appropriate and within its Rule 702 discretion.

183. See Memorandum Decision, *supra* note 127, at 4.

184. *Id.* at 15; see also Edwards, *supra* note 60, at 340.

185. Memorandum Decision, *supra* note 127, at 18; see Jacoby, *supra* note 61, at 262–63.

186. Memorandum Decision, *supra* note 127, at 21.

187. See *Contacts I*, 755 F. Supp. 2d at 1181–82.

188. See *id.* at 1181.

189. See *Contacts I*, 755 F. Supp. 2d at 1181 (finding that the similar goods at issue share similar channels); see also Beebe, *supra* note 8 (indicating the similarity of goods and market channels factor carries great weight in LOC claims).

infringer, strength of the mark, and evidence of actual confusion—favored Lens.com.¹⁹⁰ In these circumstances, summary judgment favoring Lens.com was appropriate;¹⁹¹ the district court provided an adequate ruling.

B. THE TENTH CIRCUIT SEES AN OPPORTUNITY

The Tenth Circuit was apparently dissatisfied with the lower court's ruling in *Contacts I* and chose to do more than simply affirm both the lower court's grant of summary judgment and its exclusion of the Degen survey.¹⁹² Instead, the appellate court evaluated the survey as admissible evidence, and concluded that under the circumstances, 1-800's claim failed because the company lacked evidence of IIC.¹⁹³ This reasoning is a major shift from the earlier *Australian Gold* case that followed the Ninth Circuit's reasoning in *Brookfield*. This line of cases focused on consumer diversion rather than the element of consumer confusion in trademark infringement claims.¹⁹⁴ Considering that the Ninth Circuit changed its stance on IIC in *Network Automation*, however, the Tenth Circuit may have also been looking for an opportunity to distinguish *Australian Gold*.¹⁹⁵ And in *1-800 Contacts*, the court took that opportunity, moving away from the old *Brookfield* "highway" diversion interpretation of IIC in competitive keyword advertising towards the *Network Automation* permissive "shopping mall" view.¹⁹⁶ The Tenth Circuit did this by focusing on evidence of actual confusion in the case, including survey evidence and search engine evidence, rather than the possibility of diversion.¹⁹⁷

190. See *Contacts I*, 755 F. Supp. 2d at 1181; see also Beebe, *supra* note 8, at 1589 (setting out the four factors).

191. These factors are often dispositive in LOC cases. See Beebe, *supra* note 8, at 1608–10.

192. See generally *1-800 Contacts*, 722 F.3d at 1229.

193. *Id.* at 1243.

194. *Australian Gold, Inc. v. Hatfield*, 436 F.3d 1228, 1239 (10th Cir. 2006).

195. See *1-800 Contacts*, 722 F.3d at 1245 ("This case is readily distinguishable from *Australian Gold* . . .").

196. See *Brookfield Commc'ns, Inc. v. W. Coast Entm't, Inc.*, 174 F.3d 1036, 1062 (9th Cir. 1999) (choosing to apply IIC in order to find likelihood of confusion, even while acknowledging the absence of confusion); see also *Network Automation, Inc. v. Advanced Systems Concepts, Inc.*, 638 F.3d 1137, 1154 (9th Cir. 2011) (choosing to focus on actual confusion).

197. See generally *1-800 Contacts*, 722 F.3d at 1244–46 (refusing to follow 1-800's diversion theory, and focusing instead on evidentiary standards).

1. *Moving from Brookfield to Network Automation*

The Tenth Circuit's shift away from the "diversion" understanding of IIC in the competitive keyword advertising context is evident in the court's eagerness to distinguish *Australian Gold*, which cited *Brookfield* in its ruling that diversion on the internet violated the Lanham Act.¹⁹⁸ The Tenth Circuit instead looked to *Network Automation* and focused on users' interactions with search engines, rather than the programs operating behind the screen, to determine a likelihood of confusion.¹⁹⁹ This shift is consistent with scholarly opinion, which levels severe criticism against the *Brookfield* court for misunderstanding how users interact with search engines and how an advertising structure might affect a user who will never see the trademarked term in a competitor's ad.²⁰⁰

This shift may be the result of a development in the judges' understanding of how the internet functions and how individuals use a search engine. *Brookfield* was decided in 1999 when the internet was still relatively young and a "venture into cyberspace" to rule on internet trademark law was worth a comment.²⁰¹ Since that time, users have become more sophisticated, shopping online has become more prevalent, and trademark doctrine—an area of law dependent upon user perceptions—has changed as well.²⁰² Today, "the reasonable consumer does not accord initial credibility to a web site simply because it is listed among the search engine results in a query for the trademark owner's mark."²⁰³ Furthermore, the sophisticated consumer might actually search for a particular product by entering the trademark of a known competitor.²⁰⁴ In this environment, the six factors mentioned in *King of the Mountain* must have different weights. If factors like the similarity of marketing channels no longer affect consumers and the similarity of marks

198. See *1-800 Contacts*, 722 F.3d at 1245; see also *Australian Gold*, 436 F.3d at 1239.

199. *1-800 Contacts*, 722 F.3d at 1245.

200. Stacey L. Dogan & Mark A. Lemley, *Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777 (2004). See Goldman, *supra* note 168, at 524 (noting that users might have multiple reasons for using a trademarked term to search for goods not sold under that trademark); see also David M. Klein & Daniel C. Glazer, *Reconsidering Initial Interest Confusion on the Internet*, 93 TRADEMARK REP. 1035 (2003).

201. See *Brookfield*, 174 F.3d at 1041.

202. See *Network Automation, Inc. v. Advanced Systems Concepts, Inc.*, 638 F.3d 1137, 1152 (9th Cir. 2011) (indicating that online shoppers are actually quite sophisticated).

203. Klein & Glazer, *supra* note 200, at 93.

204. See Eric Goldman, *supra* note 168, at 524 (indicating that users occasionally enter trademarks into search engines as proxies for other goods).

is a non-issue regarding invisible AdWords, then the “actual confusion” factor becomes dispositive.

Furthermore, the Tenth and Ninth Circuits have created a greater distinction between consumer confusion and diversion. While the early IIC cases like *Australian Gold* and *Brookfield* held that the intentional diversion of consumers was a violation of trademark law, *Network Automation* explicitly stated that “because the *sine qua non* of trademark infringement is consumer confusion, when we examine IIC, the owner of the mark must demonstrate likely confusion, not mere diversion.”²⁰⁵ This is in keeping with the Lanham Act’s purpose, which states that an action must cause consumer confusion to be actionable.²⁰⁶ And while scholars and courts both agree that the Lanham Act was in part designed to protect a business’s goodwill,²⁰⁷ scholars have also noted that the protection only extends insofar as companies appropriate competitors’ goodwill in order to deceive consumers.²⁰⁸ True to the spirit of the act, *Network Automation* recognizes that consumers are not confused by the purchase of trademarked AdWords when the ad copy contains no deceptive information. The Tenth Circuit was correct in focusing on *Network Automation* when shifting its doctrine.²⁰⁹

2. Evidence of Actual Confusion

Evidence of actual confusion plays a major role in the *1-800 Contacts* cases,²¹⁰ and this too seems reasonable when courts consider current levels of user sophistication. When a user never actually sees the allegedly infringing AdWord and understands that a sponsored link could lead *anywhere*, factors like the similarity of a trademark and an allegedly infringing AdWord become less relevant than evidence of actual confusion.²¹¹ Some courts already consider evidence of actual confusion as the best source of evidence for LOC in trademark litigation.²¹²

205. See *Network Automation*, 638 F.3d 1149 (9th Cir. 2011); *Australian Gold, Inc. v. Hatfield*, 436 F.3d 1228, 1239 (10th Cir. 2006); *Brookfield Commc’ns, Inc. v. W. Coast Entm’t, Inc.*, 174 F.3d 1036, 1063 (9th Cir. 1999).

206. Lanham Act § 43(a), 15 U.S.C. § 1125 (2012).

207. See *Steinway II*, 523 F.2d at 1342; Rothman, *supra* note 18, at 163.

208. See Rothman, *supra* note 18, at 163, 165.

209. See *Australian Gold*, 436 F.3d at 1239 (citing *Brookfield*, 174 F.3d at 1061–65); see also *Network Automation*, 638 F.3d at 1149.

210. See *Contacts I*, 755 F. Supp. 2d at 1151; *1-800 Contacts*, 722 F.3d at 1229.

211. E.g., *Network Automation*, 638 F.3d at 1149.

212. See *Universal Money Ctrs., Inc. v. AT&T Co.*, 22 F.3d 1527, 1534 (10th Cir. 1994) (indicating that evidence of actual confusion as the best evidence); see also *Steinway*

But is a survey still a viable source of this evidence? Perhaps yes, provided it is extremely well crafted and, according to the court in *1-800 Contacts*, reveals a rate of confusion at least above 7 percent.²¹³ However, because the major authorities indicate less than a 10 percent rate of confusion will not suffice without additional evidence of actual confusion, however, courts may ultimately require a higher rate of confusion or alternate forms of evidence.²¹⁴

Anecdotes can provide this additional evidence of actual confusion, but only in sufficient numbers.²¹⁵ At the Tenth Circuit, *1-800* presented a single *de minimis* anecdote.²¹⁶ Notably, the Tenth Circuit explicitly required more than seven anecdotes in *King of the Mountain*.²¹⁷ Other authorities have indicated that the floor may be four anecdotes when users are unlikely to inform the trademark owner of their confusion.²¹⁸ While users may not have reported their confusion between contact lens distributors, it is difficult to imagine a single anecdote and an insignificant survey as adequate proof of actual confusion.

The unsurprising result of this sound reasoning is that the Tenth Circuit avoided making a bright-line rule for an acceptable rate of confusion.²¹⁹ Yet the range between 7 percent and 10 percent—where a well-crafted, well-supported survey may be evidence of actual confusion—is probably irrelevant, because the Google AdWord evidence that parties may now present to the court will make proving actual confusion in competitive keyword-advertising cases nearly impossible in the future, at least in the Tenth Circuit.²²⁰

C. THE NEW GOOGLE TEST: AN AFFIRMATIVE DEFENSE?

The court in *1-800 Contacts* accepted statistics from Google's AdWords program as evidence of actual confusion. The statistics indicated at most a 1.5 percent rate of confusion, assuming that each time

I, 365 F. Supp. at 715-16, *aff'd Steinway II*, 532 F.2d at 1331 (indicating that "there can be no more positive proof of [LOC] than evidence of actual confusion).

213. *1-800 Contacts*, 722 F.3d at 1249.

214. MCCARTHY, *supra* note 82, at § 23:14; RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 20 (1995).

215. *See* MCCARTHY, *supra* note 82, at § 23:14.

216. *1-800 Contacts*, 722 F.3d at 1245.

217. *See* *King of the Mountain Sports, Inc. v. Chrysler Corp.*, 185 F.3d 1084, 1092 (10th Cir. 1999).

218. *See* MCCARTHY, *supra* note 82, at § 23:14 (referring to *AmBrit, Inc. v. Kraft, Inc.*, 805 F.2d 974 (11th Cir. 1986)).

219. *See generally 1-800 Contacts*, 722 F.3d at 1229.

220. *Id.* at 1241.

a user clicked on Lens.com's ad when it appeared during a search for 1-800 the user was in fact confused.²²¹ But even if the court assumed this, 1-800 would have never proven actual confusion; the rate is too far beneath the Restatement (Third) of Unfair Competition's 7 percent minimum recognized by the court in *1-800 Contacts*.²²² Any defendant who can submit this type of search engine data will be able to provide evidence against actual confusion—the rates at which users click on a particular ad seldom rise above 3 percent and a low rate of confusion is evidence against actual confusion.²²³ Given the Tenth Circuit's focus on evidence of actual confusion, and given the evidence's dispositive effect on LOC analyses in general, search engine data could make competitive keyword-advertising cases nearly impossible for plaintiffs to win.²²⁴

Perhaps one solution for a desperate plaintiff faced with search engine data would be to disprove it; however, websites like Google are sophisticated tools, and according to a recent paper, using Google as evidence makes sense in certain situations that require precise statistics.²²⁵ In the present case, for example, the 1,624-click sample is robust and contains the correct population by definition—internet users who are looking for contact lenses. Thus, this evidence is more like survey data than anecdotes, except it measures, in an admittedly overly broad manner, confusion as it actually occurs. But this data still provides a major advantage to defendants by placing a cap on the possible rate of confusion that will almost never approach the blurry 7 to 10 percent confusion rate threshold the court skirted in *1-800 Contacts*.²²⁶ Thus, the Tenth Circuit has provided what is almost an affirmative defense in competitive keyword

221. *Id.* at 1244.

222. *Id.* at 1249 (quoting Restatement (Third) of Unfair Competition § 20 (quotations omitted) (emphasis added by the court)).

223. Eric Goldman, *Tenth Circuit Kills the Initial Interest Confusion Doctrine—1-800 Contacts v. Lens.com*, Technology & Marketing Law Blog (July 18, 2013) (explaining that click-through rates seldom rise above 3 percent), http://blog.ericgoldman.org/archives/2013/07/tenth_circuit_k.htm; *1-800 Contacts*, 722 F.3d at 1244 (implying that a rate less than 7.6 percent could weigh against LOC).

224. *See 1-800 Contacts*, 722 F.3d at 1239–40 (indicating that actual confusion is a major factor in the LOC analysis); *see also* Beebe, *supra* note 8, at 1608.

225. Lisa Larrimore Ouellette, *The Google Shortcut to Trademark Law*, 102 CALIF. L. REV. 351 (2014).

226. *See 1-800 Contacts*, 722 F.3d at 1248–49. *See also* Goldman, *supra* note 223 (indicating that the rates of confusion search engine data reveals will probably be extremely low).

advertising cases, and it has probably destroyed the ability of plaintiffs to bring these claims successfully in the process.²²⁷

IV. CONCLUSION: THE CONTINUED VIABILITY OF IIC

Competitive keyword advertising claims evolved alongside the internet and search engines, but the ruling in *1-800 Contacts* may signal their extinction, at least in the Tenth Circuit. After following the Ninth Circuit's plaintiff-friendly *Brookfield* "diversion" standard for years, the court has ruled on a case it could have easily affirmed in order to create a new, stricter competitive keyword IIC doctrine. Plaintiffs will have to prove a likelihood of IIC with the six *King of the Mountain* factors, paying particular attention to the proof of actual confusion factor.²²⁸ If statistical, that proof must reveal a rate of confusion no less than 7 percent, and the rate must be even higher in the absence of other evidence.

Yet a quality survey indicating more than a 10 percent rate of confusion may not even be enough to win a case since the *1-800 Contacts* ruling allows the Tenth Circuit to accept data from search engines into evidence. Therefore, the number of times search engine users click on an advertisement, when expressed as a percentage of the advertisement's total appearances on the search engine, is admissible in court.²²⁹ Because this percentage is usually extremely low and serves as a cap to the normal rate of confusion, the evidence will probably never prove actual confusion; in fact, it will tend to disprove it.²³⁰ Furthermore, because this type of data exists in most competitive keyword advertising cases, the result is that defendants in Tenth Circuit competitive keyword advertising suits have something like an affirmative defense against a claim of infringement.²³¹ Plaintiffs in Tenth Circuit competitive keyword advertising cases, after a brief period of ease, thus may have a much harder time bringing a successful claim.

227. See Goldman, *supra* note 223.

228. *1-800 Contacts*, 722 F.3d at 1239–40.

229. *Id.* at 1244.

230. MCCARTHY, *supra* note 75, at § 32:189.

231. Goldman, *supra* note 223.

THE *LEXMARK* TEST FOR FALSE ADVERTISING STANDING: WHEN TWO PRONGS DON'T MAKE A RIGHT

Virginia E. Scholtes[†]

The Lanham Act, best known for providing a federal cause of action for trademark infringement, includes provisions that aim to curtail unfair competition.¹ One of those provisions, § 43(a), creates a federal cause of action for false advertising, which occurs when a seller falsely advertises that her product has qualities that in fact it does not have.² Over the past several decades, the number of cases brought under the Lanham Act, especially false advertising cases, has increased.³ This increase underscores the importance of a consistent application of false advertising law, but until recently, courts and litigants were forced to wade through a quagmire of confusing jurisprudence to find a test for standing under § 43(a) of the Lanham Act. In early 2014, there was a three-way circuit split regarding the proper test for § 43(a) standing. *Lexmark International, Inc. v. Static Control Components, Inc.* resolved the split over the correct test for federal

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1. Unfair competition is an umbrella term for commercial torts stemming from a number of unfair, deceptive, and misleading business practices. *See* J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION §§ 1:8–9 (4th ed. 2009). Unfair competition is notoriously difficult to define, with many judges relying on “principles of old-fashioned honesty” to guide their interpretation of what qualifies as “unfair” in business. *Radio Shack Corp. v. Radio Shack*, 180 F.2d 200, 201 (7th Cir. 1950); *see also* *G. Leblanc Corp. v. H & A Selmer, Inc.*, 310 F.2d 499, 460 (7th Cir. 1962); *Spangler Candy Co. v. Crystal Pure Candy Co.*, 353 F.2d 641, 645 (7th Cir. 1965). Unfair competition is best understood through examples of what courts have found to be unfair competition: infringement of trademarks and service marks; dilution of good will in trademarks; use of confusingly similar corporate, business, and professional names; misappropriation of business values; “bait and switch” selling tactics; below-cost selling; false representations and false advertising; filing a groundless lawsuit; and harassing customers or preventing customers from accessing a competitor’s place of business. *See* J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 1:10 (4th ed. 2009).

2. *See* J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 27:1 (4th ed. 2009).

3. *See generally* J. Thomas McCarthy, *Lanham Act § 43(a): The Sleeping Giant Is Now Wide Awake*, 59 LAW & CONTEMP. PROBS. 44 (1996).

false advertising standing. In *Lexmark*, the Supreme Court examined the three major tests circuit courts previously used to analyze standing to maintain an action for false advertising under the Lanham Act.⁴ Rather than adopt one of those tests, the Court announced a new two-pronged test based solely on the application of the zone-of-interests and proximate-cause requirements.⁵ This new test promises to bring needed consistency and stability to false advertising standing law.⁶ Legal scholars predicted that the *Lexmark* test would broaden standing in most circuits as it removed considerations—potential barriers to standing—integral to the pre-*Lexmark* tests.⁷ However, a standard that facilitates false advertising claims does not necessarily serve the purpose of the Lanham Act: to deter unfair competition.⁸

The *Lexmark* test serves the Lanham Act's goal of protecting persons engaged in commerce against unfair competition better than the previous tests, but it is not perfect. The zone-of-interests prong, which requires that § 43(a) plaintiffs "allege an injury to a commercial interest in reputation or sales,"⁹ appropriately identifies parties within the class of plaintiffs the Lanham Act was intended to protect. But the proximate cause prong may unduly burden plaintiffs by requiring detailed pleadings establishing that the defendant's false advertising proximately caused its injury. For example, a plaintiff suing a defendant with a low market share may face an uphill battle convincing a court that the defendant's false advertising proximately caused its injury. Also, commercial injuries inflicted through network effects—notably in the software industry, where

4. *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1392–93 (2014).

5. *Id.* at 1391.

6. See, e.g., Julia Rezvin, *Lawyers Weigh in on Supreme Court's Lexmark Ruling*, LAW360 (Sept. 9, 2014, 10:20 AM), <http://www.law360.com/articles/521983/print?section=appellate>; Bill Donahue, *High Court Clears Up False Ad Standing in Lexmark Ruling*, LAW360 (Sept. 16, 2014, 10:17 AM), <http://www.law360.com/articles/521844/print?section=appellate>; Peter Brody, *A New Test for False Ad Standing Under Lanham Act*, LAW360 (Sept. 16, 2014, 10:15 AM), <http://www.law360.com/articles/526163/print?section=appellate>; Harold P. Weinberger, *2nd Cir. Ruling May Spark More Lanham Act Cases*, LAW360 (Sept. 16, 2014, 10:01 AM), <http://www.law360.com/articles/574964/print?section=appellate>.

7. See *id.*

8. Elizabeth Williams, *Standing to Bring False Advertising Claim or Unfair Competition Claim under § 43(a)(1) of Lanham Act (15 U.S.C. §1125(a)(1))*, 124 A.L.R. FED. 189 (1995).

9. *Lexmark*, 134 S. Ct. at 1390.

indirect network effects¹⁰ drive commercial success—may fail to come within the definition of proximate cause set out by the Court in *Lexmark*. By demanding that plaintiffs plead proximate cause in addition to the causation required for Article III standing in any federal court case, the proximate cause prong may bar plaintiffs that the Lanham Act intended to protect. The proximate cause prong could thus undermine the purpose of the Lanham Act by narrowing the cause of action to plaintiffs whose circumstances of commercial injury allow them to plead proximate cause. Plaintiffs that suffered a commercial injury as a result of false advertising but are unable to show proximate cause could be left without a remedy. If the proximate cause prong bars plaintiffs who should have a cause of action under § 43(a), it may lead to under-enforcement of federal false advertising law. This may in turn lead to an increase in false advertising, particularly in software industries, which would harm both competitors and consumers.

Part I of this Note tracks the development of standing under § 43(a) of the Lanham Act and analyzes the three-way circuit split on false advertising standing that existed before the *Lexmark* decision. Part II describes the Supreme Court's decision in *Lexmark*, focusing on the Court's reasoning for formulating the new two-pronged test and the Court's interpretation of the Lanham Act's purpose. Part III assesses the extent to which both the zone-of-interests prong and the proximate cause prong serve the purposes of the Lanham Act. First, Part III shows how the zone-of-interests prong gives a right of action to plaintiffs with an injury the Lanham Act was intended to protect, focusing on the issue of consumer standing under § 43(a). Next, Part III explains two situations where the proximate cause prong may fail to serve the purpose of the Lanham Act: when the defendant has a low market share, and when the plaintiff's injury was inflicted through network effects. Finally, Part III analyzes courts' application of the proximate cause prong in false advertising cases and concludes that the relaxed application of the proximate cause requirement will likely prevent this prong from barring plaintiffs who otherwise fall within the class of plaintiffs the Lanham Act

10. In industries with indirect network effects, the addition of users on one side of a network benefit users on the other side of the network. See David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-sided Platforms*, 2005 COLUM. BUS. L. REV. 667, 686–87 (2005). For example, in the smartphone industry, as more developers make apps for a platform, users will have more choice of apps to use on their smartphone. As more users buy a type of smartphone, app developers for that smartphone have more customers. Indirect network effects are common in any industry with a two-sided platform, especially the software industry.

was intended to protect. Overall, the *Lexmark* test for federal false advertising standing serves the purpose of the Lanham Act because it grants a cause of action to plaintiffs with a commercial injury, thus deterring unfair competition.

I. DEVELOPMENT OF STANDING JURISPRUDENCE UNDER § 43(A) OF THE LANHAM ACT

Section 43(a) of the Lanham Act establishes a federal civil right of action for false advertising:

Any person who . . . uses in commerce any . . . false or misleading representation of fact, which . . . in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities, shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.¹¹

Section 43(a) seems to grant an expansive range of plaintiffs the right to sue: "civil action by any person who believes that he or she is or is likely to be damaged by such an act." Since before § 43(a) was enacted,¹² this ostensibly expansive language has elicited confusion among judges, parties, and legal scholars about who can sue under § 43(a). Perhaps in response to this confusion, courts initially applied § 43(a) sparingly and restrictively.¹³ But over the past several decades, courts have seen an increase in litigation around § 43(a) and have interpreted its provisions more broadly,¹⁴ making a consistent standing inquiry increasingly important. The following Sections provide a foundation of legal standing law and explore courts' evolving interpretations of who has standing to sue under § 43(a).

A. REQUIREMENTS FOR STANDING IN FEDERAL COURT

Today, courts do not construe the Lanham Act's broad phrasing "any person who believes he or she is likely to be damaged by such an act" to

11. Lanham Act, 15 U.S.C. § 1125(a) (2012). See Appendix B for full text of the current version of the Lanham Act.

12. See LOUIS ALTMAN & MALLA POLLACK, 1 CALLMANN ON UNFAIR COMPETITION, TRADEMARKS & MONOPOLIES §2:8 (4th ed. 2007) (noting that in 1925, when Congress was in early stages of drafting the Lanham Act, a representative of the U.S. Trademark Association expressed concerns that the broad language may confer a cause of action upon consumers as well as business entities).

13. See generally MCCARTHY, *supra* note 2, at §§ 27:7–8 (discussing the history and growth of § 43(a)).

14. See generally *id.*; MCCARTHY, *supra* note 3.

confer a cause of action on any possible plaintiff. To bring a case in federal court under § 43(a), plaintiffs must satisfy § 43(a) standing, which includes both Article III standing requirements and statutory standing requirements.

1. *Article III Standing*

First, like all federal plaintiffs, Lanham Act plaintiffs must satisfy Article III standing requirements.¹⁵ Article III, which outlines the powers of the judiciary, sets the ceiling for federal jurisdiction:

The judicial power shall extend to all cases, in law and equity, arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; . . . to controversies to which the United States shall be a party;—to controversies between . . . citizens of the same state claiming lands under grants of different states, and between a state, or the citizens thereof, and foreign states, citizens or subjects.¹⁶

Generally, Article III grants federal courts the power to adjudicate actual “cases” and “controversies.”¹⁷ The Supreme Court has established three Article III standing requirements that a plaintiff must meet to show she has a case or controversy: (1) the plaintiff must have suffered an injury-in-fact,¹⁸ (2) there must be a “causal connection between the injury and the conduct complained of,”¹⁹ and (3) a favorable decision must be able to redress the injury.²⁰

2. *Statutory Standing*

In addition to Article III standing, Lanham Act plaintiffs must also satisfy statutory standing requirements, meaning they must come within the class of plaintiffs the Lanham Act designates as having the right to sue.²¹ Courts often refer to this second standing requirement as prudential

15. MCCARTHY, *supra* note 2, at §27:28.

16. U.S. CONST. art. III, §2.

17. *See* Allen v. Wright, 468 U.S. 737, 750 (1984); Flast v. Cohen, 392 U.S. 83, 94–95 (1968).

18. *See* Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992) (describing injury-in-fact as “an invasion of a legally protected interest which is (a) concrete and particularized . . . and (b) actual or imminent, not conjectural or hypothetical”) (citations omitted).

19. Simon v. E. Ky. Welfare Rights Org., 426 U.S. 26, 41–42 (1976).

20. *See* Allen, 468 U.S. at 751.

21. MCCARTHY, *supra* note 2, at §27:28.

standing.²² Prudential standing limitations are not found in the text of the Constitution, but have been developed over time by the judiciary as limits to justiciability.²³ These “judicially self-imposed limits on the exercise of federal jurisdiction”²⁴ prevent courts from deciding “abstract questions of wide public significance”²⁵ and can be abrogated by an express statement from Congress.²⁶ The Court has explained that the prudential standing doctrine included “the general prohibition on a litigant’s raising another person’s legal rights, the rule barring adjudication of generalized grievances more appropriately addressed in the representative branches, and the requirement that a plaintiff’s complaint fall within the zone of interests protected by the law invoked.”²⁷

But the Court recently refined its interpretation of standing doctrine to highlight the difference between prudential and statutory standing. The zone-of-interests requirement, while traditionally understood as a prudential limitation, rests on statutory concerns.²⁸ That is, satisfying the zone-of-interests requirement depends on the text of the statute rather than judicial concerns about limiting federal jurisdiction.²⁹ The Court pointed out that courts “cannot limit a cause of action that Congress has created merely because ‘prudence’ dictates,”³⁰ which separates the zone-of-interests requirement from the prudential category.³¹ The Court suggested that a better term for the zone-of-interests standing inquiry would be statutory standing.³² No matter the nomenclature, statutory standing in § 43(a) cases has caused confusion and division in the courts that can be traced back to the Lanham Act’s inception.³³

B. EVOLUTION OF FEDERAL FALSE ADVERTISING STANDING

Historical context helps explain the confusion over § 43(a) standing. The modern Lanham Act is the product of multiple revisions and changes

22. *See* *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1388 (2014).

23. *See* *Elk Grove Unified School Dist. v. Newdow*, 542 U.S. 1, 12 (2004).

24. *Bennett v. Spear*, 520 U.S. 154, 162 (1997) (quoting *Allen*, 468 U.S. at 751).

25. *Warth v. Seldin*, 422 U.S. 490, 500 (1975).

26. *Bennett*, 520 U.S. at 161.

27. *Elk Grove*, 542 U.S. at 12 (quoting *Allen*, 468 U.S. at 751).

28. *See Lexmark*, 134 S. Ct. at 1386–87.

29. *See id.*

30. *See id.* at 1388.

31. *See id.* at 1386–87.

32. *See id.* at 1387 n.4.

33. *See infra* Part I.B.

to prior Acts.³⁴ Today's version of the Lanham Act inherited some of its language from those prior Acts, which helps explain § 43(a)'s overly broad grant of standing.

1. *Legislative History of § 43(a)*

The Lanham Act's origins trace back to an American Bar Association ("ABA") meeting in 1920.³⁵ A special committee convened at the meeting to address the failings of the Trademark Act of 1905, which was the first federal trademark registration statute.³⁶ Even with major amendments that strengthened protections for registered trademarks (and changed its name to the Trademark Act of 1920),³⁷ this original federal trademark statute had proved inadequate to protect American businesses.³⁸ The ABA committee approved a draft of a new federal trademark statute, and while that draft eventually became the Vestal Bill,³⁹ Congress never passed it into law.⁴⁰ But about twenty years later, the ABA resurrected the Vestal Bill, and Congressman Fritz Garland Lanham introduced an altered version to Congress in 1938.⁴¹ The new bill passed and became the Trademark Act of 1946, better known by its common name: the Lanham Act.⁴² This was the first time Congress enacted comprehensive substantive and procedural protections for trademarks and unfair competition,⁴³ leading contemporary scholar Daphne Robert Leeds to state that "American business owes to Mr. Lanham a debt of gratitude it can never pay."⁴⁴

The modern standing language in § 43(a) evolved from § 3 of the Lanham Act's predecessor, the Trademark Act of 1920.⁴⁵ The Trademark Act of 1920 conferred a right of action upon "any person, firm, or corporation doing business in the locality falsely indicated as that of origin, or in the region in which said locality is situated, or at the suit of any

34. See MCCARTHY, *supra* note 2, at §5:4.

35. *Id.*

36. *Id.*

37. *Id.* at §5:3.

38. *Id.* at §5:4.

39. H.R. 7118, 72nd Cong. 1st Sess. (1931).

40. MCCARTHY, *supra* note 2, at §5:4.

41. *Id.*

42. *Id.*

43. *Id.*

44. DAPHNE ROBERT, THE NEW TRADEMARK MANUAL 225 (1947).

45. See ALTMAN & POLLACK, *supra* note 12.

association of such persons, firms, or corporations.”⁴⁶ That language was appropriately circumscribed to specify a class of plaintiffs harmed by trademark infringement. When Congress transitioned the Trademark Act of 1920 into the original 1946 version of the Lanham Act, it broadened the cause of action by removing the geographic limitations, with § 43(a) conferring a right of action upon “any person who believes that he is or is likely to be damaged by the use of any such false description or representation.”⁴⁷ The change reflected a new purpose of the Lanham Act as opposed to the Trademark Act of 1920: to protect persons engaged in commerce against unfair competition.⁴⁸

Section 43(a) has been amended many times since it was enacted, but its only major amendments took place through the Trademark Law Revision Act of 1988,⁴⁹ and the current version of § 43(a) is essentially the same as that 1988 amendment.⁵⁰ This amended version codified the two judicially constructed⁵¹ prongs of § 43(a): false association and false advertising.⁵² Cases involving infringement of unregistered trademarks and trade dress fall under the false association prong, while cases involving verifiably false statements made in advertising and promotion fall under the false advertising prong.⁵³ While this separation into two prongs helped clarify elements of each offense, confusion about who had standing to sue remained under both prongs, and this Note focuses on the false advertising prong.⁵⁴ Confusion over § 43(a) standing clustered around two topics: consumer standing and the direct competitor requirement.

2. *Consumer Standing Under § 43(a)*

From its passage until the late 1980s, the original § 43(a)’s broad standing provision lead to confusion over who had a right to bring suit.⁵⁵

46. Trademark Act of 1920, Pub. L. No. 163, ch. 104, (41 Stat. 533) (repealed 1946).

47. See Appendix for full text of 1946 version of the Lanham Act.

48. See Elizabeth Williams, *Standing to Bring False Advertising Claim or Unfair Competition Claim under § 43(a)(1) of Lanham Act (15 U.S.C. §1125(a)(1))*, 124 A.L.R. FED. 189 (1995).

49. See MCCARTHY, *supra* note 2, at §§ 5:5–11.

50. See JEROME GILSON, GILSON ON TRADEMARK PROTECTION & PRACTICE § 7.02, 7–1 (2000).

51. See MCCARTHY, *supra* note 2, at § 27:9.

52. See Lanham Act, 15 U.S.C. § 1125(a) (2012). See Appendix for full text of the amended version of the Lanham Act § 43(a).

53. See MCCARTHY, *supra* note 2, at § 27:9.

54. See *id.*

55. See ALTMAN & POLLACK, *supra* note 12, at §2:8.

Reading the stated purpose of the Lanham Act⁵⁶ as limiting standing to participants in commerce, most courts concluded that § 43(a) did not confer a right to sue upon consumers.⁵⁷ But at least one court did allow consumers to sue under § 43(a),⁵⁸ and some commentators argued that allowing consumers to sue under § 43(a) could provide a powerful consumer protection tool.⁵⁹

While amended versions of the Lanham Act after the 1980s clarified elements of trademark and unfair competition law, they did not provide any additional guidance on the requirements for standing.⁶⁰ On the contrary, Congress deleted language in the 1988 bill that would confer a cause of action upon consumers under § 43(a).⁶¹ Commentators speculate that this deletion may have reflected a congressional reluctance to alter the courts' momentum toward disallowing federal false advertising consumer standing.⁶² At least one member of Congress⁶³ feared that including such language "would have radically altered the nature of the Lanham Act and would have had the likely effect of turning the Federal courts into a [sic] small claims court."⁶⁴ Many courts have since echoed this fear and insisted that the Lanham Act did not intend to grant consumers a right of action.⁶⁵

56. The Lanham Act's purpose is to protect persons engaged in commerce against unfair competition. *See Williams, supra* note 48, at §1(a).

57. *See, e.g., Colligan v. Activities Club of New York, Ltd.*, 442 F.2d 686 (2d Cir. 1971); *Thorn v. Reliance Van Co., Inc.*, 736 F.2d 929 (3d Cir. 1984); *Smith v. Montoro*, 648 F.2d 602 (9th Cir. 1981).

58. *See, e.g., Arnesen v. Raymond Lee Org., Inc.*, 333 F. Supp. 116 (C.D. Cal 1971).

59. *See Arthur Best, Controlling False Advertising: A Comparative Study of Public Regulation, Industry Self-Policing and Private Litigation*, 20 GA. L. REV. 1, 66–68 (1985) (arguing in favor of consumer standing); James S. Wrona, *False Advertising and Consumer Standing Under Section 43(a) of the Lanham Act: Broad Consumer Protection Legislation or a Narrow Pro-Competitive Measure?* 47 RUTGERS L. REV. 1085, 1146–54 (1995) (discussing the benefits of allowing consumer standing in false advertising cases).

60. *See Lanham Act*, 15 U.S.C. § 1125(a) (2012).

61. *See ALTMAN & POLLACK, supra* note 12, at §2:8; *see also* George Russel Thill, *The 1988 Trademark Law Revision Act: Damage Awards for False Advertising and Consumer Standing Under Section 43(a)—Congress Drops the Ball Twice*, 6 DEPAUL BUS. L.J. 361 (1994).

62. *See id.*

63. Representative Hamilton Fish. ALTMAN & POLLACK, *supra* note 12, at §2:8.

64. 134 Cong. Rec. H. 10,419, 10,423 (daily ed. Oct. 19, 1988); *see also* ALTMAN & POLLACK, *supra* note 12, at §2:8.

65. *See, e.g., Serbin v. Ziebart Int'l. Corp., Inc.*, 11 F.3d 1163 (3d Cir. 1993); *Made in the U.S.A. Found. v. Phillips Foods, Inc.*, 365 F.3d 278, 280 (4th Cir. 2009); *Havana Club Holding, S.A. v. Galleon, S.A.*, 62 F. Supp. 2d 1085, 1098 (S.D.N.Y. 1999), *aff'd*, 203 F.3d 116 (2d Cir. 2000).

Under the amended Lanham Act, most courts affirmed the prevailing view that the “any person” language did not include consumers.⁶⁶ One such court reasoned that to allow consumer standing in false advertising cases “would be to convert the Lanham Act from a regulation of commercial interests and unfair competition to a catchall consumer protection statute.”⁶⁷ Some courts allowed individual, non-competitor plaintiffs to sue under § 43(a) if they asserted a commercial interest,⁶⁸ but these cases tended to fall under the false association cause of action rather than the false advertising cause of action.⁶⁹ While enforcing § 43(a) would often protect consumers from false and misleading advertising, to allow a direct consumer cause of action under the Lanham Act would be inconsistent with its stated purpose to protect those engaged in commerce.⁷⁰ For at least false advertising suits under § 43(a), the jurisprudence settled on disallowing consumer standing.⁷¹

3. *The Direct Competitor Requirement Under § 43(a)*

However, barring consumers who had no commercial interest did not completely resolve the confusion surrounding who has standing to sue for false advertising under § 43(a). Courts were still in considerable disagreement over how the plaintiff’s status as a direct competitor of the defendant should affect the standing inquiry.⁷² Most courts did not require

66. See, e.g., *Serbin*, 11 F.3d at 1177 (“[C]onsumers fall outside the range of ‘reasonable interests’ contemplated as protected by the false advertising prong of Section 43(a) of the Lanham Act”).

67. *Guarino v. Sun Co., Inc.*, 819 F. Supp. 405, 409–10 (D.N.J. 1993), *aff’d*, 11 F.3d 1163 (3d Cir. 1993).

68. Plaintiffs have a commercial interest when their sales or reputation are damaged by the defendant’s conduct. Most businesses could assert some kind of commercial interest in § 43(a) cases, but plaintiffs who were merely consumers of the defendant’s product could not. See *ALTMAN & POLLACK*, *supra* note 12, at §2:8.

69. See, e.g., *Eastwood v. Nat’l Enquirer, Inc.*, 123 F.3d 1249, 1250 (9th Cir. 1997) (noting that a famous actor who commercially exploits his image and identity had standing under § 43(a)); *Loy v. Armstrong World Indus., Inc.*, 838 F. Supp. 991, 997 (E.D. Pa. 1993) (holding that plaintiffs did not have standing under § 43(a) because they were “pure consumers” who lacked a commercial interest); *Condit v. Star Editorial, Inc.*, 259 F. Supp. 2d 1046, 1052 (E.D. Cal. 2003) (holding that a private plaintiff with no manifested intent to commercially exploit her identity has no standing under § 43(a)).

70. See *MCCARTHY*, *supra* note 2, at §27:7.

71. See Malla Pollack, *Suing for False Advertising under Federal Lanham Act* § 8, 111 AM. JUR. TRIALS 303 (database updated Sept. 2014).

72. See Gregory Apgar, *Prudential Standing Limitations on Lanham Act False Advertising Claims*, 76 *FORDHAM L. REV.* 2389, 2389 (2008).

false advertising plaintiffs to be in direct competition with the defendant,⁷³ while a significant minority required plaintiffs to compete directly with a prospective defendant in order to bring a false advertising suit.⁷⁴ Courts that required direct competition typically only applied this condition to false advertising suits, not to false association suits.⁷⁵ Many courts have found such a dichotomy in the inquiry for standing under § 43(a) unacceptable and consequently have rejected the direct competitor approach.⁷⁶ Commentators have also found that this dichotomy adds an undesirable complexity to the already complicated inquiry of § 43(a) standing.⁷⁷

While many courts abandoned a strict direct competitor analysis, most courts included some form of a competition requirement in their analyses. For example, some courts found a competitive injury sufficient to confer false advertising standing when the plaintiff and defendant were not in direct competition.⁷⁸ Such an inquiry into the plaintiff's participation in competition is fitting given the drafters and promoters of the Lanham Act intended it to provide a general federal law of unfair competition.⁷⁹ Of course, the Lanham Act is not so broad as to confer a federal cause of action on common law unfair competition claims,⁸⁰ but courts often explain how the Lanham Act "protects commercial interests against unfair

73. See, e.g., *Conte Bros. Auto., Inc. v. Quaker-State Slick 50, Inc.*, 165 F.3d 221, 233 (3d Cir. 1998); *Trump Plaza of Palm Beaches Condo. Ass'n, Inc. v. Rosenthal*, 2009 WL 1812743 (S.D. Fla. June 24, 2009).

74. See, e.g., *L.S. Health & Son, Inc. v. AT&T Info. Sys., Inc.*, 9 F.3d 561 (7th Cir. 1993); *Waits v. Frito-Lay, Inc.*, 978 F.2d 1093 (9th Cir. 1992); *Stanfield v. Osborne Indus., Inc.*, 52 F.3d 867 (10th Cir. 1995); *Heidelberg Harris, Inc. v. Loebach*, 1997 WL 363972 (D.N.H. 1997), *aff'd*, 145 F.3d 1454 (Fed. Cir. 1998).

75. See, e.g., *Am. Ventures, Inc. v. Post, Buckley, Schuh & Jernigan, Inc.*, 1993 WL 468643 (W.D. Wash. 1993) (finding a non-competitor had standing to sue in a § 43(a) action for unauthorized use of endorsement); *Mktg Unlimited, Inc. v. Munro*, 1993 WL 124694 (W.D.N.Y. 1993) (holding that non-competitor did not have standing in § 43(a) false advertising case).

76. See, e.g., *Conte Bros.*, 165 F.3d at 233; *Guarino v. Sun Co., Inc.*, 819 F. Supp. 405, 409–10 (D.N.J. 1993), *aff'd*, 11 F.3d 1163 (3d Cir. 1993); *Logan Farms v. HBH, Inc. DE*, 282 F. Supp. 2d 776 (S.D. Ohio 2003).

77. See, e.g., *Wrona*, *supra* note 59, at 1136–38 (arguing that courts should apply the same criteria when reviewing standing under both sections of 43(a)).

78. See, e.g., *Camel Hair & Cashmere Inst. of Am., Inc. v. Associated Dry Goods Corp.*, 799 F. 2d 6 (1st Cir. 1986); *Logan v. Burgers Ozark County Cured Hams, Inc.*, 263 F. 3d 447 (5th Cir. 2001).

79. See MCCARTHY, *supra* note 2, at §27:7.

80. See *id.*; see also *Int'l Order of Job's Daughters v. Lindeburg & Co.*, 633 F.2d 912 (9th Cir. 1980) (noting that there is no federal common law of unfair competition).

competition”⁸¹ to frame their discussion of standing in § 43(a) false advertising cases.⁸²

C. TESTS FOR § 43(A) STANDING BEFORE *LEXMARK*: A CIRCUIT SPLIT

Before the Supreme Court’s decision in *Lexmark*, circuit courts split on what test to apply for plaintiff standing in § 43(a) false advertising cases. Three sets of circuit courts applied three different tests: the balancing test, the direct competitor test, and the reasonable interest test.

1. *Balancing Test*

The balancing test, first established by the Third Circuit in *Conte Bros.*, weighs five factors in determining a § 43(a) plaintiff’s right to sue: (1) the nature of the plaintiff’s alleged injury, (2) the directness of the alleged injury, (3) the proximity of the party to the alleged injurious conduct, (4) the speculativeness of the damages claim, and (5) the risk of duplicative damages or complexity in apportioning damages.⁸³ Subsequently, the Fifth,⁸⁴ Eighth,⁸⁵ and Eleventh⁸⁶ Circuits adopted this test. This test has also been called the antitrust test of standing because it derives its factors from a multifactor antitrust standing analysis found in *Associated General Contractors, Inc. v. California State Council of Carpenters*.⁸⁷ Circuit courts adopting this test saw it as a solution to the dichotomy in false advertising and false association standing inquiries; the balancing test is applied to both § 43(a) causes of action.⁸⁸

81. *POM Wonderful L.L.C v. Coca-Cola Co.*, 134 S. Ct. 2228, 2238 (2014).

82. *See, e.g., id.*; *Nature’s Prods., Inc. v. Natrol, Inc.*, 990 F. Supp. 2d 1307, 1323 (S.D. Fla. 2013); *Natural Answers, Inc. v. SmithKline Beecham Corp.*, 529 F.3d 1325, 1331 (11th Cir. 2008); *Serbin v. Ziebart Int’l Corp.*, 11 F.3d 1163, 1164 (3d Cir. 1993).

83. *Conte Bros. Auto., Inc. v. Quaker-State Slick 50, Inc.*, 165 F.3d 221, 233 (3d Cir. 1998).

84. *See, e.g., Procter & Gamble Co. v. Amway Corp.*, 242 F.3d 539 (5th Cir. 2001).

85. *See, e.g., Gilbert/Robinson, Inc. v. Carrie Beverage-Mo., Inc.*, 989 F.2d 985 (8th Cir. 1993).

86. *See, e.g., Phoenix of Broward, Inc. v. McDonald’s Corp.*, 489 F.3d 1156 (11th Cir. 2007).

87. *See MCCARTHY, supra* note 2, at §27:32; *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519 (1983).

88. *See, e.g., Conte Bros.*, 165 F.3d at 232–33 (declining to adopt the direct competitor test).

2. *Direct Competitor Test*

The Seventh,⁸⁹ Ninth,⁹⁰ and Tenth⁹¹ Circuits adopted the direct competitor test, which requires a § 43(a) false advertising plaintiff to be in direct competition with the defendant.⁹² In this line of reasoning, courts interpreted the Lanham Act's stated purpose to protect those engaged in competition as imposing a stringent requirement on the character of a plaintiff's injuries, which must be "competitive," i.e., harmful to the plaintiff's ability to compete with the defendant."⁹³

3. *Reasonable Interest Test*

In the reasonable interest test, a § 43(a) plaintiff has standing if she can demonstrate "(1) a reasonable interest to be protected against the alleged false advertising and (2) a reasonable basis for believing that the interest is likely to be damaged by the alleged false advertising."⁹⁴ The First,⁹⁵ Second,⁹⁶ and, in the lower *Lexmark* decision, Sixth⁹⁷ Circuits adopted this test. By adopting a reasonableness standard, this test does not overburden plaintiffs with the task of proving injury in an area where doing so is difficult given the long causal chains possible in commercial injuries.⁹⁸ But the reasonable interest test grants broad discretion to courts, leading to divergent applications.⁹⁹

89. *See, e.g.,* L.S. Health & Son, Inc. v. AT&T Info. Sys., Inc., 9 F.3d 561, 562 (7th Cir. 1993).

90. *See, e.g.,* *Waits v. Frito-Lay, Inc.*, 978 F.2d 1093, 1094 (9th Cir. 1992).

91. *See, e.g.,* *Stanfield v. Osborne Indus., Inc.*, 52 F.3d 867, 868 (10th Cir. 1995).

92. *See, e.g.,* *Waits*, 978 F.2d at 1094.

93. *Barrus v. Sylvania*, 55 F.3d 468, 470 (9th Cir. 1995).

94. *Famous Horse, Inc. v. 5th Avenue Photo, Inc.*, 624 F.3d 106, 113 (2d Cir. 2010).

95. *See, e.g.,* *Camel Hair*, 799 F.2d at 11–12; *Quabaug Rubber Co. v. Fabiano Shoe Co., Inc.*, 567 F.2d 154, 160 (1st Cir. 1977).

96. *See, e.g., id.*; *Societe Des Hotels Meridien v. LaSalle Hotel Operating P'ship, L.P.*, 380 F.3d 126 (2d Cir. 2010).

97. *See* *Static Control Components, Inc. v. Lexmark Int'l, Inc.*, 697 F.3d 387, 410–11 (6th Cir. 2012); *see also* *Frisch's Rests., Inc. v. Elby's Big Boy of Steubenville, Inc.*, 670 F.2d 642 (6th Cir. 1982) (adopting an early version of the reasonable interests test).

98. *See* Vincent V. Palladino, *Lanham Act "False Advertising" Claims: What Is a Plaintiff to Do?* 101 TRADEMARK REP. 1601, 1639 (2011).

99. *See* Peter S. Massaro, III, *Filtering Through a Mess: A Proposal to Reduce the Confusion Surrounding the Requirements for Standing in False Advertising Claims Brought Under Section 43(A) of the Lanham Act*, 65 WASH. & LEE L. REV. 1673, 1700–01 (2008).

II. THE *LEXMARK* DECISION

In *Lexmark*, the Supreme Court examined the three major tests the circuit courts used to analyze a party's standing to maintain an action for false advertising under the Lanham Act.¹⁰⁰ The Court announced a new, two-pronged test in an attempt to provide consistency to false advertising law.¹⁰¹

A. FACTS AND PROCEDURAL HISTORY

Petitioner Lexmark manufactures and sells laser printers and toner cartridges.¹⁰² While Lexmark designs its printers to work only with its toner cartridges, other businesses, called "remanufacturers," refurbish used Lexmark toner cartridges and sell them in competition with Lexmark's cartridges.¹⁰³ To prevent empty cartridges from getting into the hands of a competitor, Lexmark introduced a "Prebate" program.¹⁰⁴ Under the Prebate program, customers could purchase Lexmark toner cartridges at a twenty percent discount if they agreed to return the cartridge to Lexmark once it was empty.¹⁰⁵ Lexmark notified customers of the terms of this agreement through text on the toner cartridge packaging.¹⁰⁶ The notice also informed consumers that opening the toner cartridge box would indicate assent to the terms listed on the packaging.¹⁰⁷ Lexmark placed microchips in its toner cartridges to implement the Prebate program.¹⁰⁸ Once a Prebate cartridge ran out of toner, the microchip inside would disable the cartridge, and Lexmark would have to replace the microchip for the cartridge to be used again.¹⁰⁹ The microchips would thus prevent customers from selling empty cartridges to remanufacturers, as remanufacturers would not be able to refill and resell this cartridge as a functional refurbished toner cartridge.¹¹⁰

Respondent Static Control supplies remanufacturers with the components necessary to remanufacture Lexmark cartridges.¹¹¹ In response

100. *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1392 (2014).

101. *Id.* at 1395.

102. *Id.* at 1383.

103. *Id.*

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. *Id.* at 1384.

to Lexmark's Prebate program microchips, Static Control developed a microchip that remanufacturers could use to replace Lexmark microchips, thus allowing remanufacturers to refurbish and resell used Prebate cartridges as well as used non-Prebate cartridges.¹¹²

Lexmark sued Static Control for copyright violations.¹¹³ Static Control counterclaimed, alleging Lexmark's misleading conduct violated § 43(a) of the Lanham Act.¹¹⁴ Static Control first alleged that Lexmark purposefully misled consumers to believe that they were legally required to return empty Prebate cartridges to Lexmark, when in fact they were not.¹¹⁵ Second, Static Control alleged that Lexmark falsely advised to cartridge remanufacturers that it was illegal to sell refurbished Prebate cartridges and to use Static Control's products to refurbish those cartridges.¹¹⁶

The District Court for the Eastern District of Kentucky granted Lexmark's motion to dismiss Static Control's Lanham Act claim, holding that Static Control lacked prudential standing to bring the claim under the balancing test.¹¹⁷ The court reasoned that Static Control's injury was remote because it was a "byproduct of the supposed manipulation of consumers' relationships with remanufacturers," and that there were "more direct plaintiffs in the form of remanufacturers of Lexmark's cartridges."¹¹⁸ On appeal, the Sixth Circuit identified the three competing approaches to standing in Lanham Act cases and applied the reasonable interest test.¹¹⁹ The Sixth Circuit reversed the dismissal of Static Control's Lanham Act claim, finding that Static Control alleged (a) a reasonable interest in its business reputation and sales to remanufacturers, and (b) that those interests were harmed by Lexmark's statements to the remanufacturers that Static Control was engaging in illegal conduct by manufacturing

112. *Id.*

113. *Id.* Lexmark alleged that Static Control's microchips violated both the Copyright Act and the Digital Millennium Copyright Act.

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.* at 1385.

118. *Id.*

119. *Static Control Components, Inc. v. Lexmark Int'l, Inc.*, 697 F.3d 387, 410–11 (6th Cir. 2012). The Sixth Circuit followed precedent from *Frisch's Restaurants, Inc. v. Elby's Big Boy of Steubenville, Inc.*, where the Sixth Circuit applied the reasonable interests test to find the plaintiff has standing to bring a case for false association of trademark under § 43(a). 670 F.2d 642 (6th Cir. 1982). The Sixth Circuit noted that the reasonable interest test applied to both the false advertising and the false association prongs of § 43(a), so it was bound to follow *Frisch's Restaurants* even though that case dealt with false association instead of false advertising.

microchips that mimicked the Prebate microchips.¹²⁰ Lexmark appealed, and the Supreme Court granted certiorari.¹²¹

B. THE SUPREME COURT'S ANALYSIS

The Court, in a decision written by Justice Scalia, unanimously held that in order to “invoke the Lanham Act’s cause of action for false advertising, a plaintiff must plead (and ultimately prove) an injury to a commercial interest in sales or business reputation proximately caused by the defendant’s misrepresentations.”¹²² Applying this standard, the Court held that Static Control adequately pled both elements and affirmed the Sixth Circuit’s decision to deny Lexmark’s motion to dismiss.¹²³ In reaching its decision, the Court focused on three main discussions. First, the Court discussed the zone-of-interests requirement, which became the first prong of their new two-pronged test for § 43(a) standing.¹²⁴ Second, the Court discussed proximate cause, which became the second prong of the test.¹²⁵ Finally, the Court considered the merits of each of the three proposed tests for § 43(a) standing.¹²⁶

1. Zone-of-Interests Requirement

The Lanham Act allows “any person who believes that he or she is likely to be damaged” by a defendant’s false advertising to bring suit,¹²⁷ but the Court reasoned that Congress did not intend such an expansive reading.¹²⁸ The Court first applied the zone-of-interests test to a case brought under the Administrative Procedure Act in *Association of Data Processing Service Organizations v. Camp*.¹²⁹ Subsequently, the Court has applied the zone-of-interests test to other statutory causes of action.¹³⁰ A plaintiff’s interests must “fall within the zone of interests protected by the law invoked.”¹³¹ The flexibility of the zone-of-interests test depends on the

120. *Id.* at 411.

121. *See id.* at 1393.

122. *Lexmark*, 134 S. Ct. at 1395.

123. *Id.* at 1393–1395.

124. *Id.* at 1389.

125. *Id.* at 1390.

126. *Id.* at 1392–93.

127. Lanham Act, 15 U.S.C. § 1125(a) (2012).

128. *See Lexmark*, 134 S. Ct. at 1389.

129. *Ass’n of Data Processing Service Orgs., Inc. v. Camp*, 397 U.S. 150 (1970) (noting the zone of interests limited the cause of action for judicial review under the Administrative Procedure Act).

130. *See Lexmark*, 134 S. Ct. at 1389.

131. *Id.* at 1388 (quoting *Allen v. Wright*, 468 U.S. 737, 751 (1984)).

breadth of interests protected by the statute at issue.¹³² Helpfully, the Lanham Act includes a statement of its interests:

The intent of this chapter is to regulate commerce within the control of Congress by making actionable the deceptive and misleading use of marks in such commerce; to protect registered marks used in such commerce from interference by State, or territorial legislation; to protect persons engaged in such commerce against unfair competition; to prevent fraud and deception in such commerce by the use of reproductions, copies, counterfeits, or colorable imitations of registered marks; and to provide rights and remedies stipulated by treaties and conventions respecting trademarks, trade names, and unfair competition entered into between the United States and foreign nations.¹³³

Noting that false advertising cases implicate only the protection against unfair competition section of the Lanham Act's purpose, the Court described unfair competition as "concerned with injuries to business reputation and present and future sales."¹³⁴ The Court held that "to come within the zone of interests in a false advertising suit under [§ 43(a)], a plaintiff must allege an injury to a commercial interest in reputation or sales."¹³⁵

2. *Proximate Cause*

With the zone-of-interests prong settled, the Court moved on to a second general requirement for a suit: proximate cause. After a brief survey of precedent,¹³⁶ the Court concluded that it was bound to limit causes of action under § 43(a) to "plaintiffs whose injuries are proximately caused by

132. *See Lexmark*, 134 S. Ct. at 1389.

133. Lanham Act, 15 U.S.C. § 1127 (2006).

134. *Lexmark*, 134 S. Ct. at 1389–90 (citing Edward S. Rogers, *Book Review*, 39 YALE L. J. 297, 299 (1929) (reviewing HARRY D. NIMS, *THE LAW OF UNFAIR COMPETITION AND TRADE-MARKS* (1929)); RESTATEMENT OF TORTS, ch. 35, intro. note (1938)).

135. *Lexmark*, 134 S. Ct. at 1390.

136. *See id.* The Court reviewed several cases where statutory causes of action were limited by a proximate cause requirement: *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 342–46 (2005) (requiring proximate cause for claims involving securities fraud); *Holmes v. Sec. Investor Prot. Corp.*, 503 U.S. 258, 267–68 (1992) (requiring proximate cause for a successful claim under the Racketeer Influenced and Corrupt Organizations Act ("RICO")); *Associated Gen. Contractors of Cal., Inc., v. Cal. State Council of Carpenters*, 459 U.S. 519, 535–36 (1983) (discussing proximate cause in relation to a claim under the Clayton Act).

violations of the statute.”¹³⁷ As such, the Court held that Lanham Act plaintiffs must show economic or reputational injury “flowing directly from the deception wrought by the defendant’s advertising; and that that occurs when deception of consumers causes them to withhold trade from the plaintiff.”¹³⁸ Having established that any satisfactory test for § 43(a) standing must contain both a zone-of-interests requirement and a proximate cause requirement, the Court moved on to evaluate the three tests used by the circuit courts.¹³⁹

3. *Proposed Tests for Standing*

With these two prongs established, the Court considered the three tests for plaintiff standing under § 43(a) currently in use by the lower courts: the balancing test, the direct competitor test, and the reasonable interest test.

First, the Court reviewed the balancing test, which weighs five factors in determining a § 43(a) plaintiff’s right to sue.¹⁴⁰ The first three factors, the Court reasoned, were essentially the zone-of-interests test and proximate cause requirement.¹⁴¹ As those factors must be met in every case, it was not appropriate to balance them. The last two factors, which may hint at a motivation for the proximate cause requirement, were insufficient bases to prevent an injured plaintiff from bringing suit under § 43(a).¹⁴² So, the Court dismissed this test.¹⁴³

Next, the Court found the direct competitor test, requiring a § 43(a) plaintiff to be in direct competition with the defendant,¹⁴⁴ to be an unduly restrictive bright-line rule.¹⁴⁵ When Congress passed the Lanham Act, the common law tort of unfair competition included actions between indirect competitors,¹⁴⁶ so limiting an unfair competition cause of action under the Lanham Act to plaintiffs who are direct competitors would frustrate Congress’s intent in passing the Lanham Act.¹⁴⁷

137. *Lexmark*, 134 S. Ct. at 1390.

138. *Id.* at 1391.

139. *Id.*

140. *See supra* Part I.C.1.

141. *Lexmark*, 134 S. Ct. at 1392.

142. *Id.*

143. *Id.*

144. *See supra* Part I.C.2.

145. *Lexmark*, 134 S. Ct. at 1392.

146. *Id.* (citing Edward S. Rogers, *Book Review*, 39 YALE L. J. 297, 299 (1929)).

147. *See Lexmark*, 134 S. Ct. at 1392.

Finally, the Court reviewed the reasonable interests test¹⁴⁸ applied by the Sixth Circuit on appeal. Because of its “widely divergent application” and because reasonableness was not the correct inquiry, the Court dismissed this test as well.¹⁴⁹

Having dismissed all three tests as inappropriate inquiries for § 43(a) plaintiffs, the Court concluded that “a direct application of the zone-of-interests test and the proximate-cause requirement supplies the relevant limits on who may sue.”¹⁵⁰

III. THE *LEXMARK* TEST SERVES THE LANHAM ACT’S PURPOSE

The *Lexmark* test remedied the three-way circuit split on false advertising standing by giving the lower courts a single, administrable test for § 43(a) standing. While consistency and applicability are admirable goals for a standing test, they are not the only goals a test for standing should achieve. Another appropriate metric of a test for statutory standing is how well it serves the statute’s purpose. Congress included a statement of purpose in the Lanham Act, which in relevant part states: “[t]he intent of this chapter is . . . to protect persons engaged in such commerce against unfair competition.”¹⁵¹ The Court in *Lexmark* noted this purpose at the outset of its analysis, setting the tone for creating a standing test that would help achieve the Lanham Act’s goals. The *Lexmark* test better serves the Lanham Act’s purpose than did the prior three tests. However, issues may emerge in the application of both the zone-of-interests prong and the proximate cause prong that would hinder fulfillment of the Lanham Act’s purpose.

A. THE *LEXMARK* TEST BETTER SERVES THE LANHAM ACT’S PURPOSE THAN THE THREE PREVIOUS TESTS

While the new standing test for false advertising under § 43(a) may not perfectly serve the Lanham Act’s purpose, it comes closer than did the three previous standing tests.

148. See *supra* Part I.C.3.

149. *Lexmark*, 134 S. Ct. at 1393 (“The relevant question is not whether the plaintiff’s interest is ‘reasonable,’ but whether it is one the Lanham Act protects; and not whether there is a ‘reasonable basis’ for the plaintiff’s claim of harm, but whether the harm alleged is proximately tied to the defendant’s conduct”).

150. *Id.* at 1391.

151. 15 U.S.C. §1127 (2006).

1. *The Lexmark Test Has Advantages over All Three Previous Tests*

In some aspects, the *Lexmark* test is an improvement over all three previous tests in the same way. First, *Lexmark* provides a single standing test for all jurisdictions. This improvement from the three-way circuit split brings consistency on standing appropriate for a federal false advertising statute. The Lanham Act was created to afford all commercially injured plaintiffs in the United States access to the same relief, and the different standing tests among the circuits was not conducive to this goal. Consider, for example, that in the year before the *Lexmark* decision was released, seven out of twelve false advertising plaintiffs (fifty-eight percent) were successful on a challenge to statutory standing in balancing test districts,¹⁵² as opposed to seven out of eleven false advertising plaintiffs (sixty-four percent) in reasonable interest districts,¹⁵³ and seven out of fourteen false advertising plaintiffs (fifty percent) in direct competitor districts.¹⁵⁴

152. This data was collected using WestlawNext, by searching for all false advertising cases under § 43(a) within the range 3/24/2013 to 3/24/2014 that dealt with standing. *See* Avaya Inc. v. Telecom Labs, Inc., 2014 WL 97335 (D.N.J. Jan. 7, 2014); Innovasystems, Inc. v. Proveris Scientific Corp., 2013 WL 5539288 (D.N.J. 2013); Aviva Sports, Inc. v. Fingerhut Direct Mktg., Inc., 2014 WL 702128 (D. Minn. 2014); York Group, Inc. v. Pontone, 2014 WL 896632 (W.D. Penn. 2014); FieldTurf USA, Inc. v. TenCate Thiolon Middle East, 945 F. Supp. 2d 1379 (N.D. Ga. 2013); Nature's Prods., Inc. v. Natrol, Inc., 990 F. Supp. 2d 1307 (S.D. Fla. 2013); Eastman Chem. Co. v. PlastiPure, Inc., 969 F. Supp. 2d 756 (W.D. Tex. 2013); Corizon, Inc. v. Wexford Health Sources, Inc., 2013 WL 3821268 (E.D. Mo. 2013); Cartier Int'l A.G. v. Daniel Markus, Inc., 2013 WL 5567150 (D.N.J., Oct. 3, 2013); Aceto Corp. v. TherapeuticsMD, Inc., 953 F. Supp. 2d 1269 (S.D. Fla. 2013); *In re* Gerber Probiotic Sales Practices Litig., 2013 WL 4517994 (D.N.J. 2013).

153. *See* Holdings B.V. v. Asiarim Corp., 992 F. Supp. 2d 223 (S.D.N.Y. 2013); Groeneveld Transp. Efficiency, Inc. v. Lubecore Intern., Inc., 730 F.3d 494 (6th Cir. 2013); R & L Merch., LLC v. Alex and Ani, LLC, 2013 WL 2434988 (M.D. Tenn., June 4, 2013); Sarah's Hat Boxes, LLC v. Patch Me Up, LLC, 2013 WL 1563557 (D.N.H., April 12, 2013); Klauber Bros., Inc. v. Russell-Newman, Inc., 2013 WL 1245456 (S.D.N.Y., March 26, 2013); Boston Cab Dispatch, Inc. v. Uber Techs., Inc., 2014 WL 1338148 (D. Mass., March 27, 2014); Savage v. Beiersdorf, Inc., 2013 WL 5532756 (Sept. 30, 2013); Sik Gaek, Inc. v. Yogi's II, Inc., 2013 WL 2408606 (E.D.N.Y., June 3, 2013); North Am. Olive Oil Ass'n v. Kangadis Food, Inc., 962 F. Supp. 2d 514 (S.D.N.Y. 2013); Migliore & Assocs., LLC v. Kentuckiana Reporters, LLC, 2013 WL 5323035 (W.D. Ky., Sept. 20, 2013); Global Fleet Sales, LLC v. Delunas, 2014 WL 634075 (E.D. Mich., Feb. 18, 2014).

154. *See* Sprint Nextel Corp. v. Welch, 2014 WL 68957 (E.D. Cal., Jan. 8, 2013); Gen. Steel Domestic Sales, LLC v. Chumley, 2013 WL 1900562 (D. Colo., May 7, 2013); E. Clampus Vitus v. Steiner, 2013 WL 4431992 (E.D. Cal., Aug. 16, 2013); A.F.L. Telecomms. LLC v. SurplusEQ.com, Inc., 946 F. Supp. 2d 928 (D. Ariz. 2013); Stahl Law Firm v. Judicate West, 2013 WL 6200245 (N.D. Cal., Nov., 27 2013); Animal Legal Def. Fund v. H.V.F.G. LLC, 2013 WL 3242244 (N.D. Cal., June 25, 2013); Stahl Law Firm v. Judicate West, 2013 WL 4873065 (N.D. Cal., Sept. 12, 2013);

Whether or not this difference represents an actual difference in likelihood of plaintiff success is debatable, but the three tests were different enough to provide substantially different standing standards for plaintiffs to meet. This difference in standards may have encouraged forum shopping and led to inconsistent jurisprudence in federal false advertising standing. The *Lexmark* test ends these problems and achieves the consistent access to remedies for commercial injuries intended by the Lanham Act.

Second, courts may draw upon a wealth of caselaw when applying the *Lexmark* test's two prongs: zone-of-interests and proximate cause. While neither prong has been explicitly applied in the federal false advertising context before, both are concepts used to evaluate standing under other statutes. For example, courts use the zone-of-interests inquiry to evaluate standing in cases brought under the Administrative Procedure Act ("APA"), federal agriculture statutes, federal election statutes, environmental statutes, financial and banking regulations, immigration statutes, tax statutes, and workers' compensation statutes.¹⁵⁵ Cases dealing with financial and banking regulations may be especially helpful analogies to § 43(a) false advertising cases because the zone-of-interests inquiries in both types of cases relate to commerce. In one such case, the Supreme Court reasoned that the plaintiffs, multiple data services companies, had standing to challenge a ruling by the Comptroller of the Currency under the APA because the ruling harmed the plaintiffs' business and economic interests, meaning they were "aggrieved persons" who fell within the zone of interests protected by the APA.¹⁵⁶

Proximate cause is originally a torts concept, and this common law principle is notoriously difficult to define, which may complicate its application to statutes.¹⁵⁷ Nevertheless, the Supreme Court has applied

Almblad v. Scotsman Inds., Inc., 2013 WL 4600209 (N.D. Ill., Aug. 28, 2013); *Think Computer Corp. v. Dwolla, Inc.*, 2014 WL 1266213 (N.D. Cal., March 24, 2014); *Shaker v. Nature's Path Foods, Inc.*, 2013 WL 6729802, n. 9 (C.D. Cal., Dec. 16, 2013); *Animal Legal Def. Fund v. H.V.F.G. LLC*, 939 F. Supp. 2d 992 (N.D. Cal. 2013); *Orchard Supply Hardware LLC v. Home Depot USA, Inc.*, 967 F. Supp. 2d 1347 (N.D. Cal. 2013); *CrossFit, Inc. v. Alvies*, 2014 WL 251760 (N.D. Cal. Jan. 22, 2014); *Storm Mfg. Group Inc. v. Weather Tec Corp.*, 2013 WL 5352698 (C.D. Cal. Sept. 23, 2013).

155. See Donald T. Kramer, J.D., "Zone of interests" test in determining standing in litigation involving federal statutes—*Supreme Court cases*, 153 A.L.R. FED. 357, §§9–15 (originally published in 1999).

156. See *Ass'n of Data Processing Service Orgs., Inc. v. Camp*, 397 U.S. 150, 157 (1970).

157. See Sandra F. Sperino, *Statutory Proximate Cause*, 88 NOTRE DAME L. REV. 1199, 1201–05 (2013) (discussing how courts, legal scholars, and even legal dictionaries

proximate cause to several statutes, including securities fraud,¹⁵⁸ the Racketeer Influenced and Corrupt Organizations Act (“RICO”),¹⁵⁹ the Clayton Act,¹⁶⁰ and others.¹⁶¹ For example, RICO provides a private right to action to “[a]ny person injured in his business or property by reason of a violation’ of the RICO’s substantive restrictions,”¹⁶² a standing provision similarly broad to that in § 43(a).¹⁶³ When applying the proximate cause requirement in a RICO case, the Supreme Court found the plaintiff lacked standing when the “attenuated connection between [the plaintiff’s] injury and [the defendant’s] injurious conduct” implicates “fundamental concerns” embedded in the proximate cause requirement,¹⁶⁴ including the “demand for some direct relation between the injury asserted and the injurious conduct alleged”¹⁶⁵ and difficulty in “ascertain[ing] the damages caused by some remote action.”¹⁶⁶

Such a wealth of precedent for both the zone-of-interests prong and the proximate cause prong should allow for consistency in judicial application of the *Lexmark* test. This consistency will further the Lanham Act’s purpose of providing all plaintiffs participating in U.S. commerce a cause of action to remedy their commercial injuries. The *Lexmark* test also has advantages over the previous tests specific to each test.

use many different definitions for proximate cause because it embodies an attribution of moral blameworthiness that changes depending on the facts of the case).

158. *See, e.g.*, *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 342–46 (2005) (requiring proximate cause for claims involving securities fraud).

159. *See, e.g.*, *Holmes v. Sec. Investor Prot. Corp.*, 503 U.S. 258, 267–68 (1992) (requiring proximate cause for a successful claim under the Racketeer Influenced and Corrupt Organizations Act (RICO)); *Anza v. Ideal Steel Supply Corp.*, 547 U.S. 451, 453 (2006) (restating that proximate cause is required to sue under RICO).

160. *See, e.g.*, *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 535–36 (1983) (discussing proximate cause in relation to a claim under the Clayton Act).

161. *See, e.g.*, *Staub v. Proctor Hosp.*, 131 S. Ct. 1186, 1191 (2011) (applying proximate cause to the Uniformed Services Employment and Reemployment Rights Act of 1994 (“USERRA”)); *Sosa v. Alvarez-Machain*, 542 U.S. 692, 703–04 (2004) (examining proximate causation with respect to the Federal Tort Claims Act); *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004) (reasoning that the National Environmental Policy Act (“NEPA”) requires a causal standard similar to proximate cause).

162. *Anza*, 547 U.S. at 453 (quoting 18 U.S.C. § 1964(c) (2000)).

163. § 43(a) grants “any person who believes he or she is likely to be damaged by such an act [of false advertising or false association of trademark]” a cause of action. Lanham Act, 15 U.S.C. § 1125(a) (2012).

164. *Anza*, 547 U.S. at 459.

165. *Id.* at 457 (quoting *Holmes v. Sec. Investor Prot. Corp.*, 503 U.S. 258, 268 (1992)).

166. *Id.* at 458.

2. *The Lexmark Test Has Advantages Specific to Each of the Three Previous Tests*

First, the balancing test¹⁶⁷ assessed a plaintiff's standing by considering five factors, several of which were unrelated to the Lanham Act's purpose of providing a cause of action to commercial plaintiffs in need of protection against unfair competition. When the Third Circuit first adopted the test, proponents cited the similarities in antitrust and unfair competition law as support for applying the *Associated General* factors, used as a standing test in antitrust law, to false advertising.¹⁶⁸ Critics point out that the balancing test brings to false advertising inappropriate goals from its origins in antitrust law.¹⁶⁹ Antitrust law protects "competition, not competitors," but the Lanham Act protects both.¹⁷⁰ The five factors thus place an inordinate emphasis on competition, undermining the test's attempt to stay true to the Lanham Act's goals by protecting those engaged in competition. By weighing factors intended only to protect competition, not competitors, the balancing test can curtail competitors' right to sue.¹⁷¹

In formulating the balancing test, the Third Circuit noted that "[t]he congressionally-stated purpose of the Lanham Act . . . evidences an intent to limit standing to a narrow class of potential plaintiffs possessing interests the protection of which furthers the purposes of the Lanham Act."¹⁷² Congress indeed intended § 43(a) of the Lanham Act to apply only to commercial harm brought about by another's false advertising, encompassing a narrow class of plaintiffs. But Congress did not intend to exclude plaintiffs who had suffered commercial harm based on such factors as uncertainty in damages. As the Court noted in *Lexmark*, a court "cannot limit a cause of action that Congress has created merely because 'prudence' dictates."¹⁷³ The balancing test thus considered factors irrelevant to the Lanham Act's purpose, which makes the *Lexmark* test a better approximation of the Lanham Act's interests.

167. *See supra* Part I.C.1.

168. *See* MCCARTHY, *supra* note 2, at §27:32, n. 1; Restatement (Third) Unfair Competition § 3, cmt. f (1995).

169. Rebecca Tushnet, *Running the Gamut from A to B: Federal Trademark and False Advertising Law*, 159 U. PA. L. REV. 1305, 1376–79 (2011).

170. *Id.* at 1377.

171. *Id.*

172. *Conte Bros. Auto., Inc. v. Quaker-State Slick 50, Inc.*, 165 F.3d 221, 229 (3d Cir. 1998).

173. *Lexmark*, 134 S. Ct. at 1388.

Second, the direct competitor test¹⁷⁴ offered a categorical test that was easier to apply than the other tests, but ultimately at odds with the Lanham Act's purpose. Nowhere does the Lanham Act require a plaintiff suffering commercial injury to be in direct competition with the party responsible for said injury.¹⁷⁵ And indeed, the Court in *Lexmark* recognized that the direct competitor test was too narrow to serve the Lanham Act's purpose.¹⁷⁶ The test's requirement of direct competition has been criticized as an overly simplistic and restrictive view of the Lanham Act's purpose and connection to unfair competition,¹⁷⁷ suggesting that the direct competitor test actually ran counter to the broad language granting standing under § 43(a).¹⁷⁸

In addition, the direct competitor test needlessly complicated § 43(a) standing analysis by requiring two different statutory standing tests for the two prongs of § 43(a) even though the text of the Lanham Act provides only one standing provision in § 43(a). While proponents of the direct competitor test argued its categorical standard lends itself to a more consistent application and clearer holdings,¹⁷⁹ this test often leads courts to apply a different standard to false association cases as opposed to false advertising cases because a false association defendant need not be in direct competition with a plaintiff to infringe her trademark.¹⁸⁰ Cases and commentators alike have criticized the direct competitor test for this dichotomy as it creates two separate § 43(a) standing tests absent any textual support from the Lanham Act.¹⁸¹ The Lanham Act merely states that "any person who believes he or she is likely to be damaged by such an act [of trademark infringement or unfair competition]" may bring suit under § 43(a).¹⁸² When Congress divided § 43(a) into two prongs (false advertising and false association) in the Trademark Revision Act of 1988, it did not suggest that the standing inquiries should be different for the

174. See *supra* Part I.C.2.

175. See MCCARTHY, *supra* note 2, at §27:32.

176. *Lexmark*, 134 S. Ct. at 1392.

177. See MCCARTHY, *supra* note 2, at §27:32.

178. See Gerald M. Meyer, *Standing Out: A Commonsense Approach to Standing for False Advertising Suits Under Lanham Act Section 43(A)*, 2009 U. ILL. L. REV. 295, 311–313 (2009).

179. See, e.g., *Halicki v. United Artists Commc'ns, Inc.*, 812 F.2d 1213, 1214 (9th Cir. 1987).

180. See Meyer, *supra* note 178, at 315.

181. See, e.g., *Apgar, supra* note 72, at 2407–08; *Conte Bros. Auto., Inc. v. Quaker-State Slick 50, Inc.*, 165 F.3d 221, 233 (3d Cir. 1998).

182. Lanham Act, 15 U.S.C. § 1125(a) (2012). See Appendix B for full text of the current version of the Lanham Act.

two causes of action.¹⁸³ In fact, a draft of the Trademark Revision Act of 1988 would have narrowed standing to parties “damaged in [their] business or profession,” but Congress chose not to adopt this altered standing language into the Lanham Act.¹⁸⁴ The direct competitor test therefore subverts Congress’s intent to maintain the same standing test for both prongs of § 43(a). Instead of adhering to Congress’s instruction for standing in the Lanham Act, the direct competitor test created two different standing inquiries for the two prongs of § 43(a).

Finally, the reasonable interest test¹⁸⁵ failed to apply restrictions on standing inherent in the Lanham Act’s purpose. Because the reasonable interest test required only a reasonable interest in being protected against the alleged false advertising,¹⁸⁶ *Lexmark* is a comparatively narrower test.¹⁸⁷ Unlike the previous two tests, the reasonable interest test warranted narrowing. The “reasonable” inquiry likely cast an overly broad net, possibly leading to over-enforcement of § 43(a) by granting too many plaintiffs standing.¹⁸⁸ Moreover, the conspicuous absence of a discussion of commercial injury divorced the reasonable interest test’s inquiry from the purpose of the Lanham Act. As the Lanham Act expressly states that it intends to protect those engaged in commerce from unfair competition, some inquiry into commercial participation is a mandatory element of any standing test that serves the Lanham Act’s purpose. The zone-of-interests prong of the *Lexmark* test remedies this oversight in the reasonable interest test.

B. THE ZONE-OF-INTERESTS PRONG SERVES THE PURPOSE OF THE LANHAM ACT

The zone-of-interests prong of the *Lexmark* test serves the purpose of the Lanham Act because it gives a right of action to plaintiffs with a commercial injury. In general, the zone-of-interests inquiry asks whether

183. Brief of Law Professors as Amici Curiae in Support of Neither Side at 8, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

184. Brief of Law Professors as Amici Curiae in Support of Neither Side at 9, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

185. See *supra* Part I.C.3.

186. See *Famous Horse, Inc. v. 5th Avenue Photo, Inc.*, 624 F.3d 106, 113 (2d Cir. 2010).

187. See, e.g., Julia Rezvin, *Lawyers Weigh in on Supreme Court’s Lexmark Ruling*, LAW360 (Sept. 9, 2014, 10:20 AM), <http://www.law360.com/articles/521983/print?section=appellate>.

188. See Meyer, *supra* note 178, at 318.

“a legislatively conferred cause of action encompasses a particular plaintiff’s claim.”¹⁸⁹ The zone-of-interests test originated as a limitation on the cause of action conferred by the APA.¹⁹⁰ Over time, the Court has refined the analysis and found the zone-of-interests test to be a “requirement of general application . . . which applies unless it is expressly negated [by Congress].”¹⁹¹

Section 43(a) false advertising cases fall under the Lanham Act’s goal to “protect persons engaged in [commerce within the control of Congress] against unfair competition,”¹⁹² and the zone-of-interests prong of the *Lexmark* test promotes that goal. In its amicus curiae brief, the American Intellectual Property Law Association (“AIPLA”) argued that only minimal prudential standing requirements were consistent with the language of the Lanham Act.¹⁹³ The law professors’ amicus brief similarly argued against a rigid standing doctrine for Lanham Act false advertising.¹⁹⁴ While the Court ultimately rejected the AIPLA’s contention that the reasonable interest test led to an evaluation of standing consistent with Congress’s intent, the Court echoed the amici briefs’ concerns that the test for standing should fulfill the Lanham Act’s purpose. Noting that unfair competition “was understood to be concerned with injuries to business reputation and present and future sales,” the Court in *Lexmark* held that to come within the zone of interests in a § 43(a) false advertising suit, “a plaintiff must allege an injury to a commercial interest in reputation or sales.”¹⁹⁵ The Court thus crafted the § 43(a) zone-of-interests test in light of Congress’s expressed intent for the Lanham Act. By requiring only an injury to a commercial interest in reputation or sales, the zone-of-interests test gives the lower courts an administrable standard that grants standing to plaintiffs that Congress intended to be included within the Lanham Act.

But even with a test specifically created to reflect the Lanham Act’s purpose, the zone-of-interests prong may incite new standing issues. The

189. *Lexmark*, 134 S. Ct. at 1387.

190. *See* Ass’n of Data Processing Service Orgs., Inc. v. Camp, 397 U.S. 150 (1970).

191. *Bennett v. Spear*, 520 U.S. 154, 163 (1997).

192. *See Lexmark*, 134 S. Ct. at 1389.

193. Brief of American Intellectual Property Law Association as Amici Curiae in Support of Neither Party at 10, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

194. *See* Brief of Law Professors as Amici Curiae in Support of Neither Side at 2, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

195. *Lexmark*, 134 S. Ct. at 1387.

test may be broad enough to resurrect consumer standing under § 43(a). Commentators generally believed that the controversy over consumer standing in § 43(a) false advertising cases was put to rest by the early 1990s, when courts consistently held that the Lanham Act did not extend a right of action to consumers.¹⁹⁶ But Rebecca Tushnet suggested at the Supreme Court IP Review (“SCIPR”) conference that the zone-of-interests test may encompass consumers engaged in commerce, not just participants in commerce who sell products and services.¹⁹⁷ Congress intended the Lanham Act to protect persons engaged in commerce against unfair competition, and consumers are engaged in commerce.¹⁹⁸ One purpose of trademark law is to protect consumers from deception, and this purpose lends itself to an interpretation of consumers as persons engaged in commerce.¹⁹⁹

However, most experts believe that standing in § 43(a) false advertising cases will, and should, continue to elude consumers. In its amicus brief, the AIPLA argued that “the proper [§ 43(a) false advertising standing] test must be broad enough to allow commercial entities—but not consumers—to sue,” noting that the Lanham Act’s “persons engaged in . . . commerce” language actually supports such a restriction on consumer standing.²⁰⁰ Jameson Jones at the SCIPR conference cited fairly uniform pre-*Lexmark* circuit court precedent denying consumers standing under the Lanham Act in support of the same restriction.²⁰¹ Given the Lanham Act’s genesis as a response to the inadequate commercial protection provided by the federal Trademark Act of 1905 and the subsequent development of the Lanham Act as a statute protecting commercial interests, it seems more honest to the Lanham Act’s purpose to interpret “persons engaged in commerce” as excluding consumers.²⁰²

196. *See, e.g.*, *Serbin v. Ziebart Int’l. Corp., Inc.*, 11 F.3d 1163 (3d Cir. 1993) (concluding that consumers fall outside the range of interests intended to be protected by § 43(a)).

197. Rebecca Tushnet, *Supreme Court IP Review: Lexmark Int’l v. Static Control Components*, IIT CHICAGO-KENT COLLEGE OF LAW (Friday, Sept. 12, 3:15 PM) <http://www.kentlaw.iit.edu/scipr>.

198. *See id.*

199. *See id.*

200. Brief of American Intellectual Property Law Association as Amici Curiae in Support of Neither Party at 13, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

201. Jameson Jones, *Supreme Court IP Review: Lexmark Int’l v. Static Control Components*, IIT CHICAGO-KENT COLLEGE OF LAW (Friday, Sept.12, 3:15 PM) <http://www.kentlaw.iit.edu/scipr>.

202. *See* MCCARTHY, *supra* note 2, at §5.4.

Finally, consumers can turn to state law to remedy injuries inflicted by false advertising.²⁰³ Practically, then, consumers injured by a company's false advertising may still find relief, although concerns about consistency of law and forum shopping remain, as a consumer could decide to sue a company for false advertising in the state with the most favorable unfair competition or consumer protections laws.

While the Court in *Lexmark* did not directly confront the issue of consumer standing, as neither *Lexmark* nor *Static Control* argued that consumers should have standing,²⁰⁴ the Court impliedly rejects consumer standing in its decision. The Court provides an example of how consumer injury falls outside the zone of interests of the Lanham Act: “[a] consumer who is hoodwinked into purchasing a disappointing product may well have an injury-in-fact cognizable under Article III, but he cannot invoke the protection of the Lanham Act.”²⁰⁵ While the Court did not directly bar consumers from the § 43(a) cause of action, courts are likely to interpret *Lexmark* as confirmation of the mostly settled jurisprudence that consumers do not have standing under § 43(a).

As the case was so recently decided and § 43(a) consumer standing is now rarely litigated, few federal false advertising cases dealing with consumer standing have occurred after *Lexmark*. But at least one court rejected standing because the plaintiff, a telecommunications company, purchased products from the defendant and was not in competition with the defendant.²⁰⁶ In that case, the court noted that the “injury . . . [at hand was] precisely the type of harm the *Lexmark* Court was careful to distinguish as falling outside the Lanham Act’s purview.”²⁰⁷ Given the district court’s quick dismissal of the suit of a commercial entity because it was a consumer of the defendant’s products, courts will likely not use

203. *See, e.g.*, Unfair Trade Practices and Consumer Protection Law, 73 P.S. §201–2(4)(ix), (x) (2007) (providing consumers a false advertising cause of action in Pennsylvania); Unfair Competition Law, Cal. Bus. & Prof. Code §§ 17200 et seq. (providing consumers a false advertising cause of action in California).

204. *See* Respondent’s Brief on the Merits at 47–48, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873); Petitioner’s Brief on the Merits at 38–39, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

205. *Lexmark*, 134 S. Ct. at 1390.

206. *See* *Locus Telecomms., Inc. v. Talk Global LLC*, 2014 WL 4271635 at *2–3 (D.N.J., August 28, 2014) (dismissing the Lanham Act claim because the “allegations, taken as true, indicate that the complained-of conduct involves [Plaintiff] and [Defendant] as purchaser and seller, respectively, and not as competitors”).

207. *Id.* at *2.

Lexmark to support individual consumer standing in Lanham Act false advertising cases.

The potential to resurrect federal false advertising consumer standing may be an embodiment of a more fundamental concern with the Court's formulation of the zone-of-interests test. The Court's interpretation of the Lanham Act's purpose—to protect those engaged in commerce against unfair competition—as requiring “an injury to a commercial interest in reputation or sales”²⁰⁸ may not accurately reflect a modern understanding of “commerce.” As the digital age pushes commerce farther away from the face-to-face dealings on which classic conceptions of business and unfair competition were based,²⁰⁹ it becomes more difficult to draw a line between consumer and non-consumer. Modern conceptions of what constitutes unfair competition must stretch to fit changes modern technology has triggered in the economy, including sharing economy businesses like Uber and Airbnb²¹⁰ and multi-sided networks common in platform technologies such as computer operating systems.²¹¹ If the conception of commerce stretches enough, the Court's interpretation of the Lanham Act's purpose as requiring “an injury to a commercial interest in reputation or sales”²¹² may cease to fit modern conceptions of what constitutes commerce and unfair competition. While a resurgence of consumer standing in false advertising is unlikely as the Court seems to have rejected the idea, challenges to the Court's interpretation of the Lanham Act's express purpose may surface in § 43(a) litigation.

C. THE PROXIMATE CAUSE PRONG MAY FAIL TO SERVE THE LANHAM ACT'S PURPOSE IN SOME CIRCUMSTANCES

Unlike the zone-of-interests prong, the proximate cause prong may not serve the purpose of the Lanham Act. When formulating the proximate cause prong, the Court noted that it construed federal causes of action in several contexts, including securities fraud, RICO, and the

208. *Lexmark*, 134 S. Ct. at 1387.

209. For example, Justice Scalia in *Lexmark* based his contention that unfair competition is “understood to be concerned with injuries to business reputation and present and future sales” on a law review article from 1929 and a Restatement of Torts from 1938. See *Lexmark*, 134 S. Ct. at 1389–90 (citing Edward S. Rogers, *Book Review*, 39 YALE L. J. 297, 299 (1929); 3 Restatement of Torts, ch. 35, Introductory Note, pp. 536–537 (1938)).

210. For further discussion on the sharing economy, see Thomas A. Dickerson & Sylvia O. Hinds-Radix, *Taxing Internet Transactions: Airbnb and the Sharing Economy*, 86-AUG N.Y. ST. B.J. 49 (2014).

211. For further discussion on multi-sided networks, see *infra* Part III.C.2.

212. *Lexmark*, 134 S. Ct. at 1387.

Clayton Act, as having a proximate causation requirement.²¹³ Applying proximate cause in these contexts paved the way to include a proximate cause requirement in the test for standing under § 43(a) of the Lanham Act.²¹⁴ But the Court did not discuss the purpose of the Lanham Act and how the proximate cause requirement might affect that purpose, unlike in *Lexmark's* zone-of-interests section, where the Court discussed the purpose of the Lanham Act at length. Without considering how a proximate cause requirement would affect the Lanham Act's ability to protect those engaged in commerce against unfair competition, the Court may have unintentionally created a prong that bars plaintiffs the Lanham Act intended to admit, frustrating Congress's intent in passing the Lanham Act.

The proximate cause inquiry asks “whether the harm alleged has a sufficiently close connection to the conduct the statute prohibits,” and generally “bars suits for alleged harm that is ‘too remote’ from the defendant’s unlawful conduct.”²¹⁵ The proximate cause prong is another causation requirement in addition to the Article III causation requirement for standing in federal court. The Court recognized that all commercial injuries suffered by plaintiffs in false advertising suits “are derivative of those suffered by consumers who are deceived by the advertising,” so the intervening step of consumer injury does not bar the commercial plaintiff’s standing.²¹⁶ The Court held that a § 43(a) plaintiff must plead proximate cause by showing that its economic or reputational injury “flow[ed] directly from the deception wrought by the defendant’s advertising; and that that occurs when deception of consumers causes them to withhold trade from the plaintiff.”²¹⁷ Situations where “deception produces injuries to a fellow commercial actor that in turn affect the plaintiff,” the Court noted, do not satisfy the proximate cause requirement.²¹⁸

Neither *Lexmark* nor *Static Control* disputed a proximate cause requirement. Rather, both parties structured their briefs assuming the standing test would include a proximate cause requirement: *Static Control* argued that it sufficiently pled that *Lexmark* proximately caused *Static Control's* injuries,²¹⁹ and *Lexmark* argued that *Static Control's* alleged

213. *See id.* at 1390.

214. *See id.*

215. *Id.*

216. *Id.* at 1391.

217. *Id.*

218. *Id.*

219. *See* Respondent’s Brief on the Merits at 47–48, *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

injuries were only an indirect result of Lexmark's alleged violations of § 43(a).²²⁰ The parties likely assumed the standing test would include a proximate cause requirement because the Court had applied a proximate cause requirement to many statutory standing tests in the past.²²¹ So the existence of a proximate cause requirement in the § 43(a) false advertising standing test was not a contentious or thoroughly argued issue in *Lexmark*. But the proximate cause prong has the potential to create difficulties for courts applying the *Lexmark* test that could restrict commercially injured plaintiffs' access to relief under the Lanham Act. It may be especially difficult for a plaintiff to successfully plead proximate cause when the defendant has a low market share and when the plaintiff's injury was inflicted through network effects.

1. *The Proximate Cause Requirement May Unduly Burden Plaintiffs at the Pleading Stage When the Defendant Has a Low Market Share.*

By requiring a plaintiff to plead facts showing that the defendant's false advertising proximately caused her injury, the *Lexmark* test's proximate cause requirement may overburden plaintiffs at the pleading stage and bar plaintiffs that § 43(a) intended to protect. Because "[p]roximate cause is a mechanism for limiting liability for conduct that statutes otherwise arguably prohibit,"²²² the proximate cause requirement may deny standing to plaintiffs whose injury falls within the Lanham Act's protection. Such denial hinders the Lanham Act's purpose to protect those engaged in commerce from unfair competition. Under most circumstances, pleading facts to satisfy the zone-of-interests prong will also satisfy the proximate cause prong. When a plaintiff pleads facts to establish an injury to a commercial interest in reputation or sales, as required by the zone-of-interests prong, those facts will usually also establish that the defendant proximately caused that injury. But in today's complex commercial environment, the facts that establish a commercial injury will not always establish that injury's source with enough certainty to meet the proximate cause prong of the *Lexmark* test. Moreover, false advertising injuries stem from an injured consumer withholding trade from the plaintiff as a result of the defendant's false advertising, and it is

220. See Petitioner's Brief on the Merits at 38–39, *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377 (2014) (No. 12-873).

221. See *Lexmark*, 134 S. Ct. at 1390.

222. Sandra F. Sperino, *Statutory Proximate Cause*, 88 NOTRE DAME L. REV. 1199, 1200 (2013).

difficult to plead proximate cause when false advertising injuries are by definition indirect.

Plaintiffs may be unable to successfully plead proximate cause when the defendant has a small market share of the product or service involved in the alleged false advertising. In *Lexmark*, defendant Lexmark had a majority of the market share for Lexmark-brand toner cartridges.²²³ So once the Supreme Court decided that plaintiff Static Control sufficiently alleged a commercial injury, it had little trouble concluding that Static Control also sufficiently pled that Lexmark's false advertising proximately caused that injury.²²⁴ But some commentators suggest that courts may have trouble concluding a defendant with low market share proximately caused a plaintiff's commercial injury.²²⁵

While none of the cases involving a challenge to standing under the *Lexmark* test's proximate cause prong noted that the defendant had a low market share,²²⁶ a few false advertising cases decided before *Lexmark* considered defendants with low market shares.²²⁷ In one such case, the court denied the plaintiff's motion for a preliminary injunction because the plaintiff failed to prove that it would suffer irreparable harm as a result of the defendant's allegedly false advertising claims regarding the ultrasound component of its electric toothbrush.²²⁸ In so deciding, the court relied on an absence of evidence that the defendant's allegedly false advertising had deceived consumers and emphasized that the defendant was a "new market entrant" whose electric toothbrush had "no market share."²²⁹ The

223. See *Lexmark*, 134 S. Ct. at 1383.

224. See *id.* at 1391.

225. See Rebecca Tushnet, *Supreme Court IP Review: Lexmark Int'l v. Static Control Components*, IIT CHICAGO-KENT COLLEGE OF LAW (Sept. 12, 2014, 3:15 PM) <http://www.kentlaw.iit.edu/scipr>; Thomas Saunders, *Supreme Court IP Review: Lexmark Int'l v. Static Control Components*, IIT CHICAGO-KENT COLLEGE OF LAW (Sept. 12, 2014, 3:15 PM) <http://www.kentlaw.iit.edu/scipr>.

226. See *infra* Part III.C.3.

227. See, e.g., *Procter & Gamble Co. v. Ultreo, Inc.*, 574 F. Supp. 2d 339, 341–42 (S.D.N.Y. 2008). Also, several false advertising cases find evidence that the defendant had a large market share, and was therefore able to deceive a large portion of consumers, relevant to false advertising analysis. See, e.g., *Novartis Consumer Health, Inc. v. Johnson & Johnson-Merck Consumer Pharms. Co.*, 129 F. Supp. 2d 351, 366–67 (D.N.J. 2000) (granting a preliminary injunction because 25% of consumers were deceived by defendant's false advertising); *Merck Eprova A.G. v. Gnosis S.P.A.*, 901 F. Supp. 2d 436, 458 (S.D.N.Y. 2012) (noting that the defendant willfully engaged in false advertising as a strategy designed to gain its high market share).

228. See *Procter & Gamble Co. v. Ultreo, Inc.*, 574 F. Supp. 2d 339, 341–42 (S.D.N.Y. 2008).

229. See *id.* at 348–52, 342.

court stressed the fact that the defendant was a market newcomer with a low market share, even chiding the plaintiff by suggesting that its “litigation strategy in [the] case [was] simply an attempt to keep [the defendant] in the starting blocks.”²³⁰ While that case dealt with a preliminary injunction, not standing, it is relevant to the standing analysis under *Lexmark* because the defendant’s low market share affected the court’s reasoning. Courts have also found low market shares to be a hurdle to showing competitive injury in circumstances other than false advertising, including antitrust.²³¹

Since there is not yet caselaw directly on point, a hypothetical example will illustrate how a defendant with a low market share could be an obstacle to a plaintiff’s ability to satisfy the *Lexmark* test’s proximate cause prong. Consider a plaintiff who claims that a defendant with a ten percent market share of toothpaste falsely advertised that its toothpaste made teeth measurably four times whiter, whereas plaintiff’s toothpaste made teeth only two times whiter. The plaintiff also claims that the defendant’s false advertising proximately caused its drop in toothpaste sales and reputational damage. When it reaches the proximate cause prong of the *Lexmark* test, a court may conclude that defendant’s meager reach to only ten percent of the market is too low to show that the defendant’s advertising proximately caused the plaintiff’s commercial injuries.

Yet the plaintiff has suffered a commercial injury the Lanham Act intended to protect against. If the plaintiff cannot prove that the defendant’s false toothpaste advertising caused its injuries after discovery, then the case would (and should) be dismissed. And of course, if the plaintiff cannot plead Article III causation, she cannot have standing in federal court. But requiring the plaintiff to plead proximate cause to have standing to sue under § 43(a) may strip her of legal recourse against a false advertising defendant with low market share.

230. *Id.* at 356.

231. *See* *Viazis v. Am. Ass’n of Orthodontists*, 182 F. Supp. 2d 552, 569–70 (E.D. Tex. 2001); *see also* *Trade Regulation Reports Letter No. 767: Orthodontic Products Maker, Trade Association Did Not Conspire*, 2003 WL 26477901 (C.C.H.) (Jan. 2, 2003) (explaining that the defendant’s “low market share in orthodontic brackets” prevented a finding of competitive injury because the defendant “could not have significantly impeded the [plaintiff’s] ability to market the brackets.”).

2. *The Proximate Cause Requirement May Unduly Burden Plaintiffs at the Pleading Stage When the Plaintiff's Injury Was Inflicted Through Network Effects*

A plaintiff may also be unable to plead proximate cause when its commercial injury was inflicted through network effects. An economy is subject to network effects when the value of each product to its user increases as more users join the economy.²³² Network effects have come under legal scrutiny in the past decade in antitrust law.²³³ Most high-tech industries involve network effects. The telephone is an example of a product with direct network effects: as more people use telephones, telephones become more useful to each person because they are used to call more people.²³⁴

A more complex version of this scenario includes indirect network effects, which are common in the software industry: “most consumers prefer operating systems for which a large number of applications have already been written; and . . . most developers prefer to write for operating systems that already have a substantial consumer base.”²³⁵ Indirect network effects in the software industry involve three constituencies: the company providing the service (for example, Apple providing the iPhone), the developers (the companies that create the apps for the iPhone), and the users (the people buying the apps to use on their iPhone).

To see how network effects could be problematic for § 43(a) false advertising cases, consider a situation where Developer A designs apps for Company A and Developer B designs apps for Company B. Developer B falsely advertises to the developer community that Company A will soon go out of business, so Developer A stops designing apps for Company A. Company A's users notice a drop in app quality and switch to Company B. Under the zone-of-interests prong, Company A has suffered an injury to its commercial interest in reputation and sales. But under the Court's formulation of the proximate cause prong, Company A would likely struggle to plead that Developer B proximately caused its injury. Company A would need to plead that its economic or reputational injury “flow[ed]

232. See Michael L. Katz & Carl Shapiro, *Technology Adoption in the Presence of Network Externalities*, 94 J. POL. ECON. 822, 824 (1986).

233. See *U.S. v. Microsoft Corp.*, 253 F.3d 34, 55 (D.C. Cir. 2001) (holding that indirect network effects can be barriers to market entry).

234. See MARIATERESA MAGGIOLINO, *INTELLECTUAL PROPERTY AND ANTITRUST: A COMPARATIVE ECONOMIC ANALYSIS OF U.S. AND E.U. LAW* 19 n.67 (2011).

235. See *Microsoft*, 253 F.3d at 55.

directly from the deception wrought by [Developer B's] advertising," but according to the Court, "that occurs when deception of consumers causes them to withhold trade from the plaintiff."²³⁶ Unless Developer A is considered a consumer, no consumers were deceived in this situation. So the proximate cause prong would likely leave Company A unable to sue for Developer B's misconduct under § 43(a).

But Company A did suffer a commercial injury because consumers decided to withhold trade as a result of Developer B's false advertising, or in other words consumers stopped buying Company A's products as a result of Developer B's false advertising. There were two intervening steps between Developer B's misconduct and Company A's injury: Developer A leaving Company A and consumers refusing to buy Company A's products. The Court in *Lexmark* conceded that "the intervening step of consumer deception is not fatal to the showing of proximate causation," but said nothing of multiple intervening steps.

In tort law, where proximate causation originated, intervening causes sometimes absolve the defendant of responsibility for the plaintiff's injuries, but sometimes they do not.²³⁷ The Court in *Lexmark* placed consumers in the category of intervening causes that do not break the causal chain, but other intervening causes, such as developers in this example, may well qualify as the type of intervening cause that does absolve the defendant of proximate causation. A court could therefore find under *Lexmark* that a software company injured as a result of false advertising lacked standing to sue because the false advertising did not proximately cause its commercial injury. Because a false advertising case where the injury was inflicted through network effects has not yet come in front of courts, it is difficult to predict how future false advertising plaintiffs in the software industry will fare under the proximate cause requirement. But the proximate cause requirement may become a substantial hurdle to software companies aiming to protect themselves against false advertising.

Despite these circumstances in which it may fail to serve the purpose of the Lanham Act, the proximate cause requirement has some redeeming features. First, courts can rely on a wealth of statutory proximate cause precedent to help apply proximate cause to § 43(a) complaints. This precedent should at least ensure a more consistent application of the

236. *Lexmark*, 134 S. Ct. at 1391.

237. *See, e.g., Berry v. Sugar Notch Borough*, 191 Pa. 345, 348–49 (1899); *see also* Restatement (Third) of Torts §§ 431, 443, 448 (2009).

proximate cause prong, which provides beneficial consistency and predictability to false advertising law. But this precedent may be less useful in preventing courts from using the proximate cause requirement to bar plaintiffs who come within the Lanham Act's purpose. One commentator has argued that RICO standing cases will provide useful analogies to the false advertising context,²³⁸ but it is difficult to tell whether those cases will help courts draw the line between plaintiffs that have pled commercial injuries proximately caused by the defendant's false advertising and those that have not.

Second, the proximate cause requirement as formulated by the Supreme Court in *Lexmark* bars consumer standing. According to the Court, a complaint satisfies the proximate cause requirement when it alleges that the defendant's "deception of consumers causes them to withhold trade from the plaintiff."²³⁹ It is difficult—if not impossible—to imagine a consumer as the defendant under this definition. As discussed earlier, the Lanham Act likely did not intend to extend its protection against false advertising to consumers whose only engagement in commerce was purchasing products or services. Because consumer standing under § 43(a) does not serve the Lanham Act's purpose, the proximate cause requirement's bar against consumer standing does serve the Lanham Act's purpose by reserving the cause of action for plaintiffs with injuries to a commercial interest in reputation or sales.

3. *Courts Will Likely Rarely Use the Proximate Cause Requirement to Bar § 43(a) Plaintiffs*

Courts' current treatment of the proximate cause requirement suggests that courts will rarely use the requirement to deny § 43(a) plaintiffs standing. While only a short period of time has passed since the Court decided *Lexmark*, defendants have already challenged a federal false advertising plaintiff's standing under *Lexmark* in at least fifteen cases.²⁴⁰

238. See Jameson Jones, *Supreme Court IP Review: Lexmark Int'l v. Static Control Components*, IIT CHICAGO-KENT COLLEGE OF LAW (Sept. 12, 2014, 3:15 PM) <http://www.kentlaw.iit.edu/scipr>.

239. *Lexmark*, 134 S. Ct. at 1391.

240. See *Toddy Gear, Inc. v. Navarre Corp.*, 2014 WL 4271631 (N.D. Ill. Aug. 26, 2014); *Synergy Real Estate of S.W. Fla., Inc. v. Premier Prop. Mgmt. of S.W. Fla., LLC*, 2014 WL 4233266 (11th Cir. Aug. 28, 2014); *Minitube of Am., Inc. v. Reprod. Provisions, LLC*, 2014 WL 1761317 (E.D. Wis. May 1, 2014); *Flu Shots of Tex., Ltd. v. Lopez*, 2014 WL 1327706 (N.D. Tex. Apr. 3, 2014); *Lundgren v. Ameristar Credit Solutions, Inc.*, 2014 WL 4079962 (W.D. Pa. Aug. 18, 2014); *Brother of the Leaf, LLC v. Plastic Prods. Co., Inc.*, 2014 WL 3824209 (W.D. Tex. Aug. 1, 2014); *Locus Telecomms., Inc. v. Talk Global LLC*, 2014 WL 4271635 (D.N.J. Aug. 28, 2014);

Courts in most of these cases focused on the zone-of-interests prong, sometimes finding that the plaintiff lacked standing because it failed to plead a commercial injury to reputation or sales.²⁴¹ Courts' focus on the zone-of-interests prong may be attributed to the comparative ease of disposing of a false advertising case under the zone-of-interests prong than under the proximate cause prong; it will likely be easier for courts to reason that the plaintiff's injury was not a commercial injury to reputation or sales than to reason that the plaintiff's injury was not proximately caused by the defendant's misconduct. Of the courts that considered whether the plaintiff successfully plead that the defendant proximately caused its injuries, only one court found that the plaintiff lacked standing to sue.²⁴² In that case, the court granted the defendant's motion to dismiss after finding that that plaintiff "could not possibly show that any alleged false statements caused its injuries,"²⁴³ a high bar for failing proximate cause.

But so far, courts have not generally used the proximate cause prong to bar plaintiff standing in federal false advertising cases. For several of these cases, a basic statement that the defendant proximately caused the plaintiff's commercial injury satisfied the proximate cause requirement.²⁴⁴ For example, the court in *Yellow Group LLC v. Uber Technologies Inc.*

Yellow Grp. LLC v. Uber Techs. Inc., 2014 WL 3396055 (N.D. Ill. July 10, 2014); *First Mariner Bank v. Resolution Law Grp., P.C.*, 2014 WL 1652550 (D. Md., Apr. 22, 2014); *Advanced Fluid Sys., Inc. v. Huber*, 2014 WL 2770231 (M.D. Pa. June 14, 2014); *Leason Ellis LLP v. Patent & Trademark Agency, LLP*, 2014 WL 3887194 (S.D.N.Y. July 2, 2014); *D.H. Pace Co., Inc. v. A.O.D. Grp., LLC*, 2014 WL 2574545 (N.D. Ga. June 9, 2014); *Underground Solutions, Inc. v. Palermo*, 2014 WL 4703925 (N.D. Ill. Sept. 22, 2014); *Bern Unlimited, Inc. v. Burton Corp.*, 2014 WL 2649006 (D. Mass. June 12, 2014); *Syngenta Seeds, Inc. v. Bunge North Am., Inc.*, 2014 WL 5315104 (8th Cir. Oct. 20, 2014).

241. See *Synergy Real Estate of S.W. Fla., Inc. v. Premier Prop. Mgmt. of S.W. Fla., LLC*, 2014 WL 4233266 (11th Cir. Aug. 28, 2014); *Flu Shots of Tex., Ltd. v. Lopez*, 2014 WL 1327706 (N.D. Tex. April 3, 2014); *Brother of the Leaf, LLC v. Plastic Prods. Co., Inc.*, 2014 WL 3824209 (W.D. Tex. Aug. 1, 2014); *Locus Telecomms., Inc. v. Talk Global LLC*, 2014 WL 4271635 (D.N.J. Aug. 28, 2014).

242. See *Minitube of Am., Inc. v. Reprod. Provisions, LLC*, 2014 WL 1761317 at *25 (E.D. Wis. May 1, 2014).

243. *Id.*

244. See *First Mariner Bank v. Resolution Law Grp., P.C.*, 2014 WL 1652550 (D. Md. Apr. 22, 2014) (denying a motion to dismiss for lack of standing because "Plaintiff has alleged that as a result of Defendants' false advertising, Plaintiff 'has incurred, and likely will continue to incur, substantial commercial injury in the form of lost sales, loss of market share, and damage to reputation and good will'"); *D.H. Pace Co., Inc. v. A.O.D. Grp., LLC*, 2014 WL 2574545 at *4-5 (N.D. Ga. June 9, 2014) (denying motion to dismiss for lack of standing because plaintiff sufficiently plead a commercial injury proximately caused by the defendant's false advertising).

found that the proximate cause prong was satisfied because the plaintiffs “plausibly alleged that Uber’s deceptive advertising ha[d] caused customers to refrain from using their dispatch services” and “that this diversion of business harms the economic value of their business and their reputation.”²⁴⁵ One court took a more relaxed approach, finding that the plaintiff had satisfied the proximate cause prong because the complaint “allege[d] a direct injury to [the plaintiff’s] commercial interest.”²⁴⁶ Another court’s analysis seemed closer to but-for cause²⁴⁷ than proximate cause; it found standing under the proximate cause prong because plaintiff alleged “that it suffered an injury to its commercial interest in its reputation and a decrease in sales as a result of defendants’ misrepresentation” and “that, but for the misdesignation [sic] and deceptive advertising” by the defendant, plaintiff would not have suffered the injury.²⁴⁸ The common theme between cases that have considered the proximate cause prong thus far is a fairly permissive application of proximate cause to federal false advertising standing. It is difficult to extrapolate from the small pool of available cases, but based on the false advertising standing cases that have been decided since *Lexmark*, courts seem unlikely to use the proximate cause requirement to deny a commercially injured plaintiff standing under the Lanham Act.

IV. CONCLUSION

Overall, the *Lexmark* standing test better serves the purpose of the Lanham Act than did the previous three tests for § 43(a) false advertising standing. The zone-of-interests prong actively seeks to grant standing to plaintiffs that the Lanham Act intends to protect. The proximate cause prong, as phrased by the Court in *Lexmark*, may temper the zone-of-interests prong’s reach by barring consumer standing, arguably in service of the Lanham Act’s purpose. But the proximate cause requirement may unduly burden some plaintiffs at the pleading stage. First, plaintiffs injured by defendants who have a low market share may be unable to plead proximate cause. Second, companies whose products benefit from network

245. See *Yellow Grp. LLC v. Uber Techs. Inc.*, 2014 WL 3396055 at *3 (N.D. Ill. July 10, 2014).

246. *Toddy Gear, Inc. v. Navarre Corp.*, 2014 WL 4271631 at *3 (N.D. Ill. August 28, 2013).

247. But-for cause, or causation in fact, is a type of causation in torts and is satisfied when the injury would not have occurred absent the defendant’s conduct. See, e.g., *Zuchowicz v. U.S.*, 140 F.3d 381, 388–390 (2d Cir. 1998).

248. *Advanced Fluid Sys., Inc. v. Huber*, 2014 WL 2770231 at *19 (M.D. Pa. June 14, 2014).

effects may be especially burdened by the proximate cause requirement because their injuries flow from long, complex causal chains. For industries characterized by network effects, such as the software industry, the proximate cause requirement may bar commercially injured plaintiffs that the Lanham Act intended to protect. Regardless, reality thus far has seen a relaxed application of the proximate cause requirement by courts in different circuits, potentially mitigating the denial of standing to those plaintiffs who would otherwise come within the Lanham Act's purpose.

APPENDIX

A. THE 1946 VERSION OF THE LANHAM ACT

Any person who shall affix, apply, or annex, or use in connection with any goods or services, or any container or containers for goods, a false designation of origin, or any false description or representation, including words or other symbols tending falsely to describe or represent the same, and shall cause such goods or services to enter into commerce, and any person who shall with knowledge of the falsity of such designation of origin or description or representation cause or procure the same to be transported or used in commerce or deliver the same to any carrier to be transported or used, shall be liable to a civil action by any person doing business in the locality falsely indicated as that of origin or the region in which said locality is situated, or by any person who believes that he is or is likely to be damaged by the use of any such false description or representation.

15 U.S.C. § 1125(c), Lanham Act § 43(a).

B. THE 1988 AMENDED VERSION OF THE LANHAM ACT

(a) Civil action

(1) Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which--

(A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or

(B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities, shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

(2) As used in this subsection, the term "any person" includes any State, instrumentality of a State or employee of a State or instrumentality of a State acting in his or her official capacity. Any State, and any such instrumentality, officer, or employee, shall be subject to the provisions of this chapter in the same manner and to the same extent as any nongovernmental entity.

(3) In a civil action for trade dress infringement under this chapter for trade dress not registered on the principal register, the person who asserts trade dress protection has the burden of proving that the matter sought to be protected is not functional.

15 U.S.C. § 1125(c), Lanham Act § 43(a).

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REGULATING THE SHARING ECONOMY

Vanessa Katz[†]

Internet commerce has enabled peer-to-peer (“P2P”) transactions on a larger scale than ever before.¹ While the law slowly adapts to address P2P sales of goods, a wave of online marketplaces has emerged for P2P exchanges of services: short-term rentals of residential housing or office space,² rentals of peer-owned assets,³ transportation network companies (“TNCs”) for short trips in personal vehicles or small planes,⁴ auction houses for temporary licenses,⁵ contracting services for daily chores and

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1. See, e.g., David Gamage & Devin J. Heckman, *A Better Way Forward for State Taxation of E-Commerce*, 92 B.U. L. REV. 483, 484 (2012).

2. Some short-term rental platforms allow users to rent individual bedrooms or entire residences. E.g., AIRBNB, <https://www.airbnb.com/>; HOMEAWAY, <http://www.homeaway.com/>; ROOMORAMA, <https://www.roomorama.com/>. Others allow users to book a workspace, including individual desks and full conference rooms. E.g., PEERSPACE, <http://www.peerspace.com/>; ZIPCUBE, <https://www.zipcube.com/> (all URLs last visited Feb. 26, 2015).

3. E.g., GETAROUND, <https://www.getaround.com/> (cars); BOATBOUND, <https://boatbound.co/> (boat rentals); CAMERALENDS, <https://www.cameralends.com/> (cameras); BESCRAFFY, <https://bescrappy.com/> (tools); LITERATOO, <http://en.literatoo.com/> (books); STYLELEND, <http://stylelend.com/> (high-fashion clothes) (all URLs last visited Feb. 26, 2015).

4. TNCs generally allow riders to contact black cars or other personal vehicles for short trips. LYFT, <https://www.lyft.com/>; SIDECAR, <http://www.side.cr/>. Some services have attempted to allow users to contract with small aircraft for flights. AIRPOOLER, <https://airpooler.com/> (small aircraft); BLACKJET, <https://www.blackjet.com/> (luxury planes) (all URLs last visited Feb. 26, 2015). P2P air transportation, however, has encountered both regulatory and financial setbacks. Scott Kirsner, *‘Uber for Private Jets’ Is Grounded, But CEO Says He Hopes to Raise More Money and Fly Again*, BOSTON.COM (Dec. 19, 2013), http://www.boston.com/business/technology/innoco/2013/12/uber_for_private_jets_is_groun.html; Jordan Valinsky, *Sorry, But the FAA Has Decided Your ‘Uber for Planes’ Idea Can’t Fly*, GIZMODO (Aug. 16, 2014, 5:00 PM), <http://gizmodo.com/sorry-but-the-faa-has-decided-your-uber-for-planes-ide-1622734282/>.

5. E.g., SWEETCH, <http://www.getsweetch.com/> (last visited Feb. 26, 2015) (auction house for public parking spaces); BETRSPOT, <http://www.betrspot.com/about> (last visited Feb. 26, 2015) (auction house for spots in line and seats in public places). Reservation Hop originally allowed P2P auctions of restaurant reservations, but received so much negative attention that the founders created a new service for restaurant workers to exchange dropped shifts. Brian Mayer, *ReservationHop Does a Hard Pivot: We Are Now OK Shift*, BRIANMAYER.COM (Nov. 6, 2014, 8:00 AM), <http://brianmayer.com/2014/11/reservationhop-does-a-hard-pivot-we-are-now-ok-shift/>.

professional services,⁶ and lending.⁷ These businesses have experienced rapid growth over the past five years and are taking root worldwide.⁸ Commentators have dubbed this phenomenon the “sharing economy.”⁹

However, the sharing economy has raised difficult legal questions. P2P service marketplaces create uncertainty for participants and third parties because these services do not fall neatly into traditional legal categories.¹⁰ Businesses in the sharing economy have caused confusion under insurance, tax, employment, and civil rights statutes.¹¹ Commentators have called the

6. *E.g.*, TASKRABBIT, <https://www.taskrabbit.com/> (chores, including assembling furniture and moving); FANCYHANDS, <https://www.fancyhands.com/> (administrative tasks); HOMEJOY, <https://www.homejoy.com/> (maid service); WASHIO, <http://www.getwashio.com/> (laundry and dry cleaning); ZAARLY, <https://www.zaarly.com/> (home services including plumbing and gardening) (all URLs last visited Feb. 26, 2015).

7. *E.g.*, PROSPER, <https://www.prosper.com/> (last visited Feb. 26, 2015); LENDING CLUB, <https://www.lendingclub.com/> (last visited Feb. 26, 2015). This Note does not address the unique regulatory issues facing P2P lenders, which differ substantially from other sharing platforms. For background information on the regulation of P2P lenders, see generally Paul Slattery, Note, *Square Pegs in a Round Hole: SEC Regulation of Online Peer-to-Peer Lending and the CFPB Alternative*, 30 YALE J. ON REG. 233 (2013); Eric C. Chaffee & Geoffrey C. Rapp, *Regulating Online Peer-to-Peer Lending in the Aftermath of Dodd-Frank: In Search of an Evolving Regulatory Regime for an Evolving Industry*, 69 WASH. & LEE L. REV. 485 (2012).

8. *The Rise of the Sharing Economy*, ECONOMIST (Mar. 9, 2013), <http://www.economist.com/node/21573104/>.

9. There is no standard definition of the sharing economy. The use of the term “sharing” traces back to a seminal article by Yochai Benkler. Yochai Benkler, *Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production*, 114 YALE L.J. 273, 334 (2004); see also RACHEL BOTSMAN & ROO ROGERS, *WHAT’S MINE IS YOURS: THE RISE OF COLLABORATIVE CONSUMPTION* 58 (2010) (referencing Benkler’s article in describing the origins of what Botsman terms “collaborative consumption”). Many have argued that “sharing” is not an accurate description of P2P service models, in part because users exchange money. *E.g.*, Brad Tuttle, *Can We Stop Pretending the Sharing Economy Is All About Sharing?*, TIME (June 30, 2014), <http://time.com/money/2933937/sharing-economy-airbnb-uber-monkeyparking/>. Other authors have framed the sharing economy as a new form of sustainable consumption and see the sharing economy as a societal shift to an access model rather than an ownership model. See generally, *e.g.*, BOTSMAN & ROGERS, *supra*; LISA GANSKY, *THE MESH: WHY THE FUTURE OF BUSINESS IS SHARING* (2010); JANELLE ORSI, *PRACTICING LAW IN THE SHARING ECONOMY: HELPING PEOPLE BUILD COOPERATIVES, SOCIAL ENTERPRISE, AND LOCAL SUSTAINABLE ECONOMIES* (2013).

10. See, *e.g.*, Molly Cohen & Corey Zehngbot, *What’s Old Becomes New: Regulating the Sharing Economy*, 58 BOSTON B.J. 6 (2014).

11. See *infra* Section IV.B.

sharing economy a “disruptive innovation”¹²—a product, service, or business model that repackages old technology to create a new market and thereby “disrupts” incumbent firms.¹³ Professor Nathan Cortez’s term “regulatory disruption”—an “innovation[] that disrupt[s] existing regulatory schemes”—aptly describes the sharing economy.¹⁴

For example, RelayRides is a P2P car rental service. Car owners list their personal vehicle on the RelayRides website, and users can then search available vehicles and schedule a rental. RelayRides provides insurance coverage of \$1 million per accident to all registered car owners and drivers on the site. However, in 2012, a RelayRides rental driver caused a collision, killing himself and injuring four passengers in the other vehicle, resulting in estimated combined damages of \$1.3 million.¹⁵ While the parties ultimately reached a settlement,¹⁶ the incident raised awareness of the risks of participating in the sharing economy and the need for regulatory protections.

This Note surveys regulatory issues surrounding the sharing economy and assesses current proposed solutions to challenges the sharing economy creates. The analysis will largely focus on short-term rental platforms and TNCs because these are the largest sectors of the sharing economy.¹⁷ Part I explores what makes businesses in the sharing economy different from traditional service providers. Part II identifies existing laws for traditional service providers, and who has a stake in the outcome of efforts to reform those laws. Part III explains how regulators have attempted to adapt existing laws to the sharing economy. Finally, Part IV discusses what risks regulators should address moving forward. Part V concludes.

12. Robert T. Shannon, *Disruptive Innovation Demands Delicate Regulation*, LAW360 (Nov. 12, 2014), <http://www.law360.com/articles/595081/disruptive-innovation-demands-delicate-regulation>.

13. CLAYTON M. CHRISTENSEN, *THE INNOVATOR’S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* 23–24 (1997); Nathan Cortez, *Regulating Disruptive Innovation*, 29 BERK. TECH. L.J. 175, 177 n.2 (2014).

14. Cortez, *supra* note 13, at 177.

15. Ron Lieber, *Fatal Collision Makes Car-Sharing Worries No Longer Theoretical*, N.Y. TIMES (Apr. 13, 2012), <http://www.nytimes.com/2012/04/14/your-money/relayrides-accident-raises-questions-on-liabilities-of-car-sharing.html>.

16. M.P. McQueen, *Beware the Liability of Sharing Your Car With Strangers*, INVESTOPEDIA (Oct. 11, 2013), <http://www.investopedia.com/articles/personal-finance/101013/beware-liability-sharing-your-car-strangers.asp>.

17. *The Sharing Economy: Boom and Backlash*, ECONOMIST (Apr. 26, 2014), <http://www.economist.com/news/business/21601254-consumers-and-investors-are-delighted-startups-offering-spare-rooms-or-rides-across-town/> (“Along with transport, the market most affected by sharing has been accommodation . . .”).

I. DEFINING THE SHARING ECONOMY

What makes the sharing economy unique is at the heart of an ongoing regulatory debate.¹⁸ Many argue that there is nothing new about the sharing economy. These critiques often analogize sharing services to traditional service providers, and portray the sharing model as a thinly veiled ruse for avoiding regulation.¹⁹ Others contend that the sharing economy disrupts existing regulatory schemes precisely because the business model is so new; for that reason, they argue that sharing companies require special regulatory treatment.²⁰ In practice, the sharing model encompasses mundane features of existing online businesses as well as novel implementations of those features. This Note defines the sharing business model as (A) an online intermediary that (B) acts as a market for P2P services and (C) facilitates exchanges by lowering transaction costs.

A. SHARING PLATFORMS ACT AS ONLINE INTERMEDIARIES

First, most sharing platforms operate through either a web portal or a mobile application (“app”). But unlike websites that act as online

18. Decision Adopting Rules and Regulations to Protect Public Safety While Allowing New Entrants to the Transportation Industry, Decision 13-09-045 (Cal. P.U.C. 2013), *available at* <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K192/77192335.PDF> [hereinafter Cal. P.U.C. Decision].

19. *See, e.g.*, Tom Slee, *Sharing and Caring*, JACOBIN (Jan. 24, 2014), <https://www.jacobinmag.com/2014/01/sharing-and-caring/> (arguing that the sharing economy obscures profit-driven behavior by tapping into long-standing leftist values such as “decentralization, sustainability, community-level connectedness, and opposition to hierarchical and rigid regulatory regimes”); Jon Evans, *When Old-Economy Jobs Become New-Economy Gigs*, TECHCRUNCH (Sept. 6, 2014), <http://techcrunch.com/2014/09/06/serfing-the-wave/> (comparing “microentrepreneurs” in the sharing economy to serfs); Andrew Leonard, *“Sharing economy” shams: Deception at the Core of the Internet’s Hottest Businesses*, SALON (Mar. 14, 2014, 4:43 AM), http://www.salon.com/2014/03/14/sharing_economy_shams_deception_at_the_core_of_the_internets_hottest_businesses/ (arguing that the sharing economy represents an exploitive movement by companies to profit by avoiding regulation while claiming to promote broader social welfare).

20. *See, e.g.*, *The Power of Connection: Peer-to-Peer Businesses Before the H. Comm. on Small Business*, 113th Cong. 35 (2014) (written testimony of Philip Aeurswald) (“The question is . . . whether there is anything fundamentally new about the sorts of peer-to-peer businesses that have been proliferating in the past five years. The answer is yes.”); *see also* Roberta A. Kaplan, *Regulation and the Sharing Economy*, N.Y. L.J. (2014) (arguing that “innovative technologies [like sharing platforms] present new and fundamentally different circumstances that were unforeseen at the time of the original regulatory enactment”); CHRISTOPHER KOOPMAN ET AL., *THE SHARING ECONOMY AND CONSUMER PROTECTION REGULATION: THE CASE FOR POLICY CHANGE* 16–19 (2014) (arguing that the sharing economy is a self-regulating market and does not require government intervention).

storefronts, sharing platforms are not direct service providers.²¹ Instead, the platform allows “users” (purchasers of services) to connect and transact with “providers” (sellers of services). DogVacay, for example, allows dog sitters to connect with dog owners through an online web portal. The DogVacay platform itself does not provide dog sitting services or employ dog sitters.²² This functionality is not new; passive platforms for hosting user-provider transactions predate the sharing economy. In fact, the founders of DogVacay originally ran a small dog sitting service through Craigslist.²³

The critical distinction between sharing platforms and other online services does not turn solely on the *character* of the services or parties involved, but rather on the *degree of control* the platform exercises over each transaction.²⁴ Sharing platforms exercise control over transactions by directing the form and content of listings, issuing minimum quality standards for providers, providing an electronic payment system, and charging a transaction fee for each exchange.²⁵ DogVacay charges fifteen

21. For example, Fetch! Pet Care, is a traditional pet-services provider with an online storefront. Users directly contract with Fetch for pet services. In other words, Fetch acts as a provider, rather than as a platform. FETCH! PET CARE, <http://www.fetchpetcare.com/> (last visited Feb. 2, 2014).

22. *How It Works*, DOGVACAY, <http://dogvacay.com/how-it-works/> (last visited Feb. 26, 2015). DogVacay requires that pet-sitters receive payment through the platform. *Host Frequently Asked Questions*, DOGVACAY, <http://dogvacay.com/faq-host> (last visited Feb. 26, 2015) (“all payments must go through DogVacay.com”).

23. Erin Griffith, *Exclusive: DogVacay Raises \$25 Million*, FORTUNE (Nov. 10, 2014, 10:16 AM), <http://fortune.com/2014/11/10/dogvacay-raises-25-million/>. Likewise, Couchsurfing has acted as a passive, user-provider platform for short-term rentals since 2004. *About Us*, COUCHSURFING, <http://about.couchsurfing.com/about/> (last visited Feb. 26, 2015). Car sharing programs have existed since the early 70s, and some online car sharing networks have operated for over a decade. Susan Shaheen et. al, *Carsharing in Europe and North America: Past, Present and Future*, 52 TRANSP. QUART. 35 (1998); *About Us*, CITY CARSHARE, <https://citycarshare.org/about-us/> (last visited Feb. 26, 2015).

24. The degree of control exercised is critical for establishing indirect liability. See *infra* Subsection III.C.2. The issue of control has surfaced in many regulatory and judicial decisions regarding sharing platforms. *E.g.*, Cal. P.U.C. Decision, *supra* note 18, at 72–75 (“We reject Uber’s assertion that TNCs are nothing more than an application on smart phones, rather than part of the transportation industry. Uber . . . performs essentially the same function as a limousine”); *Bos. Cab Dispatch, Inc. v. Uber Techs., Inc.*, No. 13-10769-NMG, 2014 WL 1338148, at *6 (D. Mass. Mar. 27, 2014) (“[T]here is sufficient evidence that Uber exercises control over (or is ‘in charge of’) vehicles-for-hire that compete with plaintiffs in the private transportation business.”).

25. Courts have considered similar issues in the context of personal jurisdiction over internet sellers. See, *e.g.*, *Zippo Mfg. Co. v. Zippo Dot Com, Inc.*, 952 F. Supp. 1119, 1124 (W.D. Pa. 1997) (establishing a sliding scale test where “the likelihood that personal jurisdiction can be constitutionally exercised is directly proportionate to the

percent of each booking for its services,²⁶ and transaction fees can range from three to twenty percent.²⁷

Sharing companies fall somewhere along a spectrum between purely passive message boards and direct service providers. Message boards reserve the right to remove listings, but provide minimal guidance on the form and content of listings. These platforms have no employment relationship with providers, and no financial stake in any particular transaction.²⁸ Direct service providers, by contrast, exert complete control over the form and content of listings, and directly benefit from every purchase. Determining whether a platform acts as a passive intermediary or exerts sufficient control over providers to establish liability is a highly fact-dependent question.²⁹ Sharing platforms generally seek to minimize their own liability by characterizing their services as close equivalents to message boards.³⁰ Many critics, however, argue that sharing platforms in practice operate like direct service providers.³¹ Some have decried sharing platforms for using deceptive tactics to evade regulation.³² Though this

nature and quality of commercial activity that an entity conducts over the Internet.”). Unlike sales of goods through ecommerce, the provision of services to an injured party through a sharing platform would typically constitute a sufficient connection to establish personal jurisdiction.

26. *Host Frequently Asked Questions*, DOGVACAY, <http://dogvacay.com/faq-host/> (last visited Feb. 26, 2015).

27. *What Are Host Service Fees?*, AIRBNB, <https://www.airbnb.com/help/article/63/> (last visited Feb. 26, 2015) (charging a three percent host service fee per booking, in addition to a separate guest service fee); Ellen Huet, *Uber Now Taking Its Biggest UberX Commission Ever—25 Percent*, FORBES (Sept. 22, 2014), <http://www.forbes.com/sites/ellenhuet/2014/09/22/uber-now-taking-its-biggest-uberx-commission-ever-25-percent/>.

28. *See, e.g., Terms of Use*, CRAIGSLIST, <http://www.craigslist.org/about/terms.of.use/> (last visited Feb. 26, 2015) (requiring a fee for certain categories of posts, but having no stake in any transaction resulting from a post); *Terms of Use*, ADOOS, <http://support.adoos.com/answer/6/> (last visited Feb. 26, 2015).

29. *See infra* Section III.C.

30. *E.g., United States and Canada: Terms & Conditions*, HOMEJOY, <https://www.homejoy.com/terms/us/en/> (last visited Feb. 2, 2015) (“THE COMPANY DOES NOT PROVIDE CLEANING SERVICES, AND THE COMPANY IS NOT A CLEANING SERVICE PROVIDER.”); *Terms of Service*, GETAROUND, <https://www.getaround.com/terms/> (last visited Feb. 2, 2015) (“GETAROUND WILL NOT BE A PARTY TO OR IN ANY WAY MONITOR ANY TRANSACTION BETWEEN YOU AND THIRD-PARTY PROVIDERS OF PRODUCTS OR SERVICES.”).

31. *E.g.*, Letter from Mark Saber, Central Penn Taxi Ass’n, to Penn. Pub. Util. Comm’n (Aug. 28, 2014), *available at* http://www.puc.state.pa.us/transport/motor/EnBanc/Testimony-CPATA_082814.pdf (“A transportation network company is nothing more than a call or demand carrier in disguise.”).

32. *See, e.g.*, Avi Asher-Schapiro, *Against Sharing*, JACOBIN (Sept. 19, 2014),

debate remains unresolved in many jurisdictions, the intermediary status of sharing platforms affects both platform liability and local regulatory authority over platforms.³³

B. SHARING PLATFORMS ARE MARKETS FOR PEER-TO-PEER SERVICES

Second, sharing platforms allow informal, small-scale actors to exchange services online. Catering to peer-to-peer transactions, rather than to business-to-consumer transactions, serves two purposes. It allows providers to profit from underused personal assets,³⁴ or to market their skills on a freelance basis.³⁵ For example, instead of leaving a car in the garage during a family vacation, P2P car rental platforms allow car owners to earn money by leasing their personal vehicles. Per-task cleaning services like Homejoy give providers exceptional flexibility over their working hours.³⁶ In addition, informal providers may not be subject to the same regulations as larger businesses.³⁷ However, sharing platforms do not necessarily prohibit professional or skilled providers. In fact, some platforms like Zaarly, a per-task contractor service for home repairs and cleaning, require that all providers have proper accreditations.³⁸ Although sharing platforms generally attempt to exclude businesses and large-scale operators from participating on their sites,³⁹ data from short-term rental

<https://www.jacobinmag.com/2014/09/against-sharing/> (criticizing TNCs and the sharing economy generally for depressing wages and creating unfair working conditions).

33. See *infra* Section III.C.

34. See, e.g., BOTSCHAN & ROGERS, *supra* note 9, at 83 (claiming that sharing platforms exploit the “idling capacity” of underused resources).

35. See, e.g., *The New ‘Sharing Economy’ Can Enrich Micro-Entrepreneurs But at What Cost?*, PBS (Oct. 10, 2014), <http://www.pbs.org/newshour/bb/sharing-economy-enrich-micro-entrepreneurs-promote-unregulated-big-business/> (discussing the impact of “microentrepreneurs” on existing businesses).

36. *Start Cleaning with Homejoy*, HOMEJOY, <https://www.homejoy.com/apply/> (last visited Feb. 26, 2015) (“You choose when and where you want to work within Homejoy’s availability. It’s entirely up to you!”).

37. See *infra* Sections II.B, III.B.

38. *How Zaarly Works*, ZAARLY, <https://www.zaarly.com/howzaarlyworks/> (last visited Feb. 26, 2015).

39. E.g., *Host Frequently Asked Questions*, DOGVACAY, <http://dogvacay.com/faq-host/> (last visited Feb. 26, 2015) (limiting dog-sitters to hosting three dogs per day); *Discover the Difference*, VRBO, <http://www.vrbo.com/global/advantages.htm> (last visited Feb. 26, 2015) (differentiating short-term rentals from hotels through a comparison chart). In many cases, sharing platforms restrict access to individuals rather than businesses, but do not necessarily restrict the hours each individual works per week. E.g., *Start Cleaning with Homejoy*, HOMEJOY, <https://www.homejoy.com/apply/> (last visited Feb. 26, 2015) (seeking applications from individual cleaners).

platforms and anecdotal evidence from TNCs suggests that a certain percentage of providers transact at substantially higher volumes than most others.⁴⁰

Sharing platforms offer a wide range of services, from boat rentals to electrical repair. Unlike ecommerce platforms for sales of goods, exchanges of services generally require users and providers to interact in person. Thus, sharing platforms raise distinct legal issues from ecommerce platforms. Contracting with strangers online involves many risks, and therefore much higher transaction costs than similar exchanges with larger businesses.⁴¹

40. The New York Attorney General's recent investigation into Airbnb suggests a stark divide between commercial and casual hosts. Eric T. Schneiderman, N.Y. STATE ATTORNEY GENERAL, AIRBNB IN THE CITY (2014), *available at* <http://www.ag.ny.gov/pdfs/Airbnb%20report.pdf> [hereinafter N.Y. Attorney General Report]. While most hosts list casually, the small minority of full-time commercial hosts are responsible for the vast majority of bookings. *Id.* at 10–11. Airbnb, however, has emphasized that most hosts use the service on an occasional basis, and that Airbnb hosts often rely on the service to help pay for rent rather than treating it as a business. *Hotels vs. Regular New Yorkers*, AIRBNB, <http://publicpolicy.airbnb.com/hotels-vs-regular-new-yorkers/> (last visited Feb. 26, 2015). Some have even argued that scaling up an Airbnb business is not profitable outside a few high-density locations. Nin-Hai Tseng, *Profiting \$13K a Year on an Airbnb Rental? Maybe.*, FORTUNE (Nov. 7, 2013, 7:46 PM), <http://fortune.com/2013/11/07/profitting-13k-a-year-on-an-airbnb-rental-maybe/>. Commentators have suggested a similar division for TNC drivers. Full-time drivers likely work between forty and seventy hours per week. Part-time drivers likely work thirty hours or less per week. Johana Bhuiyan, *What Uber Drivers Really Make (According to Their Pay Stubs)*, BUZZFEED (Nov. 19, 2014), <http://www.buzzfeed.com/johanabhuiyan/what-uber-drivers-really-make-according-to-their-pay-stubs>; *see also* Jack Flanagan, *The Trick Uber Drivers Use to Boost Their Salaries*, DAILYDOT (June 20, 2014), <http://www.dailydot.com/business/uber-driver-actual-salary-earnings-wage-90000/> (noting that “smart” part-time drivers can earn more per hour than full-time drivers). Many full-time drivers are former cab drivers, and some may continue to work for both a traditional dispatch service as well as multiple TNCs. Harry Campbell, *Do Drivers Make More Money With Lyft or Uber?*, THE RIDESHARE GUY (Aug. 13, 2014), <http://therideshareguy.com/do-drivers-make-more-money-with-lyft-or-uber/>; Megan Burks, *Taxi-Turned-Uber Drivers Get a New Lease on Life*, KPBS.ORG (Aug. 15, 2014), <http://www.kpbs.org/news/2014/aug/15/san-diegos-taxi-turned-uber-drivers-get-new-lease-/>.

41. Interacting with strangers is, in fact, necessary in most offline business transactions. For a discussion of why users perceive that peer-to-peer transactions involve greater risks than traditional services, *see*, for example, Jason Tanz, *How Airbnb and Lyft Finally Got Americans to Trust Each Other*, WIRED (Apr. 23, 2014), <http://www.wired.com/2014/04/trust-in-the-share-economy/>.

C. SHARING PLATFORMS REDUCE TRANSACTION COSTS

To reduce transaction costs for users and providers, sharing platforms rely on a variety of features to decrease the information cost of determining whether a provider is trustworthy. Many sharing platforms incorporate a social networking feature—they allow users to (1) create individual profiles, (2) articulate connections to other users' profiles, and (3) search their connections.⁴² This feature allows sharing platforms to track user and provider account information and activity,⁴³ and create “reputation systems”—a review and rating tool for screening bad actors.⁴⁴

In addition, sharing platforms lower transaction costs by standardizing exchanges and providing quality or safety guarantees. Measures to standardize exchanges include user-friendly and uniform interfaces, location-based searches, price comparison, account activity and payment records, and scheduling and booking tools.⁴⁵ Quality or safety guarantees might consist of insurance policies, customer service hotlines, cancellation and refund policies, reputations systems, provider training, and background checks.⁴⁶ Embedding these tools and services into sharing platforms allows users and providers to transact at higher volumes, and encourages casual participants to join the market.⁴⁷ Sharing platforms thus facilitate exchanges that might otherwise never occur due to high

42. See PAUL LAMBERT, *SOCIAL NETWORKING: LAW, RIGHTS AND POLICY* 13–15 (2014). Examples of social network services are friend websites (e.g., Facebook), blogs (e.g., Tumblr), and message boards (e.g., Reddit). To some degree, users can accomplish the same transactions through social networks as through sharing platforms. For example, a dogowner could find a dogsitter by posting a status update or group message on Facebook. The dogowner's Facebook connections would then respond to the dogowner through Facebook. However, this does not make sharing platforms the functional equivalent of social networks. On a social network, the user searches for providers within her circle of connections, rather than through a specialized market for services. And sharing platforms provide additional features that facilitate exchanges between parties.

43. For a discussion of privacy and account tracking on sharing platforms, see *infra* Section III.C.1.

44. E.g., Erica Swallow, *The Rise of the Reputation Economy*, FORBES (Oct. 9, 2013), <http://www.forbes.com/sites/ericaswallow/2013/10/09/reputation-economy/>. For a discussion of reputation systems, see *infra* Section IV.B.2.

45. Many sharing platforms also enable nonmonetary exchanges. See, e.g., 99GAMERS, <https://99gamers.com/> (last visited Feb. 26, 2015).

46. See, e.g., Tanz, *supra* note 41.

47. It is important to note that, unlike an online storefront or social network, sharing platforms function as two-sided markets. In short, sharing platforms coordinate two constituencies—providers and consumers—and the value of the platform for each constituency depends on the size of the other, also known as an indirect network effect. David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 COLUM. BUS. L. REV. 667 (2005).

transaction costs.⁴⁸ In part because they encourage high volumes of P2P transactions, these platforms have also raised new regulatory concerns.

II. THE EXISTING REGULATORY LANDSCAPE

This Part describes existing regulatory frameworks that might affect sharing platforms and explains why these regulations matter. Many P2P services are closely analogous to traditional service providers. For that reason, sharing platforms often seem to fall under the purview of laws governing traditional service providers.⁴⁹ The following discussion will address two features of these regulatory frameworks. First, modern statutory schemes have roots in common law special relationships, and accordingly impose limits on the freedom of contract between users and providers on sharing platforms. Second, state and local regulatory agencies create complex, overlapping requirements for providers and platforms.⁵⁰

However, sharing platforms differ substantially from traditional service providers, and the sharing economy does not neatly fit into existing regulatory frameworks.⁵¹ Many providers and platforms cannot comply with local regulations. Others face uncertainty as a result of gaps or ambiguities in the law.⁵² To address these problems, sharing platforms have advocated strongly for new rules tailored specifically for P2P service providers.⁵³ This Part concludes by discussing the various interests at stake in the ongoing debate over how to regulate the sharing economy.

48. Kaplan, *supra* note 20 (“Sharing apps and websites act like ‘virtual matchmakers’ by facilitating relationships that otherwise might be too costly or burdensome to arrange.”).

49. *E.g.*, Shannon, *supra* note 12 (describing the “crux” of a suit by the Chicago taxi industry against the city “over enforcement of its existing public chauffeur rules” as a “claim by the taxi industry that [TNCs] have avoided regulations imposed on taxis, even though both are engaged in the same basic activity”).

50. *Infra* Sections II.A–B.

51. *See infra* Section III.B.

52. For a discussion of why sharing platforms elude categorization under current rules, see Emily Badger, *Why We Can't Figure Out How to Regulate Airbnb*, WASH. POST (Apr. 23, 2014), <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/04/23/why-we-cant-figure-out-how-to-regulate-airbnb/>.

53. *E.g.*, Donna Tam, *Airbnb, Lyft Partner with New Share-Economy Advocacy Group*, CNET (July 31, 2013, 12:50 PM), <http://www.cnet.com/news/airbnb-lyft-partner-with-new-share-economy-advocacy-group/> (describing a partnership between several platforms and advocacy group Peers, an organization providing support to sharing platform users and providers); Carolyn Said, *Uber, Lyft, Airbnb Harness Users to Lobby Lawmakers for Them*, SFGATE (Jan. 11, 2015, 10:18 AM), <http://www.sfgate.com/business/article/Uber-Lyft-Airbnb-harness-users-to-lobby-6005562.php>. Several TNCs have hired prominent lobbyists to advocate for responsible

A. COMMON LAW SPECIAL RELATIONSHIPS PRINCIPLES INFORM MODERN RULES

Many sharing platforms offer services with clear common law analogues: TNCs provide transportation services analogous to common carriers,⁵⁴ P2P rentals are governed by product liability,⁵⁵ per-task contractors are affected by various tort law doctrines—particularly premises liability,⁵⁶ and short-term rentals lie at the nexus of landlord-tenant and innkeeper law.⁵⁷ In general, these bodies of law reflect a tension between freedom of contract and the strong public interest inherent in certain transactions.⁵⁸ Based on certain “special relationships” between service providers and consumers, various common law doctrines establish heightened duties for the service provider.⁵⁹ In the context of this Note, special relationships include landlord-tenant, common carrier-passenger, innkeeper-guest, and lessor-lessee—a close parallel to manufacturer-consumer under products liability. This Section explores three assumptions that justify the common law treatment of “special relationships,” and how these assumptions continue to inform modern regulatory frameworks.

regulation. James R. Hood, *Lyft Hires Its First Lobbyists to Clear the Way for Its Ride-Sharing Service*, CONSUMER AFFAIRS (Apr. 17, 2014), <http://www.consumeraffairs.com/news/lyft-hires-its-first-lobbyists-to-clear-the-way-for-its-ride-sharing-service-041714.html>; Rosalind S. Helderman, *Uber Pressures Regulators by Mobilizing Riders and Hiring Vast Lobbying Network*, WASH. POST (Dec. 13, 2014), http://www.washingtonpost.com/politics/uber-pressures-regulators-by-mobilizing-riders-and-hiring-vast-lobbying-network/2014/12/13/3f4395c6-7f2a-11e4-9f38-95a187e4c1f7_story.html. In addition, Airbnb has funded several economic studies to demonstrate its positive impact on communities and influence lawmakers. Emily Badger, *Why Airbnb Wants You to Know How Much Its Users Are Spending*, WASH. POST (Mar. 25, 2014), <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/03/25/why-airbnb-wants-you-to-know-how-much-its-users-are-spending/>.

54. See Shannon, *supra* note 12.

55. See KOOPMAN, *supra* note 20, at 18 (suggesting generally that “torts and product liability law, and other legal remedies exist when things go wrong” on sharing platforms).

56. For a discussion of premises liability in the context of short-term rentals, see Ron Lieber, *The Insurance Market Mystifies an Airbnb Host*, N.Y. TIMES (Dec. 19, 2014), <http://www.nytimes.com/2014/12/20/your-money/the-insurance-market-mystifies-an-airbnb-host.html>. Similar concerns apply for per-task contractors, but the liable party in that case is likely the user who invites a contractor to her property. See *infra* Section III.C.

57. See *infra* text accompanying notes 77–80.

58. See, e.g., Joseph William Singer, *No Right to Exclude: Public Accommodations and Private Property*, 90 NW. U. L. REV. 1283, 1304–31 (1996) (discussing the origins of duties under public accommodations law and whether these duties applied to retail stores).

59. E.g., *id.*

First, common law special relationships assume that certain transactions pose unique health, safety, and financial concerns for consumers.⁶⁰ Landlord-tenant law illustrates this heightened public interest in private transactions. In the mid-twentieth century, many jurisdictions adopted the implied warranty of habitability, “a duty on landlords to provide residential tenants with a habitable dwelling unit.”⁶¹ This wave of reform reflected growing acknowledgement of the importance of minimum housing quality standards for public health and safety,⁶² and strongly influenced modern landlord-tenant statutes. Most states have codified the implied warranty of habitability.⁶³ In addition, many states have enacted some form of the Uniform Residential Landlord and Tenant Act to establish remedies and protections against retaliation for tenants.⁶⁴ Today, most jurisdictions prohibit landlords from taking self-help measures to evict tenants, and embed at least some protections for tenants in summary eviction proceedings.⁶⁵

Related to the unique health and safety risks of certain transactions, common law special relationships assume that certain service providers occupy a disproportionately strong bargaining position in relation to

60. *See id.* at 1292–94 (describing the prevailing view among scholars that “necessity required special obligations to protect travelers from hardship when they had no place to sleep at night and were vulnerable to bandits on the highways”); *Escola v. Coca Cola Bottling Co. of Fresno*, 24 Cal. 2d 453, 441 (1944) (Traynor, J., concurring) (noting the inevitable occurrence of accidents resulting from defective products, and arguing that “[a]gainst such a risk there should be general and constant protection and the manufacturer is best situated to afford such protection”).

61. Roger A. Cunningham, *The New Implied and Statutory Warranties of Habitability in Residential Leases: From Contract to Status*, 16 URB. L. ANN. 3, 74 (1979). One of the most widely cited cases on point, *Javins v. First Nat’l Realty Corp.*, 428 F.2d 1071 (D.C. Cir. 1970), described the modern lease agreement as a contract for “a well[-]known package of goods and services—a package which includes not merely walls and ceilings, but also adequate heat, light and ventilation, serviceable plumbing facilities, secure windows and doors, proper sanitation, and proper maintenance.” *Id.* at 1074.

62. David A. Super, *The Rise and Fall of the Implied Warranty of Habitability*, 99 CALIF. L. REV. 389 (2011), 401–03; Gerald Korngold, *Whatever Happened to Landlord-Tenant Law*, 77 NEB. L. REV. 703, 706 (1998); Mary Ann Glendon, *The Transformation of American Landlord-Tenant Law*, 23 B.C. L. REV. 503, 518–19 (1982).

63. Super, *supra* note 62, at 394 (asserting that the implied warranty of habitability was adopted by “almost every state’s legislature or courts”).

64. Gary Goldman, *Uniform Commercial Landlord and Tenant Act—A Proposal to Reform “Law Out of Context”*, 19 T.M. COOLEY L. REV. 175, 185–91 (2002); Olin L. Browder, *The Taming of a Duty—The Tort Liability of Landlords*, 81 MICH. L. REV. 99, 113–16 (1982).

65. *The Eviction Process*, CA. DEP’T CONSUMER AFFAIRS, <http://www.dca.ca.gov/publications/landlordbook/evictions.shtml> (last visited Feb. 26, 2014); Browder, *supra* note 64, at 111–12.

consumers.⁶⁶ For example, both innkeepers and common carriers have a duty of non-discrimination—absent extenuating circumstances, each must accept all guests or passengers.⁶⁷ Denying innkeepers and common carriers the right to refuse service represents a substantial restraint on freedom of contract. However, the particular vulnerability of travelers has historically justified this restraint. Travelers are unfamiliar with local pricing, have limited access to competitor services, and are likely subject to time or circumstantial constraints on their ability to negotiate (e.g., the need to find lodging before sunset, or arrange transportation during a snowstorm).⁶⁸ Modern statutory regimes likewise assume that guests and passengers require special protections, and most jurisdictions today have codified the duty of non-discrimination for hotels and taxis.⁶⁹ In the case of taxis, local ordinances additionally specify metering requirements and set rates.⁷⁰

Finally, common law special relationships typically assume that the service provider is the least-cost avoider—the party who can adopt precautions against a given risk at the lowest cost.⁷¹ These relationships therefore allocate greater liability to the service provider rather than the consumer. For example, in some jurisdictions, a commercial lessor qualifies as a “seller or distributor” under products liability law.⁷² Lessors may incur liability for product defects or for failure to warn the consumer of dangers related to use of the product.⁷³ Courts have typically justified these heightened duties based on the relative positions of the seller and the consumer: the seller has superior knowledge of the condition of a product, and consumers cannot reasonably inspect or protect against the risks

66. See, e.g., Robert M. Hardaway, *Taxi and Limousines: The Last Bastion of Economic Regulation*, 21 *HAMLIN J. PUB. L. & POL'Y* 319, 357–58 (2000).

67. E.g., Singer, *supra* note 58, at 1304–31; JOHN E.H. SHERRY, *THE LAWS OF INNKEEPERS: FOR HOTELS, MOTELS, RESTAURANTS, AND CLUBS* 33–34 (1981).

68. SHERRY, *supra* note 67, at 126; Hardaway, *supra* note 66, at 357–58; Edmund W. Kitch, Marc Isaacson & Daniel Kasper, *The Regulation of Taxicabs in Chicago*, 14 *J. L. & ECON.* 285, 306 (1971).

69. See JACK P. JEFFERIES & BANKS BROWN, *UNDERSTANDING HOSPITALITY LAW* 35–37 (2001).

70. Lee A. Harris, *Taxicab Economics: The Freedom to Contract for a Ride*, 1 *GEO. J.L. & PUB. POL'Y* 195, 201–05 (2002).

71. Richard A. Posner, *Guido Calabresi's The Costs of Accidents: A Reassessment*, 64 *MD. L. REV.* 12, 16 (2005) (describing and critiquing Guido Calabresi's claims regarding liability for the “cheapest cost avoider”).

72. *RESTATEMENT (THIRD) OF TORTS* § 20(b) (1998).

73. *RESTATEMENT (THIRD) OF TORTS* § 1 (1998).

associated with many modern manufacturing processes.⁷⁴ Just as sellers and lessors represent the least-cost avoider, so do hotels, taxis, landlords, and other service providers with respect to the average guest, passenger, tenant, or consumer.

As discussed below, sharing platforms disrupt some of the fundamental assumptions underlying common law “special relationships.”⁷⁵ Unlike two-party relationships between service providers and consumers, sharing platforms create three-party relationships between the platform, provider, and user. These new relationships require a different allocation of liability and statutory protection. Consequently, the influence of common law special relationships on modern statutory frameworks often creates problems for sharing platforms. Many jurisdictions, for instance, prohibit leases of fewer than thirty days.⁷⁶ These ordinances prevent landlords from operating residential properties as hotels, but also bar most short-term rental platforms from operating.⁷⁷ However, guests who stay for over thirty days become entitled to statutory protections for tenants.⁷⁸ If those guests refuse to leave the property at the end of the rental period, hosts must pursue formal eviction proceedings.⁷⁹ By contrast, many jurisdictions allow hotels to take self-help measures to evict transient guests.⁸⁰ This example demonstrates how common law special relationships can affect the rights and remedies of sharing platform users under existing regulatory regimes.

B. REGULATORY AUTHORITY IS DIFFUSE, LOCALIZED, AND SPECIALIZED

Beyond the influence of common law “special relationships,” modern statutory frameworks create many other challenges for sharing platforms. First, regulatory authority governing traditional service providers is highly

74. See *Price v. Shell Oil Co.*, 466 P.2d 722, 726 (Cal. 1970) (“[W]e think it makes good sense to impose on the lessors of chattels the same liability for physical harm which has been imposed on the manufacturers and retailers. The former, like the latter, are able to bear the cost of compensating for injuries . . .”).

75. See *infra* Section III.C.

76. Charles Gottlieb, *Residential Short-Term Rentals: Should Local Governments Regulate the “Industry”?*, 65 PLAN. & ENVTL. L. 4 (2013).

77. *Id.*

78. Chuck Thompson, *‘Professional Scammers’ Refuse to Leave Airbnb Host’s House*, CNN (July 24, 2014), <http://www.cnn.com/2014/07/23/travel/airbnb-squatters/>.

79. *Id.*

80. *Who Is A “Landlord” and Who Is A “Tenant”*, CAL. DEP’T CONSUMER AFFAIRS, <http://www.dca.ca.gov/publications/landlordbook/whois.shtml> (last visited Feb. 26, 2015).

localized. Sharing platforms must navigate rules promulgated by multiple agencies at both state and local levels. Second, the relevant local codes are complex and, as discussed in the previous Section, impose heightened compliance burdens on service providers.

Sharing platforms must contend with multiple regulatory agencies at both the state and local levels. Short-term rentals are typically regulated at the city level.⁸¹ Yet state laws can also affect short-term rental platforms. Notably, Florida has prohibited local legislatures from passing new restrictions on short-term rentals since 2010.⁸² TNCs, by contrast, are often subject to regulation by state public utility commissions and state legislatures.⁸³ However, in many jurisdictions cities retain concurrent or separate regulatory authority over TNCs. The Pennsylvania Public Utilities Commission, for instance, has granted certain TNCs a two-year experimental license, but the city of Philadelphia exercises independent authority over for-hire vehicles and continues to ban TNCs.⁸⁴

Moreover, the local and state rules governing traditional service providers are highly complex, and thus compliance may be costly for providers. For short-term rentals, relevant local ordinances include residential zoning restrictions, health and fire codes, transient occupancy taxes, and licensing and permitting regimes.⁸⁵ These ordinances may also affect per-task contractors operating on residential properties, such as DogVacay.⁸⁶ Taxis are subject to detailed rules governing metering rates, required coverage areas, vehicle inspections, driver background checks, and licensing regimes.⁸⁷ Enforcement of these rules also takes place at the local

81. See Gottlieb, *supra* note 76.

82. FLA. STAT. § 509.032(7)(b) (2014); see also Gottlieb, *supra* note 76.

83. Niraj Chokshi, *Colorado Passes Nation's First Law Regulating UberX, Lyft*, WASH. POST (June 6, 2014), <http://www.washingtonpost.com/blogs/govbeat/wp/2014/06/06/colorado-passes-nations-first-law-regulating-uberx-lyft/>.

84. Paul Nussbaum, *PUC Approves UberX For State, Not Philadelphia*, PHILLY (Nov. 15, 2014), http://articles.philly.com/2014-11-15/business/56394938_1_ride-sharing-service-uberx-uber-service.

85. See Gottlieb, *supra* note 76.

86. E.g., KENNELS, CTY. SAN DIEGO, PLANNING & DEV. SERVS. (2014), available at <http://www.sandiegocounty.gov/pds/zoning/formfields/PDS-359.pdf> (prescribing zoning regulations for kennels, and defining kennels as any lot housing “seven or more dogs, cats, or similar small animals”).

87. Harris, *supra* note 70, at 201–12.

level,⁸⁸ and agencies tasked with investigating violations of city zoning or health codes may have limited resources.

Highly localized and specialized regulatory frameworks pose a challenge for sharing platforms, particularly those that operate nationwide. To clarify ambiguities in local regulations or contest regulations that prohibit sharing services, platforms must advocate for reform on a city-by-city basis.⁸⁹ Even as cities and states begin to pass legislation tailored to sharing platforms, each jurisdiction takes a different approach. Sharing platforms must therefore adapt to a wide range of regulatory solutions. However, many other interest groups also have an interest in the outcome of regulatory action governing sharing platforms.

C. MANY INTEREST GROUPS HAVE A STAKE IN THE REGULATION OF SHARING PLATFORMS

Most jurisdictions have taken an “experimental” approach to regulating sharing platforms,⁹⁰ and a variety of interest groups continue to shape the rulemaking process.⁹¹ The growth of the sharing economy has created substantial economic opportunities for users, providers, and platforms. The New York Attorney General’s Office predicts that in 2014 Airbnb alone will conduct \$282 million of short-term rental transactions within New York.⁹² Moreover, these platforms have acquired broad user bases.⁹³

88. For example, the Mayor’s Office of Special Enforcement enforces rules against illegal hotels in New York City. *Mayor’s Office of Special Enforcement*, N.Y. CITY, <http://www.nyc.gov/html/cjc/html/quality/mose.shtml> (last visited Feb. 26, 2015).

89. See, e.g., Rosalind S. Helderan, *Uber Pressures Regulators by Mobilizing Riders and Hiring Vast Lobbying Network*, WASH. POST (Dec. 13, 2014), http://www.washingtonpost.com/politics/uber-pressures-regulators-by-mobilizing-riders-and-hiring-vast-lobbying-network/2014/12/13/3f4395c6-7f2a-11e4-9f38-95a187e4c1f7_story.html.

90. E.g., Kim Lyons, *PUC Grants Uber License to Operate Experimental Service*, PITTSBURGH POST-GAZETTE (Nov. 13, 2014, 11:43 PM), <http://www.postgazette.com/business/2014/11/13/UbergetslicenseapprovalfromPennsylvaniaPUC/stories/201411130305>; Allen Wallace, *Uber Granted Temporary License to Operate in South Carolina*, COLA DAILY (Jan. 30, 2015), <http://coladaily.com/2015/01/30/uber-granted-temporary-license-to-operate-in-south-carolina/>.

91. See, e.g., Polly Mosendz, *Face-Off: NYC Lawmakers Grill Airbnb on Illegal Hotels*, NEWSWEEK (Jan. 21, 2015), <http://www.newsweek.com/face-nyc-lawmakers-grill-airbnb-illegal-hotels-301060/> (describing the various interest groups participating in a recent New York City Council meeting to debate the merits of changing the city’s short-term rental laws).

92. These figures reflect the overall revenue of hosts; as noted in Part I, the platform itself takes only a six to twelve percent transaction fee. Airbnb’s direct revenue from transaction fees is approximately \$30 million. N.Y. Attorney General Report, *supra* note 40, at 7.

According to Airbnb, total listings on the site grew from 120,000 to 300,000 just in 2012.⁹⁴ TNCs have experienced similarly rapid growth, though some evidence suggests that user signup rates have flattened in primary markets.⁹⁵ Uber claims that it adds 50,000 new drivers per month.⁹⁶ These new stakeholders have a strong financial interest in creating rules that allow sharing platforms to continue operating.

However, sharing platforms also generate negative externalities for third parties. Short-term rentals can change the character of a building or even a community,⁹⁷ and many residents object to finding strangers routinely entering the common areas of an apartment complex.⁹⁸ Likewise, TNC drivers' accidents can injure not only passengers but also pedestrians and other drivers. TNCs also affect other entities like airports, which strictly control the traffic of for-hire vehicles through licenses.⁹⁹ Moreover, the success of sharing platforms threatens traditional service providers. Short-term rental services often serve as close substitutes for hotels, particularly low-end hospitality services,¹⁰⁰ and TNCs serve as direct substitutes for taxis.¹⁰¹

93. *The Shared Economy's Growth Spurt*, CHRISTIAN SCI. MONITOR (Jan. 2, 2014), <http://www.csmonitor.com/Commentary/the-monitors-view/2014/0102/The-shared-economy-s-growth-spurt>.

94. Sonya Chudgar, *Airbnb's Annual Report: We're Still Growing*, INC. (Feb. 8, 2013), <http://www.inc.com/sonya-chudgar/airbnb-annual-report-skirts-legal-issues.html>.

95. Chris Nicholson, *Study: Uber Pulls Ahead of Lyft in Riders and Revenue With 12x Lead in U.S.*, FUTURE ADVISOR (Sept. 11, 2014), <http://blog.futureadvisor.com/study-uber-pulls-ahead-of-lyft-in-riders-and-revenue-with-12x-lead-in-u-s/>.

96. Douglas MacMillan, *Uber's Army of Drivers Growing 50,000 a Month*, WALL ST. J. (Sept. 8, 2014, 4:35 PM), <http://blogs.wsj.com/digits/2014/09/08/ubers-army-of-drivers-growing-50000-a-month/>.

97. Matt Stevens & Martha Groves, *Malibu to Crack Down on Short-Term Rentals Via Airbnb, Other Websites*, L.A. TIMES (May 27, 2014, 8:09 PM), <http://www.latimes.com/local/la-me-malibu-renting-20140528-story.html> (noting that many Malibu residents have complained that short-term rentals change the character of neighborhoods).

98. N.Y. Attorney General Report, *supra* note 40.

99. Ellen Huet, *California Threatens To Shut Down Uber, Lyft, Sidecar Over Airport Rides*, FORBES (June 12, 2014), <http://www.forbes.com/sites/ellenhuet/2014/06/12/california-threatens-to-shut-down-uber-lyft-sidecar-over-airport-rides/>. The overall impact of TNCs on the environment and traffic congestion remains unclear.

100. Gergios Zervas & Davide Proserpio, *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry* (Bos. Univ. Sch. Mgmt., Working Paper No. 2013-16, 2013), available at <http://cs-people.bu.edu/dproserp/papers/airbnb.pdf>.

101. A recent survey by MKM Partners suggests that up to twenty-four percent of Uber users "use it as a replacement for rental companies all of the time." Jack Hough,

Regulating the sharing economy therefore requires a balancing of interests. State and local governments must ensure that new rules adequately protect both participants in the sharing economy and third parties. In addition, local governments have a strong public interest in the regulation of sharing platforms. Sharing services can generate substantial tax revenue, but can also disrupt the market for affordable housing¹⁰² and create serious consumer safety hazards.¹⁰³ Many jurisdictions are currently attempting to find regulatory solutions to address the sharing economy.

III. CHALLENGES FOR REGULATORS

The following discussion describes how regulators have approached the sharing economy so far, and the enforcement challenges that regulators face under any approach. This Part then explores what makes the sharing economy a regulatory disruption, and argues that existing rules tailored for two-party relationships cannot address the needs of three-party relationships between platforms, providers, and users. Nor do existing models of intermediary liability provide workable solutions for structuring sharing platform liability.

A. REGULATORS HAVE STRUGGLED TO ADAPT EXISTING REGULATIONS TO SHARING PLATFORMS

Given that existing regulatory frameworks are highly localized,¹⁰⁴ state and municipal legislatures have taken a wide range of approaches in addressing sharing platforms. Sharing platforms often operate legally even without legislative reform, including many per-task contractors, P2P rentals, and some P2P auction houses. Other sharing platforms operate illegally—or arguably illegally¹⁰⁵—and regulators have struggled to deal with these platforms. In particular, short-term rentals of residential housing and TNCs frequently violate local ordinances. Some jurisdictions have attempted to ban these platforms, others have granted “experimental”

Uber, Airbnb a Danger to Car Rentals, Hotels?, BARRON'S (Sept. 25, 2014), <http://online.barrons.com/articles/SB52784017629588234037504580174550733121636>.

102. See, e.g., Jennifer Peltz, *NYC Debates: Does Airbnb Help or Hurt Affordable Housing?*, ABC NEWS (Jan. 20, 2015, 7:02 PM), <http://abcnews.go.com/Health/wireStory/lawmakers-airbnb-affects-nyc-housing-economy-28339911/>.

103. Ben Popken, *States Warn of Rideshare Risks for Passengers*, NBC NEWS (May 28, 2014, 1:52 PM), <http://www.nbcnews.com/business/consumer/states-warn-rideshare-risks-passengers-n116736/>.

104. See *supra* Section II.B.

105. Katie Lobosco, *Uber Agrees to Temporarily Suspend Service in Portland*, CNN MONEY (Dec. 18, 2014, 7:13 PM), <http://money.cnn.com/2014/12/18/technology/uber-portland/>.

licenses to certain platforms before issuing formal rules, and an increasing number of cities have passed legislation for short-term rentals and TNCs.¹⁰⁶ Generally, bans on sharing platforms have met with limited success, and the outcomes under experimental licenses and early legislation are difficult to predict. And under each of these approaches, regulators face similar enforcement challenges.

1. Bans

Absent regulatory reform, many sharing platforms violate local ordinances. Short-term residential rentals—often defined as rentals for fewer than thirty days—are explicitly prohibited in many jurisdictions.¹⁰⁷ In some cities, certain categories of residential housing may host short-term rentals (e.g., single-family homes) while others may not (e.g., multiple dwelling units or apartment complexes),¹⁰⁸ or certain residential

106. *The Sharing Economy: Boom and Backlash*, ECONOMIST (Apr. 26, 2014), <http://www.economist.com/news/business/21601254-consumers-and-investors-are-delighted-startups-offering-spare-rooms-or-rides-across-town/>:

Corey Owens, head of public policy at Uber, says that in his industry local authorities can be put into three “buckets”. In the first are those with strict rules that they intend to keep, such as Austin, London, New York and Philadelphia. In the second are places where the future is ambiguous: here he puts Baltimore, Brussels, Paris and Washington, DC. Authorities in the third bucket have recognised [sic] that the world is changing. California, where the taxi regulator adopted new rules for ride-sharers last year, is the “primary example.”

As noted in this Section, many of these cities have moved into different “buckets” since Owens made this statement.

107. For example, until October 2014, San Francisco prohibited rentals for less than thirty days. The city technically allowed residents to obtain a special permit for short-term rentals, but the expense and difficulty of obtaining such a permit made this option impractical for the average host. Carolyn Said, *S.F. Cracks Down on Airbnb Rentals*, SFGATE (Apr. 7, 2014, 2:26 PM), <http://www.sfgate.com/bayarea/article/S-F-cracks-down-on-Airbnb-rentals-5381237.php>; Doug Govern, *SF Law Prohibits Short-Term Rentals Popularized By Airbnb*, CBS SF BAY AREA (Aug. 4, 2011, 9:19 AM), <http://sanfrancisco.cbslocal.com/2011/08/04/sf-law-prohibits-short-term-rentals-popularized-by-airbnb/>.

108. The New York Multiple Dwelling code provides that certain categories of “multiple dwelling” units “shall only be used for permanent residence purposes.” The statute defines the relevant category of “class A” multiple dwelling units to include “tenements, flat houses, maisonette apartments, apartment hotels, apartment hotels, bachelor apartments, studio apartments, duplex apartments, kitchenette apartments, garden-type maisonette dwelling projects, and all other multiple dwellings except class B multiple dwellings.” N.Y. Mult. Dwell. Law § 4(8)(a) (McKinney 2011). The statute further defines residential use as “occupancy of a dwelling unit by the same natural person or family for thirty consecutive days or more” *Id.* State Senator Liz Krueger has clarified that the statute does not prohibit multiple dwelling residents from renting single

zones may grant limited licenses while other residential zones do not.¹⁰⁹ Similarly, TNCs arguably fall under the definition of for-hire vehicles under many local taxi ordinances.¹¹⁰ Since TNCs generally do not (and often cannot feasibly) comply with taxi ordinances, some courts have ruled that TNCs are illegal taxi operations.¹¹¹ P2P auction houses for parking spaces may also violate local ordinances.¹¹²

Rather than revising local codes to accommodate sharing platforms, some jurisdictions chose to enforce existing laws to prohibit these P2P services. Many cities and states responded to TNCs by issuing cease-and-desist orders, fining platforms, and seeking injunctions.¹¹³ Several cities have also engaged in aggressive efforts to shut down short-term rental hosts,¹¹⁴ and some have revised local ordinances to expressly prohibit particular categories of short-term residential rentals.¹¹⁵ New York City and San Francisco have launched highly visible campaigns against illegal

rooms for less than thirty days, so long as a permanent resident also occupies the unit for the full duration of the short-term rental. Liz Krueger, *Answers for New Yorkers Concerned or Confused About the Illegal Hotel Law*, N.Y. SENATE (May 27, 2014), <http://www.nysenate.gov/report/answers-new-yorkers-concerned-or-confused-about-illegal-hotel-law/>.

109. Bianca Barragan, *The Few Places in Los Angeles Where Airbnbs Might Be Legal*, CURBED L.A. (Mar. 24, 2014), http://la.curbed.com/archives/2014/03/the_few_places_in_los_angeles_where_airbnbs_might_be_legal.php.

110. Broward County in Florida has recently clarified that TNC drivers count as taxis under local ordinances. Brittany Wallman, *Uber Drivers Cited 250 Times, Fined \$35,000*, SUN SENTINEL (Jan. 27, 2015, 4:47 PM), <http://www.sun-sentinel.com/local/broward/fl-uber-showdown-broward-20150127-story.html>.

111. *E.g.*, Eric M. Johnson, *Ridesharing Firm Uber Suspends Operations in Nevada*, REUTERS (Nov. 27, 2014), <http://www.reuters.com/article/2014/11/27/us-usa-nevada-ridesharing-idUSKCN0JB18J20141127>.

112. Laura Entis, *San Francisco Says Enough Monkey Business: Tells Parking Spot App to Shut Down*, ENTREPRENEUR (July 11, 2014), <http://www.entrepreneur.com/article/235575/>.

113. *E.g.*, Sean Doogan, *Judge Sides with City in Decision Allowing Uber to Offer Only Free Ride Sharing*, ALASKA DISPATCH NEWS (Oct. 13, 2014), <http://www.adn.com/article/20141013/judge-sides-city-decision-allowing-uber-offer-only-free-ride-sharing/>; Josephine Woolington, *City Threatens to Fine Uber Drivers*, REGISTER GUARD (Jan. 17, 2015), <http://registerguard.com/rg/news/local/32661556-75/eugene-warns-uber-drivers-of-potential-fines.html.csp>.

114. David Streitfeld, *Airbnb Listings Mostly Illegal, New York State Contends*, N.Y. TIMES (Oct. 15, 2014), <http://www.nytimes.com/2014/10/16/business/airbnb-listings-mostly-illegal-state-contends.html>.

115. Katherine Sayre, *New Orleans City Council Toughens Ban on Unlicensed Short-Term Vacation Rentals*, NOLA (July 10, 2014, 12:23 AM), http://www.nola.com/business/index.ssf/2014/07/new_orleans_city_council_tough.html.

hotel operators.¹¹⁶ In addition, the San Francisco Attorney General issued multiple cease-and-desist orders to P2P auction houses for parking spots.¹¹⁷

These efforts have met with limited success. Short-term rental hosts continue to operate illegally in many cities. Some jurisdictions like New Orleans simply have not acted to enforce formal bans on short-term rentals.¹¹⁸ Even in New York City, enforcement campaigns against short-term rentals have encountered serious obstacles. Likewise, TNCs have often ignored cease-and-desist orders.¹¹⁹ In many cases, TNCs have negotiated with cities to gain temporary authorization rather than discontinuing operations, and in most cases TNCs have obtained temporary licenses.¹²⁰

2. *Legalizing Sharing Platforms: Revising Existing Rules or Creating New Rules*

Increasingly, states and cities have attempted to legalize or partially legalize TNCs and short-term rental platforms. Most jurisdictions have approached short-term rentals by revising existing ordinances, though some have also created new permitting regimes. Short-term rental provisions vary widely. Common restrictions include geographic caps,

116. Streitfeld, *supra* note 114; Katy Steinmetz, *San Francisco Cracks Down on Airbnb 'Abuses'*, TIME (Apr. 15, 2014), <http://time.com/63810/san-francisco-airbnb-crackdown/> (discussing efforts to pass an ordinance clarifying the legality of some short-term rentals, and to encourage enforcement efforts against illegal rentals); Guy Marzorati, *Enforcement Issues Remain as San Francisco's Airbnb Law Takes Effect*, KQED NEWS (Feb. 2, 2015), <http://ww2.kqed.org/news/2015/02/02/Enforcement-Issues-San-Francisco-Legalize-Airbnb-Rentals> (discussing opposition to the short-term rental ordinance, and enforcement challenges related to the ordinance).

117. Entis, *supra* note 112.

118. Robert McClendon, *In a Push for Short-Term Rental Legalization, Some New Orleans Owners Ask 'Why Bother?'*, NOLA (Nov. 6, 2014, 7:38 AM), http://www.nola.com/politics/index.ssf/2014/11/new_orleans_short-term_rental.html.

119. Jeremy Allen, *Uber, Lyft ignore Ann Arbor's cease and desist demand; no tickets issued following city's orders*, MLIVE.COM (July 7, 2014), http://www.mlive.com/business/ann-arbor/index.ssf/2014/07/uber_lyft_ignore_ann_arbors_ce.html; Ashley Dejean, *Uber And Lyft Ignore Virginia's Demand To Cease And Desist*, WAMU 88.5 AM. UNIV. RADIO (June 6, 2014), http://wamu.org/news/14/06/06/uber_and_lyft_refuse_virginias_demand_to_cease_and_desist; Amos Maki, *Uber, Lyft Operating Despite Cease-and-Desist Notices*, MEMPHIS DAILY NEWS (July 17, 2014) <http://www.memphisdailynews.com/news/2014/jul/17/uber-lyft-operating-despite-city-notices/>.

120. See text accompanying note 90; see also Mike Isaac, *Uber Suspends Portland Operations in Deal with City Regulators*, N.Y. TIMES (Dec. 18, 2014), <http://bits.blogs.nytimes.com/2014/12/18/uber-suspends-portland-operations-in-deal-with-city-regulators/>.

maximum durations, maximum rentals per year, occupancy limits, and exclusions for multiple dwelling residences.¹²¹ Some jurisdictions have created affirmative duties for short-term rental hosts, such as ensuring adequate parking for guests, providing notice of short-term rentals to neighbors, or liability for nuisances caused by guests.¹²² In jurisdictions with permitting regimes, hosts typically pay an application fee and undergo a safety inspection.¹²³ Many jurisdictions have also decided that transient occupancy taxes apply to short-term rental hosts.¹²⁴

By contrast, most cities and states have approached TNCs by creating a new legal category distinct from for-hire vehicles like taxis and limousines. In some states, the public utilities commission has issued early guidance for TNCs.¹²⁵ Other states and cities have already passed legislation governing TNCs, including Colorado, the city of Chicago, and the District of Columbia.¹²⁶ Some common features of early rules for TNCs include: minimum insurance requirements, regular inspections, driver background checks, duties not to discriminate against disabled riders, vehicle registration and licensing, requirements for distinctive trade dress to mark registered vehicles, and limitations on surge pricing—a practice of increasing fares during peak hours to encourage drivers to work during those hours.¹²⁷ In addition, most states and cities have expressly excluded TNCs from common carrier status, relieving TNCs of the duty of non-discrimination.¹²⁸

Many new rules for TNCs will not take effect until early 2015 or later, and it is too early to judge the success of these regulatory efforts.

121. Gottlieb, *supra* note 76.

122. *Id.*

123. *See Vacation Rental Licensing*, AUSTIN, <http://www.austintexas.gov/str/> (last visited Feb. 26, 2015).

124. *See, e.g.*, Portland, Or., Planning and Zoning § 33.207.070.

125. Cal. P.U.C. Decision, *supra* note 18, at 72–75.

126. COLO. REV. STAT. §§ 40-10.1-601–40-10.1-608 (2014); CHI., ILL., CODE § 9-115-100 (2014); Vehicle-for-Hire Innovation Amendment Act of 2014, 61 D.C. Reg. 012430 (Dec. 5, 2014).

127. Douglas MacMillan, *Uber Laws: A Primer on Ridesharing Regulations*, WALL ST. J. (Jan. 29, 2015, 10:37 PM), <http://blogs.wsj.com/digits/2015/01/29/uber-laws-a-primer-on-ridesharing-regulations/>.

128. *E.g.*, COLO REV. STAT. § 40-10.1-603 (“A transportation network company is not subject to the [public utility] commission’s rate, entry, operational, or common carrier requirements”), *available at* <http://cdn.colorado.gov/cs/Satellite/DORA-PUC/CBON/DORA/1251655091163>. Maryland is a notable exception, and has ruled that TNCs are common carriers. Md. P.U.C. Order No. 86528 (Aug. 6, 2014).

Moreover, some jurisdictions have issued experimental licenses to TNCs, but have yet to issue formal rules.¹²⁹

3. Enforcement

Whether state and local governments choose to ban or legalize sharing platforms, regulatory agencies must develop strategies for enforcing new or existing laws. Policing sharing platforms often proves more difficult than enacting legislation. Regulators have two main options for enforcement: target providers or target platforms. In some cases, private causes of action may also contribute to enforcement strategies.

a) Targets: Providers Versus Platforms

To target providers, regulators must decide how to identify bad actors and what remedy to seek. Regulators have identified illegal conduct by soliciting user information from platforms,¹³⁰ through inspections or policing efforts,¹³¹ and through complaint hotlines.¹³² After regulators uncover illegal conduct, they impose fines¹³³ or they seek injunctive relief to either disband commercial actors or remove accounts from platforms.¹³⁴

129. See test accompanying note 90; see also Mike Isaac, *Uber Suspends Portland Operations in Deal with City Regulators*, N.Y. TIMES (Dec. 18, 2014), <http://bits.blogs.nytimes.com/2014/12/18/uber-suspends-portland-operations-in-deal-with-city-regulators/>.

130. See *Airbnb, Inc. v. Schneiderman*, 989 N.Y.S.2d 786 (N.Y. Sup. Ct. 2014) (quashing as overbroad a subpoena from the New York Attorney General requiring that Airbnb provide personal information of hosts relevant to identifying illegal listings); *Columbus v. Lyft Inc.*, No. 2014 EVH 060145, 2014 WL 4805037 (Sept. 19, 2014) (granting in part and denying in part a public records request from the City of Columbus seeking Lyft's records of drivers' names and personal information).

131. E.g., Marc D. Anderson, *Fairhope to start cracking down on short-term vacation rentals*, AL.COM (Aug. 11, 2014) http://www.al.com/news/mobile/index.ssf/2014/08/fairhope_to_start_cracking_dow.html.

132. E.g., Marc Saltzberg, *VENICE NEIGHBORHOOD COUNCIL, SHORT TERM VACATION RENTAL REPORT (2013)*, available at <http://www.venicenc.org/wp-content/uploads/2012/05/Short-Term-Vacation-Rental-Report.pdf> ("The City's Department of Building and Safety (DBS) is charged with enforcing the ordinances which ban vacation rentals. DBS is complaint driven - that is, they don't enforce unless there is a complaint.").

133. See Ron Lieber, *A \$2,400 Fine for an Airbnb Host*, N.Y. TIMES (May 21, 2013), <http://bucks.blogs.nytimes.com/2013/05/21/a-2400-fine-for-an-airbnb-host/> (reporting on Nigel Warren, an Airbnb user in New York who received \$2,400 in fines, and questioning whether Airbnb has a duty to warn or block users in areas where Airbnb hosting is illegal).

134. San Francisco City Attorney Dennis Herrera filed suit in April 2014 against two landlords for evicting tenants under the Ellis Act to convert apartments into short-term rental listings. Bob Egelko, *S.F. city attorney sues 2 landlords over short-term rentals*,

Many cities have addressed short-term rental platforms by policing providers. The New York Attorney General's office has aggressively pursued hosts with illegal listings.¹³⁵ In August, the Attorney General requested that Airbnb reveal the identities of 124 accounts.¹³⁶ San Francisco has similarly pursued actions against landlords who attempted to convert apartments into vacation rental units by evicting long-term tenants.¹³⁷ But shutting down individual hosts requires immense resources, and new offenders can enter the market with ease.

On the other hand, targeting platforms presents less of a logistical challenge. Regulators have generally targeted TNCs, car sharing services, and auction houses at the platform level. Because it is not always clear which local or state agency has the authority to regulate platforms, regulators have sometimes faced an initial hurdle when establishing the correct channel for enforcement.¹³⁸ Regulators can impose fines for specific instances of noncompliance with existing statutes.¹³⁹ However, as discussed above, public enforcement efforts have limited traction because of limited government resources, and because platforms often continue to operate in defiance of cease-and-desist orders or repeated fines.

b) Public Versus Private Enforcement

The previous discussion has assumed that regulatory agencies will primarily enforce legislation governing sharing platforms. The focus on

SFGATE (Apr. 24, 2014, 6:52 AM), <http://www.sfgate.com/bayarea/article/S-F-city-attorney-sues-2-landlords-over-5425826.php>.

135. Polly Mosendz, *Face-Off: NYC Lawmakers Grill Airbnb on Illegal Hotels*, NEWSWEEK (Jan. 21, 2015, 1:26 PM), <http://www.newsweek.com/face-nyc-lawmakers-grill-airbnb-illegal-hotels-301060>.

136. Tom Huddleston, Jr., *Airbnb to reveal names of 124 hosts to New York's Attorney General*, FORTUNE (Aug. 22, 2014), <http://fortune.com/2014/08/22/airbnb-to-reveal-124-hosts-identities-to-new-yorks-attorney-general/>.

137. Bob Egelko, *S.F. City Attorney Sues 2 Landlords Over Short-Term Rentals*, SFGATE (Apr. 24, 2014, 6:52 AM), <http://www.sfgate.com/bayarea/article/SFcityattorneysues2landlordsover5425826.php>.

138. During the administrative review period in 2013, Uber challenged the California Public Utilities Commission's authority over the service "because it is a technology company that does not provide transportation services." Patrick Hoge, *Uber, taxis appeal PUC ruling on private drivers for hire*, S.F. BUS. TIMES (Oct. 24, 2013, 9:53 AM), <http://www.bizjournals.com/sanfrancisco/blog/2013/10/uber-lyft-sidecar-taxicab-puc.html>.

139. The Pennsylvania Public Utility Commission first conducted undercover investigations of Uber and Lyft's services, then threatened the TNCs with fines—\$130,000 for Lyft and \$95,000 for Uber. Yazhou Sun, *Uber and Lyft Face First-Ever Fines in the United States*, ABC NEWS (June 11, 2014), <http://abcnews.go.com/US/uber-lyft-face-fines-united-states/story?id=24089617>.

action by regulatory agencies stems in part from the strong public interest involved in some sharing platforms—particularly TNCs, short-term home and car rentals, P2P lending platforms, and P2P auction houses. Yet in some cases private causes of action offer a viable alternative to regulatory action.

In the context of short-term rental platforms, landlords may constitute the first line of enforcement against hosts. Most landlords include a sublet clause in both commercial and residential leases.¹⁴⁰ A landlord can succeed in a summary eviction proceeding by demonstrating that the tenant illegally hosted short-term guests in violation of the lease.¹⁴¹

Drivers, competitors, and riders have also filed private suits against TNCs. Drivers have claimed that Uber and Lyft misclassify drivers as independent contractors.¹⁴² Riders, on the other hand, have filed both personal injury suits against TNCs¹⁴³ and class actions based on violations of the Americans with Disabilities Act (“ADA”)¹⁴⁴ and unfair business

140. *E.g.*, Ga. Dep’t of Cmty. Affairs, *Basic Rental Agreement or Residential Lease*, available at <http://www.dca.ga.gov/housing/specialneeds/programs/documents/C-2SampleLEASE.pdf>; Coy Davidson, *The Importance of Assignment and Subletting Clauses in Commercial Leases*, TENANT ADVISOR (Sept. 6, 2009), <http://www.coydavidson.com/leasing-tips/the-importance-of-assignment-and-subletting-clauses-in-commercial-leases/>.

141. Kevin Davis, *Guest Wrong*, 100 A.B.A.J. 19, 19–20 (2014).

142. *See* *Cotter v. Lyft, Inc.*, No. 13-cv-04065-VC, 2014 WL 3884416 (N.D. Cal. Aug. 7, 2014). The IRS, state tax bureaus, and other state agencies each apply similar but varied tests for determining whether a worker qualifies as an employee rather than an independent contractor. These tests generally focus on the degree of control the “employer” exercises over the conduct of the employee. In fact, most states allow taxi dispatch services to hire drivers as independent contractors, depending on the nature of the contractual relationship. UNREGULATED WORK IN THE TAXI INDUSTRY IN NEW YORK CITY, NELP.ORG (2007), available at http://www.nelp.org/page//EJP/Unregulated_Work_Taxi.pdf; INFORMATION SHEET: TAXICAB INDUSTRY, EMP’T DEV. DEP’T OF CAL. (2009), available at http://www.edd.ca.gov/pdf_pub_ctr/de231tc.pdf; *Industry Specific Help for Worker Classification*, OREGON.GOV, <http://www.oregon.gov/IC/pages/07-industries.aspx#taxicab> (noting that some dispatch services hire drivers as independent contractors, and these services must meet state criteria including “(1) that [drivers] be free from the right of another to control how services are performed and, (2) that the worker operates an independently established business”). Taxicab drivers have filed claims against dispatchers for misclassification of drivers as independent contractors in numerous states, with mixed results.

143. *See infra* Section III.B; *see also* *Mazaheri v. Doe*, No. CIV-14-225-M, 2014 WL 2155049 (W.D. Okla. May 22, 2014).

144. *McPhail v. Lyft, Inc.*, No. A-14-CA-829-LY, 2014 WL 6680393 (W.D. Tex. Nov. 25, 2014); *Salovitz v. Uber Techs., Inc.*, No. A-14-CV-823-LY, 2014 WL 5318031 (W.D. Tex. Oct. 16, 2014).

practices.¹⁴⁵ Likewise, taxi dispatch services in Boston and Chicago have pursued claims against Uber under the Lanham Act and state unfair competition laws.¹⁴⁶ Private actions against sharing platforms can supplement government enforcement efforts. These actions may also help to shape the ongoing legislative efforts to address sharing platforms.

Although state and local governments have taken action to regulate the sharing economy, many problems remain unresolved. Even sharing platforms that already operate legally may raise novel insurance or employment issues warranting regulatory attention. The following Section explores why sharing platforms disrupt existing regulatory frameworks.

B. LEGAL GRAY AREAS: SHARING PLATFORMS DISRUPT TRADITIONAL LEGAL CATEGORIES

Sharing platforms often operate in legal gray areas, and the regulatory vacuum surrounding these services has raised complex legal questions.¹⁴⁷ Sharing companies erode the distinction between commercial and personal, public and private, and the definition of goods and services.¹⁴⁸ For example, TNC drivers operate personal vehicles for a commercial purpose. Similarly, short-term rental hosts temporarily offer private, residential housing to the public. P2P auction houses and per-task contractor services allow users to purchase temporary licenses, such as a position in line for a movie, a table in a coffee shop, or a public parking spot. Blurring these lines creates difficult legal issues because these categories affect determinations of liability in almost every field of law, from tax¹⁴⁹ to civil rights.¹⁵⁰

145. *Ehret v. Uber Techs., Inc.*, No. C-14-0113 EMC, 2014 WL 4640170 (N.D. Cal. Sept. 17, 2014).

146. *E.g.*, *Bos. Cab Dispatch, Inc. v. Uber Techs., Inc.*, No. 13-10769-NMG, 2014 WL 1338148 (D. Mass. Mar. 27, 2014); *Yellow Grp. LLC v. Uber Techs. Inc.*, No. 12 C 7967, 2014 WL 3396055, at *5 (E.D. Ill. July 10, 2014).

147. *Cohen & Zehngebot*, *supra* note 10 (“To grossly generalize, the law tends to prefer binary divisions: public and private, business and personal, donation and sale, consumer and provider, and, most saliently, my property and yours. In the sharing economy, many companies blur these boundaries, resulting in a legal gray area.”).

148. *See Badger*, *supra* note 52 (arguing that the real “tough call” for regulators is how to regulate “quasi-professionals,” providers who fall in between traditional regulatory categories).

149. *See Thomas A. Dickerson & Sylvia O. Hinds-Radix*, *Taxing Internet Transactions: Airbnb and the Sharing Economy*, 86 N.Y. ST. B.J. 49 (2014) (“While Expedia, Priceline and Hotwire are best defined as retailers or resellers and, as such, can be controlled and taxed accordingly, it is much more difficult to find a comparable taxing analogue for the Internet-sharing economy.”).

1. Insurance

Insurance liability for TNCs illustrates the gray area between personal and commercial activity. Most personal insurance plans do not cover commercial activity, such as charging fares for rides. Thus TNC drivers cannot rely on personal insurance policies for accidents that occur while they have the TNC app on.¹⁵¹ Some states now require TNCs to purchase insurance to cover this “gap” in the TNC driver’s personal insurance policy.¹⁵² Insurers break down TNC liability into three “periods.” The first period starts when the TNC driver turns on the app and ends when the TNC driver accepts a match. The second period covers the time between the match and when the driver picks up the rider. The third is the time between rider pick up and drop off.¹⁵³ Many jurisdictions have adopted an “app on” rule, where TNCs must provide insurance to drivers from the moment the driver turns on the TNC app.¹⁵⁴

Although TNCs have not always provided primary coverage during periods two and three,¹⁵⁵ most TNCs now voluntarily purchase insurance

150. For example, federal civil rights statutes prohibit discrimination based on gender in “places of accommodation,” and in advertisements of housing rentals. Title II of the Civil Rights Act, 42 U.S.C. § 2000a (2012); Fair Housing Act, 42 U.S.C. § 3604 (2012). The Fair Housing Act, however, makes an exception for advertisements expressing a preference for a particular gender. Memorandum from Roberta Achtenberg, Assistant Sec’y for Fair Housing and Equal Opportunity, U.S. Dep’t Hous. & Urb. Dev. 2 (Jan. 9, 1995), *available at* <http://www.hud.gov/offices/fheo/disabilities/sect804achtenberg.pdf>. Whether short-term rental hosts can take advantage of this exception is unclear.

151. *See, e.g.*, Ron Lieber, *The Question of Coverage for Ride Service Drivers*, N.Y. TIMES (Sept. 5, 2014), <http://www.nytimes.com/2014/09/06/your-money/auto-insurance/offloading-the-risk-in-renting-a-car-ride.html>.

152. *E.g.*, CAL. PUB. UTIL. CODE § 5433(c) (West 2015). California state assemblywoman Susan Bonilla introduced the current insurance mandate for TNCs, bill number AB 2293, in response to Sofia Liu’s death. Ron Lieber, *The Question of Coverage for Ride Service Drivers*, N.Y. TIMES (Sept. 5, 2014), <http://www.nytimes.com/2014/09/06/your-money/auto-insurance/offloading-the-risk-in-renting-a-car-ride.html>; Josh Eidelson, *Is California About to Disrupt Uber?*, BLOOMBERG BUSINESSWEEK (June 26, 2014), <http://www.businessweek.com/articles/2014-06-26/is-california-about-to-disrupt-uber>.

153. *See* Letter from Dave Jones, Ins. Comm’r, Cal. Dep’t Ins., to Michael R. Peevey, President, Cal. Pub. Utils. Comm’n 2 (Apr. 7, 2014), *available at* <http://www.insurance.ca.gov/0400-news/multimedia/0030VideoHearings/upload/CDI-CPUC20140407.pdf>. The California insurance mandate for TNCs instead divides TNC liability into two periods. CAL. PUB. UTIL. CODE § 5433.

154. Don Jergler, *Uber, Lyft, Sidecar Toe-to-Toe With Insurers State-by-State*, INS. JOURNAL (June 27, 2014), <http://www.insurancejournal.com/news/national/2014/06/27/332942.htm>.

155. Prior to 2014, Lyft, Uber, and Sidecar only purchased backup policies in case a driver’s personal insurance declined to cover an accident. Most personal insurance

plans for these periods without a statutorily imposed insurance mandate.¹⁵⁶ However, TNCs have vigorously contested statutory insurance requirements for the second period. TNCs have argued that providing commercial insurance during the second period would be economically wasteful and incentivize drivers to commit insurance fraud. Commercial coverage is more expensive than personal insurance coverage because of the increased liability risks involved. However, drivers have an incentive to leave the TNC app on while doing routine chores or other personal trips to benefit from higher coverage.¹⁵⁷ Regulators have argued that TNCs benefit from drivers who leave the app on even when those drivers do not currently have a passenger request, because the driver is then “available” to prospective passengers.¹⁵⁸

policies, however, have an exception for commercial ride sharing. By requiring drivers to first report claims to their personal insurers, this TNC policy created a perverse incentive for drivers to lie to their insurance providers. *See* Lieber, *supra* note 151.

156. *See* Jergler, *supra* note 154.

157. Sidecar and other TNCs argued during the California Department of Insurance investigatory hearing that mandating full coverage during period one creates a moral hazard for drivers, who may be tempted to leave the TNC app on to take advantage of the higher insurance coverage. *See* Don Jergler, *TNCs, Insurers Square off at California Hearing*, INS. JOURNAL (Mar. 21, 2014), <http://www.insurancejournal.com/news/west/2014/03/21/324004.htm>. TNC driver support forums suggest that this may be a realistic concern; some drivers may literally leave the app on twenty-four hours a day. Uber Jax, *Just Curious as to who leaves their App on 24/7*, UBERPEOPLE.NET (Oct. 3, 2014), <http://uberpeople.net/threads/just-curious-as-to-who-leaves-their-app-on-24-7.4537/> (“I never turn my driver App off! I leave it on 24/7. . . . I just go about my daily life and when I get a ping I drop what I’m doing and take care of business.”). Insurance Commissioner Jones aptly summarized the “moral hazard” argument of TNCs: “(1) drivers may be running personal errands; (2) drivers may have multiple applications open at the same time; (3) drivers with low limits on their personal automobile insurance policy will turn on the application in the event of an accident to secure more robust coverage; and (4) drivers start to look more like employees or independent contractors if the TNC covers this period.” Letter from Dave Jones, Ins. Comm’r, Cal. Dep’t Ins., to Michael R. Peevey, President, Cal. Pub. Utils. Comm’n 2 (Apr. 7, 2014), *available at* <http://www.insurance.ca.gov/0400-news/multimedia/0030VideoHearings/upload/CDI-CPUC20140407.pdf>.

158. California Insurance Commissioner Dave Jones argued in his letter to California Public Utilities Commission: “Even if a driver is running errands during Period 1, if that driver has the app open, the TNC benefits from the driver showing availability to provide rides to customers.” Letter from Dave Jones, Ins. Comm’r, Cal. Dep’t Ins., to Michael R. Peevey, President, Cal. Pub. Utils. Comm’n 2 (Apr. 7, 2014), *available at* <http://www.insurance.ca.gov/0400news/multimedia/0030VideoHearings/upload/CDI-CPUC20140407.pdf>.

2. Tax

Blurring the line between commercial and personal activity complicates many legal areas beyond insurance, such as whether a TNC driver may deduct the cost of car repairs as a business expense for tax purposes. The IRS permits deductions based on the percentage of a driver's yearly mileage attributable to "business" use.¹⁵⁹ This seems to cover the second and third insurance periods for TNCs, but it is unclear whether the app-on rule for insurance liability also establishes that driving during the first insurance period is a "business" purpose when calculating income tax deductions.

3. Lessor Liability

P2P rental platforms may also complicate the distinction between high-volume and casual commercial activity. For example, in many jurisdictions, product liability depends on the commercial character of the seller.¹⁶⁰ Some jurisdictions similarly create an exception to limit "casual lessor" liability for manufacturing defects.¹⁶¹ This would seem to encompass services like Equipify or Spinlister, which allow providers to rent their personal sporting equipment to users, including skis and mountain bikes.¹⁶² Yet providers may transact at vastly different volumes on these platforms.¹⁶³ It is not yet clear at what point a casual lessor of snowboards on a sharing platform becomes a commercial lessor in various

159. Travel, Entertainment, Gift, and Car Expenses: For Use in Preparing 2013 Returns, IRS 16 (2014), available at <http://www.irs.gov/pub/irs-pdf/p463.pdf>.

160. Both the second and third restatements limit liability for "occasional" or "noncommercial" sellers. RESTATEMENT (SECOND) OF TORTS § 420A cmt. f (1965); RESTATEMENT (THIRD) OF TORTS: PROD. LIAB. § 1 cmt. c (1998).

161. *E.g.*, 1 MICHAEL WEINBERGER, NEW YORK PRODUCTS LIABILITY § 5:7 (2d ed. 2014) ("[A] commercial lessor of a product will be held strictly liable for personal injuries, just as a product manufacturer would However, casual or occasional lessors of products are not subject to claims of strict liability. At most, the duty of a casual or occasional lessor is to warn the person to whom the product is supplied of known defects that are not obvious or readily discernible.")

162. EQUIPIFY, <http://equipify.me/>; SPINLISTER, <https://www.spinlister.com/>. Similar concerns may also arise for casual rentals of office space, in the context of premises liability. Services like Peerspace allow business to occasionally rent out office space; these social work environments are popular with freelancers and remote workers, and even small businesses hosting occasional retreats. PEERSPACE, <http://www.peerspace.com/>. The duty of care for hosts on these platforms may vary by jurisdiction. *See generally, e.g.*, Rowland v. Christian, 69 Cal. 2d 108 (1968) (abandoning the categories of trespassers, licensees, and invitees in favor of a reasonableness standard). PeerSpace's terms of service indicate that hosts and guests are expected to provide their own insurance. *Terms of Use*, PEERSPACE, <http://www.peerspace.com/terms/>.

163. *See infra* Part I.B.

jurisdictions. These platforms often provide form contracts to providers and users, and in some cases require the parties to sign a contract before processing a transaction.¹⁶⁴ However, contracting does not completely resolve the issue as jurisdictions vary widely in their enforcement of exculpatory clauses.¹⁶⁵

4. *Civil Rights Statutes*

Likewise, TNC platforms' process for matching riders and drivers may establish duties under civil rights statutes. When drivers have the TNC app on, they count as "available" to all users for the purpose of calculating wait-time and surge pricing rates—a dynamic pricing scheme that increases fares to encourage drivers to work during peak hours.¹⁶⁶ Once a user requests a ride, however, TNC drivers may decline to accept the match; in making this decision, the driver typically has access to the user's profile, including her name and potentially her photograph.¹⁶⁷ Given this mechanism, it is unclear whether the "public" nature of TNCs subjects them to obligations under civil rights statutes, including the ADA.¹⁶⁸ Recent lawsuits have raised the issue of Uber's obligations under the ADA. For example, the National Federation of the Blind alleges that drivers discriminate against blind riders by refusing service to riders with service animals or mishandling those animals.¹⁶⁹ Two other class action

164. Spinlister requires that renters and listers sign a form contract. *Ride Rental Agreement*, SPINLISTER, available at <https://www.spinlister.com/safety/>.

165. See C. Connor Crook, *Validity and Enforceability of Liability Waiver on Ski Lift Tickets*, 28 CAMPBELL L. REV. 107, 120–21 (2005) ("Courts are generally reluctant to enforce exculpatory clauses, especially those that include the negligence of the party attempting to enforce the clause. However, . . . courts can take very nuanced approaches . . ."). Spinlister includes a sweeping exculpatory clause in its rental agreement. *Ride Rental Agreement*, *supra* note 164, at § 3.2 (including both "as is" clause and an assumption of risk clause—"EVEN IF SUCH LOSS OR DAMAGE IS DUE TO ANY NEGLIGENCE OF LISTER, SPINLISTER, [or] THEIR AGENTS").

166. *What Is Surge Pricing and How Does It Work?*, UBER, <https://support.uber.com/hc/en-us/articles/201836656-What-is-surge-pricing-and-how-does-it-work-/>.

167. Lyft allows drivers to see a photograph of potential riders before accepting a request, while Uber by design does not. Jenna Wortham, *Ubering While Black*, MATTER (Oct. 23, 2014), <https://medium.com/matter/uber-ing-while-black-146db581b9db/> (discussing the concern that TNC drivers racially discriminate against riders based on profile pictures).

168. 42 U.S.C. §§ 12131–65 (2012); AM. ASS'N OF PEOPLE WITH DISABILITIES, EQUITY IN TRANSPORTATION FOR PEOPLE WITH DISABILITIES (2012), available at <http://www.aapd.com/resources/publications/transportation-disabilities.pdf>.

169. Complaint, Nat'l Fed. Blind Cal. v. Uber Techs., Inc., No. 3:14-cv-04086 (N.D. Cal. Sept. 9, 2014), available at http://dralegal.org/sites/dralegal.org/files/content/0001_complaint_accessible.pdf.

suits have claimed that Uber discriminates against disabled riders by failing to provide sufficient numbers of accessible vehicles.¹⁷⁰ Uber has responded by issuing statements confirming its policy of deactivating drivers who discriminate, but denying any legal duty to do so under the ADA.¹⁷¹ Some public utilities commissions have expressly imposed a duty not to discriminate on TNCs, but these mandates do not specify exact benchmarks for compliance.¹⁷² Many states have not yet clarified a TNC's duty to monitor driver behavior, nor do they impose guidelines for what percentage of a TNC's drivers must provide wheelchair accessible vehicles.¹⁷³

5. *Public Performance and Social Host Liability for Short-Term Rentals*

The distinction between public and private activity plays a significant role in many other areas of the law. For example, providing video rental services in a hotel room qualifies as a "public performance" under copyright infringement law.¹⁷⁴ If a short-term rental host charges guests an extra fee for the use of her home theater and DVD collection, does this also count as a public performance? In some cases, the private nature of the short-term rental might also burden the host with liability. Should a host be liable under a social host ordinance if an underage guest drinks a bottle of wine from her cabinet without permission?¹⁷⁵ In this case and

170. *McPhail v. Lyft, Inc.*, No. A-14-CA-829-LY, 2014 WL 6680393 (W.D. Tex. No. 25, 2014); *Salovitz v. Uber Techs., Inc.*, No. A-14-CV-823-LY, 2014 WL 5318031 (W.D. Tex. Oct. 16, 2014).

171. Bob Egelko, *Blind Riders Sue Uber, Allege Discrimination*, SFGATE (Sept. 11, 2014, 8:12 AM), <http://www.sfgate.com/bayarea/article/Uber-accused-in-suit-of-refusing-customers-with-5746412.php>.

172. The Colorado statute prohibits discrimination against protected categories such as disability. It provides that if a driver is unable to transport a disabled passenger, "the driver shall refer the rider to another driver or transportation service provider" with an accessible vehicle. It does not, however, require TNCs to supply any number of wheelchair-accessible vehicles. Nor are TNCs liable for driver discrimination unless the TNC has received a complaint in writing and "failed to reasonably address the alleged violation." COLO. REV. STAT. § 40-10.1-605 (2014).

173. See Cal. P.U.C. Decision, *supra* note 18, at 72-75.

174. See *On Command Video Corp. v. Columbia Pictures Indus.*, 777 F. Supp. 787 (N.D. Cal. 1991) ("Hotel guests watching a video movie in their room through On Command's system are not watching it in a 'public place' but they are nonetheless members of 'the public.'").

175. See SOCIAL HOST ORDINANCES IN WISCONSIN, WISCONSIN ALCOHOL POLICY PROJECT 1 (2012) ("Effective social host ordinances cover a wide range of locations and situations, noting the adult 'hosts' must take reasonable steps to prevent

many others, operating in a gray area not only creates confusion for regulators, but exposes providers on sharing platforms to liability on multiple fronts.

6. *Sales of Temporary Licenses*

While many sharing companies like TNCs simply provide an old service through a new channel,¹⁷⁶ some sharing companies challenge the definitions of “goods” and “services.” In particular, some sharing companies create new marketplaces for temporary licenses; these platforms act as auction houses for a temporary right to occupy a position. The two primary examples are auction platforms for public parking spaces and for seating in coffee houses or restaurants.¹⁷⁷ Neither sellers nor purchasers “own” or “provide” the temporary license; the municipal government is responsible for maintaining public parking and restaurants are responsible for providing seating to customers. Many have criticized these platforms as parasitic, and claim that these services interfere with third-party rights. Bloggers have even coined the term “jerk tech” to describe these platforms.¹⁷⁸ Others contend that auction houses optimize efficient use of scarce resources and prevent congestion; users who value a parking spot most can pay for that privilege, and price-sensitive users will accept less conveniently located spots.¹⁷⁹ Because markets for temporary licenses can

underage drinking. Adults who allow or facilitate an underage drinking party may be ticketed even when they are not present during the party.”).

176. In some cases, sharing companies offer a package of products and services. For example, dining-experience sites like Feastly allow users to contract with chefs for single meals at the user or chef’s home. The chef provides a meal (a product) but the user also pays for the overall experience (a service). Yet the same reasoning applies to restaurants, and the line between products and services has always been blurry in some sectors.

177. SWEETCH, <http://www.getsweetch.com/> (an auction house for parking spots); RESERVATION HOP, <https://reservationhop.com/> (an auction house for restaurant reservations); BETRSPOT; <http://www.betrspot.com/about> (auction house for spots in line or seating: “We all jockey for space with others. BetrSpot is now THE ADVANTAGE you have to get that spot someone may be leaving before others do.”).

178. E.g., Josh Constantine, *Stop the JerkTech*, TECHCRUNCH (July 3, 2014), <http://techcrunch.com/2014/07/03/go-disrupt-yourself/>; Tekla Perry, *Drawing the Line Between “Peer-to-Peer” and “Jerk” Technology*, IEEE SPECTRUM (July 18, 2014, 1:59 PM), <http://spectrum.ieee.org/view-from-the-valley/at-work/start-ups/drawing-the-line-between-peertopeer-and-jerk-technology/>.

179. See Brian Ng, *The Race to Reinvent Parking: Are Monkey Parking, Sweetch and ParkModo Unethical, Illegal, or the Next AirBnB?*, STRIKINGLY, http://blog.strikingly.com/strikingly_stories/reinvent-parking-monkey-parking-sweetch-parkmodo/ (last visited Oct. 27, 2014) (discussing an interview with Paolo Dobrowolny, cofounder of Monkey Parking, on the parking auction business model).

implicate public goods and disrupt legitimate business operations, these platforms also pose unique regulatory challenges.¹⁸⁰

Current regulatory efforts have not yet addressed many of the legal issues raised by sharing platforms. As the sharing economy continues to grow, regulators will need to confront these gray areas. A particular area of concern is platform and provider liability for user and third-party injuries resulting from transactions on the platform.

C. INTERMEDIARY LIABILITY: TWO-PARTY RULES NO LONGER FIT THREE-PARTY RELATIONSHIPS

For the most part, transactions on sharing platforms do not introduce new risks but new parties. The same accidents can occur in hotels as apartments, taxis as TNC cars, and ski rental shops as P2P ski rental services. For that reason, regulators have argued that providers on sharing platforms should meet the same requirements as traditional service providers. But the balance of power has shifted between the parties on either side of those accidents. Providers do not have the same “special relationship” to users that traditionally justified a higher regulatory burden on service providers. Nor can regulators hold platforms indirectly liable for all accidents resulting from transactions on the platform. To provide clear guidance to courts and enforcement agencies, regulators must decide how to divide liability between providers and platforms.

1. *Provider Liability*

The sharing economy disrupts many of the assumptions that traditionally justified heightened duties for providers: the particular vulnerability of consumers, the superior bargaining position of providers in relation to consumers, and the treatment of providers as least-cost avoiders. Providers on sharing platforms are typically casual or informal market participants. They operate on a smaller scale than traditional service providers (a single bedroom rather than a hotel), use personal resources (a personal vehicle or home) rather than commercial assets (a licensed taxi or commercial building), and are likely less sophisticated than

180. San Francisco Dennis Herrera issued a cease-and-desist order to Monkey Parking in June 2014. Monkey Parking initially ignored the order, but later “temporarily disabled” the app within San Francisco. Laura Entis, *Monkey Business: Tells Parking Spot App to Shut Down*, ENTREPRENEUR (July 11, 2014), <http://www.entrepreneur.com/article/235575/>. It has since expanded its operations to Santa Monica, California. Gene Maddaus, *Kicked Out of San Francisco, MonkeyParking App Plans a Fresh Start in Santa Monica*, L.A. WEEKLY (Sept. 18, 2014), <http://www.entrepreneur.com/article/235575/>.

experienced professionals working for a traditional service provider (a casual cyclist renting her own bicycle versus a professional mechanic or salesman at a bicycle rental business). Thus, providers may be unable to shoulder the same regulatory burdens that apply to traditional service providers.

Although sharing services pose the same health and safety risks for users as traditional service providers, these transactions put providers at risk as well. In many cases, providers are just as vulnerable as users. For example, TNC riders have reported incidents of assault and battery,¹⁸¹ sexual assault,¹⁸² and reckless driving while using the platform.¹⁸³ Yet TNC drivers face many of the same risks as riders,¹⁸⁴ and generally receive minimal if any training on how to handle difficult or dangerous riders.¹⁸⁵ Likewise, short-term rental hosts may encounter serious risks of personal injury or property damage by inviting strangers into their homes.

Moreover, sharing platforms standardize transactions such that providers no longer clearly occupy a superior bargaining position. In many

181. Ellen Huet, *Uber Rider Might Lose An Eye From Driver's Hammer Attack. Could Uber Be Held Liable?*, FORBES (Sept. 30, 2014), <http://www.forbes.com/sites/ellenhuet/2014/09/30/uber-driver-hammer-attack-liability/>.

182. Hal Eisner, *Rideshare Driver Accused of Kidnapping, Sexually Assaulting Passenger*, MY FOX LA, (June 3, 2014), <http://www.myfoxla.com/story/25684061/rideshare-driver-in-custody-accused-of-kidnapping-woman/>.

183. Ben Popken, *States Warn of Rideshare Risks for Passengers*, NBC NEWS (May 28, 2014), <http://www.nbcnews.com/business/consumer/states-warn-rideshare-risks-passengers-n116736/>.

184. OSHA reports that taxi and for-hire drivers are “over 20 times more likely to be murdered on the job than other workers.” PREVENTING VIOLENCE AGAINST TAXI AND FOR-HIRE DRIVERS, OSHA (2010), *available at* <https://www.osha.gov/Publications/taxi-driver-violence-factsheet.pdf>. TNCs eliminate many of the conditions that make taxis high risk, such as transacting electronically rather than in cash and requiring passengers to register for accounts with a valid credit card. But like taxis, TNCs often serve inebriated passengers, and unlike taxis, TNCs drive personal vehicles that do not have physical controls like barriers between the driver and passenger, or silent alarms. LISA RAYLE, ET AL., APP-BASED, ON-DEMAND RIDE SERVICES: COMPARING TAXI AND RIDESOURCING TRIPS AND USER CHARACTERISTICS IN SAN FRANCISCO, UNIV. CAL. TRANSP. CTR., UNIV. CAL. BERKELEY (2014) (finding in a survey that nineteen percent of users listed “[d]idn’t want to drive after drinking” as one of the top two reasons to request a ride). Moreover, while TNCs claim to conduct background checks on drivers, no such checks are in place for riders. *See, e.g.*, LYFT, <https://www.lyft.com/> (last visited Feb. 26, 2015) (“With just one tap, get matched with a friendly, background-checked driver.”).

185. Emily Huet, *Uber Skimps On Driver Training, Then Charges Drivers \$65 For Basic Driver Skills Course*, FORBES (Oct. 8, 2014), <http://www.forbes.com/sites/ellenhuet/2014/10/08/uber-skimps-on-driver-training-then-charges-drivers-65-for-basic-driver-skills-course/>.

cases, the terms of the platform govern all aspects of the transaction, leaving both providers and users only the freedom to accept or reject a potential match.¹⁸⁶ In other cases, the platform provides a default contract or baseline set of terms, but allows users and providers to negotiate privately.¹⁸⁷ It is unclear how often providers actually negotiate with users. Even where these negotiations result in material changes to the contract, both parties occupy relatively even footing. Users can propose and modify terms by bargaining with providers, and can easily comparison-shop.¹⁸⁸ While providers may occupy a superior position in certain markets with limited supply and high user demand, this does not guarantee that providers will have the upper hand across the platform.¹⁸⁹

Finally, on sharing platforms, providers do not necessarily represent the least-cost avoider. Most providers do not transact at sufficient volumes to absorb the cost of accidents.¹⁹⁰ Personal insurance policies may not cover property damage during commercial transactions, and providers may be unable to purchase or afford commercial insurance.¹⁹¹ Since providers

186. Sharing services that operate on this model include TNCs, per-task contractor services, and to some degree, peer-to-peer lending services.

187. Examples include short-term rental platforms, equipment-rental platforms, and auction houses for goods or licenses.

188. Jasper Ribbers, *Three Tips For Airbnb Hosts Negotiating With Guests*, THE TRAVELING DUTCHMAN (July 29, 2014), <http://www.thetravelingdutchman.com/three-tips-airbnb-hosts-negotiating-guests/> (last visited Feb. 26, 2015).

189. Studies of Airbnb use patterns in San Francisco show that hosts may earn more in tourist hotspots. On the other hand, potential suppliers may quickly enter the market in response to high prices from excess demand, and the most expensive listings may simply be higher value properties (luxury apartments) rather than run-of-the-mill spare rooms. See Carolyn Said, *Window into Airbnb's hidden impact on S.F.*, SAN FRANCISCO CHRONICLE, <http://www.sfchronicle.com/business/item/window-into-airbnb-s-hidden-impact-on-s-f-30110.php> (last visited Oct. 27, 2014).

190. Most short-term rental platforms advise both users and guests to purchase travel or vacation rental insurance, and only offer limited coverage for property damage—not personal liability—through the platform. E.g., *How do I protect my property from potential damage?*, VRBO, http://help.vrbo.com/articles/en_US/Article/How-do-I-protect-my-property-from-potential-damage?. San Francisco recently passed legislation requiring platforms to indemnify guests and hosts for up to \$500,000. DAVID CHIU, SHORT-TERM RENTAL REGULATION SUMMARY (2014), available at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=50472>. Purchasing appropriate vacation rental insurance, however, may be challenging for hosts who only list single bedrooms. See *Insurance on a rental vacation rental*, COMMUNITY FROM HOMEAWAY, <https://community.homeaway.com/thread/1488> (last visited Oct. 27, 2014).

191. See Lieber, *supra* note 56. Peers, an advocacy group for sharing economy platforms, has introduced a new insurance product to help address the needs of users and providers. See also Ellen Huet, *Peers Launches Home Liability And Car-Replacement Insurance For Airbnb, Uber, Lyft Workers*, FORBES (Dec. 4, 2014),

generally list their personal assets on sharing platforms, the financial toll of unreimbursed property damage may place providers in a highly vulnerable position. With respect to accidents involving users, this may not only prevent providers from guarding against crushing liability, but also leave injured users without adequate remedies.

Nor can providers afford or even feasibly adopt the security measures available to small businesses. For example, TNC drivers cannot reasonably install security barriers in their personal vehicles. Short-term rental hosts may not have control over common areas within apartment complexes.¹⁹² In certain cases where providers may face personal security risks as a result of user behavior, users may be the least-cost avoider. Per-task contractor services like TaskRabbit are a perfect example. The provider generally travels to the user's home or workplace and performs services at the user's direction. The user likely has superior knowledge of concealed dangers on the premises as well as any equipment or goods at issue. Thus, if a user hires a per-task contractor to mow her lawn, the user is in the best position to warn the contractor of pitfalls hidden in her yard.¹⁹³

Given the relative vulnerability of casual providers, it is inappropriate to impose the same duties for providers on sharing platforms as traditional service providers. Regulators may therefore be tempted to establish indirect liability for platforms for accidents related to transactions on the platform.

<http://www.forbes.com/sites/ellenhuet/2014/12/04/peers-home-liability-car-replacement-insurance/>.

192. By contrast, courts have imposed duties of care on both landlords and hotels for tenant or guest safety in common areas. The applicable standard of care often requires that the owner of the premises have notice of relevant risk, and the capacity to adopt protective measures. *See* *Kline v. 1500 Mass. Ave. Apartment Corp.*, 439 F.2d 477 (D.C. Cir. 1970).

193. Homeowner's insurance would cover this accident regardless of whether the contractor had any affiliation with a per-task contractor service. *Filipowicz v. Diletto*, 796 A.2d 296 (N.J. Super. Ct. App. Div. 2002) (finding that a garage sale shopper was an invitee on the homeowner's premises, therefore the homeowner owed a duty of care with respect to maintenance of his yard); *Who cares if the guy mowing my lawn isn't insured, injuries are his problem, not mine. Right?*, SAFETY INSURANCE GROUP INC., https://www.safetyinsurance.com/resource_center/homeowners/lawnmowing.html (last visited Oct. 27, 2014). However, contractors on TaskRabbit accept a variety of tasks, including deliveries and event staffing services; thus, while the user's duty of care may be clear cut in some circumstances, this may not always be the case. Nor does TaskRabbit require that users carry homeowner's insurance.

2. *Platform Liability*

In many cases, the sharing platform represents either the least-cost avoider or the easiest target for enforcement agencies. But sharing platforms act—or purport to act—as neutral intermediaries that facilitate transactions between users and providers.¹⁹⁴ Therefore, regulators can only hold platforms accountable for user and provider activity through indirect liability.¹⁹⁵ This Section describes three models of intermediary liability for online service providers, and how these models might apply to sharing platforms.

Whether platforms are truly neutral intermediaries is not always clear. In some cases, platforms have no formal contractual relationship with providers. For example, P2P rental services and short-term rental platforms do not have an employment relationship with providers. In other cases, platforms hire providers as independent contractors, and therefore are not liable for a contractor's torts.¹⁹⁶ For example, in January 2014 an Uber driver struck and killed a four-year old girl, Sofia Liu. The driver did not have a passenger or a passenger request at the time of the accident, but did have the Uber app on and was distracted by the GPS on his phone. Liu's family later filed suit against Uber for wrongful death. Uber replied that it does not provide a transportation service, and instead "allows riders to connect with, and request transportation services from, a range of independent transportation providers."¹⁹⁷ Therefore Uber contended that it should not be liable for the driver's negligence.

194. Anthony Ha, *SideCar's Sunil Paul On Working With (And Battling) Regulators*, TECHCRUNCH (May 12, 2013), <http://techcrunch.com/2013/05/12/sidecar-sunil-paul-backstage/> (citing an interview where Sunil Paul, Sidecar cofounder, described the company as an "information provider and matching service"); Sarah Buhr, *Brian Chesky Talks About Just How Different The Hotel Business Is From Airbnb*, TECHCRUNCH (Sept. 9, 2014), <http://techcrunch.com/2014/09/09/brian-chesky-hotels-and-airbnb-are-the-same-but-different/> (quoting Brian Chesky, cofounder of Airbnb, claiming that the service is not a hotel: "We had to ask ourselves a couple of years ago we're not in the business of homes, we're not in the business of space, we're in the business of trips").

195. This is true regardless of whether sharing companies properly classify providers as independent contractors or employees. Cf. Doug Lichtman & Eric Posner, *Holding Internet Service Providers Accountable*, 14 SUP. CT. ECON. REV. 221 (2006) (proposing indirect liability for internet service providers by drawing a comparison to "the common law principle of vicarious liability [that] obligates employers to monitor, train, and otherwise exercise control over the behavior of their employees").

196. DAN B. DOBBS ET AL, THE LAW OF TORTS (2d ed. 2011) §§ 431–32.

197. Answer and Affirmative Defenses at 6, *Liu v. Uber Techs., Inc.*, No. CGC-14-536979 (Cal. Super. Ct. Jan. 27, 2014).

Commentators have questioned whether sharing platforms misclassify employees as independent contractors,¹⁹⁸ and several suits have challenged TNCs on this basis.¹⁹⁹ However, determining whether an employer has misclassified an employee is a fact-dependent analysis.²⁰⁰ Taxi drivers, for instance, are typically considered independent contractors, but in some cases courts have found that taxi drivers qualify as employees.²⁰¹ In addition, different states apply different legal standards. Providers on some sharing platforms may qualify as independent contractors while others do not, and some jurisdictions may reach conflicting decisions.

Assuming that platforms do act as online intermediaries, regulators may still hold platforms liable through indirect liability. Scholars disagree on whether internet intermediary liability is desirable, and if so, under what circumstances.²⁰² This Section describes three models for intermediary liability that apply to other online services: (1) the absolute immunity of the Communications Decency Act (“CDA”), (2) the qualified immunity or safe harbors of the Digital Millennium Copyright Right Act (“DMCA”), and (3) an active duty to monitor, comparable to the voluntary enforcement practices of payment intermediaries.

198. *E.g.*, Kevin Roose, *Does Silicon Valley Have a Contract-Worker Problem?*, N.Y. MAG. (Sept. 18, 2014, 8:42 AM), <http://nymag.com/daily/intelligencer/2014/09/silicon-valleys-contract-worker-problem.html>.

199. *Cotter v. Lyft, Inc.*, No. 13-cv-04065-VC, 2014 WL 3884416 (N.D. Cal. Aug. 7, 2014).

200. DAN B. DOBBS, ET AL, *THE LAW OF TORTS* (2d ed. 2011) §§ 431–32.

201. NAT’L EMP. LAW PROJECT, *UNREGULATED WORK IN THE TAXI INDUSTRY IN NEW YORK CITY* (2007), *available at* http://www.nelp.org/page/-/EJP/Unregulated_Work_Taxi.pdf; EMP’T DEV. DEPT OF CAL., *INFORMATION SHEET: TAXICAB INDUSTRY* (2009), *available at* http://www.edd.ca.gov/pdf_pub_ctr/de231tc.pdf; *Industry Specific Help for Worker Classification*, Oregon.gov, <http://www.oregon.gov/IC/pages/07-industries.aspx#taxicab> (noting that some dispatch services hire drivers as independent contractors, and these services must meet state criteria including “(1) that [drivers] be free from the right of another to control how services are performed and, (2) that the worker operates an independently established business”).

202. Lichtman and Posner have argued that the desirability of indirect intermediary liability for ISPs depends on two considerations: (1) control—whether the intermediary “is in a good position to detect or deter” user and provider misconduct, and (2) activity—whether “liability would serve to encourage [the intermediary] to internalize some significant externality unavoidably associated with its activities.” Lichtman & Posner, *supra* note 195, at 230. Likewise, Ronald Mann and Seth Belzley have criticized ISP immunity, calling for indirect intermediary liability in cases where ISPs are least-cost avoiders. Ronald J. Mann & Seth R. Belzley, *The Promise of Internet Intermediary Liability*, 47 WM. & MARY L. REV. 239 (2005). Mark MacCarthy argues that intermediary liability should depend not only on a cost-benefit analysis, but also equitable considerations. *What Payment Intermediaries Are Doing About Online Liability And Why It Matters*, 25 BERKELEY TECH. L.J. 1037 (2010).

At one end of the spectrum, the CDA provides absolute immunity to “interactive computer service provider[s],” meaning “any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server.” More specifically, § 230 provides that “[n]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.”²⁰³ Courts have broadly applied § 230 to absolve internet intermediaries from liability for user-generated content, even if the intermediary is aware that the content is illegal and declines to remove it.²⁰⁴ Thus, recent decisions have held that dating services are not responsible for user-created fraudulent dating profiles,²⁰⁵ eBay is not responsible for defects in products sold by users,²⁰⁶ and StubHub is not responsible for user violations of anti-scalping laws.²⁰⁷ Intermediaries may, nevertheless, incur liability for directing or shaping user generated content “in some way [that] specifically encourages the development of *what is offensive about the content*.”²⁰⁸

However, § 230 contains a significant exception for intellectual property claims.²⁰⁹ To fill this gap, the DMCA provides limited safe harbors to internet service providers (“ISPs”) for transmitting, caching, storing, or indexing copyright infringing content at the direction of users.²¹⁰ The conditions of these safe harbors vary. With respect to “[i]nformation residing on systems or networks at [the] direction of users,” ISPs can only benefit from the DMCA safe harbors by implementing a “notice and take-down” system (a system for removing infringing content upon the copyright owner’s request) and a system to identify and terminate the accounts of “repeat infringers.”²¹¹ Beyond these requirements, DMCA § 512(c) has two exceptions that prevent ISPs from taking advantage of this safe harbor: an ISP can be liable for vicarious

203. 47 U.S.C. § 230(c)(1) (2012).

204. Catherine R. Gellis, *2012 State of the Law Regarding Internet Intermediary Liability for User-Generated Content*, 68 BUS. LAW. 289, 289–90 (2012); Mark A. Lemley, *Rationalizing Internet Safe Harbors*, 3 (2007) (unpublished draft).

205. *Christianne Carafano v. Metrosplash.com, Inc.*, 339 F.3d 1119 (9th Cir. 2003).

206. *Inman v. Technicolor USA, Inc.*, No. 11-666, 2011 WL 5829024 (W.D. Pa. Nov. 18, 2011).

207. *Hill v. StubHub, Inc.*, No. COA11-685, 2012 WL 696223, at *13 (N.C. Ct. App. Mar. 6, 2012).

208. *Fair Hous. Council of San Fernando Valley v. Roommates.com, LLC*, 666 F.3d 1216 (9th Cir. 2012).

209. 47 U.S.C. § 230(e)(2); Lemley, *supra* note 204, at 4.

210. 17 U.S.C. § 512; Lemley, *supra* note 204, at 4.

211. 17 U.S.C. § 512(c)–(d); Gellis, *supra* note 204, at 293–94.

infringement where the ISP receives a “direct financial benefit attributable to the infringing activity” or where the ISP is aware—or should be aware—of the infringing activity.²¹²

At the other end of the spectrum, legislators could impose an active duty to monitor.²¹³ Though this approach is rare, Congress has proposed legislation that would codify affirmative duties for payment intermediaries to screen out merchants trafficking in child pornography or controlled substances, selling tobacco to minors, and violating online gambling prohibitions.²¹⁴ Payment intermediaries like Visa and MasterCard currently collaborate with law enforcement agencies voluntarily through a “two-part program,” by instituting “due diligence requirements” to keep offending merchants out of the payment system and a “monitoring program to detect and expel” offending merchants.²¹⁵

Regulators could adapt one of these models to establish liability for sharing platforms. For example, regulators could grant platforms immunity for harms that arise from transactions between users and providers. On the other hand, regulators might also create a notice-based system where platforms only become liable for the actions of providers when the platform has previously received notice of the provider’s poor conduct. For instance, a platform might not be liable where a driver assaults a passenger. However, if users have previously submitted complaints about a particular driver’s behavior to the platform, then the platform might become liable for future injuries caused by that driver. Alternatively, regulators could require platforms to take affirmative steps to protect users from dangerous drivers.

It is unclear which of these three approaches to intermediary liability would appropriately allocate liability between sharing companies, users,

212. 17 U.S.C. § 512(c)–(d); Gellis, *supra* note 204, at 293–94.

213. In 2011, Congress nearly passed legislation that would have largely displaced the DMCA, adding private causes of action to enjoin illegal streaming services, and increasing penalties for infringing streaming services. By proxy, this legislation would have imposed an active duty to monitor on ISPs. Stop Online Piracy Act, H.R. 3261, 112th Cong. (2011); Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011, S. 968, 112th Cong. (2011); *see also* Chris Civil, *When The Net Went Dark: SOPA, PROTECT IP and the Birth of an Internet Movement*, BERKELEY TECH. L.J.: THE BOLT (Feb. 14, 2012), <http://btlj.org/2012/02/14/when-the-net-went-dark-sopa-protect-ip-and-the-birth-of-an-interent-movement/>.

214. MacCarthy, *supra* note 202, at 1059–98.

215. *Id.* at 1075–76, 1079–80, 1090–95. Courts have also declined to impose affirmative duties on payment intermediaries to monitor transactions where websites may contain copyright infringing content. *E.g.*, Perfect 10, Inc. v. Visa Intern. Serv. Ass’n, 494 F.3d 788, 807 (2007).

and providers. Unlike internet service providers, sharing companies are not passive; most platforms exercise at least some control over provider and user transactions, and almost all platforms have a financial stake in transactions between users and providers.²¹⁶ This suggests that immunity for platforms is not appropriate. In addition, a notice-based system of liability comparable to the DMCA § 512(c) safe harbor may not sufficiently safeguard users. Yet imposing an affirmative duty to monitor user and provider compliance with local regulations is extremely costly. Even the comparatively easier task of screening offending merchants from payment systems has proven controversial.²¹⁷

Regulators in various jurisdictions have begun to experiment with solutions to these problems. The following discussion highlights and critiques some of these rules, and proposes general principles for future legislation.

IV. PROPOSED SOLUTIONS

As previously discussed, sharing platforms are markets for P2P services. These markets allow informal participants to operate at a small scale by minimizing transaction costs. Sharing services are often closely analogous to traditional service providers.²¹⁸ For the most part, this means that regulators must address old risks that arise from transactions between new parties.²¹⁹ P2P service markets also create some unique risks for users and providers, however. This Part addresses regulatory solutions to old and new risks in turn.

A. OLD RISKS, NEW PARTIES: REGULATORS SHOULD CONSIDER TIERED REGULATIONS, LIMITED INTERMEDIARY LIABILITY, AND DUTIES TO THIRD PARTIES

The proper allocation of liability between users and providers on sharing platforms is highly contextual because both the least-cost avoider and the easiest target for enforcement agencies vary between and within

216. Sharing platforms impose a wide range of transaction fees. *See supra* note 27. Interchange fees might serve as an indirect measure of the degree of control a platform exercises over transactions.

217. *See* MacCarthy, *supra* note 202, at 1083–87 (arguing that imposing statutory duties to monitor for child pornography, controlled substances, and gambling is unnecessary, and even voluntary monitoring programs may not be cost effective); Mann & Belzley, *supra* note 202, at 260 n.59 (claiming that voluntary agreements between intermediaries and enforcers develop in the shadow of the law).

218. *Supra* Sections I.B–II.A.

219. *Supra* Section III.C.

sharing service models. Since sharing platforms often operate on a large scale over multiple jurisdictions, the least-cost avoider for compliance may often be users and providers, who are most familiar with local rules and their own property. Moreover, casual and high volume providers may require different treatment. Yet in other situations platforms may be best positioned to address user or provider misconduct. Regulators will likely need to address sharing platform liability not just on a case-by-case basis, but also on an issue-by-issue basis. This Note therefore proposes that regulators (1) adopt tiered regulatory schemes for providers, (2) design nuanced frameworks for intermediary liability, and (3) impose duties on platforms and providers to third parties.

1. *Tiered Regulation for Providers*

Because previous justifications for provider liability often do not apply in the sharing context, regulators should consider relaxed regulatory requirements for casual providers.²²⁰ However, many providers operate at sufficiently high volumes to merit stricter standards. The Chicago ordinance governing TNCs provides a working example of tiered regulation. The city offers Class A licenses to drivers whose average service operation is twenty hours or less per week, and Class B licenses to drivers who work in excess of twenty hours per week. Class A licenses cost less and require less stringent yearly inspections.²²¹

Attempting to block high volume users may needlessly inhibit beneficial activity on the platform. For example, the San Francisco short-term rental ordinance requires that hosts occupy the residence “for no less than 275 days out of the calendar year in which [it] is rented.”²²² The legislature intended this provision to prevent the “widespread conversion of residential housing to short-term rentals” and ensure that listed properties “remain truly residential in use.”²²³ However, this provision may bar desirable uses of residential properties. Potential hosts who might not meet the 275-day requirement include professors on sabbatical,

220. The Portland ordinance on short-term rentals, for example, differentiates between Type A rentals, “where no more than [two] bedrooms are rented,” and Type B rentals, “where [three] or more bedrooms are rented.” PORTLAND, OR., PLANNING AND ZONING § 33.207.020 (2015).

221. CHI., ILL., CODE § 9-115-030 (2014).

222. S.F., CAL., ADMIN. CODE § 41A.5(g)(1)(A) (2014). The Portland ordinance on short-term rentals imposes a similar requirement on Type A short-term rentals. PORTLAND, OR., PLANNING AND ZONING § 33.207.040(A)(1) (2015) (“a resident must occupy the dwelling unit for at least 270 days during each calendar year”).

223. S.F., CAL., ADMIN. CODE § 1(c)(1)-(2).

salespeople who regularly travel for business, and those who own a second home in the city. It also permits high volume uses of rooms that might otherwise serve as residential housing. An apartment tenant can rent a second bedroom year round, so long as she co-occupies the residence for at least 275 days. Rooms like this might otherwise serve as long-term housing.²²⁴

Rather than imposing caps on use, regulators should impose higher taxes and stricter regulations on high volume providers.²²⁵ Tiered regulation properly allocates risk to repeat players who benefit most from the platform. For instance, providers who transact at volumes comparable to bed and breakfasts should incur similar liability to a traditional service provider. And TNC drivers who operate like full-time taxis should comply with safety standards comparable to taxis. In addition, tiered regulation levels the playing field between sharing platforms and traditional service providers, and discourages abuse of the platform. In a tiered scheme, regulators can combat “hotelization” by raising the cost for high volume listings of short-term apartments to the point where long-term residential leases become more profitable.

2. *Limited Intermediary Liability for Platforms*

Given the public interest in consumer and worker welfare, absolute immunity for sharing platforms rarely makes sense. Notice-based systems may also fail to adequately protect consumers, because platforms only become liable after a user has interacted with a dangerous provider. Yet imposing affirmative duties on internet intermediaries is an equally extreme solution. Regulators should therefore consider addressing platform liability on an issue-by-issue basis.

Regulators should establish affirmative duties where platforms exercise sufficient control over the relevant aspect of the transaction, and that transaction poses a serious risk of injury for users or providers. For example, several ordinances on TNCs restrict the maximum number of hours that a driver can operate per day, but some TNC platforms do not directly restrict drivers’ hours.²²⁶ If a TNC driver leaves the app on twenty-

224. The same criticisms apply to the New York Multiple Dwelling Statute, which requires that the host co-occupy the residence for the duration of the rental. N.Y. Mult. Dwell. Law § 4(8)(a) (McKinney 2011).

225. *Contra* Badger, *supra* note 52.

226. *E.g.*, COLO. REV. STAT. § 40-10.1-605(1)(e) (2014). Messages on TNC driver forums suggest that it is not uncommon for drivers to work twelve-hour shifts or longer. *E.g.*, SoCal_Uber, *Your longest continuous hours of Uber driving?*, UBERPEOPLE.NET,

four hours a day and recklessly accepts fares without adequate rest, should the platform have a duty to terminate that driver? The platform exercises sufficient control such that it represents both the least-cost avoider and easiest enforcement target. Platforms can monitor the number of hours drivers keep their apps on, and they have the ability to terminate drivers for poor conduct. Moreover, enforcement officials would find it relatively difficult to uncover individual driver misconduct, but could easily determine platform negligence by obtaining the platform's records on driver app usage. Other potential affirmative duties include insurance mandates,²²⁷ background checks for providers,²²⁸ and routine inspections for vehicles or rental property.²²⁹ In addition, regulators could take a sliding scale approach: the greater the risks for users and providers, the less control required to establish an affirmative duty. Even where an affirmative duty to monitor is an appropriate solution, enforcement agencies may find it preferable to request that TNCs take voluntary measures to police provider activity, rather than adopting formal legislation.²³⁰

Where the platform does not exercise sufficient control over user or provider behavior, regulators should instead consider a notice-based system or a limited duty to warn. Under a notice-based system, platforms only become liable if they fail to take action after receiving a complaint from a user or provider. For example, some statutes have established notice-based liability provisions for TNC platforms where drivers discriminate against disabled riders²³¹ or violate a zero-tolerance policy for drugs or alcohol.²³² Beyond background checks for providers, the platform has few additional opportunities to monitor driver behavior. Notice-based systems therefore shield platforms from excessive liability without immunizing the platform. Drivers and platforms remain liable for injuries

<http://uberpeople.net/threads/your-longest-continuous-hours-of-uber-driving.180/> (last visited Feb. 26, 2015).

227. CAL. PUB. UTIL. CODE §§ 5431–37 (West 2015).

228. D.C. CODE § 20j-2 (2015).

229. COLO. REV. STAT. § 40-10.1-605(1)(g).

230. See MacCarthy, *supra* note 202, at 1083–87; Mann & Belzley, *supra* note 202, at 260 n.59.

231. The Colorado TNC law enacts a notice-based system for violations of the duty not to discriminate. COLO. REV. STAT. § 40-10.1-605(7)(a). The Cal. P.U.C. has also imposed a notice-based system for a zero-tolerance policy. CAL. P.U.C., BASIC INFORMATION FOR TRANSPORTATION NETWORK COMPANIES AND APPLICANTS (2013), available at http://www.cpuc.ca.gov/NR/rdonlyres/1788F1F1-EA38-4B68-B221-4116994F2252/0/TNC_App_Instrctns.pdf.

232. D.C. CODE § 20j-1(9) (2015).

that occur as a result of dangerous conduct. However, so long as a platform subsequently takes action to remedy the problem, the platform does not incur liability for violating civil rights statutes or fines related to its zero-tolerance policy. Other cases that merit a notice-based system include violations of local zoning laws and use of the platform for illegal purposes like prostitution or drug trafficking.²³³

In other situations, regulators might consider establishing a limited duty to warn. For example, the San Francisco ordinance on short-term rentals requires that platforms inform hosts of the local requirements for compliance with the housing and tax code.²³⁴ Airbnb has also voluntarily provided similar notice of the New York multiple-dwelling statute to potential hosts within the city.²³⁵ Regulators should consider imposing similar duties where providers represent the least-cost avoider, but platforms can easily convey the relevant information during the hiring or sign-up process.

3. *Duties to Third Parties*

Beyond risks for users and providers, sharing platforms may create negative externalities for third parties.²³⁶ Short-term rentals, for example, affect residents of multiple-dwelling buildings, neighborhoods, and communities as a whole.²³⁷ Regulators in some jurisdictions have created ordinances to address noise complaints and other nuisances, and some have established complaint hotlines for residents to report bad behavior.²³⁸ These enforcement efforts, however, may prove costly for local

233. *E.g.*, Dana Sauchelli & Bruce Golding, *Hookers Turning Airbnb Apartments Into Brothels*, N.Y. POST (July 31, 2014), <http://nypost.com/2014/04/14/hookers-using-airbnb-to-use-apartments-for-sex-sessions/>; Michael Arrington, *Another Airbnb Victim Tells His Story: "There Were Meth Pipes Everywhere,"* TECHCRUNCH (July 31, 2011), <http://techcrunch.com/2011/07/31/another-airbnb-victim-tells-his-story-there-were-meth-pipes-everywhere/>.

234. S.F., CAL., ADMIN. CODE § 25(A) (2014).

235. Ron Lieber, *A \$2,400 Fine for an Airbnb Host*, N.Y. TIMES (May 21, 2013, 2:22 PM), <http://bucks.blogs.nytimes.com/2013/05/21/a-2400-fine-for-an-airbnb-host/>.

236. *E.g.*, N.Y. Attorney General Report, *supra* note 40, at 38–39 (detailing complaints from neighbors of Airbnb hosts); *see also supra* text accompanying notes 196–197 (discussing TNC liability for driver accidents involving third parties).

237. Jessica Pressler, *"The Dumbest Person in Your Building Is Passing Out Keys to Your Front Door!"*, N.Y. MAG. (Sept. 23, 2014), <http://nymag.com/news/features/airbnb-in-new-york-debate-2014-9/>.

238. GRAND COUNTY, COLO., ZONING REGULATIONS, SECTION XIV SUPPLEMENTAL REGULATIONS § 14.8(2) (2014); *Vacation Rentals*, CITY OF PALM SPRINGS, <http://www.ci.palm-springs.ca.us/index.aspx?page=1098> (last visited Feb. 26, 2015).

administrative agencies. Regulators should shift this burden to platforms and providers—those who most directly benefit from sharing platform activity—by requiring (1) that platforms adopt third-party dispute resolution systems and (2) that providers notify third parties of their activities.

First, platforms should provide a complaint hotline and dispute resolution procedure for third parties who seek to remove listings from the platform or report poor conduct.²³⁹ For short-term rental platforms, affected third parties might include landlords who want to prevent tenants from posting listings in violation of a lease, or neighbors of hosts who seek a remedy against a guest for property damage.²⁴⁰ For TNC or P2P car rental platforms, third parties might report dangerous conduct by TNC drivers, or submit complaints about TNC driver congestion in high traffic areas like airports. These complaints could create a duty to take action under notice-based schemes for platform liability. In addition, platforms could provide limited remedies such as reimbursement for small damages claims, or in some cases removal of an offending listing or profile. Any dispute resolution forum should fairly account for the legitimate interests of users and providers as well as third parties. For instance, before removing a short-term rental listing, platforms might require that landlords demonstrate ownership of the relevant property and an enforceable provision in the lease prohibiting subletting.

In some cases, regulators might also consider requiring providers to give notice of their activities to third parties. Maui requires that short-term rental hosts provide notice to neighbors within 500 feet of the listed property.²⁴¹ Jurisdictions could also create a standardized notice form that requires hosts to provide a contact number for the host, platform, and local government complaint hotline.

239. Some platforms already run call centers for user and community complaints. Spencer Peterson, *Airbnb Creates a Call Center That's Not a Total Nightmare*, CURBED (Dec. 17, 2014), <http://curbed.com/archives/2014/12/17/airbnbs-portland-office-design.php>; *Contact Us!*, DOGVACAY, <http://dogvacay.com/contact/> (last visited Feb. 26, 2015). Others have complaint email services directed toward users and providers. ROOMORAMA, <https://www.roomorama.com/> (last visited Feb. 26, 2015); *Help Center*, LYFT, <https://www.lyft.com/help/contact/passenger> (last visited Feb. 26, 2015).

240. E.g., Joe Coscarelli, *Airbnb Poster-Child Was Evicted for Airbnb-ing a Converted Barn She Didn't Own*, N.Y. MAG. (Oct. 10, 2014), <http://nymag.com/daily/intelligencer/2014/10/airbnb-poster-child-shell-evicted-for-airbnb.html>.

241. MAUI, HI., COUNTY CODE § 19.65.050(B) (2014), available at <http://www.co.maui.hi.us/DocumentCenter/View/91217>.

Regulatory agencies should address negative externalities generated by the sharing economy.²⁴² Yet regulators should balance the costs of regulation against the benefits of innovation. The solutions detailed above—tiered regulation for providers, limited intermediary liability, and duties to third parties—can help regulators to allocate protections and burdens more flexibly.²⁴³

B. NEW PARTIES, NEW RISKS: REGULATORS MUST ADDRESS BIG DATA, REPUTATION SYSTEMS, AND COMPETITION

Although sharing platforms largely pose the same risks as equivalent traditional service providers, these platforms also create new consumer protection issues related to user privacy and reputation systems. Regulators should address both of these issues. In crafting new rules, regulators should also consider whether certain provisions overly restrict competition.

1. *Big Data: Regulators Should Anticipate Privacy Concerns*

TNCs and other sharing companies collect vast quantities of sensitive user data.²⁴⁴ Rider and driver accounts on TNCs, for instance, include personal information like credit card numbers, as well as logs of prior trips.²⁴⁵ Airbnb likewise maintains a “Verified ID” system, which requires

242. Adopting this role would address the concerns of many critics of the sharing economy. See, e.g., Dean Baker, *Don't Buy the 'Sharing Economy' Hype: Airbnb and Uber Are Facilitating Rip-Offs*, GUARDIAN (May 27, 2014), <http://www.theguardian.com/commentisfree/2014/may/27/airbnb-uber-taxes-regulation> (arguing that the sharing economy imposes costs on society at large, and arguing in favor of regulation to create a “level playing field”).

243. For a thorough discussion arguing in favor of balanced regulation, see DEBBIE WOSKOW, UNLOCKING THE SHARING ECONOMY: AN INDEPENDENT REVIEW (2014). Woskow's report, prepared for the United Kingdom Minister of State for Business, Enterprise and Energy, provides detailed suggestions for reforms that would allow communities and government agencies to take advantage of the sharing economy.

244. Granting access to this data in response to a search warrant could have serious implications for criminal investigations. See Andrea Lance, *Comment, Back to the Future of Your Privacy Rights*, 95 MASS. L. REV. 214 (2013) (discussing the Court's decision in *United State v. Jones*, 132 S. Ct. 945 (2012), regarding the installation of a GPS tracking device on a suspect's vehicle). The significance of this issue applies not only to average criminal investigations, but potentially civil discovery orders. In some cases the public interest in allowing disclosure of rider logs may outweigh the rider's privacy interest. For example, consulting firm Hamilton Places Strategies calculated based on congressional campaign filings that Members of Congress relied on Uber for sixty one percent of rides during the 2014 election cycle. Tom Kise, *Uber: Congress' New Private Driver*, HPS (Nov. 11, 2014), <http://www.hamiltonplacestrategies.com/news/uber-congress-new-private-driver/>.

245. Uber has faced intense criticism for its internal use of rider log data. See, e.g., Johana Bhuiyan & Charlie Warzel, *“God View”: Uber Investigates Its Top New York*

that users provide a copy of a “government-issued ID, such as [a] driver’s license or passport.”²⁴⁶ And the potential for misuse extends beyond disclosure of individual account activity logs. Mining aggregated data can reveal information far more sensitive than that in any single account.²⁴⁷

In many ways, the accumulation of data through sharing platforms parallels the same concerns and disputes faced by any online service provider. One might argue that short-term rental logs are comparable to online databases for hotel guest records, that per-task contractor services grant only as much access to homes as traditional cleaning or repair services, and that TNC rider logs are comparable to GPS logs from personal vehicles.²⁴⁸ Enforcement agencies could therefore address these issues through existing privacy and data security laws.

However, sharing platforms create unique issues regarding platform disclosure of user information to providers and vice versa. For example, TNCs create dummy numbers to allow drivers and riders to communicate before and after a ride. Drivers can only continue to reach the rider through the dummy number for up to half an hour following the ride, but riders can continue to reach the driver indefinitely. In some cases, the dummy number exposes the driver to harassment from disgruntled or

Executive For Privacy Violations, BUZZFEED (Nov. 18, 2014, 8:27 PM), <http://www.buzzfeed.com/johanabhuiyan/uber-is-investigating-its-top-new-york-executive-for-privacy/>; Craig Timberg et al., *Uber executive stirs up privacy controversy*, WASH. POST (Nov. 18, 2014), http://www.washingtonpost.com/business/technology/uber-executive-stirs-up-privacy-controversy/2014/11/18/d0607836-6f61-11e4-ad12-3734c461eab6_story.html (quoting Prof. Chris Hoofnagle: “We have to think about how the service provider itself can be a threat”); Letter from Sen. Al Franken to Travis Kalanick (Nov. 19, 2014), *available at* <http://www.franken.senate.gov/files/letter/141119UberLetter.pdf>.

246. *What Is Verified ID?*, AIRBNB, <https://www.airbnb.com/help/article/450/> (last visited Nov. 22, 2014).

247. In a poignant example, Uber mined user data to discover the percentage of riders using the service for “one-night stands,” dubbing such trips “Ride[s] of Glory” and riders “RoGers.” *Uber Crunches User Data to Determine Where the Most ‘One-Night Stands’ Come From*, CBS SF BAY AREA (Nov. 18, 2014), <http://sanfrancisco.cbslocal.com/2014/11/18/uber-crunches-user-data-to-determine-where-the-most-one-night-stands-come-from/>. Uber originally published the results on the company blog, but has since removed the post. *Rides of Glory*, UBER, <http://blog.uber.com/ridesofglory>, *available at* <http://web.archive.org/web/20140828024924/http://blog.uber.com/ridesofglory>.

248. See Jaelyn Trop, *The Next Data Privacy Battle May Be Waged Inside Your Car*, N.Y. TIMES (Jan. 10, 2014), <http://www.nytimes.com/2014/01/11/business/the-next-privacy-battle-may-be-waged-inside-your-car.html> (describing privacy concerns implicated by the collection of data resulting from GPS devices, cameras, and other technologies that automakers increasingly integrate into personal vehicle designs).

aggressive riders.²⁴⁹ Disclosing a rider's full name can also create risks for users, and some commentators have reported incidents of drivers stalking riders through social media.²⁵⁰ Similar issues can easily arise in the context of per-task contractor services and short-term rental services, where contractors and guests gain access to homes or office spaces.

Despite these risks, disclosure of personal data may be necessary or beneficial in certain contexts. For TNCs, keeping a dummy number active helps riders to contact drivers in the event the rider forgets a personal item in the vehicle.²⁵¹ Regulators may not have sufficient experience with sharing platforms to set viable guidelines for privacy policies. Moreover, users and providers consent to some level of disclosure by joining a sharing platform. Regulators might therefore address novel privacy and data security issues on platforms by ensuring the platforms uphold their stated privacy policies,²⁵² and by adding flexible provisions requiring that platforms do not disclose personal information where doing so would unreasonably threaten the safety of users or providers.²⁵³

249. Polly Mosendz, *Uber Drivers Have Privacy Problems Too*, NEWSWEEK (Nov. 19, 2014), <http://www.newsweek.com/uber-taxi-e-hailing-riding-app-travis-kalanick-emil-michael-josh-mohrer-uber-285642/>.

250. A *Daily Beast* reporter describes her personal experience of harassment, including a driver who photographed her on the street prior to her trip and later emailed the photograph to her employer, and a driver who messaged the author's contacts on Facebook. Olivia Nuzzi, *Uber's Biggest Problem Isn't Surge Pricing. What If It's Sexual Harassment by Drivers?*, DAILY BEAST (Mar. 28, 2014), <http://www.thedailybeast.com/articles/2014/03/28/uber-s-biggest-problem-isn-t-surge-pricing-what-if-it-s-sexual-harassment-by-drivers.html>.

251. Polly Mosendz, *Uber Drivers Have Privacy Problems Too*, NEWSWEEK (Nov. 19, 2014), <http://www.newsweek.com/uber-taxi-e-hailing-riding-app-travis-kalanick-emil-michael-josh-mohrer-uber-285642>.

252. The FTC already brings enforcement actions against other online service providers for failures to uphold a stated privacy policy. *Enforcing Privacy Promises*, FTC, <http://www.ftc.gov/news-events/media-resources/protecting-consumer-privacy/enforcing-privacy-promises>.

253. Some ordinances do expressly consider privacy concerns. For example, the District of Columbia ordinance on TNCs specifies that any administrative rule requiring TNCs to maintain records on drivers must not interfere with the legitimate privacy interests of users. D.C. CODE § 50-329 (2015). Legislatures could also specify some duty of reasonable care for platforms.

2. *Reputation Systems: Regulators Should Encourage Responsible Private Ordering*

Regulators have focused on consumer welfare in proposing ordinances to govern sharing platforms, especially TNCs.²⁵⁴ Proposed rules for TNCs invariably detail required background checks for drivers and inspection procedures for vehicles.²⁵⁵ Many also specify limitations on surge pricing—a dynamic price scheme that increases fares at peak hours to encourage drivers to log on and fulfill the demand for rides.²⁵⁶ In some cases, ordinances specify that TNCs must make the method for calculating fares transparent, and that the TNC app must place the proposed fare prominently on screen in relation to the ride request confirmation button.²⁵⁷

Yet few regulations have addressed reputation systems on sharing platforms. In the context of sharing platforms, a reputation system usually refers to a record of qualitative reviews or numerical ratings tied to a user or provider's profile.²⁵⁸ Most TNCs have a numerical rating system; at the end of a ride, riders rate drivers and vice versa²⁵⁹ on a scale of one to five.²⁶⁰ Short-term rental and per-task contractor platforms, by contrast, generally

254. *E.g.*, San Miguel County Land Use Code, Colo., § 5-3001 (2014) (“The purpose of this Section is to promote public health safety and general welfare by establishing standards for rental of a Primary Residence for less than 30 days.”).

255. Cal. P.U.C. Decision, *supra* note 18, at 72–75.

256. *E.g.*, D.C. CODE § 50-329.02(b)(13) (2015) (“During a state of emergency . . . [a TNC] that engages in surge pricing shall limit the multiplier by which its base fare is multiplied to the next highest multiple below the 3 highest multiples set on different days in the 60 days preceding the declaration of a state of emergency for the same type of service”).

257. *E.g.*, COLO. REV. STAT. § 40-10.1-605(b) (2014) (“A transportation network company shall make available to prospective riders and drivers the method by which the transportation network company calculates fares”); CHI., ILL., CODE § 9-115-200(b) (2014) (“[A]ny licensee shall display a button for displaying a fare quote for any requested trip on the licensee's Internet-enabled application or digital platform in the same size and graphics as the licensee's trip request button.”).

258. Tom Slee, *Some Obvious Things About Internet Reputation Systems*, WHIMSLEY (Sept. 29, 2013), <http://tomslee.net/2013/09/some-obvious-things-about-internet-reputation-systems.html>; *see also* Chrysanthos Dellarocas, *Designing Reputation Systems for the Social Web 2* (Bos. Univ. Sch. Mgmt., Research Paper Series No. 2010-18, 2010).

259. Julie Weed, *For Uber, Airbnb and Other Companies, Customer Ratings Go Both Ways*, N.Y. TIMES (Dec. 1, 2014), <http://www.nytimes.com/2014/12/02/business/for-uber-airbnb-and-other-companies-customer-ratings-go-both-ways.html>.

260. *See, e.g.*, *The Star Rating System*, LYFT, <https://www.lyft.com/help/article/1453135/> (last visited Feb. 26, 2015).

include qualitative reviews on the user or provider's profile.²⁶¹ It is important to note that both user and provider reputations can influence access on the platform—platforms may terminate or block providers with low scores, and providers may decline to accept requests from users with low scores.²⁶² These systems therefore give both users and providers an incentive to behave well on the platform. The exact implementation of a reputation system can also encourage different strategic behaviors on the part of users and providers, and certain system designs will result in more valuable or reliable information than others.²⁶³

While ratings and reviews cannot perform the same protective screening function as background checks and safety inspections,²⁶⁴ reputation systems do play a complementary and vital role in online marketplaces. Even if a provider meets the minimum legal standards within a jurisdiction, that assurance does not help consumers to discern the quality of providers in the market. For example, a car purchaser may know that both a Volvo and a Toyota meet the minimum safety standards for personal vehicles, but the purchaser may require additional information about the quality of the car to make an informed decision. In that sense, reputation systems serve a function similar to a brand or trademark for providers. The provider profile serves as an indication of source, and the reputation system allows the provider to build goodwill within the platform's community of users.²⁶⁵ On the other hand, reputation systems function more closely to credit ratings from the user's perspective.²⁶⁶ Having a higher reputation score can allow users to gain access to more—

261. See, e.g., *How Do I leave a Review or Feedback for the Host?*, ROOMORAMA, <https://help.roomorama.com/hc/en-us/articles/200497795-How-do-I-leave-a-review-or-feedback-for-the-host/> (last visited Feb. 26, 2015); *How Do I Leave Review?*, TASKRABBIT, <https://taskrabbit.zendesk.com/entries/59906534-How-do-I-leave-review/> (last visited Oct. 27, 2015).

262. Dara Kerr, *Should Uber and Lyft Keep Passenger Ratings Secret?*, CNET (Sept. 25, 2014, 7:00 AM), <http://www.cnet.com/news/should-uber-and-lyft-keep-passenger-ratings-secret/>.

263. See generally Sergio Marti & Hector Garcia-Molina, *Taxonomy of Trust: Categorizing P2P Reputation Systems*, 50 *COMPUTER NETWORKS* 472 (2006) (discussing the importance of design choice in creating reputation systems).

264. Some have argued that reputation systems can replace governmental regulation, and that the sharing economy does not require government intervention. KOOPMAN, *supra* note 20, at 16–19.

265. See Beth Simone Noveck, *Trademark Law and The Social Construction Of Trust: Creating the Legal Framework for Online Identity*, 83 *WASH. U. L.Q.* 1733, 1777–84 (2005).

266. See Danielle Keats Citron & Frank Pasquale, *The Scored Society: Due Process for Automated Predictions*, 89 *WASH. L. REV.* 1, 8–18 (2014).

and potentially higher quality—services.²⁶⁷ Consequently, both users and providers have a strong interest in earning a high reputation score.

Precisely because users and providers have a substantial financial and personal interest in their scores, reputation systems may raise consumer protection issues. In particular, the design of reputation systems can inadvertently promote discriminatory behavior. For example, a recent study indicated that non-black hosts on Airbnb charge approximately twelve percent more than black hosts for similar listings.²⁶⁸ Since reputation systems can effectively—or literally²⁶⁹—lock out low-rated users and providers, the system design also presents a concern.²⁷⁰ Many platforms do not embed anti-abuse protections or quality control measures into reputation systems.²⁷¹ Moreover, most platforms do not provide a

267. Seth Porges, *Read These Tips, or Nobody Will Ever Let You Be an Airbnb Guest Again*, GIZMODO (June 12, 2012, 11:00 AM), <http://gizmodo.com/5918204/read-these-tips-or-nobody-will-ever-let-you-be-an-airbnb-guest-again>.

268. Benjamin Edelman & Michael Luca, *Digital Discrimination: The Case of Airbnb.com* (Harv. Bus. Sch., Working Paper No. 14-054, 2014); see also Ian Ayres et al., *Race Effects on eBay* (Working Paper, 2011).

269. Some TNCs deactivate drivers who fall below a certain rating threshold. Jeff Bercovici, *Uber's Ratings Terrorize Drivers and Trick Riders. Why Not Fix Them?*, FORBES (Aug. 14, 2014, 12:31 PM), <http://www.forbes.com/sites/jeffbervovici/2014/08/14/what-are-we-actually-rating-when-we-rate-other-people/>.

270. On platforms where users search for providers in an open market, higher rated providers usually appear first on the list. By contrast, TNCs act as true matchmaking services rather than open market places, so the reputation system serves largely to flag bad actors on the system. But users and providers can still decline matches based on a low score or profile picture. Harry Campbell, *Does Race Affect Your Driver Rating?*, RIDESHARE GUY (Aug. 6, 2014), <http://therideshareguy.com/does-race-affect-your-driver-rating/>.

271. Tom Slee has noted that quantitative rating systems on TNC platforms have extremely skewed distribution patterns—users and providers almost universally rank each other at five stars, with a small percentage of one star ratings. Tom Slee, *Some Obvious Things About Internet Reputation Systems*, WHIMSLEY (Sept. 29, 2013), <http://tomslee.net/2013/09/some-obvious-things-about-internet-reputation-systems.html>. The score therefore functions more like a “thumbs up” or “thumbs down.” Some platforms intentionally rely on a “thumbs up” system. *Thumbs Up.*, FANCY HANDS, <https://www.fancyhands.com/blog/thumbs-up/> (last visited Feb. 26, 2015). The highly personal interaction involved in many sharing services may discourage users and providers from giving honest feedback on the spot. See, e.g., Dan Harmon & Duncan Trussell, *I Make A 5 Stars*, HARMONTOWN, <http://www.harmontown.com/2014/07/episode-108-i-make-a-5-stars/>. In other cases, strategic behavior may motivate users and providers to “trade” positive ratings. *Feedback Manipulation Policy*, EBAY, <http://pages.ebay.com/help/policies/feedback-manipulation.html> (last visited Feb. 26, 2015).

clear forum for providers and users to challenge false or unfair reviews.²⁷² Platforms do generally provide a complaint hotline for resolving small damages claims or other specific grievances, but some platforms have notably poor track records in responding to user and provider complaints.²⁷³

Of course, platforms have an interest in maintaining the integrity of their reputation systems, because accurate reviews can improve the quality of the platform and thus encourage more users to join.²⁷⁴ Some platforms have taken affirmative steps to improve the design of their reputation systems. Airbnb, for example, recently changed its review system to encourage honest feedback. Before the change, as soon as users and providers submitted a review, Airbnb would publish it. Users and providers could wait up to fourteen days to submit a review, and at the end of the review period the platform would automatically publish any drafted reviews.²⁷⁵ This system encouraged users and providers to avoid negative reviews, for fear of retaliation by the other party.²⁷⁶ Now Airbnb publishes reviews only after both users and providers have submitted a review. The system protects reviewers in that the other side cannot respond in kind to negative reviews.²⁷⁷

272. See, e.g., *Alatraqchi v. Uber Techs., Inc.*, No. C-13-03156 JSC, 2013 WL 4517756 (N.D. Cal. Aug. 22, 2013) (dismissing a deactivated Uber driver's wrongful termination claim); *Can I Remove or Reply to a Review*, AIRBNB, <https://www.airbnb.com/help/article/32/>.

273. Patrick Hoge, *Uber and Lyft Both Get an "F" from the Better Business Bureau; So Does Yellow Cab*, S.F. BUS. TIMES (Oct. 9, 2014, 10:55 AM), <http://www.bizjournals.com/sanfrancisco/blog/2014/10/uber-lyft-f-better-business-bureau.html> (noting that both TNCs and a major taxi dispatcher have received failing grades from the San Francisco Bay Area and Northern Coastal California Better Business Bureau for failing to respond to consumer complaints).

274. Jason Tanz, *Is It Evil to Give a Bad Airbnb Review if Your Host Was Perfectly Nice?*, WIRED (Nov. 21, 2013), http://www.wired.com/2013/11/qq_kia/ ("Bad reviews are 'frankly foundational to the site,' says Chip Conley, Airbnb's head of hospitality.")

275. Seth Porges, *The Strange Game Theory of Airbnb Reviews*, FORBES (Oct. 17, 2014), <http://www.forbes.com/sites/sethporges/2014/10/17/the-strange-game-theory-of-airbnb-reviews/>.

276. Maryam Saeedi has researched retaliatory feedback in a similar context based on eBay's reputation system. Maryam Saeedi et al., *The Value of Feedback: An Analysis of Reputation System* (Working Paper, Nov. 6, 2013), available at http://econ.ohio-state.edu/saeedi/noneg_sss.pdf.

277. Seth Porges, *The Strange Game Theory of Airbnb Reviews*, FORBES (Oct. 17, 2014), <http://www.forbes.com/sites/sethporges/2014/10/17/the-strange-game-theory-of-airbnb-reviews/>.

Platforms can also take steps to combat discriminatory behavior through the design of reputation systems.²⁷⁸ While platforms cannot fully control user and provider discretion, altering the content or layout of individual profiles can affect conduct on the platform. Removing profile pictures or making those pictures less prominent can reduce opportunities for biased decision-making.²⁷⁹ Uber has addressed this problem in the context of underserved neighborhoods by preventing drivers from viewing rider destinations until after the driver has accepted a request.²⁸⁰ Platforms could even adopt stronger measures, such as using algorithmic filtering to detect unfair or biased reviewers.²⁸¹

Although platforms can and should continue to protect users and providers through private ordering, regulators should still take an active role in monitoring reputation systems. Absent regulatory scrutiny, platforms have an incentive to keep reputation systems proprietary.²⁸² Some do not even allow users to view their own reputation score.²⁸³ This prevents users and providers from discovering and addressing abuses of the rating system.²⁸⁴ Legislatures should thus consider enacting rules that require greater transparency.²⁸⁵ For example, the Vehicle for Hire Innovation Amendment Act in the District of Columbia requires that

278. Chrysanthos Dellarocas, *Designing Reputation Systems for the Social Web* (Bos. Univ. Sch. Mgmt., Research Paper Series No. 2010-18, 2010).

279. Benjamin Edelman & Michael Luca, *Digital Discrimination: The Case of Airbnb.com* (Harv. Bus. Sch., Working Paper No. 14-054, 2014).

280. Arielle, *With Uber, Everyone Rides*, UBER (Aug. 20, 2014), <http://blog.uber.com/everyone-rides/> (last visited Feb. 26, 2015).

281. Greg Harman, *The Sharing Economy Is Not as Open as You Might Think*, GUARDIAN (Nov. 12, 2014), <http://www.theguardian.com/sustainable-business/2014/nov/12/algorithms-race-discrimination-uber-lyft-airbnb-peer>.

282. Jason Tanz, *The Sharing Economy Needs to Start Sharing Its Data Too*, WIRED (May 05, 2014, 6 :30 AM), <http://www.wired.com/2014/05/sharing-economy-fico/>.

283. Dara Kerr, *Should Uber and Lyft Keep Passenger Ratings Secret?*, CNET (Sept. 25, 2014, 7:00 AM), <http://www.cnet.com/news/should-uber-and-lyft-keep-passenger-ratings-secret/>.

284. PAM DIXON & ROBERT GELLMAN, THE SCORING OF AMERICA: HOW SECRET CONSUMER SCORES THREATEN YOUR PRIVACY AND YOUR FUTURE 14 (2014), *available at* http://www.worldprivacyforum.org/wp-content/uploads/2014/04/WPF_Scoring_of_America_April2014_fs.pdf.

285. Danielle Keats Citron and Frank Pasquale have argued that automated scoring systems including reputation systems should be subject to procedural safeguards, granting consumers a form of “technological due process.” Citron & Pasquale, *supra* note 266, at 18–30.

users have access to their own reputation score.²⁸⁶ In addition, regulators should expressly prohibit discriminatory ratings, as in the Chicago TNC ordinance.²⁸⁷ Legislatures might consider adding language guaranteeing a private right of action under a state civil rights statute based on violation of the rating discrimination provision.

3. *Promoting Competition: Regulators Should Ensure Provider Mobility and Protect Maverick Platforms*

Though regulators should take action to reduce new consumer protection concerns, they should also consider the potential risks of overly restricting competition. Thus far, regulators have focused on competition between sharing platforms and traditional service providers. In particular, the FTC has issued statements to both the Chicago legislature and the District of Columbia Taxicab Commission arguing that proposed ordinances for TNCs might impose “unwarranted restrictions.”²⁸⁸ Many have applauded TNCs for disrupting local taxi monopolies.²⁸⁹

286. D.C. CODE § 50-331(b)(8) (2015) (“[A] digital dispatch service may rate a customer so long as the customer’s rating may be viewed by the customer and may not be disclosed to a driver until after the driver accepts a ride request from that customer.”).

287. CHI., ILL., CODE § 9-115-140(b) (2014) (TNCs “shall train their drivers not to discriminate against people with disabilities in their passenger ratings. It shall be a violation of this chapter for a driver to rate a passenger based upon a disability.”).

288. Letter from Andrew I. Gavil, Dir. of Office of Policy Planning, FTC, to Brendan Reilly, Alderman 42nd Ward, City of Chicago (Apr. 15, 2014), *available at* http://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-honorable-brendan-reilly-concerning-chicago-proposed-ordinance-o2014-1367/140421chicagoridesharing.pdf; Letter from Andrew I. Gavil, Dir. of Office of Policy Planning, FTC, to Jacques P. Lerner, Gen. Counsel, D.C. Taxicab Comm’n (June 7, 2013), *available at* http://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-comments-district-columbia-taxicab-commission-concerning-proposed-rulemakings-passenger/130612dctaxicab.pdf.

289. *E.g.*, Sharon Pian Chan, *End the City’s Taxi Monopoly and Let Uber Roll*, SEATTLE TIMES (Aug. 12, 2013), http://seattletimes.com/html/opinion/2021599082_sharonpianchancolumntaxisuber13xml.html; Jim Edwards, *Uber is Destroying the Value of Taxi Monopolies in a Bunch of American Cities*, BUS. INSIDER (Nov. 28, 2014, 7:27 AM), <http://www.businessinsider.com/uberdestroyingvalueoftaximonopoliescartels201411>. Most cities have set strict safety regulations on licensing caps on local taxi industries since the early twentieth century. Some cities experimented with deregulation in during the 1970s, but these efforts often ran into serious problems. Today, economists continue to debate whether taxi deregulation is desirable, and if so what kind of deregulation. *See generally* Hardaway, *supra* note 66; Paul Stephen Dempsey, *Taxi Industry Regulation, Deregulation & Reregulation: the Paradox of Market Failure*, 24 TRANSP. L.J. 73 (1996); Harris, *supra* note 70.

Yet TNC market share may be even more concentrated than the taxi industry. A study by Future Advisor reported that Uber earned twelve times as much as its closest competitor, Lyft, in early 2014.²⁹⁰ To the extent that Uber attracts new users by providing superior services, this growth simply reflects “competition on the merits.”²⁹¹ But dominant platforms can also distort markets by creating artificially high barriers to entry for new competitors²⁹² and eliminating maverick firms.²⁹³

First, dominant platforms can raise the cost of entry for new firms by locking providers into their network. Sharing platforms benefit from indirect network effects—the more providers operate on the platform, the more valuable the service becomes for users.²⁹⁴ Platforms therefore compete to attract top providers, often by offering sign up bonuses or other incentives.²⁹⁵ Uber and Lyft, for example, have adopted aggressive

290. Chris Nicholson, *Study: Uber Pulls Ahead of Lyft in Riders and Revenue With 12x Lead in U.S.*, FUTUREADVISOR (Sept. 11, 2014), <http://blog.futureadvisor.com/study-uber-pulls-ahead-of-lyft-in-riders-and-revenue-with-12x-lead-in-u-s/>. Uber CEO Travis Kalanick has claimed that Uber is twenty times larger than Lyft “on a booking basis” and does ten times as many trips. Liz Gannes, *Travis Kalanick: Uber Is Raising More Money to Fight Lyft and the “Asshole” Taxi Industry*, RE/CODE (May 28, 2014), <http://recode.net/2014/05/28/travis-kalanick-uber-is-raising-more-money-to-fight-lyft-and-the-asshole-taxi-industry/>.

291. *Verizon Commc’ns Inc. v. Law Offices of Curtis v. Trinko LLP*, 540 U.S. 398, 407 (2004) (“To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.”); see also *South Park: Handicar* (South Park Digital Studios 2014) (addressing a group of taxi drivers frustrated by competition from a fictional TNC named Handicar: “Why don’t you guys just make your cars cleaner and nicer and try to be better to your customers so that you can compete with Handicar’s popularity in the marketplace?”).

292. Under limited circumstances, a dominant firm can engage in actionable exclusionary conduct under section 2 of the Sherman Act by attempting to block “nascent” technologies from entering the market. *U.S. v. Microsoft Corp.*, 253 F.3d 34, 79 (D.C. Cir. 2001).

293. A maverick is a firm that disproportionately affects the intensity of competition in a market in comparison to its market share. See David T. Scheffman & Mary Coleman, *Quantitative Analyses of Potential Competitive Effects From a Merger*, 12 GEO. MASON L. REV. 319, 321, 325–26 (2003). Removal of a maverick can constitute a theory of harm under the DOJ’s Merger Guidelines. U.S. DEP’T JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES § 2.1.5 (rev. ed. 2010), available at <http://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf>.

294. See generally David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 COLUM. BUS. L. REV. 667 (2005).

295. Michelle Regner, *Want to Be the Next Airbnb or Taskrabbit? Don’t fall for These Marketplace Myths*, VENTUREBEAT (Dec. 14, 2014, 8:25 AM), <http://venturebeat.com/2014/12/14/want-to-be-the-next-airbnb-or-taskrabbit-dont-fall-for-these-marketplace-myths/> (arguing that even if sharing businesses “won’t be buying traditional inventory per se, they will still be buying another type of inventory—

tactics for recruiting drivers.²⁹⁶ Some of these recruitment campaigns may constitute predatory pricing behavior.²⁹⁷ Such tactics potentially serve as a means of excluding competitor platforms or new entrants from the market.²⁹⁸

Second, dominant platforms can target maverick firms to reduce price competition.²⁹⁹ For example, some TNC and P2P car rental services specialize in trips to the airport.³⁰⁰ These rides are often more lucrative opportunities for drivers than short trips.³⁰¹ These specialized services may offer lower prices than other TNCs, and therefore create procompetitive efficiencies in the market as a whole.³⁰² In the long term, dominant TNCs

marketplace vendors”). Actively recruiting providers to join a platform is not anticompetitive behavior; in fact, agreements not to recruit may in some cases create antitrust liability. Jonathan Stempel, *Apple, Google, Intel, Adobe to Pay \$325 Million to Settle Hiring Lawsuit*, REUTERS (May 23, 2014), <http://www.reuters.com/article/2014/05/23/us-apple-google-settlement-idUSBREA4M0MY20140523/>.

296. Serena Saitto, *Uber Woos Drivers With \$1,000 Bonuses in Tussle With Lyft*, BLOOMBERG (July 13, 2014, 9:01 PM) <http://www.bloomberg.com/news/2014-07-14/uber-tussles-with-lyft-wooing-drivers-with-1-000-bonuses.html>; Ellen Huet, *How Uber And Lyft Are Trying To Kill Each Other*, FORBES (May 30, 2014), <http://www.forbes.com/sites/ellenhuet/2014/05/30/how-uber-and-lyft-are-trying-to-kill-each-other/>.

297. Predatory pricing occurs where a firm (1) sets prices “below an appropriate measure of its rival’s costs,” and (2) the firm’s predatory pricing creates “a dangerous probability” of eliminating competition and ultimately allowing the firm to recoup losses through supra-competitive pricing. *Brooke Grope Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222–24 (1993). Some reports suggest that Uber has offered fares at below cost to drive Lyft out of certain markets. Ellen Huet, *Uber’s Newest Tactic: Pay Drivers More Than They Earn*, FORBES (July 2, 2014, 6:13 PM), <http://www.forbes.com/sites/ellenhuet/2014/07/02/ubers-newest-tactic-pay-drivers-more-than-they-earn/>.

298. Hailo, an app that allows riders to request rides from partnering taxis and black cars, has shut down its operations in North America as a result of price competition from TNCs. Chris Welch, *Hailo Is Leaving North America to Escape the War Between Uber and Lyft*, VERGE (Oct. 14, 2014, 12:41 PM), <http://www.theverge.com/2014/10/14/6975049/hailo-taxi-app-leaving-north-america/>.

299. See *supra* text accompanying note 293.

300. WINGZ, <https://wingz.me/> (last visited Feb. 26, 2015); FLIGHTCAR, <https://flightcar.com/> (last visited Feb. 26, 2015) (P2P car rental service).

301. See, e.g., Fallon Glick, *Louisville International Airport steps up enforcement of ridesharing ban*, WDRB (Nov. 21, 2014, 3:28 PM), <http://www.wdrb.com/story/27454057/louisville-international-airport-steps-up-enforcement-of-ridesharing-ban>.

302. For example, Wingz charges a flat fee for airport trips. Carolyn Said, *Wingz gets PUC green light as official TNC provider*, SFGATE (Mar. 18, 2014), <http://blog.sfgate.com/techchron/2014/03/18/wingz-gets-puc-green-light-as-official-tnc-provider/>.

will have strong incentives to eliminate these mavericks by acquiring them,³⁰³ or by entering into exclusive contracts with airports or airlines.³⁰⁴

The DOJ and FTC have the authority to police such anticompetitive mergers and other predatory behaviors as needed, but regulators can also design rules to preemptively combat both of these threats.³⁰⁵ For example, states can require that airports award licenses for TNCs to access drop off points on a nondiscriminatory basis.³⁰⁶ Regulators can also enact tiered legislation, creating tax breaks or other allowances for small platforms. Most importantly, regulators should ensure that providers can freely move between platforms. In particular, the Chicago ordinance on TNCs may unnecessarily restrain drivers by prohibiting licensed taxis from operating as TNC vehicles.³⁰⁷ These restrictions may be necessary in limited circumstances to prevent consumer confusion with the trade dress of taxi dispatch services.³⁰⁸ However, ordinances can at least specify that providers have the right to contract with more than one TNC platform.³⁰⁹

303. Airbnb has acquired smaller competitor services to expand its service network. E.g., Dara Kerr, *Airbnb Buys Crashpadder, Its Largest U.K. Competitor*, CNET (Mar. 20, 2012, 7:38 PM), <http://www.cnet.com/news/airbnb-buys-crashpadder-its-largest-u-k-competitor/>. Fewer mergers have taken place between TNCs. Ellen Huet, *Lyft Buys Carpooling Startup Hitch To Grow Lyft Line*, FORBES (Sept. 22, 2014), <http://www.forbes.com/sites/ellenhuet/2014/09/22/lyft-buys-carpooling-startup-hitch-to-grow-lyft-line/>; Robert Hof, *Uber CEO Travis Kalanick: We're Not In Acquisition Mode (Sorry, Lyft)*, FORBES (Sept. 8, 2014, 1:42 PM), <http://www.forbes.com/sites/roberthof/2014/09/08/uber-ceo-travis-kalanick-were-not-in-acquisition-mode-sorry-lyft/>.

304. Joe Sharkey, *United's Deal With Uber Raises Concerns*, N.Y. TIMES (Sept. 29, 2014), <http://www.nytimes.com/2014/09/30/business/uniteds-deal-with-uber-raises-concerns.html>.

305. In addition, regulators can consider deregulating or amending regulations for traditional for-hire services. Catherine Rampell, *The Familiar Cycle of the Taxi Industry Wars*, WASH. POST (Dec. 8, 2014), http://www.washingtonpost.com/opinions/catherine-rampell-thoughtful-taxi-regulations-should-consider-the-consumer/2014/12/08/d742cd76-7f19-11e4-8882-03cf08410beb_story.html.

306. Airports in several cities have approved TNC permits for airport drop offs and pickups. Katherine Driessen, *City to Allow Ride-Share Operators at Houston Airports*, HOUSTON CHRONICLE (Nov. 12, 2014), <http://www.chron.com/news/houston-texas/houston/article/City-to-allow-ride-share-operators-at-Houston-5888089.php>.

307. See CHI., ILL., CODE § 9-115-100(c) (2014).

308. Dispatch services have argued that allowing TNCs to suggest an affiliation with licensed taxi drivers, or to allude to the distinctive trade dress of another for-hire transportation service constitutes a misrepresentation of association under the Lanham Act. *Yellow Grp. LLC v. Uber Techs. Inc.*, No. 12 C 7967, 2014 WL 3396055, at *5 (E.D. Ill. July 10, 2014).

309. For example, the District of Columbia regulation provides that a “private or public vehicle-for-hire operator may affiliate with more than one company for the

Ultimately, the benefits of scale in some sharing markets may naturally lead to consolidation. However, taking appropriate steps to preserve a competitive marketplace can improve consumer choice, and encourage local and low-cost competitor platforms to enter the market. In enacting rules to protect consumers, regulators should also consider whether particular proposals would disproportionately affect large or small platforms. Nor should regulators shy away from addressing new threats to consumers, including privacy concerns and reputation systems. As Professor Cortez has argued, regulators should address regulatory disruptions through experimentation and prompt action.³¹⁰

V. CONCLUSION

Sharing platforms benefit consumers by increasing the availability of service providers, lowering costs, and providing altogether new services.³¹¹ In addition, these services do not pose an unacceptable danger to users or third parties. Many risks posed by the sharing economy are just as present in the market for traditional service providers.³¹² Regulators can also address these risks without forcing platforms to conform to the same rules as traditional service providers. In some cases, particularly the for-hire vehicle market, loosening restrictions for traditional service providers may be just as warranted as increasing protections for users and providers in the sharing economy.³¹³ Though sharing platforms pose new consumer protection issues, regulators can confront these concerns without shutting down platforms.³¹⁴

Yet even if one takes the position that the harms caused by the sharing economy outweigh the opportunities, most commentators would agree

purpose of using digital dispatch unless otherwise provided for by an agreement between the company and the operator.” D.C. CODE § 50-329.02(b)(15) (2015).

310. *See generally* Cortez, *supra* note 13.

311. Many regulators and commentators likewise adopt this position. *See generally*, e.g., BUS. INNOVATION OBSERVATORY, EUR. COMM’N, THE SHARING ECONOMY: ACCESSIBILITY BASED BUSINESS MODELS FOR PEER-TO-PEER MARKETS (2013), available at http://ec.europa.eu/enterprise/policies/innovation/policy/business-innovation-observatory/files/case-studies/12-she-accessibility-based-business-models-for-peer-to-peer-markets_en.pdf; WOSSKOW, *supra* note 243.

312. *Supra* Section IV.A.

313. E.g., Eric Roper, *City Will Consider Major Reforms to Taxi Regulations*, STAR TRIBUNE (June 30, 2014, 12:51 PM), <http://www.startribune.com/politics/statelocal/265132561.html> (describing Minneapolis’s plans to revise taxi ordinances to more closely approximate new rules for TNCs).

314. *Supra* Section IV.B.

that the sharing economy is here to stay.³¹⁵ In other words, we can no longer close Pandora's box. However, regulators should not simply allow the sharing economy to grow in the shadow of the law. Allowing the sharing economy to self-regulate would not adequately safeguard consumers. Thus, responsible regulation of sharing platforms is a necessity, not a choice. Regulatory authorities and legislators have already begun to experiment with balanced solutions, and the outcomes of these efforts will continue to inform future regulations.

315. Even strong critics of the sharing economy tend to believe that the rise of the sharing economy is inevitable, or at least acknowledge the pervasiveness of that opinion. *E.g.*, Catherine Rampell, *The Dark Side of 'Sharing Economy' Jobs*, WASH. POST (Jan. 26, 2014), http://www.washingtonpost.com/opinions/catherine-rampell-the-dark-side-of-sharing-economy-jobs/2015/01/26/4e05daec-a59f-11e4-a7c2-03d37af98440_story.html (describing the sharing economy as part of a larger—seemingly irreversible—trend of deregulation, most notably the decoupling of employment contracts from safety-net programs such as healthcare); *see also* Tom Slee, *Why Canada Should De-Activate Uber*, WHIMSLEY (Nov. 22, 2014), <http://tomslee.net/2014/11/why-canada-should-de-activate-uber.html> (“Contrary to the way some articles are written, we do have a choice here. A lot of the links above talk as if Uber were some kind of inevitable future. . . . Conflating Uber with the broad advance of technology is just wrong, and it’s also exactly what Uber wants us to do.”).

THE BLOCK IS HOT: A SURVEY OF THE STATE OF BITCOIN REGULATION AND SUGGESTIONS FOR THE FUTURE

Misha Tsukerman[†]

Bitcoin, the famous and sometimes infamous digital currency, has two key uses. First, it can serve as a currency to buy and sell goods and services.¹ Second, as its value has fluctuated dramatically within recent years, many users purchase Bitcoins for speculative purposes.² Bitcoin exists wholly as lines of computer code³ governed by the Bitcoin protocol, the program that dictates the generation and transfer of Bitcoins.⁴ Unlike fiat currencies such as the U.S. dollar (“USD”), Japanese yen, or euro, Bitcoin is not backed by the government of any nation or by a physical commodity such as gold.⁵ Instead, the value of Bitcoin is based on the trust people put in it and its scarcity.⁶ In 2013, the market price of a single Bitcoin ranged from thirteen to 1200 USD.⁷ Bitcoin relies on cryptography⁸ to validate and govern its production and use, with each transaction recorded on an online public ledger called the “blockchain.”⁹

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1. Matthew Kien-Meng Ly, *Coining Bitcoin's "Legal-Bits": Examining the Regulatory Framework for Bitcoin and Virtual Currencies*, 27 HARV. J.L. & TECH. 587, 591 (2014).

2. CRAIG K. ELWELL ET AL., CONG. RESEARCH SERV., BITCOIN: QUESTIONS, ANSWERS, AND ANALYSIS OF LEGAL ISSUES 1 at 6 (2014).

3. Nikolei M. Kaplanov, *Nerdy Money: Bitcoin, the Private Digital Currency, and the Case Against Its Regulation*, 25 LOY. CONSUMER L. REV 111, 116 (2012).

4. Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, BITCOIN.ORG (Nov. 8 2008), <https://bitcoin.org/bitcoin.pdf> (Satoshi Nakamoto is not necessarily one person or an actual name. *See infra* note 34.).

5. Kaplanov, *supra* note 3, at 115.

6. *See* Reuben Grinberg, *Bitcoin: An Innovative Alternative Digital Currency*, 4 HASTINGS SCIENCE & TECH. L.J. 159, 168, 175 (2012)(noting that confidence in Bitcoin as a limited resource is integral to the value of Bitcoin).

7. Ly, *supra* note 1 at 591.

8. Cryptography is more generally the “process of writing or reading secret messages or codes.” *Cryptography Definition*, MERRIAM-WEBSTER.COM, <http://www.merriam-webster.com/dictionary/cryptography> (last visited Nov. 26, 2014).

9. Nakamoto, *supra* note 4.

Virtual currencies such as Bitcoin were not viable in the past because of the “double-spending” problem, where an owner of a digital currency file could easily make an exact copy of that file and send it to more than one person.¹⁰ A currency that is non-rivalrous and can be held at the same time by more than one user is valueless.¹¹ What makes Bitcoin, the most popular virtual currency,¹² rivalrous and scarce is that it can only be transferred within the blockchain.

The blockchain is a privately operated and completely decentralized system, requiring no traditional financial institution or central controlling entity for transactions.¹³ The blockchain acts as an online record keeping system that tracks the ownership of specific Bitcoins from their creation (in a process called mining)¹⁴ through every subsequent transaction.¹⁵ The blockchain does not exist in a central location, but rather through a peer-to-peer (“P2P”) network¹⁶ composed of all Bitcoin users.¹⁷ Bitcoin “miners” use their computer’s processing power to maintain the Bitcoin network, and are rewarded in Bitcoins through the Bitcoin protocol.¹⁸

10. JERRY BRITO & ANDREA CASTILLO, BITCOIN, A PRIMER FOR POLICYMAKERS 3–4, (Mercatus Center 2013).

11. Josh Fairfield, *BitProperty*, 88 S. CAL. L. REV. at 15 (forthcoming 2015), available at <http://ssrn.com/abstract=http://ssrn.com/abstract=2504710>.

12. See CoinMarketCap, *infra* note 59 (showing Bitcoin’s market capitalization over seven times higher than the next most popular virtual currency). Bitcoin is also the only virtual currency to have an NCAA football game named after it. In an effort to move the chains of public perception, the Bitcoin payments firm BitPay sponsored the St. Petersburg Bowl between North Carolina State University and the University of Central Florida on December 26, 2014. Formerly the “Beef ‘O’ Brady Bowl,” tickets and merchandise at the “Bitcoin St. Petersburg Bowl” game could be purchased with Bitcoin. See Michael J. Casey, *BitPay to Sponsor St. Petersburg Bowl in First Major Bitcoin Sports Deal*, WALL ST. J. (June 18, 2014), <http://www.wsj.com/articles/bitpay-to-sponsor-st-petersburg-bowl-in-first-major-bitcoin-sports-deal-1403098202>.

13. ELWELL ET AL., *supra* note 2, at 1

14. Discussed *infra* Section I.B.

15. ELWELL ET AL., *supra* note 2, at 3.

16. A P2P network is a “network of personal computers, each of which acts as both client and server, so that each can exchange files . . . with every other computer on the network.” *Peer-to-peer Network Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/peer-to-peer%20network> (last visited Nov. 28, 2014). This is different from a client/server network where “one centralized, powerful computer (called the server) is a hub to which many less powerful personal computers . . . (called clients) are connected. The clients run programs and access data that are stored on the server.” *Server Network Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/client/server%20network> (last visited Nov. 28, 2014).

17. Fairfield, *supra* note 11, at 18 (the blockchain is a decentralized and distributed list).

18. Nakamoto, *supra* note 4.

Thus, no particular party can be said to “control” the blockchain. Profits realized from mining Bitcoin and transaction fee commissions in Bitcoin remain the key incentives for maintenance of the blockchain.¹⁹

The promise of the blockchain as a decentralized trustless public ledger extends far beyond simply tracking different Bitcoins. The true technological revolution the blockchain represents is the creation of a system that for the first time allows for scarce, rivalrous digital property.²⁰ The blockchain is prohibitively difficult to hack and falsify and could be used as a reliable system to track the ownership of real property, such as land deeds or automobiles, drastically lowering search and transaction costs.²¹ The blockchain has even been suggested as a system to prevent voter fraud.²² Yet, for these gains to be fully realized, and for the benefits of the network effect,²³ there must be broader adoption of Bitcoin by the general public. Bitcoin will have to come out of the shadows and be seen and used by the general public for more than speculation and the online purchase of drugs and other contraband.²⁴

As Josh Fairfield observes,²⁵ the blockchain “is not financial, it is not asset-based, it is not insurance, or securities, or any one of a number of uses. . . . [It] is simply a protocol for tracking information about rivalrous digital interests.”²⁶ Thus, this Note posits that the job of regulators is to allow the blockchain to thrive and allow for consumer confidence in its potential to create a safe and reliable system of public records to allow for the safe transfer of real property.

19. Fairfield, *supra* note 11, at 19.

20. *See id.* at 5.

21. *See generally* Fairfield, *supra* note 11.

22. *See generally* Matt Odell, *How Bitcoin Could Make Voter Fraud and Stolen Elections Impossible*, ENTREPRENEUR (Nov. 20, 2014), <http://www.entrepreneur.com/article/239809>.

23. “A product displays positive network effects when more usage of the product by any user increases the product's value for *other* users (and sometimes all users).” Arun Sundarajan, *Network Effects*, @DIGITALARUN, <http://oz.stern.nyu.edu/io/network.html> (last visited Feb. 10, 2015).

24. *Infra* Section III.A.

25. Professor Fairfield is an internationally recognized law and technology scholar. Professor Fairfield specializes in digital property, electronic contracts, big data privacy, and virtual communities. *See* Biography of Professor Joshua A.T. Fairfield, WASHINGTON AND LEE UNIVERSITY SCHOOL OF LAW, <http://law2.wlu.edu/faculty/profiledetail.asp?id=242> (last visited Feb. 25, 2015).

26. Fairfield, *supra* note 11, at 67.

Trust in a currency is essential to its adoption²⁷ and while Bitcoin can provide many benefits over cash and credit card transactions,²⁸ virtual currency, like all digital technologies is capable of massive and systemic failure.²⁹ This current age is one of massive cyber intrusions and hacks.³⁰ Even the economic collapse in 2008 was partly driven by technological failure.³¹ While the Bitcoin protocol's technical features create an inherent level of security,³² it is, of course, the risks that have not yet been imagined that are the most dangerous. Unlike with cash, an undiscovered vulnerability in the Bitcoin protocol could lead to catastrophic failure of the entire Bitcoin ecosystem. Preventing and mitigating these risks will require smart, flexible, and active regulation. This regulation must be balanced against concerns over stifling innovation. As with the internet, regulators must strike a balance between protecting the public from Bitcoin's bad actors, while allowing people to experiment with, and develop the technology.³³

This Note first examines the history of Bitcoin and the mechanics of the Bitcoin protocol and the blockchain in Part I. Part II then discusses some of the potential uses of Bitcoin, from its potential as a currency, to the use of the blockchain to track other property interests. Part III examines some of risks associated with Bitcoin, from its use in online

27. See Supriya Singh, *Electronic Commerce and the Sociology of Money*, 4 SOCIOLOGICAL RESEARCH ONLINE 3.4 (Feb. 29, 2000), <http://www.socresonline.org.uk/4/4/singh.html>.

28. See *infra* Part II.

29. See, e.g., Bent Flyvbjerg & Alexander Budzier, *Why Your IT Project May Be Riskier Than You Think*, HARV. BUS. REV. (Sep. 2011), <https://hbr.org/2011/09/why-your-it-project-may-be-riskier-than-you-think/> (discussing the frequency with which large IT projects fail on a massive scale); Eric Scigliano, *10 Technology Disasters*, MIT TECH. REV. (June 1, 2002), <http://www.technologyreview.com/featuredstory/401465/10-technology-disasters/> (highlighting the factors that consistently cause new technologies to fail).

30. See, e.g., ASSOCIATED PRESS, *Sony Hack Adds to Security Pressure on Companies*, N.Y. TIMES (Dec. 19, 2014), <http://www.nytimes.com/aponline/2014/12/19/world/asia/ap-as-sony-hack-company-security.html>; Nicole Perlroth, *Target Struck in the Cat-and-Mouse Game of Credit Theft*, N.Y. TIMES (Dec. 19, 2013), <http://www.nytimes.com/2013/12/20/technology/target-stolen-shopper-data.html>.

31. See Kenneth A. Bamberger, *Technologies of Compliance: Risk and Regulation in a Digital Age*, 88 TEX. L. REV. 669, 675 (2009).

32. See *infra* Section I.B.1.

33. See Mohit Kaushal & Sheel Tyle, *The Blockchain: What it is and Why it Matters*, BROOKINGS INSTITUTION (January 13, 2015), <http://www.brookings.edu/blogs/techtank/posts/2015/01/13-blockchain-innovation-kaushal> (noting that regulators recognized the unique nature of internet required light regulation to not stifle innovation).

black markets, the consumer protection risks to users, and Bitcoin's potential as a tax evasion mechanism. Part IV analyzes the current regulatory environment for Bitcoin and Bitcoin's role in criminal litigation. Finally, Part V suggests policy changes to disclosure requirements and tax classifications to facilitate the broader adoption of Bitcoin as a currency by the general public.

I. THE BASICS OF BITCOIN AND THE BLOCKCHAIN

This Section will describe what Bitcoins are, how the blockchain solves the double-spending problem, the security features inherent in the Bitcoin protocol, Bitcoin mining, and the blockchain as a public ledger.

A. BITCOIN BASICS

Satoshi Nakamoto, a pseudonym of a computer programmer or group of programmers,³⁴ proposed Bitcoin in a 2008 white paper as an open source, peer-to-peer, digital currency.³⁵ Bitcoins are computer files, like mp3s and gifs, and are stored in a program called a "wallet"³⁶ or on an online service such as Coinbase.³⁷ Bitcoin wallets can be held on the hard drive of a user's personal computer or on an external hard drive.³⁸ Like

34. In 2014, Newsweek reporter Leah McGrath Goodwin believed that she had found Bitcoin's founder in Dorian Satoshi Nakamoto in Temple City, California. Dorian Nakamoto, a former electrical engineer, has categorically denied that he is the founder of Bitcoin. See Leah McGrath Goodwin, *The Face Behind Bitcoin*, NEWSWEEK (March 6, 2014), <http://www.newsweek.com/2014/03/14/face-behind-bitcoin-247957.html>. The day after the story broke, the Satoshi Nakamoto account made its first post since announcing Bitcoin on the P2P Foundation Website, stating that he or she (or they) were not Dorian Nakamoto. This was the first post by the Satoshi Nakamoto account in over five years, and the mystery continues. See Satoshi Nakamoto, Reply to discussion titled *Bitcoin open source implementation of P2P currency* (Mar. 7, 2014), <http://p2pfoundation.ning.com/forum/topics/bitcoin-open-source?commentId=2003008%3AComment%3A52186>.

35. Nakamoto, *supra* note 4.

36. Kaplanov, *supra* note 3, at 116, 124.

37. COINBASE, <https://www.coinbase.com/> (last visited Feb. 10, 2015).

38. See CFPB, *Risks to consumers posed by virtual currencies*, at 4 (Aug. 2014), http://files.consumerfinance.gov/f/201408_cfpb_consumer-advisory_virtual-currencies.pdf (private keys can be stored on external hard drives). Dutch Bitcoin enthusiast and entrepreneur Martijn Wismeijer has implanted two microchips into his palms to keep his Bitcoin wallet handy. Cyrus Farivar, *Man has NFC chips injected into his hands to store cold Bitcoin wallet*, ARS TECHNICA (Nov. 15, 2014), <http://arstechnica.com/business/2014/11/man-has-nfc-chips-injected-into-his-hands-to-store-cold-bitcoin-wallet/>.

cash, Bitcoins can be destroyed, lost, or stolen.³⁹ For instance, if a user had their Bitcoins stored on a computer that became inoperable after being dropped, or an external hard drive storing Bitcoins was lost,⁴⁰ those Bitcoins would be irretrievable.⁴¹ Bitcoins can only be sent or received by logging the transaction on the public ledger, the aforementioned blockchain.⁴²

Bitcoins lack intrinsic value and do not derive value from a government; rather, a Bitcoin's value is purely a function of supply and demand.⁴³ Unlike paper "fiat currency"⁴⁴ that derives value from a government, Bitcoin is neither the creation of, nor backed by, any government.

Bitcoins can be obtained in three ways: (1) in exchange for conventional money in person or on an online exchange, (2) in exchange for the sale of goods or services, and (3) through mining.⁴⁵ Mining uses a computer's processing power to solve complex math problems both to maintain the blockchain public ledger and to "discover" new Bitcoins.⁴⁶

Initially, Bitcoin appealed to a core group of anti-establishment enthusiasts on the fringes of the financial system, but more recently Bitcoin has become popular among venture capitalists and investment firms anticipating the wider adoption of the currency.⁴⁷ A number of leading retail businesses including Expedia, Overstock, Newegg, and the

39. See Grinberg, *supra* note 6, at 180 (2012).

40. U.K. Resident James Howell threw out an external hard drive in 2013 containing 7,500 Bitcoins. At the time, collectively these Bitcoins were valued at \$9 million dollars. Kelly Phillips Erb, *From Treasure To Trash: Man Tosses Out Bitcoin Wallet On Hard Drive Worth \$9 Million*, FORBES (Nov. 30, 2013), <http://www.forbes.com/sites/kellyphillipserb/2013/11/30/from-treasure-to-trash-man-tosses-out-bitcoin-wallet-on-hard-drive-worth-9-million/>.

41. See CFPB, *supra* note 38, at 4.

42. Kaplanov, *supra* note 3, at 116.

43. *Id.* at 115. Or as venture capitalist Marc Andreessen argues: "It's not as much that the Bitcoin currency has some arbitrary value and then people are trading with it; it's more that people can trade with Bitcoin (anywhere, everywhere, with no fraud and no or very low fees) and as a result it has value." Marc Andreessen, *Why Bitcoin Matters*, N.Y. TIMES (Jan. 21, 2014), <http://dealbook.nytimes.com/2014/01/21/why-bitcoin-matters/>.

44. *Fiat Money Definition*, DICTIONARY.COM <http://dictionary.reference.com/browse/fiat+money> (last visited on Jan. 24, 2015).

45. ELWELL ET AL., *supra* note 2, at 2.

46. *Id.*

47. Sydney Ember, *New York Proposes First State Regulations for Bitcoin*, N.Y. TIMES (July 17, 2014), <http://dealbook.nytimes.com/2014/07/17/lawsky-proposes-first-state-regulations-for-bitcoin/>.

Dish Network now accept Bitcoin.⁴⁸ Merchants such as Overstock deal with the price volatility of Bitcoin by immediately converting their Bitcoin revenue into dollars or some other more stable currency.⁴⁹ Overstock CEO Patrick Byrne has explained that “[u]ntil [Overstock] can hedge [the pricing risks] through some kind of derivative instrument, [the company doesn’t] want to take that direct exposure.”⁵⁰

Bitcoin protocol seeks to solve the double-spending problem inherent in noncash payment systems and the need for a trusted third party (such as a bank or credit card company) to verify the integrity of the transaction.⁵¹ There is no double-spending with cash, as the physical dollar bill must be surrendered. In a traditional noncash payment system a trusted intermediary, such as a bank or credit card company, maintains a private ledger to track account balances and prevent the double-spending.⁵²

The double-spending problem is a specific version of the duplication problem, which has plagued the creation of rivalrous digital assets such as scarce digital property and currency.⁵³ The duplication problem occurs when an owner of a digital asset, such as an mp3, can simply duplicate the file at nearly zero cost (besides the cost of the electricity powering the computer) and thus transfer the file without losing possession of it.⁵⁴ Before the advent of the blockchain, *A* could pay both *B* and *C* with Bitcoin *X*. Something that can be sold without actually giving up possession loses much, if not all of its value.

The Bitcoin protocol solves this by making the blockchain the only way to transfer Bitcoins. Every Bitcoin transaction is broadcast to the entire network of Bitcoin users and the specific Bitcoin is assigned to a new owner on the public ledger.⁵⁵ Once a transaction has been broadcast,

48. See, e.g., Shawn Knight, *Dell joins the growing list of major retailers now accepting Bitcoins*, TECHSPOT (July 18, 2014), <http://www.techspot.com/news/57461-dell-joins-the-growing-list-of-major-retailers-now-accepting-bitcoins.html>.

49. Rob Wile, *Bitcoin Is Experiencing Its Longest Stretch Of Price Stability In A While*, BUSINESS INSIDER (Jan. 29, 2014), <http://www.businessinsider.com/bitcoin-volatility-slows-2014-1>.

50. *Id.*

51. Nakamoto, *supra* note 4, at 1.

52. BRITO & CASTILLO, *supra* note 10, at 4.

53. Fairfield, *supra* note 11, at 14–15.

54. *Id.* at 15.

55. Andreas M. Antonopoulos, *Mastering Bitcoin*, Chapter 1 (2015), <http://chimera.labs.oreilly.com/books/1234000001802/index.html>.

it is recorded, time-stamped, and cannot be modified.⁵⁶ Thus the blockchain accomplishes this task publicly, and requires no third party to verify the transaction.⁵⁷ Essentially, *A* transfers ownership of Bitcoin *X* to *B*, and the blockchain records *B* as the new owner of Bitcoin *X*. *A* can no longer double-spend Bitcoin *X* by transferring it to *C* as well since *A* is no longer the owner of that Bitcoin on the public ledger.⁵⁸

There are also a number of other digital currencies, such as Dogecoin, Litecoin, and Darkcoin,⁵⁹ but Bitcoin—by name recognition, blockchain hash rate,⁶⁰ transaction count, and real world applications—remains by far the most popular.⁶¹

B. BLOCKCHAIN BASICS: THE MECHANICS OF THE BLOCKCHAIN

The Bitcoin protocol both rewards actors for devoting the processing power of their computers to maintaining the blockchain and makes it prohibitively difficult to falsify a transaction through the mining process.⁶²

A useful way to picture the blockchain is as a giant book, with each new block a page added to the top. Each new page contains all the transactions in the network that have been completed since the last page was added. All the Bitcoin miners are competing in a race to solve a complex math problem that will add the next page (block) on top of all the older pages on the public ledger.⁶³ Whichever miner successfully adds the next page is rewarded in Bitcoins by the Bitcoin protocol.⁶⁴

This analogy is helpful in understanding what makes the blockchain a secure public ledger. For a bad actor to falsify the blockchain, they would have to write all the old pages of the “book” as well as new false counterfeit pages at a speed faster than all the honest users in the network. This task

56. Derek A. Dion, *I'll Gladly Trade You Two Bits on Tuesday for a Byte Today: Bitcoin, Regulating Fraud in the E-Economy of Hacker Cash*, 2013 J.L. TECH. & POL'Y 165, 168 (2013).

57. BRITO & CASTILLO, *supra* note 10, at 4.

58. *See id.*

59. *See Crypto-Currency Market Capitalizations*, COINMARKETCAP, <http://coinmarketcap.com/> (last updated Feb. 10, 2015).

60. The number of attempts Bitcoin miners make at solving a particular block of transactions. *See infra* Section I.B.2.

61. *See* Jon Evans, *A Bitcoin Battle Is Brewing*, TECHCRUNCH (Dec. 6, 2014), <http://techcrunch.com/2014/12/06/a-bitcoin-battle-is-brewing>.

62. ELWELL ET AL., *supra* note 2, at 2.

63. *See* Fairfield, *supra* note 11, at 17–21 (describing the process for proving blocks and adding them to the blockchain).

64. *See id.* at 19.

is nearly impossible,⁶⁵ and if a major technological breakthrough occurred that allowed a bad actor to marshal hitherto unforeseen amounts of computing power, he or she would be better served by simply applying that power to honest mining.⁶⁶ Application of all that computational power to Bitcoin mining would allow that actor to prove blocks at a faster rate than the rest of the network and would create a more predictable source of income.⁶⁷ Additionally, a massive hacking of the entire blockchain would cause the value of Bitcoins to plummet, thus making the loot of their crime substantially less valuable.⁶⁸ This decentralized mechanism for guaranteeing the security of the system is what makes the blockchain revolutionary. Rather than having a trusted (and hackable⁶⁹) intermediary to verify transactions (such as a bank or credit card company), while imposing large fees for their trouble, the blockchain is a trustless public ledger with substantially lower transaction fees.⁷⁰ Put another way, the Bitcoin protocol has created a system that incentivizes good behavior without the need for oversight from a central authority.⁷¹ The resources in terms of sheer computing power required to be a bad

65. Put another way, an attacker would have to guess the hashes enough times to look like the rest of the system, matching the combined processing power of the entire network, and to continue guessing faster than the current block chain. The protocol accepts the block chain with the higher degree of difficulty. Thus an attacker would have to guess more hashes, faster, and at a greater degree of difficulty than the rest of the network. *Id.* at 21.

66. Nakamoto, *supra* note 4, at 4. Notably, two computer scientists at Cornell, Ittay Eyal and Emin Gün Sirer, believe this confidence is misplaced and that the blockchain could be falsified with only a third of miners, as opposed to over half, colluding dishonestly. Eyal and Sirer propose the possibility of a “selfish mining pool” which for reasons based in the Bitcoin Protocol could, with more than one third of miners, severely undermine the system, ultimately destroying its decentralized character. In practice, this would entail a pool of selfish miners working, as honest miners do, on solving a new block to put on top of the blockchain. But instead of publishing that block immediately, the selfish miners would keep the block private. From here, the selfish miners will attempt to build on their lead by finding and solving another block, and just before the honest miners close the gap, the selfish miners would publish their hidden longer chain, nullifying the work of the honest miners. This increase in profits would incentivize more honest miners to join the selfish mining pool and eventually change the blockchain from a decentralized system with all of its benefits of security and finality to a centralized system, operating at the whim of colluding miners. ITTAY EYAL & EMIN GÜN SIRER, MAJORITY IS NOT ENOUGH (2014), *available at* <http://www.cs.cornell.edu/~ie53/publications/btcProcArXiv.pdf>.

67. *See* Nakamoto, *supra* note 4, at 4.

68. *See id.*

69. *See supra* note 30.

70. ELWELL ET AL, *supra* note 2, at 5.

71. Antonopoulos, *supra* note 55, at Chapter 8.

actor would be more profitably used to support the system rather than undermine it.⁷² This is also the process for implementing the monetary supply, which makes the Bitcoin protocol more elegant still.⁷³

1. *The Security Features of Bitcoin and the Blockchain*

The Bitcoin protocol is a very secure way to transfer currency because of its utilization of cryptography. Cryptography in the most basic sense is the ability to hide one's communications from people who lack the correct key to decode a communication⁷⁴ that might otherwise look like gibberish.⁷⁵ Cryptography has been used in one form or another at least since the ancient Greeks,⁷⁶ and with the advent of computers and their massive processing power, is the basis for Bitcoin's ability to be transferred securely.⁷⁷

Security in the Bitcoin protocol is ensured through "cryptographic proof," allowing the parties to deal directly with each other, rather than through a third party.⁷⁸ Each user's account has two cryptographically related keys, a "public key" and a "private key."⁷⁹ The keys are mathematically related, but it is not possible to use the public key to derive the private key.⁸⁰ The public key, essentially a string of letters and numbers approximately twenty-seven to thirty-four characters long, is best thought of as an address listed on the blockchain that anyone in the public can see.⁸¹ It acts as the destination at which a user receives Bitcoins.⁸²

Only the owner of the Bitcoin knows the "private key", and can use it to authorize or "sign" a transfer of Bitcoins to a different account's⁸³ public key address. If a malicious actor were to discover another user's private key, that malicious actor would be able to steal that user's Bitcoins.⁸⁴

It is irrelevant how or where the transaction is transmitted to the Bitcoin network as peer-to-peer networks connect each client (also known

72. *Id.*

73. *Id.*

74. *Cryptography Definition*, *supra* note 8.

75. *See* Dion, *supra* note 56, at 168 (a Bitcoin private key is "essentially a string of letters and numbers approximately twenty-seven to thirty-four characters long).

76. V.V. YASHCHENKO, CRYPTOGRAPHY: AN INTRODUCTION 6 (2000).

77. *See* Kaplanov, *supra* note 3, at 116.

78. *Id.*

79. Dion, *supra* note 56, at 167-68.

80. Fairfield, *supra* note 11, at 18.

81. Dion, *supra* note 56, at 168.

82. *Id.*

83. Typically another user, though users can have multiple accounts if they wish.

84. Dion, *supra* note 56, at 184.

as a node) to several other Bitcoin clients.⁸⁵ Any Bitcoin node that receives a valid transaction that the node has not seen before will forward the transaction to all connected nodes, and within seconds the transaction will reach a large percentage of nodes.⁸⁶

The public key address contains no information about the user, and though Bitcoin users do enjoy a much higher level of privacy than users of traditional digital-transfer services, staying completely anonymous can be quite difficult.⁸⁷ Without knowing to whom a public key address corresponded, in one experiment, researchers found that behavior-based clustering-techniques were able to reveal 40 percent of Bitcoin users.⁸⁸ Yet, if a public key were linked to a person's identity, one could look through the recorded transactions on the blockchain and view all transactions associated with that public key.⁸⁹ Public key addresses on the public ledger can be identified years after an exchange is made.⁹⁰ Once Bitcoin exchanges become fully compliant with bank secrecy regulations requiring firms to collect personal data on their customers this privacy will be further eroded. A more detailed discussion of bank secrecy regulations is below.⁹¹ Anonymity could be guaranteed for a short time if a user were to meet a Bitcoin holder in person and pay that owner for their Bitcoins in cash, but there is evidence that statistical techniques and pattern analysis can unmask up to 60 percent of Bitcoin users.⁹²

2. *Bitcoin Mining and the Maintenance of the Blockchain*

A transaction is not part of the public ledger (blockchain) until verified and included in a block through a process called mining.⁹³ Mining is both the process for creating Bitcoins and the method for updating the blockchain with the most current transactions.

Transactions are bundled into blocks that are generated every ten minutes in a computationally intense process that requires miners to solve

85. Antonopoulos, *supra* note 55, at Chapter 2.

86. *Id.*

87. BRITO & CASTILLO, *supra* note 10, at 9.

88. Elli Androulaki et al., *Evaluating User Privacy in Bitcoin*, CRYPTOLOGY EPRINT ARCHIVE (2013), <https://eprint.iacr.org/2012/596>.

89. BRITO & CASTILLO, *supra* note 10, at 8.

90. *Id.* at 9.

91. *See infra* Section IV.B.1.a).

92. ALEX BIRYUKOV ET AL., DEANONYMISATION OF CLIENTS IN BITCOIN P2P NETWORK (2014), *available at* <http://orbilu.uni.lu/bitstream/10993/18679/1/Ccsfp614s-biryukovATS.pdf>.

93. *Id.*

a difficult mathematical problem.⁹⁴ These problems require a great deal of computation to prove, but very little computation to verify as proven.⁹⁵ This “proof-of-work” solution requires quadrillions of computations per second across the entire Bitcoin network.⁹⁶ These computations require the computer to guess numbers.⁹⁷ Josh Fairfield likens this process to rolling dice.⁹⁸ The computation does not in and of itself discover anything, but due to the length of the values to be guessed, it inherently has a mathematically predictable degree of difficulty that can be increased by making the values, or “hashes” longer.⁹⁹ The hash is a way of transforming an arbitrary amount of data into a fixed number that is not invertible (the data cannot be deduced from the hash).¹⁰⁰

Bitcoin mining requires an incredible amount of computing power. In March 2014, an estimated 30,000 trillion hashes per second were computed on the network.¹⁰¹ Taken as a whole, the Bitcoin network is more powerful than the combined computing power of the top five hundred supercomputers in the world.¹⁰² Security expert Andreas M. Antonopoulos likens Bitcoin mining to a giant game of competitive Sudoku that resets every time a player solves the puzzle. It can take a lot of work to solve the puzzle, but checking the solution is quite simple.¹⁰³

In exchange for proving blocks, miners are rewarded with transaction fees and a set amount of Bitcoins that diminishes as more Bitcoins are mined.¹⁰⁴ The Bitcoin protocol adjusts the difficulty of the computational problems to ensure that Bitcoins mining occurs at a predictable and limited rate;¹⁰⁵ the resulting diminishing returns are meant to simulate the actual diminishing returns that come in real mining.¹⁰⁶ To use Antonopoulos’ Sudoku analogy again, the difficulty of the puzzle can be adjusted to require more computing power to solve a block by making the

94. *Id.*

95. *Id.*

96. *Id.*

97. Fairfield, *supra* note 11, at 19.

98. *Id.*

99. *Id.*

100. *Id.* at 20.

101. Lawrence Trautman, *Virtual Currencies; Bitcoin & What Now After Liberty Reserve, Silk Road, and Mt. Gox?*, 20 RICH. J.L. & TECH. 1, 50 (2014).

102. *Id.* at 50–51.

103. Antonopoulos, *supra* note 55, at Chapter 2.

104. BRITO & CASTILLO, *supra* note 10, 6–7.

105. Antonopoulos, *supra* note 55, at Chapter 2.

106. Like with shovels and dirt and rocks.

puzzle larger (by adding more rows or columns).¹⁰⁷ The protocol sets an arbitrary cap of twenty-one million Bitcoins.¹⁰⁸ 2140 is the predicted date the last “satoshi,” or 0.00000001 of Bitcoin will be mined.¹⁰⁹ As this time approaches, miners will incur greater expenses due to the progressively more difficult hashes dictated by the protocol.¹¹⁰

Transaction costs will have to rise to allow mining to continue to be profitable.¹¹¹ Although transaction fees typically represent 0.5% or less of a Bitcoin miner’s income,¹¹² the rest coming from newly minted Bitcoins, these fees still play an important role as they affect the prioritization of which blocks are processed first, since parties to a transaction can pay higher fees to incentivize miners to solve their block before other blocks.¹¹³ This allows market forces to influence the speed at which a transaction is verified.¹¹⁴ The minimum transaction fee is currently fixed at 0.0001 Bitcoin, or a tenth of a milli-Bitcoin per kilobyte, but if a user wants their transaction processed more quickly, they can include a higher fee to incentivize miners.¹¹⁵

Energy is the primary expense in mining Bitcoins, resulting in the creation of large computer centers in places like Washington State and Iceland, where energy costs are particularly low due to the abundance of hydroelectric and geothermal power.¹¹⁶ In the early stages of mining, essentially any computer had the processing power to engage in Bitcoin mining, but as the hashes have gotten more difficult, only highly specialized equipment is capable of mining.¹¹⁷ “Botnets” voluntarily enlist large pools of computers to combine computing power to mine Bitcoins more quickly, while splitting the profits based on the percentage of computing power contributed.¹¹⁸ There is evidence that hackers have also

107. Antonopoulos, *supra* note 55, at Chapter 2.

108. *See* ELWELL ET AL., *supra* note 2, at 2.

109. BRITO & CASTILLO, *supra* note 10, at 7.

110. *Id.*

111. *See id.*

112. Antonopoulos, *supra* note 55, at Chapter 8.

113. *Id.* at Chapter 5.

114. *Id.*

115. Bitcoins are divisible to eight decimal places. The maximum amount of spendable units is more than 2 quadrillion (2000 trillion). *See id.*

116. *See* Nathaniel Popper, *Into the Bitcoin Mines*, N.Y. TIMES (Dec. 21, 2013), <http://dealbook.nytimes.com/2013/12/21/into-the-bitcoin-mines/>.

117. The specialized equipment used to mine Bitcoins is costly, ranging in price from three to nine thousand dollars. *See* Bitcoin Calculator, BITCOINWISDOM.COM, <https://bitcoinwisdom.com/bitcoin/calculator> (last visited Jan. 24, 2015).

118. *See, e.g.*, BTC GUILD, <https://www.btcguild.com> to join (last visited Jan. 24, 2015) (“one of the oldest remaining Bitcoin pools”).

conscripted unwitting CPUs to the task.¹¹⁹ In this scenario, hackers utilize a victim's processor power without their knowledge to mine for Bitcoins, presumably without sharing any profits from proven blocks.¹²⁰

Once a block has been verified through the mining process it is added to the blockchain on top of all the previous blocks before it.¹²¹ Thus, the blockchain essentially contains the history of every Bitcoin from its creation through the present day.¹²²

II. POTENTIAL USES OF BITCOIN AND THE BLOCKCHAIN

The potential uses of Bitcoin and the blockchain range from the prosaic, such as lowering both transaction costs and risk of credit card fraud, to the more outré use as a (more) stable currency for residents of countries with volatile currencies, to the revolutionary by creating a new theory of digital property through the blockchain. This Part will first examine the potential benefits from Bitcoin based on its relatively low transaction costs. Then it will examine the goals of the two venture capitalists that have invested the most in Bitcoin and Bitcoin-based companies. Finally, this Part will discuss the creation of a new theory of digital property based on blockchain technology.

A. LOWERED TRANSACTION COSTS

Certain benefits of Bitcoin are fairly intuitive and do not require a substantial rethinking of the digital economy. Bitcoin's ability to lower transaction costs for users is of particular import and is one of its features that is driving its adoption today.

Bitcoin is particularly attractive to small businesses looking for ways to lower their transaction costs. Though credit cards have made transactions much easier for consumers, merchants must pay a variety of authorization fees, transaction fees, statement fees, interchange fees, and customer service fees, to name a few.¹²³ These fees amount to 2 to 3 percent of the transaction.¹²⁴ For a business with a 5 percent profit margin,¹²⁵ lowering

119. Dion, *supra* note 56, at 184–85.

120. A victim would have to observe a drop in the performance of their computer, a spike in their electricity bill, or an increased amount of data being sent to and from their computer to realize that their CPU had been enlisted in a botnet.

121. Antonopoulos, *supra* note 55, at Chapter 2.

122. See BRITO & CASTILLO, *supra* note 10, at 8.

123. *Id.* at 10–11.

124. CHRIS JAY HOOFNAGLE, JENNIFER M. URBAN & SU LI, BCLT, MOBILE PAYMENTS: CONSUMER BENEFITS & NEW PRIVACY CONCERNS 3 (Apr. 24, 2012).

transaction fees by 1 percent of the businesses' revenue gives an additional 20 percent profit. Additionally, merchants labeled "high risk" by credit card companies who have had difficulty finding payment processors have begun to turn to Bitcoin merchant service providers as an affordable and convenient alternative to credit card companies.¹²⁶

Conducting business through Bitcoin also allows merchants to avoid chargeback fraud, where a consumer reverses payment based on a false claim that the product has not been delivered or a service has not been rendered.¹²⁷ The irreversibility of a Bitcoin transaction can prevent this type of fraud, as once a Bitcoin has been transferred on the blockchain, that transfer is irreversible. Traditional credit card services will still allow consumers to enjoy the capability to engage in chargebacks as a protection from unscrupulous merchants or merchant errors.¹²⁸ But a merchant may wish to give a discount for payments in Bitcoin to incentivize consumers to forgo their ability to chargeback a credit card transaction, to protect the merchant from potential fraud.

Bitcoin also holds great potential for lowering transaction costs required to send remittances back to relatives in developing countries. Remittances to developing countries were projected to reach \$454 billion in 2015.¹²⁹ Wire services such as Western Union and MoneyGram charged an average fee of roughly 8 percent for sending remittances in the third quarter of 2014.¹³⁰ But with Bitcoin, the transaction fee is less than 0.0005 Bitcoins, or approximately 1 percent, assuming liquidity.¹³¹

125. The profit margin for restaurants in 2013 was 5.1%. See Mary Ellen Biery, *U.S. Restaurants Seeing Fatter Margins*, FORBES (June 22, 2014), <http://www.forbes.com/sites/sageworks/2014/06/22/us-restaurants-margins/>.

126. "High risk" merchants include jewelry businesses, software sellers, online storage providers, and travel services. These merchants are considered high risk because of their chargeback volume. Bailey Reutzel, *Some Risky Merchants Turn to Bitcoin Processor; Others Go It Alone*, PAYMENTS SOURCE (Nov. 8, 2013), <http://www.paymentsource.com/news/some-risky-merchants-turn-to-bitcoin-processor-others-go-it-alone-3015974-1.html>.

127. BRITO & CASTILLO, *supra* note 10, at 12.

128. *Id.* at 12.

129. DILIP RATHA ET AL., MIGRATION AND REMITTANCES: RECENT DEVELOPMENTS AND OUTLOOK SPECIAL TOPIC: FORCED MIGRATION 1 (World Bank, Oct. 6, 2014), *available at* <http://siteresources.worldbank.org/INTPROSPECTS/Resources/3349341288990760745/MigrationandDevelopmentBrief23.pdf>.

130. *Id.* at 1, 14 n.13.

131. BRITO & CASTILLO, *supra* note 10, at 14.

Professor Susan Athey, Economics of Technology Professor at the Stanford Graduate School of Business,¹³² believes that these benefits would allow the world's unbanked poor to access global markets.¹³³ Currently, many people in developing countries do not have and are unable to obtain bank accounts, and as a result are completely cut off from international financial markets and participation in the global economy.¹³⁴ Even for those with credit cards, many merchants refuse to accept international credit card transactions because the fraud rate is too high.¹³⁵ Because the transfer of Bitcoins is instantaneous, merchants can accept the currency without fear of fraud.¹³⁶ Additionally, in countries with high inflation, people could use Bitcoin to purchase assets on the global market, like tractors, that better hold their value.¹³⁷

B. BITCOIN AS A STABLE CURRENCY IN WEAK MARKETS AND THE BLOCKCHAIN AS A RECORDING SYSTEM FOR MORE THAN JUST BITCOIN

A number of venture capitalists have begun investing in Bitcoin and blockchain-based businesses.¹³⁸ This Section will examine the goals of the two venture capitalists that have invested the most to date, Tim Draper and Marc Andreessen.

Tim Draper,¹³⁹ co-founder of the investment firm Draper Fisher Jurvetson,¹⁴⁰ sees the future of Bitcoin in emerging economies.¹⁴¹ Draper,

132. *Susan Athey*, STANFORD GRADUATE SCHOOL OF BUSINESS, <http://www.gsb.stanford.edu/faculty-research/faculty/susan-athey> (last visited Feb. 26, 2015).

133. Laura Shin, *Who Will Benefit From Digital Currency? Bitcoin Experiment Gives a Glimpse*, FORBES (Nov. 26, 2014), <http://www.forbes.com/sites/laurashin/2014/11/26/who-will-benefit-from-digital-currency-bitcoin-experiment-gives-a-glimpse/>.

134. *Id.*

135. *Id.*

136. *See id.*

137. *Id.*

138. *See* Nathaniel Popper, *\$25 Million in Financing for Coinbase*, N.Y. TIMES (Dec. 12, 2013), <http://dealbook.nytimes.com/2013/12/12/venture-capital-bets-big-on-bitcoin/>.

139. Draper purchased nearly 30,000 Bitcoins for an estimated \$19 million dollars auctioned off by the government from the now-defunct online black market Silk Road. *See* Olga Kharif, *Bitcoin Auction Winner Draper to Bid Again in December*, BLOOMBERG (Nov. 18, 2014), <http://www.bloomberg.com/news/2014-11-18/bitcoin-auction-winner-draper-to-bid-again-in-december.html>. The United States Marshals Service held another sealed bid auction for another 50,000 Bitcoins in December 2014. *See For Sale: 50,000 bitcoins*, U.S. MARSHALS SERV. <http://www.usmarshals.gov/assets/2014/dpr-bitcoins/> (last visited Jan. 24, 2015). Draper won 2,000 of the Bitcoins with the remaining balance won by the New York-based

with the help of Bitcoin exchange startup Mirror,¹⁴² seeks to “create new services that can provide liquidity and confidence to markets that have been hamstrung by weak currencies.”¹⁴³ Financial crises are a constant threat in much of the world, with countries like Argentina serving as instructive examples.¹⁴⁴ From the mid-1970s to 2002, Argentina had eight currency crises, four banking crises, and two sovereign defaults.¹⁴⁵ Graciela Kaminsky has identified ninety-six currency crises between January 1970 and February 2002 in countries across Europe, Asia, and South America.¹⁴⁶ Draper told CNBC’s Squawk on the Street television show that he believes that “Bitcoin is a great alternative for . . . economies where inflation really saps the strength of a country’s economy” and that he expects “Pagos in Argentina, Pagatech in Africa, and [Coincove in Mexico]¹⁴⁷ . . . [to] thrive because people in those countries are not as confident in their own governments’ fiat currency.”¹⁴⁸ Notably, U.S. dollars already play a strong role in this respect with a vast amount of dollars held abroad as an alternative to local currencies because dollars are a more stable way to preserve wealth.¹⁴⁹ The Federal Reserve estimates that more than two-thirds of \$100 bills are held overseas.¹⁵⁰

exchange SecondMarket. Sydney Ember, *At an Auction of Bitcoins Seized From Silk Road, SecondMarket Wins Big*, N.Y. TIMES (Dec. 9, 2014), <http://dealbook.nytimes.com/2014/12/09/secondmarket-nearly-sweeps-latest-bitcoin-auction/>.

140. DRAPER FISHER JURVETSON, <http://dfj.com/teams> (last visited Feb. 11, 2015).

141. Sydney Ember, *Winner of Bitcoin Auction, Tim Draper, Plans to Expand Currency’s Use*, N.Y. TIMES (July 2, 2014), <http://dealbook.nytimes.com/2014/07/02/venture-capitalist-tim-draper-wins-bitcoin-auction/>.

142. Mirror is owned by Vaurum. About Mirror, MIRRORX.COM, <https://mirrorx.com/#/about> (last visited Dec. 22, 2014).

143. Ember, *supra* note 141.

144. Trautman, *supra* note 101, at 67.

145. *Id.* at 68.

146. These countries include Argentina, Bolivia, Brazil, Chile, Columbia, Denmark, Finland, Indonesia, Israel, Malaysia, Mexico, Norway, Peru, Spain, Sweden, the Philippines, Thailand, Turkey, Uruguay, and Venezuela. *Id.* at 66 (citing GRACIELA KAMINSKY, VARIETIES OF CURRENCY CRISES 1 (Nat’l Bureau of Econ. Research, Working Paper No. 10193, 2003), *available at* <http://www.nber.org/papers/w10193.pdf>).

147. Pagos, Pagatech, and Coincove are mobile payments companies.

148. *Why VC Tim Draper bought all those bitcoins*, CNBC.COM (July 7, 2014), <http://www.cnbc.com/id/101816404>.

149. *See generally* RUTH JUDSON, CRISIS AND CALM: DEMAND FOR U.S. CURRENCY AT HOME AND ABROAD FROM THE FALL OF THE BERLIN WALL TO 2011 (Bd. of Governors of the Fed. Reserve Sys. Int’l Fin. Discussion Papers, IFDP 1058 Nov. 2012), *available at* <http://www.federalreserve.gov/pubs/ifdp/2012/1058/ifdp1058.pdf>.

150. *Id.* at 12.

Marc Andreessen, co-founder and partner of the venture capital firm Andreessen Horowitz¹⁵¹ believes that the blockchain's security features are what will allow the technology to flourish.¹⁵² As of March 2014, Andreessen's firm has made approximately \$50 million in investments in blockchain related businesses, believed to be more than the investments of any other firm.¹⁵³ Andreessen argues that not only will payments in Bitcoin be much safer for consumers than credit cards,¹⁵⁴ but also that the inherent security features of the blockchain will allow for the transfer of digital titles and property.¹⁵⁵ Andreessen suggests that in the future, the blockchain will allow for a trustless transfer, without intermediaries, of digital stocks, equities, bonds, contracts, keys, and titles.¹⁵⁶

In a similar vein, Jeff Garzik, one of Bitcoin's core developers, has suggested the possibility of "smart" self-executing contracts.¹⁵⁷ For instance, a "smart loan" could automatically adjust interest rates based on the financial performance of the borrower.¹⁵⁸ The contract's code could be written to include automated observation of real world metrics, which now require manual reporting, monitoring, and enforcement.¹⁵⁹ As discretion on the part of the lender is removed, Houman B. Shadab of New York Law School's Center for Business and Financial Law suggests a "smart contract" of this sort would greatly reduce or eliminate the need for litigation, because it removes much of the potential for parties to have a dispute.¹⁶⁰

151. ANDREESSEN HOROWITZ, <http://a16z.com/team/> (last visited Feb. 11, 2015).

152. See Brian Fung, *Marc Andreessen: In 20 years, we'll talk about Bitcoin like we talk about the Internet today*, WASH. POST (May 21, 2014), <http://www.washingtonpost.com/blogs/the-switch/wp/2014/05/21/marc-andreessen-in-20-years-well-talk-about-bitcoin-like-we-talk-about-the-internet-today/>.

153. Gregory Zuckerman, *Web Pioneer Keeps Faith, and Cash, in Bitcoin*, WALL ST. J. (Mar. 21, 2014), <http://www.wsj.com/articles/SB10001424052702304026304579453501821936252>.

154. Andreessen notes that as Bitcoin transfer is instantaneous when a customer purchases a good with Bitcoins, hackers cannot steal that customer's information during the transfer. While Hackers could still steal Bitcoins from poorly secured merchant computer systems, this does increase the risk of loss, fraud, or identity theft to consumers. See Andreessen, *supra* note 43.

155. Fung, *supra* note 152.

156. *Id.*

157. Everett Rosenfeld, *Forget currency, bitcoin's tech is the revolution*, CNBC.COM (Nov. 13, 2014), <http://www.cnbc.com/id/102178309#>.

158. *Id.*

159. *Id.*

160. *Id.*

C. A NEW THEORY OF DIGITAL PROPERTY MADE POSSIBLE BY
THE BLOCKCHAIN

At the outer frontier of theorizing on the impact of the blockchain, Professor Joshua Fairfield of the Washington and Lee University School of Law has proposed that the advent of the blockchain as a trustless public ledger that allows for rivalrous digital property warrants a new theory of property as an information communication and storage system.¹⁶¹ Fairfield argues that property law has managed the transition to the online ecosystem poorly compared to tort and contract law.¹⁶² Yet, with the advent of the blockchain, true digital ownership interests are now possible and rethinking property as an information protocol will avoid placing false constraints on the extension of traditional property rules to digital assets.¹⁶³

The blockchain can be used to implement a property system by tying real property to specific coins within the chain through tokenization.¹⁶⁴ Tying a legal right to a token is common in property law, with examples ranging from paper deeds for land to paper titles for a car.¹⁶⁵ Thus a Bitcoin, or part of a Bitcoin, could be “tokenized” to represent a real asset, such as land. This “tokenized” coin would not impact the rest of the blockchain, but whoever owned the coin would own its associated commodity, such as a home or automobile.¹⁶⁶ These tokenized coins would have all the aforementioned benefits of any other Bitcoin, such as rivalrousness, security, and would be easily tracked on the decentralized public ledger.¹⁶⁷ A tokenized public ledger would offer new solutions to old property problems, such as low cost secure transfer, easy tracing of transactions, prevention of the double spending problem, and the near impossibility of reversal or falsification.¹⁶⁸

The vast bulk of owned wealth is recorded in systems that tell users who owns what, and the blockchain can decentralize this information and address what Fairfield calls “one of the great inefficiencies of modern property: its reliance on expensive, inaccurate, hard-to-access, hard-to-search, and insecure ledgers of all stripes.”¹⁶⁹ Thus, under a new theory of

161. *See generally* Fairfield, *supra* note 11.

162. *Id.* at 8.

163. *See id.* at 9.

164. *Id.* at 24–26.

165. *Id.* at 25.

166. *Id.* at 24.

167. *See id.* at 26.

168. *Id.*

169. *Id.* at 5.

property as an information protocol, the effectiveness of a property system should be judged on how well it stores and communicates information about ownership.¹⁷⁰ Today property records are contained in a “hodgepodge of relatively inaccurate, sometimes insecure, and often expensive ledgers” that are “notoriously costly to search.”¹⁷¹

The Mortgage Electronic Registration System (“MERS”) is a timely example of a current system that could be improved through public ledger technology. MERS is a database set up by banks to facilitate the transfer of mortgages and track their ownership internally.¹⁷² As of 2007, more than half of all home mortgage loans originated in the United States were registered on the MERS system.¹⁷³ MERS is listed as the owner in county land records.¹⁷⁴ Yet New York Attorney General Eric T. Schneiderman alleges that because MERS records are private, MERS has limited the public’s ability to track property transfers and thus it is difficult to verify the chain of title for a loan or a current noteholder for many properties.¹⁷⁵ Thus during the foreclosure crisis, it became difficult for borrowers to work out exactly who owned their mortgage and to get help in working out their loans.¹⁷⁶ If all mortgages were recorded on the blockchain, instead of MERS, tracking the chain of ownership and mortgages would be a simple task, and defaulting homeowners could more easily determine which bank has the authority to negotiate refinancing options.

As noted above, the Bitcoin protocol rewards Bitcoin miners in Bitcoins for utilizing their computing power to maintain the blockchain. Thus, for Professor Fairfield’s ideas to become a reality, Bitcoins need to be adopted by the broader public.

170. *Id.* at 9.

171. *Id.* at 12.

172. Christopher L. Peterson, *Predatory Structured Finance*, 28 CARDOZO L. REV. 2185, 2211–12 (2007).

173. *Id.* at 2212.

174. *Id.*

175. Chad Bray, *New York Sues Banks Over Mortgage Registry System*, WALL ST. J. (Feb. 3, 2012), <http://online.wsj.com/articles/SB10001424052970203889904577201060859616158>.

176. Gretchen Morgenson, *Mortgage Registry Muddles Foreclosures*, N.Y. TIMES (Sept. 1, 2012), <http://www.nytimes.com/2012/09/02/business/fair-game-mortgage-registry-muddles-foreclosures.html>.

III. THE DARKER SIDE OF BITCOIN: THE POTENTIAL FOR BLACK MARKETS, THEFT, AND TAX EVASION

Cash remains the ultimate anonymous currency. The U.S. \$100 note is particularly popular for laundering the profits of illicit activities.¹⁷⁷ Professor Edgar Feige estimates that U.S. currency is the preferred medium for “facilitating clandestine transactions, and for storing illicit and untaxed wealth.”¹⁷⁸ It is estimated that over 50 percent of all hard currency in most countries is used to hide transactions.¹⁷⁹ These illicit transactions include illegal trade in drugs, arms, and sex as well as unreported income to skirt the tax code.¹⁸⁰

In many ways, Bitcoins and cash share a key property that makes them both suitable for unlawful activity: neither requires an institutional (and subpoenaable) intermediary.¹⁸¹ In the same way that it can be hard to track the movements of a briefcase full of \$100 bills in a direct transaction between two parties, it can be difficult to track a direct exchange of Bitcoins between two parties.¹⁸² Like cash, there is nothing inherently nefarious about Bitcoins, but the digital nature of Bitcoin introduces a new wrinkle as it can be sent electronically, rather than requiring a physical meeting to exchange.

In the popular imagination, Bitcoin is associated with online black markets, unsavory characters, and risks to consumers from hackers.¹⁸³ This view is not entirely unwarranted. Bitcoin has been used as a key

177. See Chris Arnold, *Should We Kill the \$100 Bill?*, NPR'S PLANET MONEY (Aug. 14, 2014), <http://www.npr.org/blogs/money/2014/08/14/340356790/should-we-kill-the-100-bill>.

178. Edgar L. Feige, *New Estimates of U.S. Currency Abroad, the Domestic Money Supply and the Unreported Economy* 4 (Munich Personal RePEc Archive, Working Paper No. 34778, 2011), available at http://mpra.ub.uni-muenchen.de/34778/1/MPRA_paper_34778.pdf.

179. Kenneth Rogoff, *Costs and benefits to phasing out paper currency*, Presentation at NBER Macroeconomics Conference (April 11, 2014), available at <http://scholar.harvard.edu/files/rogoff/files/c13431.pdf>.

180. Feige, *supra* note 178, at 4.

181. A hand-to-hand cash transaction lacks an institutional middleman. Similarly there is no Bitcoin company to raid or shut down in a direct transfer. See Kaplanov, *supra* note 3, at 168.

182. See BRITO & CASTILLO, *supra* note 10, at 7–8.

183. Stephen T. Middlebrook & Sarah Jane Hughes, *Regulating Cryptocurrencies in the United States: Current Issues and Future Directions*, 40 WM. MITCHELL L. REV. 813, 818–19 (2014).

component of illegal mail order drug and firearm markets,¹⁸⁴ in Ponzi schemes to defraud investors,¹⁸⁵ and has been stolen in large quantities by hackers.¹⁸⁶ Protecting society from these unlawful uses and vulnerabilities is vital to Bitcoin's wider adoption by the general public, and perhaps especially with older users.¹⁸⁷

This Part will examine the most famous Bitcoin black market website, the disbanded "Silk Road" and its successor Agora, as examples of unlawful activities facilitated by the use of Bitcoin. Next, it will examine the hacked Bitcoin exchange Mt. Gox where consumers lost millions of dollars, as an example of the risks to consumers from improperly secured Bitcoin exchanges. Finally, it will explore Bitcoin's potential use for tax evasion.

A. ONLINE BLACK MARKETS: THE SILK ROAD

Silk Road was a deep Web¹⁸⁸ black-market site in operation from February 2011 to October 2013.¹⁸⁹ Through the anonymizing network TOR,¹⁹⁰ the pseudonymous nature of Bitcoin, plus "tumbling" services such as Bitcoin Bath,¹⁹¹ users could order drugs and other illicit wares by mail.¹⁹² It is estimated that while operational, Silk Road's transactions

184. See Jerry Brito, *Online Cash Bitcoin Could Challenge Government, Banks*, TIME TECHLAND, (Apr. 16, 2011), <http://techland.time.com/2011/04/16/online-cash-bitcoin-could-challenge-governments/2/>.

185. See *infra* Section IV.C.1; Secs. & Exch. Comm'n v. Shavers, No. 4:13-CV-416, 2014 WL 4652121 at *8 (E.D. Tex. Sept. 18, 2014) (finding defendants' operation to be a "sham and a Ponzi scheme").

186. BRITO & CASTILLO, *supra* note 10, at 22.

187. In a recent survey, of Americans aware of Bitcoin, people over the age of 55 were significantly less likely to choose to invest in Bitcoin rather than gold. Melanie Flanigan, *Most Americans Still Don't Trust Bitcoin Despite Widespread Awareness, New Survey Shows*, YODLEE, (Mar. 25, 2014), <http://ir.yodlee.com/releasedetail.cfm?releaseid=867331>.

188. The "deep Web" refers websites on the internet that are not accessible through search engines. See Michael K. Bergman, *The Deep Web: Surfacing Hidden Value*, 7 J. OF ELEC. PUBL'G 1 (Aug. 2001).

189. See BRITO & CASTILLO, *supra* note 10, at 23.

190. The Onion Router or TOR is software that allows users to browse the Internet in complete anonymity and free from third-party tracking by constantly changing the Internet Protocol ("IP") address of a computer. With TOR, users can explore the "deepnet" and explore sites that only host anonymous users. Dion, *supra* note 56, at 166.

191. A tumbling service combines payments from multiple buyers to multiple sellers to obscure which public keys were involved in a transaction. See *What do we do?*, BITCOINBATH, <http://bitcoinbath.com/> (last visited Nov. 18, 2014).

192. See BRITO & CASTILLO, *supra* note 10, at 23.

amounted to \$1.2 million monthly, representing only 0.15% of the \$770 million in Bitcoin transactions in a single month.¹⁹³

On October 1, 2013, Federal Bureau of Investigation (“FBI”) agents and federal prosecutors in New York apprehended the Silk Road’s mastermind Ross Ulbricht, also known as the Dread Pirate Roberts, in a San Francisco library with his laptop open.¹⁹⁴ This action allowed the FBI to shut down Silk Road and seize nearly 30,000 Bitcoins.¹⁹⁵

Agora, the “online bazaar for contraband,” has most successfully replaced Silk Road.¹⁹⁶ Silk Road 2.0 was also launched in November 2013 by several of the administrators from the original Silk Road (and shut down by federal authorities in November 2014).¹⁹⁷ Agora’s 16,137 products for sale as of September 2014 is about two hundred more listings than Silk Road 2.0 posted, and several thousand more listings than offered on the original Silk Road.¹⁹⁸ These listings include the perfunctory cornucopia of drugs, but unlike the original Silk Road, also include semi-automatic firearms.¹⁹⁹ Like the Silk Road, business on Agora is conducted in Bitcoins.²⁰⁰

B. MT. GOX AND THE RISKS OF INADEQUATE DATA SECURITY TO CONSUMERS

Another key risk to Bitcoin users is having their Bitcoins stolen by hackers due to inadequate security by Bitcoin exchanges and other

193. *Id.* at 24.

194. David Segal, *Eagle Scout, Idealist, Drug Trafficker?*, N.Y. TIMES (Jan. 18, 2014), <http://www.nytimes.com/2014/01/19/business/eagle-scout-idealist-drug-trafficker.html>.

195. Rachel Abrams & Sydney Ember, *U.S Prepares for Sale of Bitcoins Seized in Its Raid on Silk Road*, N.Y. TIMES (Jan. 18, 2014), <http://dealbook.nytimes.com/2014/06/26/u-s-prepares-for-sale-of-bitcoins-seized-in-silk-road-raid/>. These were the Bitcoins ultimately purchased by Tim Draper for use by the company Vaurum. *See supra* Section II.B.

196. *See* Andy Greenberg, *Drug Market ‘Agora’ Replaces the Silk Road as King of the Dark Net*, WIRED (Sept. 2, 2014), <http://www.wired.com/2014/09/agora-bigger-than-silk-road/>; There are a number of other online black markets with similar, but fewer, offerings. *See Darknet Marketplace Watch – Monitoring Sales of Illegal Drugs on the Darknet*, DIGITAL CITIZENS ALLIANCE, <http://www.digitalcitizensalliance.org/cac/alliance/content.aspx?page=Darknet> (last visited Sept. 2, 2014).

197. *See Operator of Silk Road 2.0 Website Charged in Manhattan Federal Court*, FEDERAL BUREAU OF INVESTIGATION (Nov. 6, 2014), <http://www.fbi.gov/newyork/press-releases/2014/operator-of-silk-road-2.0-website-charged-in-manhattan-federal-court>.

198. Greenberg, *supra* note 196.

199. *Id.*

200. *Id.*

Bitcoin-based businesses. Bitcoin-based companies and exchanges are inherently new businesses due to the recent development of the Bitcoin protocol.²⁰¹ As a result, these companies may not have the resources to fend off hackers that larger and more established institutions might.

Mt. Gox, one of the oldest Bitcoin exchanges, serves as a cautionary tale. Mt. Gox, founded in 2009 as an exchange for Magic: The Gathering cards²⁰² eventually became the dominant online marketplace for the purchase and sale of Bitcoins, handling 80 percent of all Bitcoin trading activity in 2013.²⁰³ On February 25, 2014, Mt. Gox failed after hackers stole approximately 850,000 Bitcoins.²⁰⁴ Mt. Gox was eventually able to recover roughly 200,000 of the stolen Bitcoins.²⁰⁵ This was not the first time hackers had attacked Mt. Gox.²⁰⁶ In 2011 a hacker stole \$8.75 million at the contemporaneous exchange rate.²⁰⁷ Mt. Gox's failure stands as a cautionary tale, not against the security of the blockchain itself, but rather against the security of the intermediaries who are not subject to the same capital holdings requirements as regular banks and stock exchanges.

C. BITCOIN AS A VEHICLE FOR TAX EVASION

Omri Marian, Assistant Professor of Law at the University of Florida Levin College of Law, proposes that cryptocurrencies such as Bitcoin will become key vehicles for tax evasion.²⁰⁸ Marian believes two factors suggest that tax evaders, who have traditionally evaded taxes through offshore bank accounts in tax-haven jurisdictions, will instead use cryptocurrencies to facilitate their evasion.²⁰⁹ The first factor is the increasing popularity of cryptocurrencies such as Bitcoin that function with their own free-floating

201. "The first Bitcoin specification and proof of concept was published in 2009." *Frequently asked questions*, BITCOIN.ORG, <https://bitcoin.org/en/faq> (last visited Feb. 11, 2015).

202. "Magic is a tradable card game (TCG) where you build your collection of cards by trading with your friends, assembling decks of cards, and battling against an opponent and their deck." See *What is Magic: The Gathering*, <http://magic.wizards.com/en/what-is-magic> (last visited Nov. 18, 2014). This author was particularly fond of the game between 1998–2001.

203. Trautman, *supra* note 101, at 100–01.

204. Takashi Mochizuki & Eleanor Warnock, *Mt. Gox Head Believes No More Bitcoins Will Be Found*, WALL ST. J. (June 29, 2014), <http://online.wsj.com/articles/mt-gox-head-believes-no-more-bitcoin-will-be-found-1403850830>.

205. *Id.*

206. See Dion, *supra* note 56, at 185.

207. *Id.*

208. Omri Y. Marian, *Are Cryptocurrencies Super Tax Havens?*, 112 MICH. L. REV. FIRST IMPRESSIONS 38, 39 (2013).

209. *Id.*

exchanges. Second, many governments' preferred anti-tax evasion strategy has changed from targeting tax havens that host financial intermediaries to the financial intermediaries themselves.²¹⁰

Since the 2010 enactment of the Foreign Accounts Tax Compliance Act ("FATCA"), foreign financial institutions ("FFIs") are required to identify their U.S. account holders to the Internal Revenue Service ("IRS"), or face a 30 percent gross tax on payments received from U.S. sources.²¹¹ This gives FFIs with substantial business in the United States the choice of either breaching their home jurisdiction's bank secrecy laws or paying a heavy tax in the United States.²¹² But FATCA was enacted and negotiated with multiple intergovernmental agreements requiring foreign governments to relax their own bank secrecy laws or risk losing business with U.S. firms, thus FFIs in many jurisdictions can comply with FATCA without breaching their local bank secrecy laws.²¹³

Cryptocurrencies possess a number of important advantages over traditional tax havens. First, as Bitcoins can be held in online wallets, they do not operate in a particular jurisdiction like a traditional tax haven and are not subject to taxation at the source.²¹⁴ Second, they are pseudonymous²¹⁵ and users can have as many wallets as they wish, potentially without providing any identifying information.²¹⁶ Third and most important, Bitcoin and other cryptocurrencies are not dependent on financial intermediaries such as banks.²¹⁷ Ordinarily, the IRS may compel financial institutions to produce records to be used in an investigation or trial.²¹⁸ But with Bitcoin, these financial institutions are absent and investigators would have to compel the parties to the transaction to admit their involvement.²¹⁹ Thus, Marian argues, the IRS would not have an FFI to target, and Bitcoin wallets would skirt international anti-evasion laws

210. *Id.*

211. *Id.* at 40–41.

212. *Id.* at 41.

213. *Id.*

214. *Id.* at 42.

215. *See id.; supra* Section I.B.1. Marian argues Bitcoin public key accounts are anonymous, though this Note has established that in fact these public key addresses are pseudonymous. Still, if an account holder simply made deposits in to a Bitcoin wallet and never made withdrawals, statistical analysis techniques for unmasking users would be less useful.

216. *Id.*

217. *Id.*

218. *Id.* at 41.

219. *Id.* at 42.

such as FATCA, unless they self-reported.²²⁰ This is something a tax evader is certain not to do.

Though current U.S. bank secrecy laws²²¹ applied to Bitcoin exchanges could obviate this problem, more sophisticated approaches to evasion might still succeed.²²² For instance, an evader, through tax-exempt buying agents, could invest in traded securities and commodities using a Bitcoin-equity swap contract.²²³ In this scenario the evader would pay the agent in Bitcoin the amount she wants to invest in a stock.²²⁴ The agent would purchase the stock using the dollar value of the Bitcoin paid, and transfer any dividends back to the evader. As the agent is tax-exempt, he would carry no tax liability.²²⁵ Thus tax authorities would know nothing about the involvement of the Bitcoin investor, whose income from investment would go unreported and untaxed.²²⁶ Though this may sound convoluted, tax evasion is estimated to cost the United States between \$40 to \$70 billion in tax revenues each year, and is thus quite profitable to evaders.²²⁷

IV. ANALYSIS OF APPLICABLE LAWS, REGULATION BY GOVERNMENT AGENCIES, AND TREATMENT IN THE COURTS

This Part will describe the current regulatory landscape around Bitcoin by government agencies and how U.S. courts have dealt with cases involving Bitcoin. The first Section will examine relevant laws that may be, or are being, used to regulate Bitcoin. The second Section will examine the regulation of Bitcoin by federal agencies. The final Section will argue that U.S. courts have treated Bitcoin from a functional perspective that is best described as “you did an unlawful thing, and you are not excused because that unlawful thing was done with Bitcoin.”

Statutes and regulations around Bitcoin fall into two broad categories: those that protect people who use Bitcoins (consumers, investors), and those that protect society from people who use, or might use, Bitcoins (drug dealers, terrorists, violent criminals). The first category consists of

220. *See id.* at 42.

221. This is discussed below *infra* at Section IV.A.3.

222. Marian, *supra* note 208, at 42–43.

223. *Id.*

224. *Id.* at 43.

225. *Id.*

226. *Id.*

227. *See id.* at 40 (citing JANE G. GRAVELLE, CONGRESSIONAL RESEARCH SERVICE, R40623, TAX HAVENS: INTERNATIONAL TAX AVOIDANCE AND EVASION 1 (2013)).

statutes and regulations that protect Bitcoin users from fraud and theft. The second category consists of statutes and regulations to protect society from the “Four Horsemen of the Infocalypse.”²²⁸ Notably, many of the enforcement mechanisms are directed at Bitcoin exchanges.²²⁹ Like cash, Bitcoins sent directly to another person without an intermediary are more difficult to track than electronic transactions involving credit cards.²³⁰ Thus, for regulators Bitcoin exchanges are the most logical institutional choke point in the Bitcoin ecosystem.

A. APPLICABLE LAWS

1. *The Stamp Payments Act*

As a threshold matter, it does not appear that the U.S. government is seeking to outlaw Bitcoins completely.²³¹ But if the government were to attempt this, many commentators believe the Stamp Payments Act of 1862 (“Stamp Payments Act”) might be a potential mechanism.²³² The Stamp Payments Act was enacted when inflation caused the metal in low denomination coins to be more valuable than the face value of the coins themselves, causing people to hoard the coins and creating a shortage.²³³ In order to make change for customers in the absence of these coins, companies privately issued small denominations of currencies in notes or tokens.²³⁴ Economists and politicians feared that these private currencies were contributing to inflation and enacted the Stamp Payments Act,²³⁵ which in relevant part states:

228. A term coined at the dawn of the information age to describe the four key threats of the information age: drugs, money laundering, child pornography, and terrorism. The Four Horsemen are used as justification for many cyber security policies and practices. Bruce Sterling, *The Cybersecurity Industrial Complex*, WIRED (Jan. 2003), <http://archive.wired.com/wired/archive/11.01/view.html?pg=4>.

229. *Infra* Section IV.B.1.a).

230. *See* ELWELL ET AL, *supra* note 2, at 2–3.

231. Though Senator Joe Manchin of West Virginia has called for as much. *See Manchin Demands Federal Regulators Ban Bitcoin*, JOE MANCHIN NEWSROOM (Feb. 26, 2014), <http://www.manchin.senate.gov/public/index.cfm/2014/2/manchin-demands-federal-regulators-ban-bitcoin>.

232. *See, e.g.*, Dion, *supra* note 56, at 174–75; Grinberg, *supra* note 6, at 186; *but see* Matthew Kien-Meng Ly, *Coining Bitcoin’s “Legal Bits”: Examining the Regulatory Framework for Bitcoin and Virtual Currencies*, 27 HARV. J. L. & TECH. 587, 598–99 (2014).

233. Grinberg, *supra* note 6, at 183.

234. *Id.*

235. *Id.*

Whoever makes, issues, circulates, or pays out any note, check, memorandum, token, or other obligation for a less sum than \$1, intended to circulate as money or to be received or used in lieu of lawful money of the United States, shall be fined under this title or imprisoned not more than six months, or both.²³⁶

Though this might appear to apply to Bitcoins, which are divisible into sums of less than one dollar, caselaw suggests that the touchstone of the Stamp Payments Act is competition with official currency.²³⁷ Grinberg suggests that the following factors in determining whether a note or token is in competition with official currency can be derived from caselaw. Grinberg posits that the Stamp Payments Act “is unlikely to apply to anything that (1) circulates in a limited area, (2) is redeemable only in goods, (3) does not resemble official U.S. currency and is otherwise unlikely to compete with small denominations of U.S. currency, or (4) is a commercial check.”²³⁸ Though Bitcoin arguably is intended to compete with official currency, banning Bitcoin under the Stamp Payments Act would not further Congress’s goal of preventing competition with U.S. coins.²³⁹ Additionally, as the Stamp Payments Act provides criminal penalties, a court might narrowly interpret it to conclude that Congress did not anticipate Bitcoin and it is thus not within the scope of the Stamp Payments Act.²⁴⁰ There have been no published court opinions interpreting the Stamp Payments Act since 1899 and it is unlikely it will be revived to outlaw Bitcoin.²⁴¹

2. *The Securities Act*

The use of Bitcoin as an investment tool has brought it to the attention of the Securities and Exchange Commission (“SEC”), under the ambit of the Securities Act of 1933.²⁴² The Securities Act of 1933 (“Securities Act”) defines securities in broad terms through a thorough list of financial instruments.²⁴³ Courts have painted the scope of the Securities

236. 18 U.S.C. § 336 (2012).

237. See Grinberg, *supra* note 6, at 183–84 (citing *Stettinius v. United States*, 5 D.C. (5 Cranch) 573 (D.C. Cir. 1839); *United States v. Monongahela Bridge Co.*, 26 F. Cas. 1292, 1292 (W.D. Pa. 1863) (No. 15,796)).

238. Grinberg, *supra* note 6, at 185 (citations omitted).

239. *Id.* at 187.

240. *Id.*

241. *Id.* at 190–91.

242. See Secs. & Exch. Comm’n v. Shavers, No. 4:13-CV-416, 2014 WL 4652121 (E.D. Tex. Sept. 18, 2014); *infra* Section IV.A.2.

243. See 15 U.S.C. § 77(b) (2012).

Act with a broad brush²⁴⁴ and, as discussed below, have already ruled that investment schemes involving Bitcoin qualifies.²⁴⁵

Commentator Paul H. Farmer Jr. argues that Bitcoin itself could be considered a security or an investment contract, as many purchasers of Bitcoin buy the digital currency simply to speculate on its value, rather than to use it for the purchase of goods and services.²⁴⁶ Yet, the SEC has not categorized the purchase of Bitcoins as buying a security or investment contract. Instead the agency has pursued people for operating Ponzi schemes²⁴⁷ and selling unregistered securities²⁴⁸ involving Bitcoin, not for the simple purchase of Bitcoin itself. In both these actions, the SEC was not saying that the purchase of a Bitcoin on an exchange counted as a security or investment contract, rather that schemes that involved Bitcoin in lieu of dollars were not exempt from the SEC's enforcement authority.

Commentator Derek A. Dion has argued that regulating Bitcoin exchanges under the SEC might be both logical and desirable.²⁴⁹ Under this conception, Bitcoin exchanges bring together willing buyers and sellers on a virtual trading floor to, as Dion suggests, seek a future return based on the action of others.²⁵⁰ Should the SEC regulate exchanges, the exchanges would have to register with the agency, file public reports (which would provide better information to purchasers and the government) and be liable for instances of fraud.²⁵¹ While these consumer protection benefits are desirable, they are inconsistent with how the SEC has chosen to frame Bitcoin: as a currency to purchase a security or investment contract, but not as the security or investment contract itself.

244. *Reves v. Ernst & Young*, 494 U.S. 56, 60 (1990) ("In defining the scope of the market that it wished to regulate [through the Securities Acts], Congress painted with a broad brush.").

245. See *Shavers*, 2014 WL 4652121 at *12; *infra* Section IV.C.1.

246. Paul H. Farmer Jr., *Speculative Tech: The Bitcoin Legal Quagmire & the Need for Legal Innovation*, 9 J. BUS. & TECH. L. 85, 98–104 (2014).

247. See, e.g., *SEC Charges Texas Man With Running Bitcoin-Denominated Ponzi Scheme*, SECS. & EXCH. COMM'N NEWSROOM (July 23, 2013), <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539730583#.VGzeTZPF9aQ>.

248. See, e.g., *SEC Charges Bitcoin Entrepreneur With Offering Unregistered Securities*, SECS. & EXCH. COMM'N NEWSROOM (June 3, 2014), <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541972520#.VGzeMJPF9aQ>.

249. See Dion, *supra* note 56, at 193–94.

250. *Id.* at 193.

251. *Id.* at 194.

3. *The Electronic Funds Transfer Act*

The Electronic Funds Transfer Act of 1978 (“EFTA”),²⁵² along with the Federal Reserve’s Regulation E,²⁵³ were enacted to establish the “rights, liabilities, and responsibilities of participants in electronic fund and remittance transfer systems” and primarily the “provision of individual consumer rights.”²⁵⁴ The EFTA regulates financial institutions that both hold accounts belonging to customers and perform electronic funds transfers,²⁵⁵ and requires those institutions to take consumer protection measures such as reversal rights on transactions.²⁵⁶

The Bitcoin system itself does not qualify as a financial institution, as it is a decentralized program on which users may transact with each other directly.²⁵⁷ Yet, Bitcoin exchanges may fall under the purview of the EFTA.²⁵⁸ Imposing chargeback requirements on Bitcoin exchanges is incompatible with one of the key features and advantages of the blockchain—its irreversibility.²⁵⁹ Professor Fairfield suggests that a flexible construction of the chargeback requirement through an escrow system might be enough to satisfy regulators.²⁶⁰ Although such a system would not allow for formal chargebacks, an escrow system that withholds funds for a grace period would continue to serve the same consumer protection function.²⁶¹

B. BITCOIN AND FEDERAL AGENCIES

1. *Regulations to Combat the Four Horsemen: “Protecting Us From Bitcoin Users”*

This Section will examine how federal agencies have enforced regulations to combat the use of Bitcoin to facilitate unlawful activities. First, it will examine the Financial Crimes Enforcement Network’s (“FinCEN”) regulation of Bitcoin exchanges under the Bank Secrecy Act (“BSA”) to prevent money laundering. Second, it will examine how the

252. 15 U.S.C. §§ 1601–1693 (2012).

253. 12 C.F.R. 205.1–205.20 (2012).

254. 15 U.S.C. § 1693(b).

255. 12 C.F.R. 205.1(b).

256. Reversal rights for credit card holders stem from Regulation Z of the Truth in Lending Act 12 C.F.R. §§ 226.1–226.59. Reversal rights for debit card holders come from Regulation E of the Electronic Fund Transfer Act, *supra* note 253.

257. Ly, *supra* note 1, at 599; BRITO & CASTILLO, *supra* note 10, at 36.

258. BRITO & CASTILLO, *supra* note 10, at 35–38.

259. *Id.* at 37–38.

260. See Fairfield, *supra* note 11, at 41–42.

261. *Id.* at 42.

FBI auctioned off some of the Bitcoins seized from the operation to shut down the Silk Road.

a) FinCEN

On March 18, 2013, the FinCEN issued guidance clarifying that certain businesses or individuals who use or make a business of exchanging, accepting, and transmitting virtual currencies were subject to the requirements of the BSA.²⁶² FinCEN is a bureau housed within the U.S. Department of the Treasury, in charge of enforcing the BSA, a comprehensive anti-money laundering and counter-terrorism financing statute.²⁶³ FinCEN later amended the ruling to exempt Bitcoin miners and companies purchasing and selling virtual currency as an investment exclusively for the company's benefit from the BSA.²⁶⁴

Recently, in response to an unnamed company's actions, FinCEN ruled that Bitcoin exchanges which operate only to match sellers and buyers also qualify as money transmitters.²⁶⁵ Some observers believe this administrative ruling might expand the reach of FinCEN registration requirements to Bitcoin processors which route Bitcoin from customers to merchants, creating reporting and compliance standards on essentially any company that transfers Bitcoin in commerce.²⁶⁶

As with the IRS ruling below, FinCEN's decision helps solidify the legal responsibilities associated with virtual currency, and imposes registration, reporting, and recordkeeping burdens on certain businesses. As Bitcoin and virtual currency are still in the nascent stages of their development, these requirements may be prohibitively difficult for emerging companies to adhere to. A potential solution that would allow Bitcoin startups to build enough capital to succeed while remaining

262. *FinCEN Issues Guidance on Virtual Currencies and Regulator Responsibilities*, FIN. CRIMES ENFORCEMENT NETWORK (Mar. 18, 2013), http://www.fincen.gov/news_room/nr/pdf/20130318.pdf.

263. *See What We Do*, FIN. CRIMES ENFORCEMENT NETWORK, http://www.fincen.gov/about_fincen/wwd/ (last visited Jan. 25, 2015).

264. *FinCEN Publishes Two Rulings on Virtual Currency Miners and Investors*, FIN. CRIMES ENFORCEMENT NETWORK (Jan. 30, 2014), http://www.fincen.gov/news_room/nr/pdf/20140130.pdf.

265. JAMAL EL-HINDI, FIN. CRIMES ENFORCEMENT NETWORK, REQUEST FOR ADMINISTRATIVE RULING ON THE APPLICATION OF FINCEN'S REGULATIONS TO A VIRTUAL CURRENCY PAYMENT SYSTEM 1 (Oct. 27, 2014), *available at* http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R012.pdf.

266. *See, e.g.,* Pete Rizzo, *FinCEN Rules Bitcoin Payment Processors, Exchanges are Money Transmitters*, COINDESK (Oct. 27, 2014), <http://www.coindesk.com/fincen-rules-bitcoin-payment-processors-exchanges-money-transmitters/>.

compliant with FinCEN regulation might include exempting Bitcoin exchanges from state regulation and setting a revenue amount at which point registration is required.

b) The Federal Bureau of Investigation

In 2013, the FBI shut down Silk Road, a website that acted as a virtual black market and operated using solely Bitcoins to purchase drugs, forged documents, and even possibly assassins for hire.²⁶⁷ In a dramatic arrest in the San Francisco Public Library, the Silk Road's alleged mastermind Ross Ulbricht (known online as the Dread Pirate Roberts) was captured with his laptop open.²⁶⁸ Ulbricht's laptop was purportedly a hub of more than \$1.2 billion worth of transactions in illicit substances and key to the FBI seizure of Ulbricht's own personal stash of Bitcoins, valued at the time at \$80 million.²⁶⁹

The federal government has a responsibility to sell property seized from criminals,²⁷⁰ and selling the Bitcoins at maximum value represented a unique challenge.²⁷¹ The seized Bitcoins represented a substantial percentage of the average daily trading volume of Bitcoins, and the FBI feared that dumping them all on the virtual exchanges would flood the market and depress values.²⁷² To prevent this, the FBI sold the Bitcoins as

267. See Joseph Goldstein, *Arrest in U.S. Shuts Down a Black Market for Narcotics*, N.Y. TIMES (Oct. 2, 2013), <http://www.nytimes.com/2013/10/03/nyregion/operator-of-online-market-for-illegal-drugs-is-charged-fbi-says.html>.

268. Segal, *supra* note 194.

269. United States v. Ulbricht, 2014 WL 901601 (S.D.N.Y. Feb. 4, 2014); Segal, *supra* note 194, (Ulbricht's computer was the command center of Silk Road); see *infra* Section IV, Part B.

270. See *Asset Forfeiture*, FED. BUREAU OF INVESTIGATION, <http://www.fbi.gov/about-us/investigate/white-collar/asset-forfeiture> (last visited Jan. 25, 2015).

271. See U.S. v. Ulbricht No. 13 Civ. 6919 (S.D.N.Y. 2014) (noting that the U.S. and Ulbricht agree that "due to the volatile market for bitcoins, the . . . Bitcoins risk losing value during the pendency of the forfeiture proceedings").

272. See Sydney Ember, *Another Bitcoin Auction to Be Held by U.S. Marshalls*, N.Y. TIMES (Nov. 17, 2014), <http://dealbook.nytimes.com/2014/11/17/another-bitcoin-auction-to-be-held-by-u-s-marshalls/>.

property in a secret auction²⁷³ with venture capitalist Tim Draper winning all 30,000 Bitcoins at issue.²⁷⁴

2. *Regulations Designed for Consumer Protection: “Protecting Bitcoin Users”*

The other category of government agency oversight of Bitcoins and the blockchain is focused on consumer protection. Whereas the previous Section concerned agency action to protect society from unlawful uses of Bitcoin, this Section will examine how a number of federal agencies are seeking to prevent Bitcoin users from being defrauded, manipulated, and robbed.

First this Section will examine the IRS’s classification of Bitcoin as property, not currency. This is a problematic classification for the wider adoption of Bitcoin as a currency. Next it will examine the efforts of the Commodities Futures Trading Commission and Consumer Financial Protection Bureau to ensure the safety of Bitcoin related products and services to consumers. Finally it will examine the New York Department of Financial Services proposed licensing regime for companies that hold Bitcoins for customers.

a) *The IRS’s Classification of Bitcoin as Property is an Obstacle to the Widespread Adoption of Bitcoin as a Currency*

On March 25, 2014 the IRS issued a notice stating that for federal tax purposes, the IRS would treat virtual currency as property, rather than currency.²⁷⁵ The IRS will apply general tax and reporting principles that govern property transactions to those transactions involving virtual currencies such as Bitcoin.²⁷⁶ This ruling is the government regulation most inapposite to the widespread adoption of Bitcoin as a currency.

273. The FBI arranged for an online auction for the 30,000 seized Bitcoins in a 12-hour window to submit a single sealed bid for coins broken up into lots of 3,000. The FBI was concerned with Bitcoin’s potential to be used for illegal activity and the agency screened potential bidders, who had to prove their identities and have at least \$200,000 in cash. The FBI partially botched the sale by accidentally releasing the list of bidders. *See Abrams & Ember, supra* note 195.

274. Pete Rizzo, *VC Tim Draper Revealed as Silk Road Bitcoin Auction Winner*, COINDESK (July 2, 2014), <http://www.coindesk.com/tim-draper-revealed-silk-road-bitcoin-auction-winner/>.

275. *IRS Virtual Currency Guidance: Virtual Currency is Treated as Property for U.S. Federal Tax Purposes; General Rules for Property Transactions Apply*, INTERNAL REVENUE SERVICE (Mar. 25, 2014), <http://www.irs.gov/uac/Newsroom/IRS-Virtual-Currency-Guidance>.

276. *Id.*

The IRS's ruling also means that Bitcoin investors are considered stock investors, and able to take advantage of lower capital gains taxes, and certain tax write-offs, unavailable with regular property.²⁷⁷ Some have praised the IRS's decision as bringing certainty to the public.²⁷⁸

Treating Bitcoin as property has profound implications for Bitcoin transactions as it creates new income tax liabilities.²⁷⁹ For instance, if an individual acquired a Bitcoin for one dollar and subsequently used it to purchase a three-dollar cup of coffee, this transaction would trigger two dollars in capital gains for the purchaser of coffee (because his original investment was one dollar) and three dollars of gross income for the coffee seller.²⁸⁰ Simply tracking this sort of information might be prohibitively difficult or tedious. Some commentators, such as Pamir Gelenbe, a venture partner with Hummingbird Ventures, believes this will depress adoption of Bitcoin as it requires considering capital gains when using Bitcoins to make purchases.²⁸¹ If the goal is to promote the widespread adoption of Bitcoin as a currency among the general public, the IRS's decision to treat it as property is counterproductive.

Others believe this fear is overblown. Attorney Greg Broiles, a specialist in estate planning, trust, and probate, argues only significant purchases would require these decisions.²⁸² For instance, it might matter if purchasing a motorcycle, but not matter if purchasing a sandwich.²⁸³ In early 2014, Overstock.com's average order size for customers paying in Bitcoin was \$226, 34 percent higher than customers paying in dollars.²⁸⁴ This suggests that many people using Bitcoins to purchase goods are making purchases in between the ham sandwich and motorcycle range. Data is unavailable as to how many of these purchasers declared, or plan to declare, capital gains.

277. See Richard Rubin & Carter Dougherty, *Bitcoin Is Property, Not Currency*, *In Tax System: IRS*, BLOOMBERG.COM (Mar. 25, 2014), <http://www.bloomberg.com/news/2014-03-25/bitcoin-is-property-not-currency-in-tax-system-irs-says.html>.

278. *Id.*

279. *Id.*

280. *Id.*

281. *Id.*

282. Danny Bradbury, *What the IRS Bitcoin Tax Guidelines Mean For You*, COINDESK (Mar. 26, 2014), <http://www.coindesk.com/irs-bitcoin-tax-guidelines-mean/>.

283. *Id.*

284. Patrick Byrne, *Coinbase and Overstock.com: The Results are In!*, COINBASE BLOG (Mar. 4, 2014), <http://blog.coinbase.com/post/78558321110/coinbase-and-overstock-com-the-results-are-in>.

b) Commodity Futures Trading Commission

The Commodity Futures Trading Commission (“CFTC”) regulates commodities futures, the markets those futures are traded on, and certain foreign exchange instruments under the Commodity Exchange Act.²⁸⁵ The mission of the CFTC is to “to avoid systemic risk, and to protect the market users and their funds from fraud, manipulation, and abusive practices related to derivatives and other products that are subject to the Commodity Exchange Act.”²⁸⁶

Recently, CFTC Commissioner Mark P. Wetjen stated that he believed the CFTC had the authority to regulate price manipulation in Bitcoin markets.²⁸⁷ Commissioner Wetjen stated that the CFTC had this authority “because if you think of any reasonable reading of our statute, [B]itcoin classifies as a commodity.”²⁸⁸ To wit, the CFTC has also made the first approval of a Bitcoin derivatives trade by the firm TeraExchange.²⁸⁹

c) Consumer Financial Protection Bureau

The newly established Consumer Financial Protection Bureau’s (“CFPB”) mission is to “make markets for consumer financial products and services work for Americans.”²⁹⁰ Although the CFPB has not taken any direct action to regulate Bitcoin yet, in August 2014 the CFPB issued a consumer advisory statement warning the public of the risk of Bitcoins.²⁹¹ The advisory warned consumers about potential hackers, that Bitcoin offered fewer protections as compared to banks or debit and credit card providers, and had potentially higher costs and scams.²⁹² The CFPB

285. 7 U.S.C. §§ 1–27.

286. *Mission & Responsibilities*, U.S. COMMODITIES FUTURE TRADING COMM’N, <http://www.cftc.gov/About/MissionResponsibilities/index.htm> (last visited Nov. 29, 2014).

287. Michael J. Casey, *CFTC Commissioner Says Agency Has Authority Over Bitcoin Price Manipulation*, WALL ST. J. (Nov. 17, 2014), <http://online.wsj.com/articles/cftc-commissioner-says-agency-has-authority-over-bitcoin-price-manipulation-1416265016>.

288. *Id.*

289. *TeraExchange Completes First Bitcoin Derivatives Trade on Regulated Exchange*, PR NEWswire (Oct. 9, 2014), <http://www.prnewswire.com/news-releases/teraexchange-completes-first-bitcoin-derivatives-trade-on-regulated-exchange-278661591.html>.

290. *About Us*, CFPB, <http://www.consumerfinance.gov/the-bureau/> (last visited Nov. 29, 2014).

291. *See Risks to consumers posed by virtual currencies*, CFPB (Aug. 2014), http://files.consumerfinance.gov/f/201408_cfpb_consumer-advisory_virtual-currencies.pdf.

292. *Id.*

has also begun accepting complaints about virtual currency products and services, including wallets and exchanges.²⁹³

Most Recently, the CFPB has proposed a rule to expand consumer protections to digital wallets, potentially including digital wallets for virtual currencies.²⁹⁴

d) State Regulation of Bitcoin: New York and California

On July 17th, 2014, New York became the first state to attempt to regulate Bitcoin by introducing a proposed licensing regime to operate in the state.²⁹⁵ The New York State Department of Financial Services (“NYDFS”) issued proposed rules to create requirements on exchanges and companies that secure, store, or maintain custody or control of virtual currency for customers.²⁹⁶ Benjamin M. Lawsky, former Superintendent of Financial Services, characterized the “BitLicense” regulatory framework requirements as a “common sense rules of the road” to further consumer protection, ensure anti-money laundering compliance, and address the unique cyber security concerns of virtual currency.²⁹⁷ The regulations do not apply to virtual currency miners, software developers, or merchants and consumers who utilize virtual currency solely for the purchase or sale of goods or services, or firms chartered under the New York Banking Law to conduct exchanges with the approval of the NYDFS.²⁹⁸

The regulations were published in the New York State Register’s July 23, 2014 edition to begin a forty-five-day public comment period.²⁹⁹

293. See *Submit a complaint*, CFPB, <http://www.consumerfinance.gov/complaint/#money-transfer> (last visited Nov. 29, 2014).

294. See Proposed Rule, Docket No. CFPB- 2014-0031 32-34 (Nov. 10, 2014), available at http://files.consumerfinance.gov/f/201411_cfpb_regulations_prepai-nprm.pdf.

295. *NY DFS Releases Proposed BitLicense Regulatory Framework for Virtual Currency Firms*, N.Y. STATE DEPT OF FIN. SERVS. NEWS ROOM (July 17, 2014), <http://www.dfs.ny.gov/about/press2014/pr1407171.html>.

296. *Id.*

297. *Id.*; Former Superintendent Lawsky has specifically mentioned preventing another Mt. Gox. See Paul Vigna & Michael J. Casey, *BitBeat: Lawsky Outlines Changes to BitLicense*, WALL ST. J. (Oct. 14, 2014), <http://blogs.wsj.com/moneybeat/2014/10/14/bitbeat-lawsky-outlines-changes-to-bitlicense/>.

298. *Superintendent Lawsky Remarks on Revised Bitlicense Framework for Virtual Currency Regulation and Trends in Payments Technology*, N.Y. STATE DEPT OF FIN. SERVS. NEWS ROOM (Dec. 18, 2014), http://www.dfs.ny.gov/about/speeches_testimony/sp1412181.htm.

299. See *NY DFS Releases Proposed BitLicense Regulatory Framework for Virtual Currency Firms*, *supra* note 295.

Perhaps in a nod to the digital nature of Bitcoin, the NYDFS also published the regulations on Reddit and Twitter.³⁰⁰ Although the rules would only apply to firms doing business in the Empire State, Gil Luria, an analyst with Wedbush Securities, noted that as the state has the largest concentration of financial firms, its regulatory and enforcement framework might serve as a model for other states, or even for the SEC or Federal Reserve.³⁰¹

Key requirements for firms to obtain a BitLicense include: capital holding requirements with a bond or trust account in US dollars, providing receipts on transactions, establishing a complaint policy, providing consumer disclosures on the risks inherent to virtual currency compared to fiat currency,³⁰² compiling information on transactions for anti-money laundering compliance (essentially deanonymizing the parties involved), reporting fraud or suspicious activities, maintaining cyber security programs, designating a Chief Information Security Officer and Compliance Officer, being subject to NYDFS examinations, submitting quarterly financial statements, and establishing business continuity and disaster recovery plans, with notification to NYDFS during an emergency.³⁰³

On December 18, 2014, Lawsky outlined revisions to the BitLicense in light of the over 3,700 public comments submitted to the original proposal.³⁰⁴ In response to complaints that the cost of compliance would discourage startups and small businesses, the regulations will include a two-year transitional BitLicense for companies unable to satisfy all the requirements of a full license.³⁰⁵ Additionally, companies would no longer be required to obtain the addresses and transaction data for all parties to a transaction.³⁰⁶ Instead, companies would only need to obtain this type of information on their own customers and account holders.³⁰⁷

300. *Id.*

301. Cyrus Farivar, *New York state proposes sweeping Bitcoin regulations—and they're strict*, ARS TECHNICA (July 17, 2014), <http://arstechnica.com/tech-policy/2014/07/new-york-state-proposes-sweeping-bitcoin-regulations-and-theyre-strict/>.

302. *Fiat Currency Definition*, *supra* note 44.

303. *NY DFS Releases Proposed BitLicense Regulatory Framework for Virtual Currency Firms*, *supra* note 295.

304. *Superintendent Lawsky Remarks on Revised Bitlicense Framework for Virtual Currency Regulation and Trends in Payments Technology*, *supra* note 298.

305. *Id.*

306. *Id.*

307. *Id.*

Officials in California's Department of Business Oversight have also determined that a state law governing money transmitters may also apply to digital currencies, such as Bitcoin.³⁰⁸ Spokesman Tom Dresslar indicated the requirements to obtain a California license would focus primarily on consumer protection.³⁰⁹ Potential requirements include demonstrating sufficient capital to operate, having a qualified management team subject to criminal background checks, and being bonded at levels consistent with size.³¹⁰ Applicants would also have to maintain reserves equal to the amount of their outstanding money transmissions.³¹¹ Notably, these regulations will come on the heels of a recently enacted California statute repealing a state law prohibiting the issuance of anything other than U.S. dollars in the state.³¹² This statute grants Bitcoin the status of "lawful money" under state law along with rewards programs and coupons.³¹³

C. BITCOIN-RELATED LITIGATION IN THE UNITED STATES

As federal and state agencies continue to tackle the regulation of Bitcoin, courts have been forced to define Bitcoin in the course of recent litigation. Below are four key cases shaping the government's stance on Bitcoins.³¹⁴

What characterizes these cases is that judges have taken a functional view of Bitcoin and defined it on a case-by-case basis as necessary to hold defendants culpable. In the four cases below, all of the judges defined Bitcoin as money so as to subject it to the Securities Act, and state and federal money laundering statutes.

308. Michael B. Marois & Carter Dougherty, *California Says State Law Grants Right to Oversee Bitcoin*, BLOOMBERG.COM (Dec. 4, 2014), <http://www.bloomberg.com/news/2014-12-04/california-says-state-law-grants-right-to-oversee-bitcoin.html>.

309. *Id.*

310. *Id.*

311. *Id.*

312. CA A.B. 129 (2014) (repealing Section 107 of the Corporations Code).

313. Pete Rizzo, *California to Debate Bitcoin Regulation at December Meeting*, COINDESK (Dec. 5, 2014), <http://www.coindesk.com/california-debate-bitcoin-regulation-december-meeting/>.

314. Tanaya Macheel, *4 Court Cases Helping Shape the US Stance on Bitcoin*, COINDESK (Sept. 28, 2014), <http://www.coindesk.com/4-court-cases-helping-determine-us-stance-bitcoin/>.

1. *SEC v. Shavers*

Defendant Trendon T. Shavers founded and operated Bitcoin Savings and Trust (“BTCST”), which was subsequently declared a Ponzi scheme used to defraud investors by Magistrate Judge Amos Mazzant of the Eastern District of Texas.³¹⁵ Judge Mazzant found that Shavers used new Bitcoins received from BTCST investors to make payments on outstanding BTCST investments, while diverting investor Bitcoins for his personal use.³¹⁶ Judge Mazzant held that the investments sold by Shavers met the definition of investment contract and were thus securities, giving the court jurisdiction over the case through the Securities Act.³¹⁷

In an earlier memorandum to establish the court’s subject matter jurisdiction, Judge Mazzant declared Bitcoins to be a form of currency.³¹⁸ The Securities Act defines a “security” as “any . . . investment contract.”³¹⁹ An investment contract is defined as “any contract, transaction, or scheme involving (1) an investment of money, (2) in a common enterprise, (3) with the expectation that profits will be derived from the efforts of the promoter or a third party.”³²⁰ Thus, the threshold question for the court was whether the Bitcoins invested into Shaver’s Ponzi scheme qualified as an investment of money. Judge Mazzant reasoned that because Bitcoins can be used to purchase goods or services, pay for individual living expenses, and be exchanged for fiat currencies, Bitcoins constituted an investment of money.³²¹

2. *United States v. Faiella*

In the Southern District of New York, Judge Jed Rakoff ruled in August 2014 that Bitcoins are money and were thus subject to FinCEN’s regulations.³²² Defendants Robert Faiella and Charlie Shrem were accused of operating an unlicensed money transmitting business and conspiring to commit money laundering in connection with Silk Road.³²³ The defendants moved to dismiss the indictment by arguing that Bitcoins did

315. *See generally* Secs. & Exch. Comm’n v. Shavers, No. 4:13-CV-416, 2014 WL 4652121 (E.D. Tex. Sept. 18, 2014).

316. *Id.* at *8.

317. *Id.*

318. Secs. & Exch. Comm’n v. Shavers, 2013 WL 4028182 at *2 (E.D. Tex. Aug. 6, 2013).

319. *Id.*

320. *Id.*

321. *Id.*

322. *United States v. Faiella*, 39 F. Supp. 3d 544, 545–47 (S.D.N.Y. 2014).

323. *Id.* at 545.

not qualify as “money” under racketeering laws, and that operating a Bitcoin exchange does not constitute “transmitting money” and that the defendants were therefore not “money transmitters” under 18 U.S.C. § 1960.³²⁴

Judge Rakoff rejected the defendants’ arguments, reasoning that Bitcoin clearly qualifies as “money” or “funds” using plain meaning definitions found in the dictionary as it “can be easily purchased in exchange for ordinary currency, acts as a denominator of value, and is used to conduct financial transactions.”³²⁵ The court found this definition consistent with the legislative history of § 1960, which was passed to prevent money laundering in connection with drug dealing.³²⁶ The court also found that Congress chose to use the term “funds” to keep up with the evolving methods of money launderers.³²⁷ Judge Rakoff went to further define the defendant’s activities as “transmitting money” and thus qualifying them as “money transmitters” and subject to FinCEN’s virtual currency guidance.³²⁸

3. *United States v. Ulbricht*

The Dread Pirate Roberts, a.k.a. Ross Ulbricht³²⁹ also challenged the applicability of money laundering laws to virtual currency.³³⁰ Judge Katherine Forrest ruled that as an initial matter the use of Bitcoins for payment is insufficient in and of itself to state a claim for money laundering, and that anonymous transactions are not crimes.³³¹ Instead, the basis of the charge was the use of Bitcoin to shield unlawful activities such as narcotics trafficking and, in Ulbricht’s case, computer hacking from third party discovery.³³²

Ulbricht also brought a similar argument as the defendants in *Faiella*, arguing that Bitcoins did not qualify as “funds” for the purposes of money laundering statutes.³³³ Judge Forrest found Ulbricht’s argument unavailing, and by using similar reasoning to Judge Rakoff, she held that “money” and “funds” were simply methods to pay for things and thus the terms covered

324. *Id.*

325. *Id.*

326. *Id.* at 545–46.

327. *Id.* at 546.

328. *Id.* at 546–47..

329. *See supra* Section IV.B.1.b).

330. *United States v. Ulbricht*, 31 F. Supp. 3d 540, 548 (S.D.N.Y. 2014).

331. *Id.* at 568–70..

332. *Id.*

333. *Id.*

Bitcoins.³³⁴ Judge Forrest noted that Bitcoins' "sole raison d'être" was to pay for things, and any other reading would be "nonsensical."³³⁵

4. *Florida v. Espinoza*

Undercover agents arrested Pascal Reid and Michell Abner Espinoza in sting operations for converting \$30,000 of cash in to Bitcoin through the online marketplace LocalBitcoins.com.³³⁶ These charges represent the first-ever state prosecution of money laundering with virtual currency.³³⁷ The defendants were charged under Florida's anti-money laundering law, which prohibits exchanges and business transactions of over \$10,000 and the state's unlicensed money transmission law which sets a yearly cap of \$20,000 on payment and currency instruments.³³⁸

The Bitcoin Foundation has filed an amicus brief arguing that the money transmission law applies to corporations and entities qualified to do business in the state and that the Florida statute is too ambiguous on virtual currency to be enforced.³³⁹ The defendants have also moved for dismissal invoking the IRS's guidance that Bitcoin is property, not currency.³⁴⁰

V. SUGGESTIONS FOR THE FUTURE

Two things are necessary for the wider adoption of Bitcoin: it must become easier to use as a currency, and it has to shed its negative associations to gain the trust of average consumers. Bitcoin and the blockchain can change society in many ways, but the ideas proposed in Part II of this Note all depend on wider adoption. Bitcoins must be brought into the light and seen as a useful currency, and not simply the refuge of deep web denizens.

To promote these two goals, the regulators' tasks are twofold. First, regulators must seek to create a system where Bitcoins are treated solely as a currency, allowing consumers and merchants to feel more comfortable

334. *Id.* at 570.

335. *Id.*

336. Macheel, *supra* note 314.

337. Susannah Nesmith, *Miami Bitcoin Arrests May Be First State Prosecution*, BLOOMBERG.COM (Feb. 10, 2014), <http://www.bloomberg.com/news/2014-02-09/miami-bitcoin-arrests-may-be-first-state-prosecution.html>.

338. Macheel, *supra* note 314.

339. Pete Rizzo, *Bitcoin Foundation Urges Court to Dismiss Charge in Florida LocalBitcoins Case*, COINDESK (Aug. 1, 2014), <http://www.coindesk.com/bitcoin-foundation-urges-court-dismiss-charge-florida-localbitcoins-case/>.

340. Macheel, *supra* note 314.

relying on Bitcoin as a medium of exchange. Second, regulators must de-anonymize Bitcoin to rid the currency of its (perhaps rightfully earned) negative connotations.

To accomplish the first goal, the IRS's current policy of treating Bitcoin as property must change.³⁴¹ Requiring Bitcoin users to declare capital gains taxes on all their transactions is too cumbersome. The IRS's classification is not wholly irrational given Bitcoins' current popularity as an investment device, rather than a currency. Yet subjecting Bitcoins to a capital gains tax hampers the use of Bitcoins as a means of exchange. Therefore the IRS should either set a sunset date to their current classification or some objective criteria of price stability that would reflect a change in usage of Bitcoin from an investment tool to a currency.

To accomplish the second goal, Bitcoin users should register their public key addresses to their real identities. While some of the benefits of anonymity will be lost, it is a worthwhile tradeoff to both make illicit use of Bitcoin more difficult, and to build public confidence and acceptance. This is already happening to some extent with Bank Secrecy Act registration of Bitcoin exchanges with FinCEN. While such a change may drive away some of Bitcoins' initial users in the libertarian scene, the potential of Bitcoin and the blockchain are too great to be lost in an attempt to accommodate such idiosyncratic beliefs.³⁴² The benefits of expanding markets and lowering transaction costs cannot be subordinated to some people's desires to maintain anonymity in transactions. For consumers who really value such anonymity, they may, as they can today, use cash. There may be no way for the government to force compliance at the individual level as users can have multiple Bitcoin wallets, and thus multiple public key addresses. But through a mix of incentives and disincentives, many users might be convinced to comply. For example, the government could create tax incentives for people to register their public key addresses with the IRS. The government could also increase punishments against defendants who used Bitcoins to facilitate the commission of a crime. There is likely no way to fully deanonymize users of the blockchain, but to the extent that it is possible, it might increase consumer confidence, and thus adoption, of Bitcoin. This would also

341. *See supra* Section IV.B.2.a).

342. Some observers already believe the libertarian community will turn away from Bitcoin as members of the community begin to understand that the blockchain is public. *See* Kim-Mai Cutler, Marc Andreessen: "My Prediction Is That The Libertarians Will Turn on Bitcoin," TECHCRUNCH (Mar. 25, 2014), <http://techcrunch.com/2014/03/25/marc-andreessen-my-prediction-is-that-the-libertarians-will-turn-on-bitcoin/>.

allow for other benefits, such as facilitating the passing down of Bitcoins in situations of intestacy, or escheating to the state when there is no next of kin.

VI. CONCLUSION

Trust is vital to the adoption of a payment service. As Supriya Singh observes: “there is nothing inherent in a piece of paper, a plastic card or electronic information that converts it into money.”³⁴³ Ultimately Bitcoin’s wider adoption, and its attendant benefits, will come down to how much consumers trust it as a stable medium of exchange and token of value.

Bitcoin’s bad actors, hackers, and black markets damage this trust. Smart regulation must protect us as, and sometimes from, Bitcoin users. Unmasking actors on the blockchain will help Bitcoin shed its infamous reputation and potentially revolutionize the way we conduct business, the size of the global market, and perhaps even our conception of what ownership means.

343. Singh, *supra* note 27 at 3.4.

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THE RESISTANCE OF MEMORY: COULD THE EUROPEAN UNION’S RIGHT TO BE FORGOTTEN EXIST IN THE UNITED STATES?

Ravi Antani[†]

As the internet establishes its presence in modern life, it continues to raise questions about the right to privacy in a digital world. However, the right to privacy in the United States must often overcome challenges based on the First Amendment right to free speech. The right to be forgotten, a new digital privacy rule that aims to protect an individual’s right to shape how the internet can define her, is in direct conflict with the rights to free speech and public information. The emergence of the right to be forgotten highlights a fundamental paradigm shift in the human experience, from an existence in which the default was to forget, the mind solely bearing the struggle to remember and retain, to one in which data in the digital world makes preservation the norm and forgetting a struggle.¹

Under the emerging conception of the right to be forgotten, an individual can request that content about her be removed from the internet. Through a recent ruling from its highest court, residents of the European Union (“EU”) now have such a right.² Specifically, data controllers (currently read to include search engine operators like Google) must process requests from individuals to remove links from search results that include their names. According to the ruling, if the linked information appears to be “inadequate, irrelevant . . . or excessive in relation to the purposes of the processing at issue,” the search engine operator must remove the link from these search results.³

This Note explores the EU right to be forgotten and the questions it raises in the United States. Part I details the EU ruling, *Google, Inc. v Costeja*. Part II discusses American sentiments towards free speech and

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1. See VIKTOR MAYER-SCHÖNBERGER, DELETE: THE VIRTUE OF FORGETTING IN THE DIGITAL AGE 196 (2009).

2. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 94, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

3. *Id.*

privacy in the context of a right to be forgotten. Finally, Part III discusses tensions sparked by the unspecific EU ruling, which serves as a cautionary tale for the United States. First, there are questions about what types of content a search engine operator should have to de-link. The ruling has also sparked debate about what body should be tasked with making decisions like these, which are effectively defining the boundaries of legal rights. Furthermore, the right to be forgotten may threaten the integrity of the internet by carving out “memory holes” that censor the data users can access. Some also decry the fact that the EU ruling does not seem to accommodate the rights of content owners, including media and internet users. And finally, there are concerns that if the EU forces Google to apply de-linking to all of its domains, the European right could affect search results across the world. In light of these issues and the potential constitutional and technological issues at stake, if a right to be forgotten is to exist at all in the United States, it should exist only in narrow contexts where the privacy right is strong.

I. *GOOGLE INC. V. COSTEJA*: THE CREATION OF A “RIGHT TO BE FORGOTTEN” IN THE EUROPEAN UNION

On May 13, 2014, the European Court of Justice (“ECJ”), the EU’s highest court, established a “right to be forgotten” by declaring in *Google v. Costeja* that “data controllers” (including search engine operators) had to examine and honor EU citizen requests to delete results from internet searches of their names.⁴ This Part will detail the ruling itself, followed by discussing Google’s actions after the ruling and reactions from stakeholders, journalists, and scholars.

A. *GOOGLE INC. V. COSTEJA*: THE ECJ’S MAY 2014 “RIGHT TO BE FORGOTTEN” RULING

The Court of Justice of the European Union (“CJEU”) is the EU’s judiciary consisting of three courts. The ECJ is the highest of these three courts, and thus the EU’s highest court.⁵ The terms “Court” and “Court of

4. Press Release, Court of Justice of the European Union, Press Release No 70/14, Judgment in Case C-131/12 (May 13, 2014), at 1–2 [hereinafter ECJ Press Release].

5. As for the other two, the General Court handles certain specific cases and passes them to the ECJ if necessary, while the EU Civil Service Tribunal rules on disputes between the EU and its staff. Description of the Court of Justice of the European Union, EUROPEAN UNION, http://europa.eu/about-eu/institutions-bodies/court-justice/index_en.htm (last visited Jan. 29, 2015).

Justice” are often used to refer to both the CJEU and the ECJ; many of the CJEU’s notable rulings are from the ECJ. The CJEU “interprets EU law to make sure it is being applied the same way in all EU countries,” “settles legal disputes between EU governments . . . and institutions,” and hears cases brought by private parties who believe an EU institution has infringed their rights.⁶ The Court may hear a case for various reasons, including “to interpret a point of EU law” at the request of a national court, to examine whether an EU law violates EU treaties or fundamental rights, or to check EU institutions.⁷ In doing this, it often establishes broad frameworks that member states must adhere to through their own specific laws and regulations. This Note will primarily refer to the ECJ.

This case originated in Spain, where citizen Mario Costeja Gonzalez brought suit against Google and newspaper publisher La Vanguardia. When Costeja’s name was entered into Google’s search engine, the top links included news articles from the past several years detailing a real estate auction to resolve social security debts he owed at the time.⁸ In his complaint, Costeja requested that Google remove those results for searches of his name. Costeja argued that these results about his past debts were harming his reputation and that they were entirely irrelevant since they involved resolved matters.⁹ Costeja’s original complaint also requested that the newspaper publisher La Vanguardia remove the articles from its website, but the Spanish Data Protection Agency, which oversaw the case initially, rejected this complaint.¹⁰

According to the ECJ ruling, if information or a link “in the list of results following a search made on the basis of [one’s] name” appears to be “inadequate, irrelevant, . . . excessive in relation to the purposes of the processing at issue,” or outdated, the links must be erased from that list of results.¹¹ This involves balancing the data subject’s privacy right with internet users’ interest in the information.¹² This key language is not

6. *Id.*

7. *Id.*

8. ECJ Press Release, *supra* note 4, at 1. The original articles with Costeja’s debt information are available on La Vanguardia’s website. See *Subhasta D’immobles [Auction Properties]*, LA VANGUARDIA, Jan. 19, 1998, at 23, available at <http://hemeroteca.lavanguardia.com/preview/1998/01/19/pagina-23/33842001/pdf.html> (Sp.).

9. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 15, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

10. *Id.*

11. *Id.* ¶ 94.

12. *Id.* ¶ 107.

specific, and there is not much guidance in the rest of the text to give search engine operators an idea of exactly what types of content should be eligible for removal. This Note will later highlight how this unspecific language has been an issue for Google.

The ECJ's ruling rested on the EU's 1995 Data Protection Directive, a law that aims to help protect individuals "with regard to the processing of personal data" by requiring "controllers" and "processors" of that personal data to handle it in certain ways.¹³ In the Directive, a controller is a person, public authority, agency, or other body that "determines the purpose and means of the processing of personal data."¹⁴ A processor, which "processes personal data on behalf of the controller," has fewer duties under the Directive.¹⁵ While this Directive does not directly mention search engines or search results, the Court noted that search engine operators like Google are "controllers" of personal data as described in the Directive, and so they are subject to the various articles guaranteeing citizens "the right to obtain . . . erasure or blocking of data" that are inadequate or irrelevant.¹⁶ This definition also includes Yahoo, which operates a major search engine from its main site, and Microsoft, which operates Bing. Of course, Google is by far the most-used search engine in Europe.¹⁷ It is important to note that while this ruling defined search engine operators like Google, Microsoft, and Yahoo as data controllers because of their respective web search tools, it is possible that in the future other internet entities, like Facebook, could also fall into the category of "data controllers" and be subject to similar rules. The ruling also rested on Article 8 of the Charter of Fundamental Rights of the

13. Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, 1995 O.J. (L 281) 31 [hereinafter 1995 Directive].

14. *Id.*

15. *Id.*

16. *Costeja*, Case C-131/12, at ¶ 23. The choice to call a search engine a "controller" might seem like a stretch if "processor" seems more apt (after all, it appears that search engines "process data on behalf of . . . controller[s]"). This might suggest that the court was intent on getting the right to be forgotten pushed into EU law. On the other hand, it is plausible to argue that search engines today are crossing the line into "controlling" data, especially because they have the ability to manipulate the results for a search term like one's name.

17. Tom Fairless, *Europe vs. Tech Giants: Round Two*, WALL ST. J. (Jan. 20, 2015), <http://www.wsj.com/articles/europe-vs-u-s-tech-giants-amazon-google-and-facebook-still-in-the-spotlight-1421777989> (noting that Google's share of the search market in Europe exceeds 90 percent).

European Union, which guarantees citizens a right to privacy, including their personal data.¹⁸

The Court provided an outline about how the process would work. Search engine operators such as Google, Microsoft, and Yahoo must examine the merits of requests from users to de-list a link. Based on the merits of each request, the search engine operator can either agree to the removal of the link or deny the request. However, the search engine only needs to remove the links under the search results of that person's name. For example, consider a newspaper article that mentions two Frenchman, Bernard Blanc and Pierre Pascal, and appears near the top of search results for both of their names.¹⁹ If the article casts Pierre in a negative light, Pierre can send a request to Google to de-list the article from results for the search term "Pierre Pascal," and if Google agrees to de-list it for Pierre, the article would remain available and visible for the search term "Bernard Blanc."

If Google denies the request, the user can take the matter to a supervisory authority within her country: "Where [the operator] does not grant the request [to remove the search result], the [requesting user] may bring the matter before [a] supervisory authority" ²⁰ Each member state is directed to establish such an "authority" to handle these cases.²¹ Essentially, if Google rejects a request to remove a link based on its examination of the merits, the requester can take the case to its country's supervisory authority, which further examines the request. In most member states, this responsibility has fallen to the data protection authorities that already exist in those states.²² Examples of such agencies include Agencia Española de Protección de Datos ("AEPD") in Spain, which brought the present case with Mr. Costeja, and Garante per la Protezione dei Dati Personali (the Italian Data Protection Authority),

18. *Costeja*, Case C-131/12, at ¶ 1; Charter of Fundamental Rights of the European Union art. 8.

19. These characters were created for this Article. Any real-life analogues are purely coincidental.

20. *Costeja*, Case C-131/12, at ¶ 77.

21. *Id.* ¶ 12.

22. Press Release, Article 29 Data Protection Working Party, Press Release on Expanded Guidelines for the Right to be Forgotten (Nov. 26, 2014), *available at* http://ec.europa.eu/justice/data-protection/article-29/press-material/press-release/art29_press_material/20141126_wp29_press_release_ecj_de-listing.pdf [hereinafter Press Release on Article 29 Working Party Guidelines] (noting that DPAs from each member country handle complaints from users whose removal requests are refused).

which returned the first reviews of Google decisions under the right to be forgotten.²³

Currently, Google is removing links only for country-specific Google domains, not EU-wide or worldwide, so a request for removal from Google Italy does not affect Google's German site. Because of this, one can still search Costeja's name at "google.fr" (Google's French domain) and find results about his debts.²⁴ Indeed, Google's removal request form requires a user to select what country she is submitting the request for.²⁵ However, some EU leaders are calling for a worldwide deletion right.²⁶ That is, they are demanding Google pull the link for every Google domain (of course, still limited to results for the requester's name), which would affect American search results. This is a vital issue that could raise turf wars over the internet. Part III of this Note examines this further.

The Court did not discuss the specific criteria for when a link should be removed, leaving specific questions to member states to police within their own jurisdictions. However, the Court did set a vague standard: the examination of a request should strike a "fair balance" between the general interests of internet users and the "fundamental rights" of the requester established under the Directive.²⁷ It is this lack of specificity that left Google wondering exactly how to enforce the right to be forgotten. The Court further noted that the requester's interest would "override" the

23. The Italian Data Protection Authority returned decisions in nine cases, upholding Google's rejection for seven, but reversing Google on two. In one reversal, the published material contained information about an individual unrelated to the central legal proceedings being discussed, and the Authority held it should be removed. Philip Willan, *Italy's Privacy Authority Orders Google Removals*, PCWORLD (Dec. 23, 2014, 11:10 AM), <http://www.pcworld.com/article/2863072/italys-privacy-authority-orders-google-removals.html>. In the United States, this would raise a First Amendment flag since something related to a legal proceeding is typically in the public interest.

24. Of course, those articles are now buried by results about this case.

25. Web Form for *Search Removal Request Under Data Protection Law in Europe*, GOOGLE, https://support.google.com/legal/contact/lr_eudpa?product=websearch (last visited Jan. 29, 2015) [hereinafter Google Right to be Forgotten Web Form].

26. See *Guidelines on the Implementation of the Court of Justice of the European Union Judgment on "Google Spain and Inc v. Agencia Española de Protección de Datos (AEPD) and Mario Costeja González" C-131/12*, Article 29 Data Protection Working Party, 14/EN WP 225 at 3 (Nov. 26, 2014), available at http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2014/wp225_en.pdf [hereinafter Article 29 Working Party Guidelines].

27. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 81, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

interest of internet users,²⁸ which could include the public's right to information and the right to free speech.

Since at least 2012, EU leaders have been trying to enact a new version of the Data Protection Directive that would codify a "right to be forgotten" more explicitly and more extensively than the 1995 Directive and the *Costeja* ruling; the enactment would directly bind all EU member states.²⁹ These proposals would go further than the ECJ ruling and allow individuals to request that data be deleted altogether.³⁰ For example, instead of only being able to request that Google remove a search result that links to a damaging newspaper article, an individual may be able to request that the publisher remove the article from the internet altogether.

B. REACTIONS TO THE RULING

A wide range of scholars, politicians, and industry leaders reacted to the ECJ's ruling. Critics noted issues surrounding free speech, the public's right to information, and potential administrative burdens. Meanwhile, supporters hailed the ruling as a major step in protecting the individual privacy of EU citizens.³¹

Google has a large stake in the right to be forgotten, since it is responsible for the vast majority of internet searches in the EU.³² Within days of the ruling, Google's executive chairman Eric Schmidt stated that "Google believes, having looked at the decision which is binding, that the balance that was struck was wrong."³³ In addition, a Google spokesperson stated that the process was "logistically complicated" and that figuring out

28. *Id.*

29. See Press Release, Eur. Comm'n, Press Release Proposing Comprehensive Reform of Data Protection (Jan. 25, 2012), *available at* http://europa.eu/rapid/press-release_IP-12-46_en.htm [hereinafter Press Release on 2012 Data Protection Proposal]; Factsheet on the "Right to be Forgotten" Ruling, European Commission (May 2014), *available at* http://ec.europa.eu/justice/data-protection/files/factsheets/factsheet_data_protection_en.pdf [hereinafter EC Factsheet].

30. *Id.*

31. See Charles Arthur, *Google Faces Deluge of Requests to Wipe Details from Search Index*, GUARDIAN (May 15, 2014), <http://www.theguardian.com/technology/2014/may/15/hundreds-google-wipe-details-search-index-right-forgotten> (citing both supporters and critics of the ruling) [hereinafter *Google Deluge of Requests*].

32. David Streitfeld, *European Court Lets Users Erase Records on Web*, N.Y. TIMES (May 13, 2014), http://www.nytimes.com/2014/05/14/technology/google-should-erase-web-links-to-some-personal-data-europes-highest-court-says.html?_r=0.

33. Samuel Gibbs, *Eric Schmidt: Europe struck wrong balance on right to be forgotten*, GUARDIAN (May 15, 2014), <http://www.theguardian.com/technology/2014/may/15/google-eric-schmidt-europe-ruling-right-to-be-forgotten>

how to handle the requests could take “several weeks.”³⁴ On May 29, 2014, Google launched a web form that allows EU citizens to request the removal of URLs in compliance with the ruling, and this web form is now the primary way to exercise one’s right to be forgotten.³⁵ One can find a link to the web form on Google’s page for web search removal requests of all types.³⁶

A few months after the ruling, Google published a transparency report providing data on all of the removal requests received since the request process started in May 2014.³⁷ By January 30, 2015, Google had received 208,821 requests; each request can cite multiple URLs for removal.³⁸ At this point, Google had evaluated 759,307 URLs total. The company granted link removals for only 40.3% of them, denying removal for over half of the links.³⁹ The transparency report continually updates as Google continues to evaluate requests.

Meanwhile, Viviane Reding, the vice president of the European Commission, supported the *Costeja* ruling as “exactly what data protection reform is about . . . empowering citizens to take the necessary actions to manage their data.”⁴⁰ Reding is one of the most prominent figures leading the push to develop and extend the right to be forgotten.⁴¹ She has been instrumental in helping to develop the Directive that would extend the right past the *Costeja* ruling.⁴²

34. Arthur, *Google Faces Deluge of Requests*, *supra* note 31.

35. Google Right to be Forgotten Web Form, *supra* note 25; *Google Sets Up ‘Right to be Forgotten’ Form After Ruling*, BBC NEWS (May 30, 2014), <http://www.bbc.com/news/technology-27631001>.

36. In English, the choice is labeled “I would like to request that certain content about me that appears in Google’s search results in breach of European privacy law be removed.” Web Form for Google Content Removal, GOOGLE, <https://support.google.com/legal/troubleshooter/1114905?rd=1#ts=1115655,6034194> (last visited Jan. 29, 2015).

37. *Transparency Report: European Privacy Requests for Search Removals*, GOOGLE, <http://www.google.com/transparencyreport/removals/europeprivacy/?hl=en-US> (last visited Jan. 30, 2015) [hereinafter Google Transparency Report].

38. *Id.*

39. *Id.* As of January 30, 2015, the most delinked websites were facebook.com (5295 removals), profileengine.com (5076 removals), groups.google.com (3582 removals), badoo.com (3248 removals), and youtube.com (3179 removals).

40. Arthur, *Google Deluge of Requests*, *supra* note 31.

41. See Jeffrey Rosen, *The Right to be Forgotten*, 64 STAN. L. REV. ONLINE 88 (Feb. 13, 2012), available at <http://www.stanfordlawreview.org/online/privacy-paradox/right-to-be-forgotten>; see also Arthur, *Google Deluge of Requests*, *supra* note 31.

42. Press Release on 2012 Data Protection Proposal, *supra* note 29.

Google assembled a group of ten panelists, the Google Advisory Council, to visit seven European capitals to discuss the right to be forgotten with citizens and policy makers throughout late 2014 and into 2015.⁴³ The panelists represented various groups with differing stances on the issue, and comprised of two Google executives, the former Director of the Spanish Data Protection Agency, a former German Federal Justice Minister devoted to defending privacy rights, the founder of Wikipedia, and various experts in technology law issues. According to Google's website, it is "seeking advice on the principles [it] ought to apply when making decisions on individual cases."⁴⁴ The head of France's data protection body said "the debates were more about getting good PR for Google" in their fight against the right to be forgotten.⁴⁵

Media organizations expressed concerns about the potential free speech effects of the ruling. Within a couple of months of the ruling, journalists and news organizations claimed that they began to receive notifications from Google that their articles had been removed from certain Google search results due to the EU ruling.⁴⁶ Some felt these moves overstepped certain free speech boundaries and clashed with the public's interest in accessing important information about public figures. James Ball of the *Guardian* wrote critically about the supposed removal of links to *Guardian* articles relating to public figures that were on trial or resigned from their jobs due to controversy.⁴⁷ He criticized the EU for the ruling, and lamented that Google was "clearly a reluctant participant in what effectively amounts to censorship."⁴⁸ In another case, BBC's Robert Peston complained about Google de-listing blog posts critical of Stan

43. Sam Schechner & David Roman, *Google Seeks Views in Europe on Right to be Forgotten*, WALL ST. J. (Sept. 9, 2014), <http://online.wsj.com/articles/google-seeks-views-in-europe-on-right-to-be-forgotten-1410268827>.

44. The Council released the final report on its findings on February 6, 2015, after the completion of this Note. The report is available on the Council's information page. Google Advisory Council Information Page, GOOGLE, <https://www.google.com/advisorycouncil/> (last visited Feb. 6, 2015).

45. *Google Plans Debates on 'Right to be Forgotten'*, BBC NEWS (Sept. 8, 2014), <http://www.bbc.com/news/technology-28344705>.

46. See, e.g., James Ball, *Guardian Articles Have Been Hidden by Google*, GUARDIAN (July 2, 2014, 10:34 AM), <http://www.theguardian.com/commentisfree/2014/jul/02/eu-right-to-be-forgotten-guardian-google>. Search engine operators are not required to provide content owners these notifications, so Google has been providing these notifications of its own volition.

47. *Id.*

48. *Id.*

O'Neal, the former head of Merrill Lynch.⁴⁹ The concern was that O'Neal, a public figure, was able to hide this critical content when someone searched for his name on Google. Google quickly corrected that it only de-listed the link for one of the commenters on the article (presumably upon request from the commenter); the link remained for a Google search of "Stan O'Neal."⁵⁰ Thus, the vital public interest in the information was protected. However, this confusion highlights some of the nuances and the complexity of the de-linking procedure, and suggests that there are issues of clarity that the right still has to overcome. Furthermore, some commentators suggest that Google's initially overzealous removal of search results was a "publicity stunt" by the search giant to stir up disapproval for the right to be forgotten.⁵¹ Andrew Orlowski of *The Register* suggested that Ball "walked into the trap" of Google's plan.⁵² A representative from the BBC who attended the Google Advisory Council's London meeting stated that the news organization felt "some of its articles had been wrongly hidden."⁵³ Around the same time, the BBC announced that it would publish a continually updated list of articles removed by Google under the rule.⁵⁴

49. Robert Peston, *Why Has Google Cast Me Into Oblivion?*, BBC NEWS (July 2, 2014), <http://www.bbc.co.uk/news/business-28130581>.

50. Robert Weaver, *Google 'Learning as We Go' in Row Over Right to be Forgotten*, GUARDIAN (July 4, 2014, 5:34 AM), <http://www.theguardian.com/technology/2014/jul/04/google-learning-right-to-be-forgotten>. An example will help illustrate the situation. Suppose there is a BBC news article about the misdeeds of a public official, Reggie Nixon. In a fit of rage, a citizen named Steven Johnson comments on the article and provides his name. Over time, the article with this comment becomes the top link when searching Google for "Steven Johnson." The politically charged comment has cost Mr. Johnson the opportunity at a few jobs, so he wants it removed when people Google his name. He submits a request under the right to be forgotten. Of course, it is in the public's interest for this article to remain up for searches of "Reggie Nixon," and it would clearly be wrong for a right to be forgotten to remove such results. Suppose Google grants Mr. Johnson's request, and sends the BBC an unspecific notification saying this article had been hidden for certain search results under the right to be forgotten. The BBC's first reaction may be to believe the article was hidden when searching for the public official "Reggie Nixon," which is not the case, but would raise free speech concerns. This mistake is what tripped up James Ball and may confuse others who receive such notifications.

51. Andrew Orlowski, *Google De-Listing of BBC Article 'Broke UK and Euro Public Interest Law' - So WHY Do It?*, REGISTER (July 4, 2014, 12:31 PM), http://www.theregister.co.uk/2014/07/04/google_peston_bbc_delisting_not_compliant_w_public_interest_law_says_expert/.

52. *Id.*

53. Dave Lee, *BBC to Publish 'Right to be Forgotten' Removals List*, BBC NEWS (Oct. 17, 2014), <http://www.bbc.com/news/technology-29658085>.

54. *Id.*

However, this initial overzealous removal, coupled with Google's stated goals for its Advisory Council, suggest that the company is struggling with the vague wording of the ruling, which leaves open significant questions about exactly what types of information should and should not be de-linked. Theoretically, each member state's data protection authority has some room to determine what should be "forgotten" in their state, as long as these rules fit within the EU's prescribed framework. In Google's Transparency Report, it has provided examples of what types of links it has and has not removed.⁵⁵ Luciano Floridi, a professor of information ethics and a member of the Google Advisory Council, noted that the council has "spent quite some time" addressing such questions.⁵⁶

The following sections will touch on the major themes underlying the right to be forgotten and will demonstrate why the right to be forgotten, if it is to exist at all in the United States, should be implemented in a narrow and context-specific way. The next Part will discuss the United States' relationship with free speech and privacy jurisprudence. The final Part will outline the major issues that arise in the discussion of the unspecific European right to be forgotten, highlighting potential implications for the United States.

II. BALANCING FREE SPEECH AND PRIVACY IN AMERICA

The United States' climate for establishing a right to be forgotten fundamentally differs from that in Europe due to important cultural and historical experiences in the two regions. Many European member states have developed a deep respect for privacy, growing in part out of the post-Holocaust skepticism about the power dynamic created by personal information being available to a central authority.⁵⁷ In contrast, the right to free speech has become paramount in the United States, even with extreme forms of speech that would implicate significant privacy and dignity concerns in Europe. For example, the United States Supreme

55. Google Transparency Report, *supra* note 37.

56. Luciano Floridi, *Right to be Forgotten: Who May Exercise Power, Over Which Kind of Information?*, GUARDIAN (Oct. 21, 2014, 7:18 AM), <http://www.theguardian.com/technology/2014/oct/21/right-to-be-forgotten-who-may-exercise-power-information>.

57. Francesca Bignami, *European Versus American Liberty: A Comparative Privacy Analysis of Anti-Terrorism Data-Mining*, 48 B.C. L. REV. 609, 688 (2004).

Court has protected the right of Nazi supporters to demonstrate in American towns⁵⁸ and the right to burn the American flag.⁵⁹

The collection of personal information aided the extermination of individuals in the Holocaust, and as a result, Germans still protest census-taking activities today.⁶⁰ By contrast, many founders of the United States placed freedom of speech among the highest national principles. It was enshrined as the first right within the Bill of Rights (the first ten amendments to the U.S. Constitution, passed shortly after the Constitution was ratified).⁶¹ Though privacy is not explicitly mentioned in the Constitution, it is seen as a right emanating from certain provisions;⁶² but as this Part demonstrates, the First Amendment often limits its use. Even in U.S. law, however, there has been some acknowledgement of the philosophical underpinnings of a right to be forgotten. In *U.S. Department of Justice v. Reporters Committee for the Freedom of the Press*, the Supreme Court noted that there might be a privacy interest in “keeping personal facts away from the public eye.”⁶³

However, many early privacy rulings in the United States were overturned by a series of Supreme Court cases in the 1960s and 1970s that broadened the First Amendment, suggesting the power that free speech can have in determining the fate of privacy matters in the United States.⁶⁴ Even proponents of a right to be forgotten in the United States acknowledge that free speech may be a difficult barrier to overcome. For example, Eric Posner offered that it is “hard to imagine a ‘right to be forgotten’ in the United States” because the “First Amendment will protect Google, or any other company, that resurfaces or publishes information that’s already public.”⁶⁵ Of course, some information that people want forgotten was not public in the first place, which may justify a privacy right overcoming the First Amendment.

58. *Nat'l Socialist Party of Am. v. Vill. of Skokie*, 432 U.S. 43, 44 (1977).

59. *Texas v. Johnson*, 491 U.S. 397, 418 (1989).

60. See William Seltzer & Margo Anderson, *The Dark Side of Numbers: The Role of Population Data Systems in Human Rights Abuses*, 68 SOC. RESEARCH 481, 486 (2001).

61. U.S. CONST. amend. I.

62. See, e.g., *Griswold v. Connecticut*, 381 U.S. 479, 484 (1965).

63. 489 U.S. 749, 769 (1989).

64. See, e.g., *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 269 (1964) (“[L]ibel can claim no talismanic immunity from constitutional limitations. It must be measured by standards that satisfy the First Amendment.”).

65. Eric Posner, *We All Have the Right to be Forgotten*, SLATE (May 14, 2014, 4:37 PM), http://www.slate.com/articles/news_and_politics/view_from_chicago/2014/05/the_european_right_to_be_forgotten_is_just_what_the_internet_needs.html.

In the United States, privacy laws exist at the state and federal levels, both through statute and the common law, but are limited by the First Amendment. This Section will examine certain areas where privacy and the First Amendment interact, including the general right to privacy, defamation, invasion of privacy, the Communications Decency Act, and constitutional law. In doing so, the discussion will highlight how these interactions might affect a right to be forgotten.

A. THE GHOSTS OF A RIGHT TO BE FORGOTTEN IN U.S. CASE LAW

In the since-overturned case *Melvin v. Reid*, a California appellate court noted that there was a social value in having one's past forgotten, stopping short of noting there was a "right to privacy."⁶⁶ The plaintiff was once a prostitute and had been acquitted of a murder charge. She had since moved on from that part of her life, married, and settled down, keeping her criminal past a secret from friends in her new life. Subsequently, the defendant made a movie, "The Red Kimono," which chronicled Melvin's criminal past and even used her name.⁶⁷ This revelation caused her friends to "scorn and abandon her."⁶⁸ The California Court of Appeals upheld Melvin's claim that the movie violated her "right to pursue and obtain safety and happiness,"⁶⁹ stating that "one of the major objectives of society as it is now constituted, and of the administration of our penal system, is the rehabilitation of the fallen and the reformation of the criminal."⁷⁰ While this is no longer good law, it is a famous case that provides the earliest hints about how privacy law would manifest in America, and it suggests that the right to be forgotten is not a completely foreign concept in U.S. law. Relatedly, California now has a right to privacy in its state constitution.⁷¹

B. AN OUTLINE OF FIRST AMENDMENT PROTECTION

The First Amendment only restricts the government, not private actors,⁷² but as soon as a court rules on a private matter in a way that impinges on someone's right to free speech, the restriction kicks in as

66. *Melvin v. Reid*, 112 Cal. App. 285, 291 (Cal. Ct. App. 1931).

67. *Id.* at 287.

68. *Id.*

69. *Id.* at 291.

70. *Id.* at 292.

71. CAL. CONST. art. I.

72. U.S. CONST. amend. I. (prohibiting "Congress" from restricting freedom of speech).

“state action.”⁷³ This is the way many private entities confront free speech barriers when trying to exercise privacy rights. By default, when there is a potential violation of the First Amendment, a court will apply strict scrutiny: there must be a “compelling government interest,” and the government’s law or action must be narrowly tailored to carrying out that interest.⁷⁴ This is an incredibly difficult test for the government to overcome; restricting free speech is very rarely seen as narrowly tailored to carrying out the given goal.⁷⁵ A discussion of strict scrutiny under the First Amendment will follow later in this Section.

However, there are certain categories of speech that are less protected and do not garner strict scrutiny. These include “fighting words,” obscenity, and defamation.⁷⁶ In these categories, a privacy right has a higher chance of overcoming First Amendment concerns. However, even in some of these unprotected categories, free speech and freedom of the press have come to curb individual privacy rights in significant ways. A discussion of U.S. defamation law will demonstrate this.

C. DEFAMATION IN U.S. LAW

Actions for defamation (both libel and slander) exist at the state law level, and the Second Restatement of Torts details how it generally works. The Supreme Court has placed significant limits on defamation actions to protect the First Amendment rights of individuals and the media. A right to be forgotten could exist implicitly within the narrow margins of this right if the privacy violation could overcome the free speech barriers detailed in this Section, but the right would be restricted to the party that published the data and committed the tort, so a third party like Google would probably not be implicated. However, these limits on defamation set a backdrop for how privacy and free speech can relate at a constitutional level. This Section will walk through the doctrine and those limitations.

1. *The Basics of Defamation Law*

There may be a cause of action for defamation if there is publication of a false and defamatory statement.⁷⁷ A statement is “defamatory” if it “tends

73. N.Y. Times Co. v. Sullivan, 376 U.S. 254, 265 (1964).

74. Denver Area Educ. Telecomm. Consortium, Inc. v. FCC, 518 U.S. 727, 741 (1996).

75. Adam Winkler, *Fatal in Theory and Strict in Fact: An Empirical Analysis of Strict Scrutiny in the Federal Courts*, 59 VAND. L. REV. 793, 803 (2006).

76. See Chaplinsky v. New Hampshire, 315 U.S. 568, 572 (1942).

77. RESTATEMENT (SECOND) OF TORTS § 558 (1977).

so to harm [the plaintiff's] reputation . . . as to lower him in the estimation of the community or to deter third persons from associating or dealing with him.”⁷⁸ Thus, if a statement does not arguably harm the plaintiff's reputation, there is no defamation. The statement must also be false, so a true statement cannot trigger liability,⁷⁹ and neither can an opinion that does not convey factual matter.⁸⁰

“Publication” is communication of the statement to a third party.⁸¹ Under the definition of “communication” the third party must have actually seen the information and understood its defamatory character. If nobody read or heard the defendant's defamatory statement, there is no harm to the plaintiff's reputation and no cause of action.⁸² The publication requirement does not demand that the defendant communicate the information to the public at large; communicating to one person can constitute “publication” and trigger defamation. After all, the one person who receives the lie might be the plaintiff's employer, which in itself might cause significant damage. In addition, there is no publication if the defendant only communicated the information back to the plaintiff, because there is no harm to the plaintiff's reputation.⁸³ Of course, under these rules, publishing information to a website can easily constitute publication.

2. *The First Amendment Pushback*

New York Times Co. v. Sullivan is a seminal Supreme Court case that significantly shrunk the defamation tort in the shadow of the First Amendment. The Court held that for a public official's defamation claim to succeed, the public official must prove the defendant had “actual malice,” meaning he knew the published information was false or acted in reckless disregard as to its falsity.⁸⁴ This makes it much more difficult to bring a defamation claim against a publisher, since it is difficult to prove that a particular journalist had the requisite mens rea, or state of mind. According to the Court, libel must give way to the First Amendment to ensure that the debate on public issues is “uninhibited, robust, and wide-

78. *Id.* § 559.

79. *Curtis Publ'g Co. v. Butts*, 388 U.S. 130, 138 (1967). Journalists could not do their job if they were sued for every true defamatory statement they published.

80. RESTATEMENT (SECOND) OF TORTS § 566 (1977).

81. *Id.* § 577.

82. *Id.* § 577 cmt. b.

83. *Id.*

84. *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 280 (1964).

open.”⁸⁵ The Supreme Court later extended the actual malice standard to public figures in addition to public officials.⁸⁶

The requirement that a statement be false embeds strong First Amendment principles into the defamation tort, and constitutes a significant difference from the European right to be forgotten. While both protect an individual’s reputation on some level, the EU right to be forgotten can involve truthful but “outdated” or “irrelevant” information.⁸⁷ Even when discussed as a possibility in America, the right to be forgotten is seen as targeting truthful information in addition to falsities.⁸⁸ This signals a strong point of tension between the defamation tort and the right to be forgotten.

However, because the two doctrines currently burden different parties in different ways, their simultaneous existence could nevertheless successfully protect privacy rights. Remember that the right to be forgotten as it currently exists burdens a third party such as the search engine operator, since this is the party controlling whether or not the public can see the information at issue. Consider a situation where information is true but “old” or “irrelevant” and subject to removal under the right to be forgotten (like in *Costeja*). The party that published truthful information would not be liable, while the search engine operator would be obligated to remove a link. This may make sense; society should not punish the publisher with a defamation suit for accurately reporting information, but the lower burden of removal placed on the search engine operator may seem fair to protect a privacy interest.

Indeed, a right to be forgotten may help mitigate some privacy problems the actual malice standard raises, which allows journalists enough room to operate; the threat of defamation suits might stifle speech, so the actual malice standard attempts to allow a journalist to work freely as long as she is not reckless in her fact-checking. However, when she does negligently publish false defamatory information about a person, damage is undoubtedly done to that person’s reputation. The injured party has a privacy interest that the defamation tort simply is not protecting. Of

85. *Id.* at 270.

86. *Curtis Publ’g Co. v. Butts*, 388 U.S. 130, 162 (1967).

87. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 94, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

88. Robert Krulwich, *Is the ‘Right to be Forgotten’ the ‘Biggest Threat to Free Speech on the Internet?’*, NPR (Feb. 24, 2012, 9:06 AM), <http://www.npr.org/blogs/krulwich/2012/02/23/147289169/is-the-right-to-be-forgotten-the-biggest-threat-to-free-speech-on-the-internet>.

course, as soon as the journalist discovers the information is false, the threat of defamation “turns on,” so the information needs to be removed immediately. However, when information is on the internet, it may be too late. The lie may well have spread virally and damaged the victim’s reputation. While the victim does not have recourse in suing the journalist, a right to be forgotten may be able to at least stem the tide of the lie. Here, the journalist’s First Amendment right remains intact, while the victim has some other recourse to protect his privacy and reputation. Of course, in both situations, the search engine operator may experience a burden on its free speech right by having to hide search results, and arguably with no fault or the requisite mens rea. This is a different and perhaps more problematic free speech problem than a defamation claim raises.

3. *Defamation and Credit Reports*

After establishing the actual malice standard, the Court held in *Dun & Bradstreet v. Greenmoss Builders* that when a matter involves private figures and is not of public concern, the actual malice standard does not apply.⁸⁹ The Court effectively limited rights under the First Amendment when the information is not a “matter of public concern.”⁹⁰

The facts of *Greenmoss Builders* provide an interesting comparison to those in *Costeja*. In *Greenmoss Builders*, a contractor brought a defamation action against a credit-reporting agency that issued false credit reports to creditors.⁹¹ The reporting agency challenged the defamation action, stating that free speech and the actual malice standard protected them from a defamation claim. Justice Powell noted that courts must balance the “State’s interest in compensating private individuals for injury to their reputation” with the “First Amendment interest in protecting this type of expression,” which is tied to whether it is a “matter of public concern.”⁹² The Court held that the petitioner’s credit report “concern[ed] no public issue,”⁹³ while the issue of compensating individuals for injury to their reputation was “strong and legitimate.”⁹⁴ Thus, the actual malice standard was not necessary in the context of credit reports.

89. 472 U.S. 749, 761 (1985).

90. *Id.* at 762.

91. *Id.* at 751.

92. *Id.* at 757–58.

93. *Id.* at 762.

94. *Id.* at 757.

The Fair Credit Reporting Act (“FCRA”) sets rules in place preventing credit reporting agencies from including stale and obsolete information in someone’s credit report.⁹⁵ By not requiring an actual malice standard, the Court in *Greenmoss Builders* effectively upheld the core of the FCRA. The holding may also provide groundwork to legitimize a right to be forgotten in the context of credit information. Consider a statute that requires search engines to delete links to articles containing old damaging debt information. If a private individual’s credit report is not a matter of public concern, then perhaps neither is a search result link to an article chronicling old irrelevant debts. This could reduce the free speech interest and preserve the effect of the law. Meanwhile, the injury to her reputation raises a “strong and legitimate” interest. This could succeed under the balancing test described in *Greenmoss*, but only because such a law would be narrowly constrained to credit reports.⁹⁶ In contrast, an analogue to the EU’s unspecific rule would raise many “matters of public concern” flags, since a court could imagine scenarios far beyond the credit report context.

Costeja’s case represents how the absence of a right to be forgotten might allow Google search results to undermine the FCRA. While a person may have had a very old debt issue that the FCRA hides from official reports, an article chronicling that debt issue might turn up as the first result of a Google search. Indeed, creditors are increasingly relying on internet searches to uncover more information about potential borrowers. Proponents of a U.S. right to be forgotten argue that it can restore function to certain laws like the FCRA whose substantive value the internet erodes.

D. INVASION OF PRIVACY TORTS IN U.S. LAW

Most states recognize four invasion-of-privacy torts, two of which are relevant here: publicity given to private life and false light.⁹⁷ The First Amendment limits both of these privacy torts. As with defamation, these torts exist at the state level, and the Restatement provides an adequate summary of the doctrines.

Under the publicity given to private life tort, a person may bring a cause of action against another who “gives publicity” to a private matter that “would be highly offensive to a reasonable person” and “is not of

95. 15 U.S.C. § 1681 (2012).

96. The major problem with such a statute is that it would not exist in the defamation context, so a stricter constitutional standard might apply.

97. The other two are intrusion upon seclusion and appropriation of name or likeness. RESTATEMENT (SECOND) OF TORTS § 652A (1977).

legitimate concern to the public.”⁹⁸ This action is often brought against the press for publishing private facts. The “legitimate concern to the public” limit, often called the “newsworthiness test,” is what protects the defendant’s First Amendment interest. If the information is “newsworthy,” there is no cause of action because the defendant has a First Amendment right to publicly disclose the facts.⁹⁹ States apply different standards to determine whether something is newsworthy: deferring to the press’s judgment, using social norms, or requiring a “logical nexus” between the private person and the matter of legitimate public interest.¹⁰⁰ In addition, the Supreme Court held in *Cox Broadcasting Corp. v Cohn* that if the private information is already a matter of public record, then it is newsworthy and there can be no action.¹⁰¹ Indeed, while this tort might seem to be the most promising to effectuate many remedies that people would seek under a right to be forgotten, the tort has been severely limited by the Supreme Court and may not be able to effectuate removal when content has spread across the internet.¹⁰²

Under the “false light” tort, one can be liable for giving publicity to a matter concerning another individual that places that person in a false light. The false light must be “highly offensive to a reasonable person.”¹⁰³ This closely relates to the defamation tort, and indeed the claims are often brought together. However, information may be false but not defamatory, in which case the false light claim can still stand. In *Time Inc. v. Hill*, the Supreme Court extended the defamation actual malice standard to false light claims.¹⁰⁴ In terms of helping an individual remove content from the internet, the tort suffers from problems similar to those that defamation and publicity given to private life torts do: it cannot capture the spread of content across the internet beyond the liable party, and sometimes the party is simply not liable (here, if the information is true). The

98. *Id.* § 652D. Here, “publicity” usually requires disseminating the information widely to the public. In tort law, this is distinguishable from “publication,” which merely requires sending the information to at least one person (for example, a text message to a friend would qualify as “publication”). Behavior that qualifies as “publicity” likely qualifies as “publication” as well, but not as much vice versa. Posting information to the internet in a manner that is accessible by all usually qualifies as both. *Id.* § 652D cmt. a.

99. *Id.* § 652D cmt. d.

100. *Id.*

101. 420 U.S. 469, 495 (1975).

102. Robert K. Walker, *The Right to be Forgotten*, 64 HASTINGS L.J. 257, 266 (2012).

103. RESTATEMENT (SECOND) OF TORTS § 652E (1977).

104. 385 U.S. 374, 387–88 (1967).

Communications Decency Act (“CDA”) erects a similar barrier preventing users from being able to remove content from the internet.

E. THE COMMUNICATIONS DECENCY ACT

Section 230 of the CDA protects internet services from liability based on information it hosts or provides access to.¹⁰⁵ The statute states that “no provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.”¹⁰⁶ Without the statute, as soon as an internet service provider (“ISP”) was informed that some user or publisher’s content violated a certain law, the ISP would meet the knowledge element and may be held liable for the same violation. Because of § 230, these ISPs are immune from being put in the third party’s shoes. For example, in *Zeran v. AOL*, the Fourth Circuit held that AOL was not liable for defamation when the company knowingly failed to remove defamatory messages posted by a third party.¹⁰⁷ Section 230 protects a wide variety of internet companies from suit for the actions of others. Notably, it protects search engine operators like Google from suit for not pulling search result links.

Section 230 has allowed internet companies to thrive by having them avoid a large volume of suits. Relatedly, it helps preserve First Amendment principles on the internet by ensuring that ISPs do not indirectly stifle speech through their services in order to avoid liability.¹⁰⁸ Indeed, Chief Judge Wilkinson noted in *Zeran* that “liability upon notice has a chilling effect on the freedom of internet speech.”¹⁰⁹

However, § 230 has also limited the ability of some users to get relief for significant violations of their privacy rights.¹¹⁰ Third parties on the internet are often hard to track down. Sometimes the most effective way to stop the spread of viral information is to ask the internet company that somehow controls access to the information to remove it, even if that company was not initially responsible for the privacy violation. Often, Google Search is this service. However, because of the CDA, Google is under little legal obligation to heed user requests to remove links. Of

105. 47 U.S.C. § 230 (2012).

106. *Id.* § 230(c)(1).

107. *Zeran v. Am. Online, Inc.*, 129 F.3d 327, 330 (4th Cir. 1997).

108. *See id.* at 333.

109. *Id.*

110. *See, e.g.*, Frequently Asked Questions, END REVENGE PORN, <http://www.endrevengeporn.org/faqs/> (last visited Jan. 29, 2015) (noting that claims brought by victims of nonconsensual pornography are barred by §230) [hereinafter END REVENGE PORN FAQ].

course, the company attends to user requests regarding cyberbullying and other practices, but a right to be forgotten could expand privacy rights in the face of the CDA. On the other hand, it could also cause many of the First Amendment problems that the CDA tries to protect against. Indeed, these potential First Amendment problems might be the subject of significant constitutional analysis.

F. STRICT SCRUTINY UNDER THE FIRST AMENDMENT

The Supreme Court has long held that a law potentially impinging on any fundamental right, like the First Amendment, is subject to strict scrutiny: that is, the law must be justified by a compelling government interest, and the law at issue must be narrowly tailored to achieving that interest.¹¹¹ Under this standard, courts have struck down most laws attempting to restrict free speech.¹¹² Laws that restrict the content of speech are particularly likely to be struck down by the Court.¹¹³ While certain narrow categories have historically been exempt from strict scrutiny (for example, defamation, which opens the door to cases like *Greenmoss Builders*),¹¹⁴ the standard could apply to a right to be forgotten law passed in the United States.

The broadness of the EU approach to a right to be forgotten likely spells its doom under First Amendment strict scrutiny. First, it may not suffice to say that protecting “privacy” and “reputation” on the internet in general is a compelling governmental interest. On the other hand, since privacy and reputation lie at the heart of certain exceptions to the First Amendment strict scrutiny standard, a court may be willing to accept this as sufficient.¹¹⁵ However, it would be tough to justify that the vague rule is “narrowly tailored.” Without further specificity, the rule leaves room for the removal of content that does not impinge on a privacy right. The “narrowly tailored” standard is incredibly difficult to meet, and the vagueness of this rule means it would have very little chance of survival. Of course, this reflects concerns noted earlier that the EU’s right to be forgotten ruling may impinge on free speech on the internet precisely because it is so vague and it is unclear how member states will effectuate it. Rather, a narrow, contextual right to be forgotten might be more likely to succeed constitutional scrutiny.

111. *Denver Area Educ. Telecomm. Consortium, Inc. v. FCC*, 518 U.S. 727, 741 (1996); Winkler, *supra* note 75, at 803.

112. Winkler, *supra* note 75, at 844.

113. *R.A.V. v. City of St. Paul*, 505 U.S. 377, 382 (1992).

114. *Id.* at 383.

115. Defamation enjoys a lower standard of review. *Id.*

However, a contextual right to be forgotten may fall under the category of “content-based” regulation of free speech.¹¹⁶ Indeed, the Court has stated that in such cases, the law must be the least restrictive means of achieving the government’s goal.¹¹⁷ If there is an equally effective method that is less restrictive on First Amendment rights, the law is struck down. It could be argued that a contextual right to be forgotten is indeed the least restrictive means of effectuating the given privacy right on the internet, since it maps a violation of the user’s privacy right to the remedy. For example, a law requiring a search engine operator to heed users’ requests to remove links for search results of their names, but only for links to outdated credit report information, might be the least restrictive means of preventing third parties from using a Google search to circumvent the FCRA. Perhaps this is the least restrictive means of effectuating the government’s goals of protecting an individual’s creditworthiness from old credit problems. However, content-based regulation of speech does not often survive in the courts. If a court can argue a less restrictive means exists, it is likely to strike down the law. This threat hangs over even a narrow contextual right to be forgotten. This constitutional problem and other free speech concerns are among the many tensions that the right to be forgotten has produced. Part III surveys many of the issues that have come to light in the wake of the EU *Costeja* ruling.

III. TENSIONS UNDERLYING THE RIGHT TO BE FORGOTTEN

The EU’s open-ended right to be forgotten rule has sparked many questions about how Google and member states should implement it in practice. The issues that have surfaced since the EU ruling highlight concerns that lawmakers in the United States should consider when examining the potential of a right to be forgotten rule. This Section explores these issues, which include what types of content the rule should regulate, whether a private entity should have to define the right, whether the right should supersede internet exceptionalism, what rights content owners should have, and what problems might occur in expanding the right to all domains of a search engine. The analysis concludes that any effort to develop a right to be forgotten in the United States should

116. Patrick M. Garry, *A New First Amendment Model for Evaluating Content-Based Regulation of Internet Pornography: Revising the Strict Scrutiny Model to Better Reflect the Realities of the Modern Media Age*, 2007 BYU L. REV. 1595, 1599 (2007).

117. *Ashcroft v. ACLU*, 542 U.S. 656, 666 (2004).

consider the rights of all parties involved and should be narrowly tailored to address serious privacy invasions while minimizing effects on freedom of speech.

A. DRAWING LINES: WHAT TYPES OF CONTENT SHOULD WE FORGET?

This Section explores what types of information a right to be forgotten should regulate. One of the main purposes of Google's European tour, the Google Advisory Council, was to confront this very question in the face of the ECJ ruling.¹¹⁸ The search giant has published examples of some of the scenarios in which it has and has not rejected user requests for removal.¹¹⁹ While the ECJ's ruling is not specific on the matter, commentators have started to draw lines that, coupled with Google's open discussions, may give the public a clearer picture of exactly what this right can entail. However, uncertainty about the nature of the right suggests that it would not be wise to implement the rule similarly in the United States when so many questions remain open about exactly what other rights may be set aside and in what contexts. This Section will explore various areas where a right to be forgotten might apply.

There are many parameters that could strengthen or weaken the validity of a right to be forgotten. The nature of the information can play a role: whether it is sensitive or intimate; whether its presence undermines an existing law; whether it is valuable to the public; and how old it is. How the information was posted can affect the analysis: whether a third party or the requester herself posted the information; and if a third party posted the information, then whether it was done consensually. In regards to the requester, important factors could include whether she is a public figure; whether she a convicted criminal, and if so, whether the information relates to the crime; and whether she is a minor. In addition, the person discussed may turn into a public figure. This list of relevant parameters highlights the complexity of the inquiry. Each will become relevant at various points in this Section, which explores where the right to be forgotten might apply. It will analyze two major areas where the right can operate: legal forgiveness and personal information. Values that might

118. Google states that a goal of its European tour is to seek "advice on the principles [it] ought to apply when making decisions on individual cases." GOOGLE ADVISORY COUNCIL, *supra* note 44.

119. Google Transparency Report, *supra* note 37.

clash with a right to be forgotten in these areas include free speech, the public's right to information, and freedom of the press.¹²⁰

1. *Legal Forgiveness*

Legal forgiveness already has its place in U.S. law to help those with a criminal past rehabilitate and re-assimilate into society,¹²¹ or those with past debts shake off old financial shadows.¹²² It is possible to extend this notion to the internet through a right to be forgotten. Consider a juvenile who once committed petty theft but is trying to re-align his life, or someone who was in debt in her youth but has since managed her credit well. While legal forgiveness laws exist to attempt to lift the burden off these old problems (by burying non-violent juvenile records and old credit information) so that people can better their lives, a Google search can undo the benefits of these laws. Eric Posner argues that the internet has eroded existing legal forgiveness laws, and that a right to be forgotten would restore their effectiveness.¹²³ However, problems may occur when attempting to balance this policy goal with a public interest in knowing about someone's criminal offenses. Indeed, some view being able to uncover this information more readily as one of the benefits of the internet, which emboldens a defense of the public right to information. How far in the past must a legal matter be for the public interest to be diminished? What should the law permit to "disappear" from the public eye? Some laws already exist to address these questions, and they may provide guidance in the context of a right to be forgotten. This Section discusses serious crimes, minor crimes, and other legal matters such as credit issues.

a) *Legal Forgiveness and Serious Crimes*

The right to be forgotten should not affect internet content chronicling certain serious crimes, including those involving sexual offenses and significant violent behavior, since the public has a strong right to access the information about this behavior. This public interest

120. See Krulwich, *Is the 'Right to be Forgotten' the 'Biggest Threat to Free Speech on the Internet'?*, *supra* note 88.

121. See, e.g., 11 U.S.C. § 525(a) (2012) (requiring forgiveness from various entities for former debtors who have repaid their debts); Meg Leta Ambrose & Jef Ausloos, *The Right to be Forgotten Across the Pond*, 3 J. INFO. PRIVACY 1, 9 (2013); Meg Leta Ambrose et al., *Seeking Digital Redemption: The Future of Forgiveness in the Internet Age*, 29 SANTA CLARA COMP. & HIGH TECH. L.J. 99, 124-37 (2012).

122. Ambrose et al, *The Future of Forgiveness in the Internet Age*, *supra* note 121, at 124.

123. Posner, *We All Have the Right to be Forgotten*, *supra* note 65.

outweighs any interest to the offender himself or the societal value in rehabilitation, and indeed, legal frameworks already establish the significance of the public's right to information here. Laws exist that require sex offenders to register in federal databases¹²⁴ and report their crimes to neighbors, and a right to be forgotten is likely not to cover links to this type of information. As one proponent of the right to be forgotten states, "some criminal activity will never be considered for informational forgiveness, particularly ones with high recidivism rates and severe public concern (e.g., the sex offender list)," and "online informational forgiveness should be no different."¹²⁵ According to its report, Google has already been rejecting requests to remove such links.¹²⁶

b) Minor Crimes and the More Compelling Case for the Right to be Forgotten

Other types of criminal convictions pose more difficult questions. Should someone be allowed to remove a link to an article that chronicles a less serious past crime, such as drug possession or shoplifting? These crimes significantly hinder a person's opportunities in society.¹²⁷ Legal forgiveness laws in the criminal context attempt to prevent precisely such a restriction of opportunity. However, in the age of the internet, the person who stole food as a teenager to feed his family, or got caught with a small amount of marijuana, may not be able to get a job. Even though legal forgiveness laws have buried his record, searching his name on Google turns up that old petty crime.¹²⁸ If this is where legal forgiveness has the most social value in the criminal context, then a right to be forgotten can prevent the internet from undermining such value.¹²⁹

c) Credit and Other Non-Criminal Legal Issues

In addition to criminal activity, legal forgiveness aims to protect those with past debts and other legal issues. Consider a scenario such as the one that confronted Costeja and discussed above, where a person is not able to take out a loan because search results of their name turn up old debts that

124. 18 U.S.C. § 2250 (2012).

125. Ambrose et al., *The Future of Forgiveness in the Internet Age*, *supra* note 121, at 150.

126. See Google Transparency Report, *supra* note 37.

127. See, e.g., Ambrose et al., *The Future of Forgiveness in the Internet Age*, *supra* note 121, at 129.

128. Some legal forgiveness laws exist under a philosophical presumption that smaller crimes like these do more damage than perhaps they should.

129. See Ambrose et al., *The Future of Forgiveness in the Internet Age*, *supra* note 121, at 162–63.

have since been resolved.¹³⁰ This scenario stirred resistance to a right to be forgotten among some commentators.¹³¹ On the other hand, defenders of a right to be forgotten could argue that these search results actually undermine existing U.S. laws like the FCRA that protect individuals from old financial issues.

The FCRA provides one specific example where a parallel right to be forgotten might work well to sew up loopholes created by the internet while not being problematically overbroad. One of the Act's main purposes is to "protect individuals from inaccurate or arbitrary information and preserve their creditworthiness and reputation."¹³² The FCRA has explicit provisions that prevent "consumer reporting agencies" from including certain old legal issues in consumer reports about an individual.¹³³ "Consumer reporting agencies" include parties that "assembl[e] or evaluat[e] consumer credit information and other information on consumers for the purpose of furnishing that information to third parties..."¹³⁴ Specifically, a report cannot include information about certain bankruptcy issues more than ten years old,¹³⁵ civil suits or arrest records more than seven years old,¹³⁶ or any other adverse information older than seven years.¹³⁷ However, the entire effect of this law can vanish with a simple Google search. An internet search result could quickly damage the individual's reputation in the precise way the FCRA attempts to prevent. A narrowly tailored right to be forgotten could allow a user to request certain links be removed that report the information protected by FCRA. However, accepting a right to be forgotten here means accepting that the FCRA policy, which burdens consumer reporting agencies, should extend to internet companies that are

130. See Julia Powles, *What We Can Salvage From 'Right to be Forgotten' Ruling*, WIRED.CO.UK (May 14, 2014), <http://www.wired.co.uk/news/archive/2014-05/15/google-vs-spain>; see also Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 94, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

131. See, e.g., *Last Week Tonight with John Oliver* (HBO broadcast May 18, 2014), available at <https://www.youtube.com/watch?v=r-ERajkMXw0>.

132. Ambrose et al., *The Future of Forgiveness in the Internet Age*, supra note 121, at 144 (citing *Ackerley v. Credit Bureau of Sheridan, Inc.*, 385 F. Supp. 658, 659 (D. Wyo. 1974)); see also *Pinner v. Schmidt*, 805 F.2d 1258, 1261 (5th Cir. 1986).

133. 15 U.S.C. § 1681c (2012).

134. *Id.* § 1681a(f).

135. *Id.* § 1681c(1).

136. *Id.* § 1681c(2).

137. *Id.* § 1681c(5). For a more in-depth discussion of the FCRA in the legal forgiveness context, see Ambrose et al., *The Future of Forgiveness in the Internet Age*, supra note 121, at 144–46.

not explicitly in the consumer reporting business.¹³⁸ Curbing a public right to information may be harder to justify in this context, but on the other hand, the growing trend of using internet searches as de facto background checks could mean that the right to be forgotten will be seen as necessary to effectuate the FCRA's policy goals, and Google will have to accept its new identity as a de facto consumer reporting agency.

2. *Personal Information*

Personal information, including photographs, data, posts, comments, news articles, and much more, provide a contentious area of deliberation. Whether this information is stolen, sexual in nature, or related to public figures can complicate matters. These issues can become pressing to an individual in an age when information can spread across the internet and out of one's control almost instantly.¹³⁹

The simplest scenarios with personal information are ones that affect many Americans. Personal information can include embarrassing photographs, or news articles, or comments capturing an individual's unpopular political view. Argentina has a right to be forgotten law that allows even public figures to remove embarrassing photos in certain situations.¹⁴⁰ Should someone be able to request that a photo of their "drunken night out" be de-listed from search results? Whether the first party or a third party initially posted that photo could make a difference. If the person is a minor, or was a minor when the photograph was taken, there may be a greater need to forgive. In America, the privacy interest in dignity, when cyberbullying and sexual content are not involved, is simply not strong enough in the face of the First Amendment. Dignity alone is not a compelling enough privacy issue to merit the potential burden on free speech.¹⁴¹ On the other hand, Viktor Mayer-Schönberger notes that digital remembering of this nature poses the danger of "self-censorship": he poses whether "our children will be outspoken in the online equivalents of newspapers if they fear their blunt words might hurt their future career."¹⁴²

138. Ambrose et al., *The Future of Forgiveness in the Internet Age*, *supra* note 121, at 145 (noting that FCRA currently applies to "people and entities that assemble or evaluate consumer report information and furnish that information to third parties.").

139. See Krulwich, *Is the 'Right to be Forgotten' the 'Biggest Threat to Free Speech on the Internet'?*, *supra* note 88.

140. *Id.*

141. See generally James Q. Whitman, *The Two Western Cultures of Privacy: Dignity Versus Liberty*, 113 YALE L.J. 1151 (2004).

142. MAYER-SCHÖNBERGER, *supra* note 1, at 111.

Some in the American media have suggested younger generations may be less concerned about dignity alone,¹⁴³ but others have noted that this context is of growing importance as employers and schools increasingly use internet searches as background checks.¹⁴⁴ Some suggest that Americans ought to accept that most people have a less than stellar internet identity, and that even employers and admissions officers should ease up on their standards for search results.¹⁴⁵ Indeed, if the policy value of dignity does not hold much sway in the United States,¹⁴⁶ this relaxing of social standards may be an approach that works well with American values. In light of this unsettled discussion, a broad right to be forgotten rule would unnecessarily clash with free speech, which would be especially unfortunate if Americans were prepared to endure their flawed internet identities anyways. On the other hand, when embarrassing photos or information involve cyberbullying or more sensitive personal content, there may be a stronger argument for a right to be forgotten. Indeed,

143. John Hendel, *In Europe, a Right to be Forgotten Trumps the Memory of the Internet*, ATLANTIC (Feb. 3, 2011), <http://www.theatlantic.com/technology/archive/2011/02/in-europe-a-right-to-be-forgotten-trumps-the-memory-of-the-internet/70643/>.

144. In an ACLU paper advocating a “right to delete,” Chris Conley noted that “a teacher’s career may be ruined by a picture of her holding a drink at a party long ago.” Chris Conley, *The Right to Delete*, ACLU (Mar. 23, 2010), <http://www.aaii.org/ocs/index.php/SSS/SSS10/paper/view/1158/1482>. In the context of employment and school admission, it may be prudent to simply regulate the concerning behavior instead of targeting the information itself for removal. For example, legislators could pass laws that ban employers from discriminating based on certain personal information on the internet, or at the very least, information that chronicles a person’s behavior when they were a minor. Indeed, this solution may be empowering to an internet user, who does not have to worry about regulating her internet life for the sake of employment. Of course, this solution raises the problems of proof that confront other areas of employment discrimination law: it could be difficult to confirm that an employer has discriminated based on personal information on the internet. In addition, such laws would not address potentially deeper problems with personal information on the internet. Certain types of personal information raise deeper concerns than employment and university admission.

145. See, e.g., *Last Week Tonight with John Oliver* (HBO broadcast May 18, 2014), available at <https://www.youtube.com/watch?v=r-ERajkMXw0> (in a piece criticizing the right to be forgotten, political comedian John Oliver asks Americans to collectively post their most embarrassing photos on the internet, hashtagging the effort #mutuallyassuredhumiliation).

146. See generally Whitman, *The Two Western Cultures of Privacy: Dignity Versus Liberty*, *supra* note 141.

Google already has policies in place to pull links for such content with products other than search, such as YouTube.¹⁴⁷

Certain violent, sexual, and graphic content will garner more support for a right to be forgotten, since the privacy right at stake is much stronger. Jeffrey Toobin tells the story of a teenage girl whose gruesome decapitation in a car accident was captured by police photos that leaked and spread virally across the internet.¹⁴⁸ The family's lawyer stated that because of an absence of a right to be forgotten in U.S. law, "we knew people were finding the photos by Googling [her] name or just 'decapitated girl,' but there was nothing we could do about it."¹⁴⁹ Google's Transparency Report suggests that under a right to be forgotten, a victim of a serious crime (or their family member) is able to de-link search results to articles chronicling that crime; Google removed search results after "a victim of rape asked . . . to remove a link to a newspaper article about the crime."¹⁵⁰ Invasion of privacy cases have succeeded for similar types of content, suggesting that even with a different target (a search engine or website rather than a tortfeasor), a privacy right may be strong enough here to trump free speech concerns. Thus, a narrow right to be forgotten might succeed.

Efforts to end nonconsensual pornography, which includes but is not limited to revenge porn, might be able to rely on a narrow right to be forgotten to effectuate certain goals. Nonconsensual pornography is the distribution of sexually explicit images of individuals without their consent.¹⁵¹ This could occur in many ways, including through phone-hacking, sharing without permission intimate photos exchanged during a relationship, or using hidden cameras.¹⁵² While other legal remedies exist for some of these activities, these remedies are hard to achieve due to certain evidentiary burdens or to the fact that statutes have not been updated for modern technology. Furthermore, these remedies cannot practically effectuate removing the photos from Google searches.¹⁵³ A narrow right to be forgotten here could help realize an important goal; the

147. YouTube Cyberbullying and Harassment Policy, GOOGLE, <https://support.google.com/youtube/answer/2801920?hl=en> (last visited Jan. 29, 2015).

148. Jeffrey Toobin, *The Solace of Oblivion: In Europe, The Right to be Forgotten Trumps the Internet*, NEW YORKER (Sept. 2014), <http://www.newyorker.com/magazine/2014/09/29/solace-oblivion>.

149. *Id.*

150. Google Transparency Report, *supra* note 37.

151. END REVENGE PORN FAQ, *supra* note 110.

152. *Id.*

153. *Id.*

victim of an incident of “revenge porn” could at the very least remove links to these images or videos for search results of their name. With friends, family, and colleagues less likely to encounter the images, this could mitigate one of the most terrible consequences for a victim of nonconsensual pornography.¹⁵⁴ It is easy to see a strong privacy interest in removing links in this context. Indeed, even a deeper right to be forgotten that removes content altogether may be justifiable to defend this privacy right.

Relating to existing free speech and freedom of press laws, the public has an interest in the activities of public figures such as politicians and celebrities, so these figures are generally believed to have far less protection than those living private lives.¹⁵⁵ However, the fear that public figures would essentially be able to “censor” their own misconduct colored some of the commentary following the ECJ ruling, notably in *The Guardian*.¹⁵⁶ As of now, Google is generally refusing to remove links regarding public figures, which suggests that the EU’s right to be forgotten may remain in line with free speech doctrine on this front.¹⁵⁷ However, implementing the rule with similar uncertainty may raise alarms in the United States, even though the Supreme Court has resoundingly reaffirmed free speech rights in these contexts.¹⁵⁸

Specifically, what happens when a person “turns into” a public figure? Consider a situation where a non-famous person exercises his right to be forgotten and de-lists links from Google searches of his name. Later, he runs for political office. If he submitted the same requests now, Google would deny him because there is a public interest in this person. Should a picture of someone holding a beer be deemed for removal? But the links are down, and a person who searches for this man will see a pristine Google history. Who exactly is going to tell Google to “re-list” those links for the public good? Perhaps Google can implement an algorithm to detect upswing in the interest in a person, or perhaps it remains the duty

154. *See id.* The website notes how the potential of having friends, family, and colleagues potentially see the images is one of the worst aspects of nonconsensual pornography.

155. *See* N.Y. Times Co. v. Sullivan, 376 U.S. 254, 268 (1964); Curtis Publ’g Co. v. Butts, 388 U.S. 130, 155 (1967); *see also* Posner, *We All Have the Right to be Forgotten*, *supra* note 65.

156. *See* Ball, *Guardian Articles Have Been Hidden by Google*, *supra* note 46.

157. Of course, this is a broad EU law, and Google, without other guidance, currently has to make its own judgments. In that context, Google may be imposing American free speech values on the EU.

158. *See, e.g.*, *Hustler v. Falwell*, 485 U.S. 46, 51–52 (1987).

of internet users to remain vigilant. Either way, this problem places significant burdens on certain groups to police the internet for content that must be “remembered” and concretizes the concern about the suppression of free speech on the internet. To preserve First Amendment rights on the internet, any deliberation about a right to be forgotten must pause to examine solutions for this problem.

Recent news has led to a potential clash of the public figure doctrine with the issue of nonconsensual pornography. In the summer of 2014, large numbers of private nude photos of numerous female celebrities, obtained by hacking their phones and Apple iCloud accounts, were released on to the internet.¹⁵⁹ Perhaps the most famous of these celebrities, Jennifer Lawrence, called the hack a “sex crime” and noted that “just because I’m a public figure, just because I’m an actress, does not mean I asked for this.”¹⁶⁰ Is there truly a “public interest” in these pornographic photos, or at this point is it a delusion as Jennifer Lawrence suggests? The public figure doctrine should not hold in the context of nonconsensual pornography. Clearly, this issue is salient and active, and approaching a right to be forgotten cautiously allows the right to track with this conversation about privacy in the twenty-first century.

In light of the *Costeja* ruling, European courts and search engine operators like Google will have to continue to draw lines around all of these scenarios in the EU. While some scenarios are easier to decide on, others sit at the center of the right to be forgotten debate. Decisions in these areas could draw the ire of free speech advocates and defenders of privacy rights alike. As the conversation about internet privacy continues, it is important to note that a right to be forgotten may have merit in certain contexts. However, because there are difficult unresolved questions surrounding other scenarios, a broad sweeping rule could inadvertently curb important rights. In the United States, which leans at least slightly more in favor of free speech than the EU, more of these issues will tip against a right to be forgotten, further suggesting that an analogous broad law would be imprudent. Rather, narrow rules that address vital privacy concerns would effectuate proper policy goals.

159. David Kedmey, *Hackers Leak Explicit Photos of More than 100 Celebrities*, TIME (Sept. 1, 2014), <http://time.com/3246562/hackers-jennifer-lawrence-cloud-data/>.

160. Sam Kashner, *Both Huntress and Prey*, VANITY FAIR (Oct. 17, 2014), <http://www.vanityfair.com/vf-hollywood/2014/10/jennifer-lawrence-photo-hacking-privacy>.

B. THE PROPER BODY TO DEFINE THE RIGHT: COURTS, LEGISLATURES, OR SEARCH ENGINES?

Decisions about what types of content should be de-listed or kept up effectively define the right to be forgotten. There are questions about whether private companies are the proper entities to be making these decisions rather than courts, but regardless of how companies and courts distribute the load, a narrow statutory right to be forgotten could properly put many of those decisions in the hands of the legislature in the first place, leaving the courts and private companies with the duty to implement the law. In the first months after the ECJ's *Costeja* ruling, it was Google that was seemingly left with the burden of making these decisions. Google's ability to handle other flagged content may suggest it is capable of making such judgments, but there are concerns that placing the balancing decisions for these requests in the hands of search engine operators may be impractical and imprudent. Since Google is not a legal institution, is it right to allow the company to make pivotal decisions about privacy, an issue of deep concern to many? The executive director of the Wikimedia Foundation, Lila Tretikov, commented that "accurate search results are vanishing in Europe with no public explanation, no real proof, no judicial review and no appeal process."¹⁶¹ Jules Polonetsky of the Future of Privacy Forum stated that "for the Court to outsource to Google complicated case-specific decisions about whether to publish or suppress something is wrong. Requiring Google to be a court of philosopher kings shows a real lack of understanding about how this will play out in reality."¹⁶² Critics have also noted that the burden on search engine operators could be immense to try to filter these results. Google examined over 500,000 removal requests in the first five months,¹⁶³ and it may cost too much to properly examine these as thoroughly as the high court has demanded.

On the other hand, Google has set up systems of its own services (such as YouTube) to handle content flagged for violating its content policies.¹⁶⁴ These incidents can revolve around internet bullying, hate speech, and other matters often left up to subjective interpretations. This suggests that Google is able to handle the role of "philosopher king" in at least some

161. Lila Tretikov, *European Court Decision Punches Holes in Free Knowledge*, WIKIMEDIA BLOG (Aug. 6, 2014), <http://blog.wikimedia.org/2014/08/06/european-court-decision-punches-holes-in-free-knowledge/>.

162. Toobin, *supra* note 148.

163. See Google Transparency Report, *supra* note 37.

164. See, e.g., YouTube Cyberbullying and Harassment Policy, *supra* note 147.

capacity, and that this practice can extend to the right to be forgotten. Furthermore, per the ECJ ruling, data protection agencies in member states serve as the proper legal institutions to calibrate decisions made by these private entities.¹⁶⁵ This suggests that with any right to be forgotten rule in the United States, courts would play at least some role, which may assuage certain fears about extra-judicial conflict resolution.

Regardless of who bears what burden, implementing the right to be forgotten narrowly and contextually would likely reduce the amount of necessary litigation compared to an unspecific rule like the EU's, which has clearly resulted in many open legal questions. Effectively, the legislature would be doing much of that policy work, streamlining the process down the line for courts and companies.

In addition, it is important to consider that the burden of handling right to be forgotten requests might favor larger internet entities like Google over smaller companies, stifling competition and subduing the entrepreneurial spirit of the internet. While Google arguably has the resources to handle the burden of reviewing right to be forgotten claims, smaller internet services are likely not as experienced and as well-equipped to sort out individual issues. This reinforces the need to implement any right to be forgotten narrowly rather than broadly. While a narrow right to be forgotten would still burden these internet services with questions about specific cases, it could avoid the additional burdens of a broad rule.

C. “MEMORY HOLES” AND THE INTEGRITY OF THE INTERNET

The principle of “internet exceptionalism” suggests that the internet is a special medium that should exist outside of ordinary legal structures. Related to this principle is the idea that the internet provides an opportunity to finally preserve all of human knowledge, without the holes or gaps that currently riddle history: a fire cannot burn down the modern Library of Alexandria. However, a right to be forgotten would arguably introduce “memory holes” that could run against these hopes for the internet. The “memory hole” was a concept popularized by George Orwell in his novel *Nineteen Eighty-Four*. In the story, oppressive government officials would drop politically inconvenient documents into physical “memory holes” to wipe the information from history.¹⁶⁶ The concept is often invoked when discussing revisionist history or censorship. Of course,

165. Case C-131/12, *Google Inc. v. Mario Costeja González* ¶ 94, available at <http://curia.europa.eu/juris/document/document.jsf?docid=152065&doclang=en> (May 13, 2014).

166. GEORGE ORWELL, 1984, at 34–35 (1954).

these ideas find their philosophical origin in the public rights to information and free speech. Some critics of the EU's rule suggest that the right to be forgotten threatens the integrity of the internet because removing information can create internet "memory holes" that modify history and steer the internet away from being a haven of preserved information. On the other hand, as Mayer-Schönberger notes, "what digital remembering yields is not the entire picture, but at best only those elements of it that are captured in digital memory."¹⁶⁷

Representatives from Wikipedia have been fiercely critical of the EU's right to be forgotten on these grounds. In response to the ECJ ruling, Jimmy Wales, the founder of Wikipedia, noted that "history is a human right," and that "some people say good things, some people say bad things . . . that's history and I would never use any kind of legal process like this to try to suppress the truth."¹⁶⁸ Tretikov, executive director of the Wikimedia Foundation, wrote that "the European court abandoned its responsibility to protect one of the most important and universal sets of rights: the right to seek, receive, and impart information," and "the result is an internet riddled with memory holes—places where inconvenient information disappears."¹⁶⁹ Relatedly, Google has argued that the right violates the objectivity of the internet.¹⁷⁰

However, support for internet exceptionalism may be eroding,¹⁷¹ and memory holes may already exist in significant ways on the internet. For example, when scores of nude photos of celebrities were stolen from their personal databases, members of Reddit, a social media website where many of the photos were re-posted, immediately pulled down some subpages that were linking to the images.¹⁷² In effect, some members of an

167. MAYER-SCHÖNBERGER, *SUPRA* NOTE 1, AT 122.

168. Sophie Curtis & Alice Philipson, *Wikipedia Founder: EU's Right to be Forgotten is 'Deeply Immoral'*, TELEGRAPH (Aug. 06, 2014), <http://www.telegraph.co.uk/technology/wikipedia/11015901/EU-ruling-on-link-removal-deeply-immoral-says-Wikipedia-founder.html>.

169. Tretikov, *supra* note 161.

170. Elizabeth Flock, *Should We Have a Right to be Forgotten Online?*, WASH. POST (Apr. 20, 2011), http://www.washingtonpost.com/blogs/blogpost/post/should-we-have-a-right-to-be-forgotten-online/2011/04/20/AF2iOPCE_blog.html.

171. See Tim Wu, *Is Internet Exceptionalism Dead?* in THE NEXT DIGITAL DECADE – ESSAYS ON THE FUTURE OF THE INTERNET 179 (Berin Szoka, Adam Marcus, eds., 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1752415.

172. Chiderah Monde, *Reddit Pulls Down Subpages Hosting Celebrity Nude Photos Week After Hacking*, N.Y. DAILY NEWS (Sept. 8, 2014), <http://www.nydailynews.com/entertainment/gossip/reddit-pulls-subpages-hosting->

internet giant willingly created memory holes in their own content in order to protect a significant privacy right. In addition, studies on internet content persistence have shown that a significant amount of content disappears within a day.¹⁷³ As the argument goes, if the internet is not as permanent as it first seems, should one truly be concerned about the disappearance of some Google search result links? Furthermore, recall that Google and other content engines have mechanisms in place to remove illegal and unacceptable content,¹⁷⁴ which suggests that there is precedent for carving out memory holes to govern the internet with the prevailing values of a society (for example, the removal of cyberbullying content). However, one could counter-argue that the memory holes that the EU's right to be forgotten create are particularly problematic because they often do not reflect a vital privacy right like cyberbullying and nonconsensual pornography. Rather, individuals are actively trying to hide minimally damaging information that individually or in the aggregate would contribute value to a thorough database of history. Furthermore, the fact that the information to be forgotten is popping up high on a list of search results suggests the public may find the information valuable in the context of that search term (here, the person's name). This is not surprising: what a person most wants everyone to forget can be exactly what others find interesting or valuable. And this search result may be valuable for long-term preservation.¹⁷⁵ If any right to be forgotten is to exist in the United States, a narrow and contextual one could navigate these nuances and target content that has a strong enough privacy right attached to overcome concerns about maintaining the internet's value as a tool of preservation.

D. TRANSPARENCY AND THE RIGHTS OF CONTENT OWNERS

The unspecific EU right to be forgotten rule may abrogate free speech in another way. In no way does the EU rule require search engine operators to tell content owners (for example, the publishers that post the

celebrity-nude-photos-article-1.1931908. However, other subpages on the site still linked to the stolen images.

173. Meg Ambrose, *It's About Time: Privacy, Information Lifecycles, and the Right to be Forgotten*, 16 STAN. TECH. L. REV. 369, 392 (2013).

174. See, e.g., Jacqueline Fuller, *Our Continued Commitment to Combating Child Exploitation Online*, GOOGLE OFFICIAL BLOG (June 15, 2013), <http://googleblog.blogspot.com/2013/06/our-continued-commitment-to-combating.html>.

175. For a thoughtful consideration about the tension between "Preservationists" and "Deletionists," see Ambrose, *It's About Time: Privacy Information Life Cycles, and the Right to be Forgotten*, *supra* note 173, at 396–97.

de-listed articles) that links to their works have been removed from search results. Google has made it a policy to send notices to content owners anyways, citing transparency concerns.¹⁷⁶ This highlights important issues: 1) whether content owner rights are being abrogated by the EU's right to be forgotten, and 2) whether a right to be forgotten law should include provisions aimed at promoting transparency about removals.

E. THE "ALL-DOMAINS" GUIDELINE: HOW FAR SHOULD REMOVAL STRETCH?

The scope of removal is a contentious debate: whether the search engine operator should only have to remove the link for one domain (i.e. Google.com or Google.fr), or for every domain it runs all across the world. This poses complex jurisdictional issues, and an expanded rule may stretch a right to be forgotten rule beyond certain legal boundaries. Currently, Google is removing links only for a specific country domain: a requester can remove a link under a search on "Google.fr" (Google's France site), and the link would still appear on other EU sites like "Google.co.uk" (Google's United Kingdom site) and across the world like on "Google.com" (Google's U.S. site). However, under an "all-domains" rule, the removal would have to occur for every domain. This would mean that a request would remove links from a search on the U.S.'s Google.com, as well.

For many months, EU leaders had not specified whether the right needed to be executed across all domains, so Google has kept removals as narrow as it can (country-specific). However, in November 2014 the EU's Article 29 Data Protection Working Party, largely made up of representatives from member states' data protection agencies, adopted guidelines that state removals should occur for all Google domains.¹⁷⁷ These guidelines do not immediately bind Google. Rather, they contain the "common interpretation of the ruling as well as the common criteria to be used by the data protection authorities when addressing complaints."¹⁷⁸

176. Frequently Asked Questions About the Right to be Forgotten, GOOGLE, <http://www.google.com/transparencyreport/removals/europeprivacy/faq/?hl=en> (last visited Jan. 30, 2015); see, e.g., Geoff Brigham & Michelle Paulson, *Wikipedia Pages Censored in European Search Results*, WIKIMEDIA BLOG (Aug. 6, 2014), <https://blog.wikimedia.org/2014/08/06/wikipedia-pages-censored-in-european-search-results/>.

177. See Article 29 Working Party Guidelines, *supra* note 26.

178. Press Release on Article 29 Working Party Guidelines, *supra* note 22. EU Working Party guidelines operate more as strong suggestions about how each member state should execute or comply with certain EU laws. The legal effect is yet to be seen.

Basically, the legal effect is yet to be seen, and it depends on how European authorities react in policing Google.

Applying removal to all domains might be necessary for a full protection of the right. Indeed, currently a European employer doing a search on an applicant can easily circumvent potential removal by sliding over to the U.S. “google.com,” under which there is absolutely no removal, and reliably return all search results for someone’s name (the employer could also slide over to another EU Google domain, but a diligent requester might have covered all member states).¹⁷⁹ According to the Working Party, “de-listing decisions must be implemented in such a way that they guarantee the effective and complete protection of data subjects’ rights and that EU law cannot be circumvented.”¹⁸⁰

On the other hand, it is concerning that a European law could have a strong effect on the search results of users across the world. First, it is problematic that a European requester’s privacy right would include being able to hide results from a U.S. user. And the extended implications raise deeper concerns. An “all-domains” rule might mean that any user across the world could use the EU right to remove links. Currently, there is no specific bar from a U.S. user submitting a request on Google’s web form, nor is there a suggestion from EU agencies that they would stop such requests. As of now, such a request may be relatively useless: a U.S. requester is more concerned about being forgotten on “google.com” than on “google.de.” But if the Article 29 Working Party’s “all-domain” guideline becomes reality, then the U.S. user might be able to submit a request on the web form and pull the link down for search results of her name across all Google sites. Thus, the “EU right” could effectively expand to all people. While Google could push back in various ways,¹⁸¹ the vagueness of the ruling leaves the above a clear possibility under an “all-domains” rule. This could be hugely concerning from an international law standpoint.

179. Of course, there may be a shuffling of results based on the search engine’s algorithm. For example, the U.S. search engine may lower the ranking of a European newspaper and raise the ranking of a U.S. newspaper, simply based on the fact that the U.S. newspaper is more relevant for a U.S. search result.

180. Press Release on Article 29 Working Party Guidelines, *supra* note 22.

181. One can imagine that if the Working Party guideline did become reality, Google might push back by demanding that it be able to filter requests regionally (by IP address or ISP) so that requests coming from anywhere but the EU would be blocked. However, even then, proxies or other technological tools could allow savvy American users to submit requests anyways. This may push Google to demand that it be able to require proof of EU residence or citizenship before granting any removal (if it wanted to take on the extra burden of examining such proof).

Ultimately, an all-domains rule is more imprudent than it is useful. It raises numerous vital issues pertaining to international law, cyber law, and privacy law: to what extent the EU can regulate the worldwide operations of a U.S. search engine; to what extent the EU can create privacy rights in other jurisdictions (including the United States); to what extent the EU can limit the internet-based rights of people outside its jurisdiction (rights such as free speech, freedom of the press, and access to knowledge); and to what extent the EU can assert its philosophy on the whole internet and users worldwide.

IV. CONCLUSION

The EU's broad language and lack of specificity have raised numerous questions both legal and philosophical, leaving the actual legal right in limbo and creating heavy administrative burdens. A narrow statutory or regulatory scheme encouraging private dealing would also harness the efficiency of technology and help avoid litigation. In addition, a law in the United States that reflects the ECJ ruling's broad approach could be struck down as unconstitutional on First Amendment grounds. While the EU has been actively considering a broad right to be forgotten for years, U.S. law generally holds free speech and the public right to information in high regard and strictly construes limits on most speech. A broad rule is likely to cross First Amendment lines by curbing speech while not being narrowly tailored to any particular goal.

If a right to be forgotten is to exist in the United States, it should not be implemented in a broad sweeping manner as it is in the EU. Rather, the right should manifest in narrow contexts where the right is deemed appropriate. For example, a right to be forgotten could be justified where analogs already exist in the law (credit reporting), private entities already engage in the practice (Google removing cyberbullying content), or important conversations surround a problematic issue (revenge porn). In this way, the United States can allow a right to be forgotten to evolve naturally with the nation's ongoing discussion about privacy in the internet age.

CONFLICT AND SOLUTION IN DELAWARE'S FIDUCIARY ACCESS TO DIGITAL ASSETS AND DIGITAL ACCOUNTS ACT

Elizabeth Holland Capel[†]

“Without some type of digital asset reform now, we will remain indebted to archaeologists . . . to tell future generations about the electronic world we live in today.”¹

The problem of law lagging behind reality is not a new one, but the growing volume of Americans' assets that exist in digital form and often cannot be successfully transferred to heirs starkly illustrates this problem. Economic and emotional considerations regularly play into related disputes.² Delaware's Fiduciary Access to Digital Assets and Digital Accounts Act (“Delaware Act”), which was enacted on August 12, 2014³ and follows the Uniform Law Commission (“ULC”)’s recommended legislation⁴ on the topic, serves as a response to this issue. Broadly, digital assets can be defined as any electronic record, including passwords and

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1. Letter from Richard O. and Diane H. Rash to Suzanne Brown Walsh and members of the ULC FADA Committee (July 5, 2013), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013jul5_FADA_Comments_Rash.pdf. Richard and Diane Rash are the parents of a Virginia man who committed suicide, and they have subsequently sought to increase accessibility of social media accounts to surviving family after the death of the accountholder. *See generally Virginia family, seeking clues to son's suicide, wants easier access to Facebook*, PEACE AND FREEDOM: POLICY AND WORLD IDEAS (Feb. 18, 2013, 7:46 PM), <https://johnib.wordpress.com/tag/richard-and-diane-rash/>.

2. *See, e.g.,* April Dembosky, *Technology: Dead man's data*, FINANCIAL TIMES (Nov. 15, 2013), *available at* <http://www.ft.com/cms/s/0/7fc0b8e0-4d1c-11e3-9f40-00144feabdc0.html#axzz3QKmGzfQd> (commenting on the difficulties, compounded by grief, of accessing deceased loved ones' digital property ranging from social media accounts to airline frequent flier miles).

3. Fiduciary Access to Digital Assets and Digital Accounts Act, H.B. 345, 147th Gen. Assemb. (Del. 2014), *available at* <http://www.legis.delaware.gov/LIS/LIS147.NSF/vwLegislation/HB+345> (the bill was enacted August 12, 2014 and became effective January 1, 2015).

4. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT (Final Draft, Jan. 22, 2015), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADAA_Final.pdf.

other credentials to access online accounts, photographs, documents, domain names, blog posts, social media accounts, and emails.⁵ Legislation that attempts to provide a system for the transfer of these assets at the death of a user faces challenges from its inception, as many companies whose services would be affected have contracted with users in such a way that choice of forum, transferability of licenses, and deletion of accounts at a user's death are pre-set.⁶ Competing interests of freedom of contract, the importance of preserving valuable digital assets, user privacy, and service providers' business autonomy are at stake here.

The Delaware Act is the first instance of state legislation that establishes digital assets as part of a decedent's estate.⁷ This legislation begins to address the problems that exist when passing down digital assets and accounts.⁸ However, the Delaware Act only operates where service providers have not set conflicting contractual terms.⁹ With this fact in mind, even if all fifty states created similar laws, uncertainties would still exist because of the conflicting authorities of service providers' terms of use, decedents' wills, privacy laws, and privacy expectations. A more viable solution lies in the ability of service providers to assess users' wishes for the fate of their assets and accounts, as well as their privacy expectations, in a way that makes these competing forces compatible. A co-regulatory proposal would be a more ideal solution, with legislation requiring that service providers implement policies to comply with users' wishes where feasible.

Part I of this Note describes and discusses digital assets in depth and includes a brief history of the overwhelming shift to digitization of certain types of assets and the factors contributing to this shift. Part II summarizes the relevant legislation on the topic, including the ULC's

5. Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

6. *See, e.g.*, APPLE, *iCloud Terms and Conditions* (last modified Oct. 20, 2014), <http://www.apple.com/legal/icloud/en/terms.html>; FACEBOOK, *What Happens When a Deceased Person's Account is Memorialized?* (last visited Feb. 1, 2015), <https://www.facebook.com/help/103897939701143>.

7. *See* Uniform Law Commission, *Fiduciary Access to Digital Assets: Legislation*, <http://www.uniformlaws.org/Legislation.aspx?title=Fiduciary%20Access%20to%20Digital%20Assets> (last visited Feb. 1, 2015); Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3; Danielle Feller, *Delaware Becomes First State to Pass Digital Assets Bill*, CAMPBELL L. OBSERVER (Sept. 24, 2014), available at <http://campbellawobserver.com/2014/09/delaware-becomes-first-state-to-pass-digital-assets-bill>.

8. Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

9. Delaware's Act contains no preemption clause as to service providers' terms of use. *See* Section II.C, *infra*.

recommended legislation, and Part III analyzes that legislation in combination with other forces that affect the ultimate disposition of digital assets at user death such as service providers' terms of use and users' testamentary instruments. After weighing and balancing the various digital estate rights interests at stake, this Note proposes in Part III that the best solution available is a combined legislative and user-policy plan that assesses and respects users' individualized wishes for their digital assets.

I. DIGITAL ASSETS AND ACCOUNTS

Understanding the value of digital assets and accounts is key to analyzing related legislative and privacy concerns. This Part defines, broadly, what the phrase "digital assets" encompasses, and it then discusses how that definition interacts with traditional notions of physical property and estate planning. A working definition of the term digital asset is provided by a draft of the Uniform Fiduciary Access to Digital Assets Act:

- a) information created, generated, sent, communicated, received, or stored by electronic means on a digital device or system that delivers digital information, and includes a contract right; and b)
- an electronic system for creating, generating, sending, receiving, storing, displaying, or processing information which the account holder is entitled to access.¹⁰

Samantha D. Haworth further separates digital assets into four categories: access information (usernames, passwords, and other log-in credentials), tangible digital assets (photographs, PDFs, documents, e-mails, online savings account balances, domain names, and blog posts), intangible digital assets ("likes" on Facebook, comments on blog posts, website profiles, and the like), and metadata (data that is electronically stored within a document or website about access history, tags, hidden text, deleted data, code, etc.).¹¹ The average person has a large amount of data stored in digital form—estimates suggest that an individual accumulates eighty-eight gigabytes of this type of data in a lifetime¹²—and has twenty

10. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT (Committee Meeting Draft, Oct. 22, 2013), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013nov_FADA_Mtg_Draft.pdf; *see also* Samantha D. Haworth, *Laying Your Online Self to Rest: Evaluating the Uniform Fiduciary Access to Digital Assets Act*, 68 U. MIAMI L. REV. 535, 537 (2014).

11. Haworth, *supra* note 10, at 537–38.

12. EVAN CARROLL AND JOHN ROMANO, *YOUR DIGITAL AFTERLIFE: WHEN FACEBOOK, FLICKR, AND TWITTER ARE YOUR ESTATE, WHAT'S YOUR LEGACY?* 39 (1st ed. 2011).

to twenty-five online accounts.¹³ Some digital assets may have sentimental value and are worthy of passing down to heirs for that reason, while others have monetary value: “[i]n the case of popular blogs, photography sites or online videos, [an] estate might be able to realize income from licensing, creating a book or taking other steps to ‘monetize’ content.”¹⁴ Further, archiving e-mails can serve as a memorial of a deceased person’s life in a way that loved ones and also the public (in the case of celebrities or influential figures) could value. Tyler G. Tarney succinctly notes, “society [has created] tremendous value in the form of digital assets. . . . However, the current complexities in acquiring digital assets at death are increasingly forcing individuals and businesses to forfeit this value.”¹⁵ Countervailing interests in individuals’ privacy and businesses’ autonomy in creating terms of use make this problem all the more difficult.

In grasping the breadth of what can be called a digital asset, it is worth noting that all assets might not be equal in terms of value that can or should be transferrable upon death of the owner or user.¹⁶ For instance, the third and fourth categories of digital assets proposed by Haworth, “intangible digital assets” and “metadata,” can be analogized to real-world interactions and property that would never be considered part of a decedent’s estate upon death.¹⁷ Facebook “likes,” comments or reviews left on websites, and internet browser history are akin to signing hotel guest books and museum visitor logs, business card exchanges, past food delivery orders, or dry-cleaning schedules.¹⁸ While it may be unlikely that heirs would have any desire to inherit a record of these seemingly mundane online activities and interactions, the possibility that these records could be included in a person’s cyber-profile “dump” may offend users’ privacy expectations and not further the overall policy behind digital estate rights legislation.¹⁹ For this reason, this Note focuses on users’ ability to control

13. Ashley F. Watkins, *Digital Properties and Death: What Will Your Heirs Have Access to After You Die?*, 62 BUFF. L. REV. 193, 194 (2014).

14. Dennis Kennedy, *Estate Planning for Your Digital Assets*, ABA L. PRAC. TODAY (Mar. 2010), available at <http://apps.americanbar.org/lpm/lpt/articles/ft03103.shtml>.

15. Tyler G. Tarney, *A Call for Legislation to Permit the Transfer of Digital Assets at Death*, 40 CAP. U. L. REV. 773, 801 (2012).

16. Haworth, *supra* note 10, at 540.

17. *Id.*

18. *Id.* Existing estate and property law does not provide for the transfer of such assets at death, if only because they are intangible or unreachable in the physical world (for example, a signature in a public guestbook can’t be inherited).

19. *Id.*

the disposition of online account access information and “tangible” digital assets.²⁰

Analogizing digital assets to physical ones can be helpful in understanding what unfamiliar online records or actions may represent in more digestible terms. However, this Note does not suggest that analogizing digital to physical property is always easy or wise. While it is logical that “there is no need to formulate a completely new paradigm of law to protect the interests of all involved”²¹ in digital estate rights issues, the advent of the cloud and other online storage options truly represents a new frontier, not just a different type of “warehouse.” In fact, because physical property often has limitations that are eliminated in the streamlined use of the internet and electronic computing systems, treating digital property like physical property can involve unwanted implications. For example, in terms of constitutional rights, a recognized privacy right exists regarding a person’s “papers and effects,” but that phrase is largely unhelpful in determining how far that privacy extends.²² “Undisputedly, digital property is different from the ‘papers’ and ‘effects’ that the Founding Fathers contemplated”²³ Individuals may also have very different privacy expectations for their online assets than for those assets’ physical analogues.²⁴ Whereas surviving family or the estate executor is likely to find a box of letters left physically behind, people generally do not have that same expectation with online communications, which might have also been written hastily and with less inhibition than tangible

20. Similarly, the ULC’s Uniform Fiduciary Access to Digital Assets Act addresses “only interests capable of ownership and management,” likely precluding items such as comments on externally-owned blogs. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT (Drafting Committee Meeting Draft for Nov. 30–Dec. 1, 2012), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2012nov30_FADA_Mtg_Draft.pdf.

21. Jonathan J. Darrow & Gerald R. Ferrera, *Who Owns a Decedent’s E-mails: Inheritable Probate Assets or Property of the Network?*, 10 N.Y.U. J. LEGIS. & PUB. POL’Y 281, 319 (2007).

22. *United States v. Comprehensive Drug Testing, Inc.*, 621 F.3d 1162, 1178 (9th Cir. 2010) (Kozinski, J., concurring).

23. RayMing Chang, *Why the Plain View Doctrine Should Not Apply to Digital Evidence*, 12 SUFFOLK J. TRIAL & APP. ADVOC. 31, 35 (2007).

24. Telephone Conference Call with Joint Internet Privacy Working Group & Digital Privacy and Security Working Group on Decedent Digital Assets (Oct. 21, 2014). On the open conference call, representatives from major Internet-based companies discussed the issue of digital assets at death and commented on Delaware’s newly-adopted legislation. Among other things, participants discussed the difference between the “box of letters” analogy and the more shielded, private character of online communications.

methods of communication.²⁵ Without completely accepting or avoiding the use of analogies between digital and physical property, this Note will use caution when employing such comparisons; they can be both usefully illustrative and overly simplistic or even inaccurate.

With important distinctions between physical/traditional property and digital property in mind, it is significant that the field of estate planning by no means precludes digital property in its policies and definitions, as seen in Casner and Pennell's useful treatise on estate planning. It does not specifically discuss digital assets, but it notes in defining the "gross estate":

The word "property" . . . is not limited in its scope by concepts of property that existed when the estate tax was conceived The economy and many of the elements of life today are different than they were even a generation or less ago. The Congress in its wisdom decided to use a general word like property rather than trying to envision what the ingenuity of man would evolve as something substantial.²⁶

This has particular resonance for digital property, and Casner and Pennell's estate planning treatise does not discuss doctrines or policies that exclude digital property by nature (other than those specific to real property).²⁷ For this reason, digital property is best understood not as a separate aspect of estate planning and testators' rights but as an aspect still being incorporated due to advances in technology that move more quickly than does the law.

The cloud is a development that particularly defies analogy to the physical world; its very purpose is to provide electronic storage space for large volumes of digital documents and data.²⁸ Although the technology that powers the cloud is not new, the democratization of cloud access has led to a major shift in the way individuals store digital information. As more and more information is stored on hard drives and in the cloud, the volume of digital assets grows. David Lametti, Professor of Law at McGill University, defines the "cloud" as "the Internet as it evolves towards more centralized computing capacities and virtual 'in the air,' 'over the Internet' storage."²⁹ Though media has been stored in digital formats since before

25. *Id.*

26. A. JAMES CASNER & JEFFREY N. PENNELL, ESTATE PLANNING §1.3.1, at 1029 (7th Ed. 2011) (quoting *First Victoria Nat'l Bank v. United States*, 620 F.2d 1096, 1104 (5th Cir. 1980)).

27. *Id.*

28. See, e.g., David Lametti, *The Cloud: Boundless Digital Potential or Enclosure 3.0?*, 17 VA. J.L. & TECH. 190, 195 (2012).

29. *Id.*

the advent of the internet, use of the cloud has vastly increased the volume of resources and assets stored digitally.³⁰ The cloud makes it possible (and profitable) to engage in large-scale data storage in the pooled resources of a non-local, centralized computer network.³¹

While the cloud represents the overall exponential increase of digitally stored assets, as an online service it comes with its own limitations relating to transfer of those assets. For instance, the terms of use for Apple's iCloud service explicitly disclaim any right of survivorship.³² This means that the assets stored using the service (or, at least, copies of assets) are not transferrable from iCloud to heirs.³³ iCloud is not alone in having restrictive terms of service. Companies like Amazon and Apple similarly limit users' ability to pass on digital media by structuring the purchase so that the user acquires only a non-transferrable limited license to use the media, not full ownership.³⁴ Terms of use in some popular services present other limitations: Facebook users, for instance, agree to litigate any claims in Santa Clara County under California law.³⁵ The result of these kinds of terms of use is that users' acceptance of forfeiture of abilities and rights (especially in the case of states with relevant legislation) is often requisite for the use of such websites or features offered by online service providers.

Approaches vary widely for how online service providers deal with digital assets at user death; there is no universal "default."³⁶ One of the simplest and most restrictive of these approaches is Apple's iCloud terms of service.³⁷ This method preserves user privacy because it prohibits the transfer of digital assets, but it likely comes at the price for surviving family of losing valuable documents and access information. Facebook uses a hybrid approach, where the site "memorializes" accounts of users

30. *Id.* at 207–09.

31. *Id.*

32. Watkins, *supra* note 13, at 218.

33. *Id.*

34. *Id.* at 206–07.

35. Jason Mazzone, *The Right to Die Online*, 16 J. INTERNET L. 1, 14–15 (2013).

36. Compare APPLE, *iCloud Terms and Conditions*, *supra* note 6, at IV.D with TWITTER, *Contacting Twitter about a deceased user or media concerning a deceased family member*, available at <https://support.twitter.com/groups/33-report-a-violation/topics/148-policy-information/articles/87894-how-to-contact-twitter-about-a-deceased-user> (last visited Feb. 1, 2015). While both providers allow for deactivation of an account on proof of a death certificate and other information, the procedures and access provided to survivors varies widely.

37. APPLE, *iCloud Terms and Conditions*, *supra* note 6.

who have died.³⁸ This method attempts to preserve some of the media uploaded by these users, but the website does not allow family to access the account to retrieve such media.³⁹ The account is only viewable by contacts approved as “friends” while the account was still active; these “friends” cannot be modified after the account becomes memorialized.⁴⁰ Instagram, a picture-sharing social media app, has a policy of removing the accounts of deceased individuals.⁴¹ The policy states, “To protect the privacy of people on Instagram, we’re unable to provide anyone with login information to an account.”⁴² Interestingly, Instagram’s policy on this issue is not identical to Facebook’s policy, even though Facebook is the parent company of Instagram.⁴³ This difference implies a settings-based analysis of users’ privacy expectations and a somewhat tailored approach based on the differences between the two social media platforms. Twitter provides only for deactivation of deceased users’ accounts and appears to only deactivate accounts when formally requested to do so by someone with authority over the person’s estate (rather than deactivating simply upon receiving obituaries or death notices).⁴⁴ Flickr is used exclusively to store and showcase photographs, and Yahoo is its parent company.⁴⁵ Flickr’s policies regarding accounts of deceased users follow those of the parent company.⁴⁶

E-mail providers are in some cases more willing to work with fiduciaries/surviving family to provide access, especially where a family can get a court order.⁴⁷ However, providers are generally careful to avoid

38. FACEBOOK, *What Happens When a Deceased Person’s Account is Memorialized?*, *supra* note 6.

39. *Id.*

40. Carroll and Romano, *supra* note 12, at 142.

41. INSTAGRAM, *How Do I Report a Deceased Person’s Account on Instagram?*, <https://help.instagram.com/264154560391256/> (last visited Feb. 1, 2015).

42. *Id.*

43. Evelyn M. Rusli, *Facebook Buys Instagram for \$1 Billion*, N.Y. TIMES DEALBOOK (Apr. 9, 2012), available at <http://dealbook.nytimes.com/2012/04/09/facebook-buys-instagram-for-1-billion/>.

44. TWITTER, *Contacting Twitter about a deceased user or media concerning a deceased family member*, *supra* note 36.

45. See generally YAHOO, *Corporate Information – Products & Services*, <https://info.yahoo.com/products-services> (last visited Feb. 1, 2015).

46. See Part I, *infra*; YAHOO, *Yahoo Terms of Service* (last updated Mar. 16, 2012), <https://info.yahoo.com/legal/us/yahoo/utos/utos-173.html>.

47. See, e.g., Stefanie Olsen, *Yahoo Releases E-mail of Deceased Marine*, CNET (Apr. 21, 2005), http://news.cnet.com/Yahoo-releases-e-mail-of-deceased-Marine/2100-1038_3-568025.html.

guaranteeing access to fiduciaries or families.⁴⁸ Gmail, Google's e-mail service, has a policy that states "in certain circumstances we may provide content from a deceased user's account."⁴⁹ Google requires several documents for review, including a death certificate of the account holder and identification of the person wishing to access the account. After a review period Google may allow access.⁵⁰ Though this approach appears somewhat piecemeal, Google does have a specified review department just for these kinds of inquiries.⁵¹ Yahoo Mail, however, will not provide access at all, and it includes a "No Right of Survivorship and Non-Transferability Clause" in its policies.⁵²

Part II outlines the legislation that has come into place amidst the landscape defined in Part I.

II. DEVELOPMENT OF DIGITAL ASSET LEGISLATION

Recent state and model legislation complicates the understanding and application of these companies' policies.⁵³ Delaware's recently enacted law granting fiduciaries access to digital assets and accounts in the case of the account holder's death or incapacitation is the first example of state legislation mirroring the Uniform Law Commission's suggested law on this issue.⁵⁴ Other states have passed legislation dealing with access to digital accounts (primarily e-mail accounts) after the death of the account holder, but none is as comprehensive as Delaware's.⁵⁵ Still other states have laws requiring that digital account service providers give notice

48. See, e.g., GOOGLE, *Submit a request regarding a deceased user's account*, <https://support.google.com/mail/answer/14300?hl=en> (last visited Feb. 1, 2015).

49. *Id.* (select "Obtain data from a deceased user's account." option).

50. *Id.*

51. *Id.*

52. YAHOO, *Yahoo Terms of Service*, *supra* note 46; cf. Allison Grande, *Yahoo Slams Move to Open Deceased Users' Data Records*, LAW360 (Sept. 16, 2014), <http://www.law360.com/articles/577799/yahoo-slams-move-to-open-deceased-users-data-records> (noting that Yahoo disagrees with the new Delaware law as not respectful of users' privacy).

53. The legislation discussed herein often conflicts with service providers' terms of use. See, e.g., APPLE, *iCloud Terms and Conditions*, *supra* note 6; FACEBOOK, *What Happens When a Deceased Person's Account is Memorialized?*, *supra* note 6; INSTAGRAM, *How Do I Report a Deceased Person's Account on Instagram?*, *supra* note 41.

54. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4; Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3. This proposal is discussed in more detail in Section II.A.1, *infra*.

55. See, e.g., R.I. GEN. LAWS § 33-27-3 (2007) (providing a fiduciary access to a deceased person's e-mail account(s)); IND. CODE § 29-1-13-1.1 (2007) (providing a fiduciary access to a deceased person's digitally stored documents and other information).

before termination of an account.⁵⁶ While legislation requiring notice of termination does not address the issue of account access after the death or incapacitation of the original account holder, it does point to the seriousness of account termination in cases where the account is very valuable.⁵⁷ This concern is closely intertwined with the desire to pass down access to digital accounts and assets after death.

The need for legislation governing access to digital accounts after death or incapacitation is highlighted by legal battles to gain access to an account where the service provider does not wish to cooperate.⁵⁸ Companies are concerned about upending users' privacy expectations if laws allow fiduciaries access to private accounts.⁵⁹ Online service providers may also fear business costs and having to make difficult decisions about who should get access to deceased persons' accounts.⁶⁰ On the other side of the debate is an argument that the privacy disputes on the issue of fiduciary access to digital assets are misplaced.⁶¹ One author explains, "[W]hile the privacy of the account holder is often cited as a factor weighing against disclosure, privacy rights are generally considered to cease upon death."⁶²

In this evolving field, the interests at stake must find a balance between properly valuing access to digital assets and accounts, privacy of users, and freedom of contract. In this Part, this Note will provide the reader with background on the contents and drafting history of the Uniform Fiduciary Access to Digital Assets Act and Delaware's digital estate rights legislation. This Note also includes a brief survey of other states' relevant legislation.

A. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT

The ULC produces the "Uniform Probate Code and numerous other Model and Uniform laws."⁶³ The ULC's purpose is to guide the

56. See, e.g., CAL. BUS. & PROF. CODE § 17538.35(a) (West 2010).

57. See *id.*

58. See, e.g., Olsen, *supra* note 47.

59. Geoffrey A. Fowler, *Life and Death Online: Who Controls a Digital Legacy?*, WALL ST. J. (Jan. 5, 2013), available at <http://online.wsj.com/news/articles/SB10001424127887324677204578188220364231346>.

60. *Id.*

61. Darrow & Ferrera, *supra* note 21, at 313.

62. *Id.*

63. Haworth, *supra* note 10, at 542. For a list of Acts, Codes, and other model legislation produced by the ULC, see UNIFORM LAW COMMISSION, *Acts*, <http://www.uniformlaws.org/Acts.aspx> (last visited Feb. 1, 2015).

formulation of uniform state legislation.⁶⁴ In order for a proposed ULC Act to be adopted, the drafted Act must be submitted for debate before the entire Uniform Law Commission during at least two annual meetings.⁶⁵ Once adopted by the ULC, states can choose to adopt official Uniform Acts in whole or in part. A Uniform Act is not binding authority, but it “provides a helpful model for other states looking to draft their own legislation.”⁶⁶ Delaware is thus far the only state to adopt the Uniform Fiduciary Access to Digital Access Act into its own legislation.⁶⁷

1. *The Uniform Fiduciary Access to Digital Assets Act*

The National Conference of Commissioners on Uniform State Laws approved the Uniform Fiduciary Access to Digital Assets Act (“UFADAA”) in 2014.⁶⁸ The UFADAA’s goal is to “remove barriers to a fiduciary’s access to electronic records” while “respecting the privacy and intent of the account holder.”⁶⁹ In creating the UFADAA, the ULC stated that “[l]ogically there should be no difference between a fiduciary’s right to access information from an online bank or business and from one within a brick and mortar storefront. In practice, however, businesses are refusing to recognize fiduciary authority over digital assets. UFADAA seeks to close that gap.”⁷⁰

The UFADAA deems the fiduciary to have the lawful consent of the account holder for the custodian to grant access to the digital asset.⁷¹ Custodians of online services that host digital assets must comply with fiduciaries’ requests for access to, control of, and copies of the asset to the

64. See UNIFORM LAW COMMISSION, *Constitution* § 1.2, available at <http://www.uniformlaws.org/Narrative.aspx?title=Constitution> (“It is the purpose of the [ULC] to promote uniformity in the law among the several States on subjects as to which uniformity is desirable and practicable”); see also Haworth, *supra* note 10, at 542.

65. Haworth, *supra* note 10, at 542–43.

66. *Id.* at 543.

67. UNIFORM LAW COMMISSION, *Fiduciary Access to Digital Assets: Legislation*, <http://www.uniformlaws.org/Legislation.aspx?title=Fiduciary%20Access%20to%20Digital%20Assets> (last visited Feb. 1, 2015); *Fiduciary Access to Digital Assets and Digital Accounts Act*, *supra* note 3; Feller, *supra* note 7.

68. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4, at cover.

69. *Id.* at 1–2.

70. Memorandum to the Committee of the Whole, Uniform Law Commission 2014 Annual Meeting from Suzanne Brown Walsh, Chair, Regarding Uniform Fiduciary Access to Digital Assets Act, Final Reading 1 (May 27, 2014), available at http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014am_ufadaa_issues%20memo.pdf.

71. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT § 8, *supra* note 4, at 14–15.

extent permitted by copyright law.⁷² Custodians are given sixty days to comply with fiduciaries' requests.⁷³ Custodians and officers, employees, and agents of custodians are immune from liability for any act done in good faith in compliance with the UFADAA.⁷⁴ The UFADAA also notes that its coverage is limited by the definition of "digital assets," because it can only apply to electronic records.⁷⁵ Such records do not include the underlying asset or liability unless it is itself an electronic record.⁷⁶

Importantly, the UFADAA explicitly states that it preempts contradictory terms of service in the absence of a separate affirmative agreement.⁷⁷ It states in § 8(b):

Unless an account holder . . . agrees to a provision in a terms-of-service agreement that limits a fiduciary's access to a digital assets of the account holder, by an affirmative act separate from the account holder's assent to other provisions of the agreement: the provision is void as against the strong public policy of this state; and the fiduciary's access under this [act] does not violate the terms-of-service agreement⁷⁸

While the ULC creates model legislation that it recommends for implementation in all states, states are free, of course, to modify the text. This suggests that the ULC strongly values the rights of testators and fiduciaries. Looking into the drafting process behind the UFADAA provides even more information about what the drafters' goals were.

2. "Legislative" Intent of the UFADAA

Because records of legislative intent are unavailable for the Delaware legislation, the ULC's memos, drafting meeting notes, and earlier drafts of the Act provide a useful glimpse into the framing and intent of the UFADAA on which the Delaware Act is based (and on which any future state legislation will likely be based). These documents allow examination of the motivations, fears, and pressures that molded the UFADAA into its final draft as it now stands.⁷⁹

72. *Id.* at § 9, *supra* note 4, at 21–23

73. *Id.*

74. *Id.*

75. *Id.* at § 2(9), *supra* note 4, at 4.

76. *Id.*

77. *Id.* at § 8, *supra* note 4, at 14–15.

78. *Id.*

79. *See, e.g.*, Letter from NetChoice to Suzanne Brown Walsh and the Uniform Law Commission (July 8, 2013), *available at* <http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Asset>

The records of the ULC in drafting the UFADAA reveal that the Committee as well as outside consultants were highly concerned about conflicts between the Act's granting of authority to fiduciaries over digital accounts and digital assets, and federal laws (like the Electronic Communications Privacy Act ("ECPA")) that criminalize unauthorized access to such assets.⁸⁰ The ULC struggled with how to address this issue, as a conflict with federal law could derail the goals of the UFADAA and make it ineffective or even void. These federal laws, including the ECPA and the Stored Communications Act, are also a source of businesses' potential risks in complying with digital asset reform litigation.

NetChoice, a trade association of leading e-commerce businesses, together with the State Privacy and Security Coalition, noted in a July 2013 letter to the ULC, "[w]ithout a court order and in the absence of further guidance, a provider who makes a unilateral decision to disclose such content is subject to litigation from third parties who disagree with this conclusion."⁸¹ While consent to fiduciary access to digital accounts after the death of the account holder can be expressed through a will, most Americans die intestate.⁸² For those who die without a will, NetChoice noted that whether or not to release information to fiduciaries is an unsettled issue of federal law, and "it is far from clear that a state law enacted years after the ECPA will control how a courts [sic] rule on whether consent may be assumed."⁸³

After wavering on how to handle the issue of federal computer fraud and privacy laws, the "Final Read" of the UFADAA Committee's notes proposes a solution that is included in the final draft of the UFADAA. The Committee provides:

UFADAA codifies that fiduciaries, who "step into the shoes of" the persons they represent, are authorized to consent to

s/2013jul_FADA_NetChoice_Szabo%20et%20al_Comments.pdf. NetChoice's letter represents one of the many voices advocating for the ULC to take a particular position in drafting the UFADAA. For a full record of comments and letters submitted to the ULC on this topic, see UNIFORM LAW COMMISSION, *Drafts, available at* <http://www.uniformlaws.org/Committee.aspx?title=Fiduciary+Access+to+Digital+Assets> (last visited Feb. 1, 2015).

80. See, e.g., Letter from NetChoice to Suzanne Brown Walsh and the Uniform Law Commission, *supra* note 79.

81. *Id.*

82. Sheryl Nance-Nash, *Why More than Half of Americans Don't Have Wills*, DAILY FINANCE (Aug. 26, 2011), *available at* <http://www.dailyfinance.com/2011/08/26/what-america-thinks-about-estate-planning/>.

83. Letter from NetChoice to Suzanne Brown Walsh and the Uniform Law Commission, *supra* note 79.

electronic communications disclosures under federal privacy laws. This allows the public communications provider to disclose or allow access without liability, and places electronic assets and communications on the same footing as traditional assets and communications (“asset neutrality”).⁸⁴

By defining fiduciaries as equivalent to the account holders themselves, the Act circumvents federal privacy laws with respect to accessing decedents’ accounts and assets. It is not clear whether this attempt at “opting out” of federal regulation will prove entirely successful, but the lack of widely-accepted privacy rights on behalf of deceased individuals does bolster support for allowing access to their accounts and assets after death.

Though the UFADAA largely favors access to and preservation of digital accounts and assets over user privacy, the UFADAA Committee was aware of and may have been sensitive to privacy issues when drafting.⁸⁵ In fact, the American Civil Liberties Union (“ACLU”) expressed its concern to the Committee about its overall goal in drafting the UFADAA, writing that the privacy concerns associated with the “nearly unfettered access” provided to fiduciaries in the UFADAA were substantial and suggesting that digital estates differ in important ways from their offline analogues.⁸⁶ The ACLU noted:

In many ways, digital estates differ not just in degree, but in kind, from their offline analogues. This is to say that individuals do not simply retain more correspondence in online storage than they ever could in paper form, but that the keys to an individual’s online accounts are likely to provide access to highly sensitive materials, such as internet dating profiles, that lack offline equivalents.⁸⁷

Perhaps with this warning in mind, the Committee ultimately tempered the sweeping access it codifies through “access neutrality.”⁸⁸ The UFADAA calls for preservation of the option for account holders to opt out of fiduciary access through a deliberate process so that default

84. Memorandum Regarding Uniform Fiduciary Access to Digital Assets Act, Final Reading, *supra* note 70.

85. *See, e.g.*, Letter from Allison S. Bohm, Advocacy and Policy Strategist for the ACLU, to Suzanne Brown Walsh (July 3, 2013), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2013jul3_FADA_Comments_ACLU.pdf.

86. *Id.*

87. *Id.*

88. *See generally* UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

legislation will not apply to their estate.⁸⁹ However, the drafters were careful to note that this opting out should not be a requirement to access or use the service in question.⁹⁰ Removing the possibility of a forcible waiver alleviated the concerns raised by the ACLU by protecting individual privacy rights.⁹¹ This protects users against a forced waiver of their rights to fiduciary access in order to take part in a website or digital product.

The ULC's "legislative" intent also raises questions of whether the fiduciary's authority is to own, manage, and distribute, or simply to seek copies from the provider. Interestingly, the UFADAA's preemptory clause, stating that contradictory terms-of-service agreements are void, only became part of the UFADAA in later drafts.⁹² Gaining a better understanding of the intent behind the UFADAA is critical in grasping the full purpose of the model legislation as well as the state legislation based on the UFADAA.

B. A REPRESENTATIVE SAMPLE OF OTHER STATE LEGISLATION

The Delaware Act is not the first state legislation on the topic of fiduciary access to digital assets. At least six states in addition to Delaware have some form of digital estate legislation, and many more have proposed such legislation.⁹³ Those states with current legislation are Connecticut,⁹⁴ Idaho,⁹⁵ Indiana,⁹⁶ Nevada,⁹⁷ Oklahoma,⁹⁸ and Rhode Island.⁹⁹ None is as

89. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT § 8(b), *supra* note 4, at 14–15; *see also* Letter from Evan Carroll to Suzanne Brown Walsh & Naomi Cahn (Mar. 18, 2014), *available at* http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014mar18_FADA_Comments_Carroll.pdf (illustrating discussions during drafting regarding this point). Evan Carroll is the co-founder of the Digital Beyond, <http://www.thedigitalbeyond.com/>, and co-author of *YOUR DIGITAL AFTERLIFE: WHEN FACEBOOK, FLICKR, AND TWITTER ARE YOUR ESTATE, WHAT'S YOUR LEGACY?*, *supra* note 12.

90. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT § 8(b), *supra* note 4, at 14–15.

91. *Id.*; *see also* Letter from Allison S. Bohm to Suzanne Brown Walsh, *supra* note 85.

92. Although some of the drafts waver with the terms included and can be inconsistent until the final version, history of the drafts shows that as late as February 2013, this clause was not included.

93. *See* EVERPLANS, *State-by-State Digital Estate Planning Laws*, <https://www.everplans.com/articles/state-by-state-digital-estate-planning-laws> (last visited Feb. 1, 2015).

94. CONN. GEN. STAT. ANN. § 45a-334a (West 2015).

95. IDAHO CODE ANN. § 15-5-424 (West 2014).

96. IND. CODE ANN. § 29-1-13-1.1 (West 2007).

97. NEV. REV. STAT. ANN. § 143.188 (West 2014).

inclusive as Delaware's; most deal only with electronic communication and password access, rather than actual ownership of digital assets.¹⁰⁰ In addition, California has a statute that requires service providers to give thirty days' notice before terminating a user's e-mail account.¹⁰¹ Below are summaries of a representative sample of state laws.

1. *Rhode Island*

Rhode Island's statute on access to decedents' digital assets is limited to electronic mail.¹⁰² The statute requires, in part,

An electronic mail service provider shall provide, to the executor or administrator of the estate of a deceased person who was domiciled in this state at the time of his or her death, access to or copies of the contents of the electronic mail account of such deceased person¹⁰³

This language makes this legislation very limited as compared with other statutes enacted by states that have addressed this issue.¹⁰⁴ This statute only covers electronic mail, and it treats the issue as one of recovering files and perhaps sentimental messages rather than focusing on the potential value of digital assets.¹⁰⁵ Connecticut's statute is similar and equally limited.¹⁰⁶

2. *Indiana*

Indiana's statute requires a custodian who electronically stores the documents or information of a deceased person to give the executor access

98. OKLA. STAT. ANN. tit. 58, § 269 (West 2014).

99. R.I. GEN. LAWS ANN. § 33-27-3 (West 2014).

100. See Sections II.B.1, II.B.2, and II.B.3, *infra*; see also Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

101. CAL. BUS. & PROF. CODE § 17538.35(a) (West 2010). This statute is much more limited than those of the other states discussed in this Note in terms of protection for users' digital assets. Further, it may in some cases be useless in the event of a user's death, because the only notice would be sent to the e-mail account which would be inaccessible after the user's death, assuming s/he did not leave access information with anyone else.

102. R.I. GEN. LAWS ANN. § 33-27-3 (West 2014).

103. *Id.*

104. Compare R.I. GEN. LAWS ANN. § 33-27-3 (West 2014), with OKLA. STAT. ANN. tit. 58, § 269 (West 2014) (providing executor access to "any social networking website, any microblogging or short message service website or any e-mail services").

105. R.I. GEN. LAWS ANN. § 33-27-3 (West 2014).

106. CONN. GEN. STAT. ANN. § 45a-334a (West 2015). ("An electronic mail service provider shall provide . . . access to or copies of the contents of the electronic mail account of [the] deceased person . . .").

to, or copies of, the decedent's stored documents or information.¹⁰⁷ It also prohibits a custodian from destroying or disposing of documents or information of a deceased person for two years after receiving a request from a personal representative or court order for the material.¹⁰⁸ This legislation is more inclusive than that of Rhode Island but is nonetheless limited because it refers only to "stored documents or information,"¹⁰⁹ potentially leaving assets such as domain names or accounts without stored information unprotected.

3. *Oklahoma*

Oklahoma's statute represents a third, more inclusive type of legislation.¹¹⁰ The law provides:

The executor or administrator of an estate shall have the power, where otherwise authorized, to take control of, conduct, continue, or terminate any accounts of a deceased person on any social networking website, any microblogging or short message service website or any e-mail website.¹¹¹

This law covers more of the full scope of potential digital assets than does the type of legislation represented by Rhode Island's and Indiana's statutes.¹¹² States with similar proposed laws include Idaho, Michigan, Nebraska, New York, North Carolina, Oregon, Pennsylvania, and Virginia.¹¹³ However, Delaware's newly-adopted legislation on the matter and the UFADAA are still more inclusive and broad ranging than any other digital estate legislation in the United States.¹¹⁴ The rapidly-developing nature of the types of assets themselves is a critical issue here, and Delaware's recently enacted law mitigates this issue to a greater extent than that seen in other states' statutes. As such, it is the first law requiring that the full scope of a person's digital assets be deemed a part of their estate upon death.

C. DELAWARE'S NEW LEGISLATION

The Delaware Act closely parallels the UFADAA. This Section outlines the Delaware Act and notes where it diverges from the model

107. IND. CODE ANN. § 29-1-13-1.1 (West 2007).

108. *Id.*

109. *Id.*

110. OKLA. STAT. ANN. tit. 58, § 269 (West 2014).

111. *Id.*

112. *Id.*

113. See EVERPLANS, *supra* note 93.

114. See Section II.C, *infra*.

legislation. The Delaware Act states that the executor is entitled to control over digital assets and accounts, and the entities (corporations and service providers) that handle them are required to give access to the executor.¹¹⁵ These requirements also apply in cases where a person becomes incapacitated or is under conservatorship.¹¹⁶ The bill was signed on August 12, 2014, and it took effect January 1, 2015.¹¹⁷

In order to remain as inclusive as possible in light of technological evolution, the legislation defined terms broadly. “Digital account” is defined as:

an electronic system for creating, generating, sending, sharing, communicating, receiving, storing, displaying, or processing information which provides access to a digital asset which currently exist[s] or may exist as technology develops . . . including but not in any way limited to, email accounts, social network accounts, social media accounts, file sharing accounts, health insurance accounts, health care accounts, financial management accounts, domain registration accounts, domain name service accounts, web hosting accounts, tax preparation service accounts, online store accounts and affiliate programs thereto, and other online accounts which currently exist or may exist as technology develops or such comparable items as technology develops.¹¹⁸

This definition attempts to cover the range of existing digital assets as well as those that have not yet been developed or imagined.¹¹⁹ The Delaware Act’s purpose is to give a fiduciary control over any and all rights in digital assets and digital accounts to the extent permitted under applicable state or federal law or regulations and/or any end user license agreement.¹²⁰ An executor granted authority over digital assets is to have the legal consent of the account holder and be an authorized user under all applicable state and federal law and the terms of use of the service.¹²¹ Custodians of digital assets must comply with fiduciaries’ requests for access.¹²² Further, as in the UFADAA, custodians and officers, employees, and agents of

115. Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

116. *Id.* at Section 1 § 5002(1).

117. *Id.* at Section 5.

118. *Id.* at Section 1 § 5002(4).

119. This interpretation is highlighted by language in the Delaware Act such as “including but not limited to.” *Id.*

120. *Id.* at Section 1 § 5004.

121. *Id.* at Section 1 § 5005(a).

122. *Id.* at Section 1 § 5005(b).

custodians are immune from liability for any act done in good faith in compliance with the Delaware Act.¹²³

This bill specifically states that its purpose is to adjust the current Delaware law so as to better align with the increasing percentage of citizens' lives that are being conducted online.¹²⁴ As such, it states, "The [Delaware] Act should be construed liberally to allow such access and control, especially when expressly provided for in a written instrument."¹²⁵ This bolsters support for transfers of digital assets when included in a will or other written instrument, but the Delaware Act also provides for situations where there is no such writing.¹²⁶

It is interesting to note that the bill does not purport to preempt other law or online service providers' terms of service.¹²⁷ Section 5004 of the bill acknowledges that an executor can only gain access to a digital account or asset "to the extent permitted under applicable state or federal law or regulations or any end user license agreement."¹²⁸ This implies that the law will not apply where it is contradicted by a service provider's end user license agreement.

As will be discussed in Part III, many service providers do have such agreements in place.¹²⁹ This results in a mix of conflicting interests, giving rise to a need for a solution beyond the legislation currently in place.

III. DISCUSSION: PRIVACY VERSUS PROBATE

Varied interests are at stake in the implementation of any initiative that aims to facilitate fiduciary access to decedents' digital assets, whether or not it is legislative in nature. The most significant of those interests are (1) the value that lies in the ability to pass down digital assets through wills or intestacy; (2) users' privacy interests, which may not align with default inheritance of digital assets; and (3) businesses' freedom to contract

123. *Id.* at Section 1 § 5006. Notably, the Delaware Act carves out an exception for digital accounts retained by an employer that are regularly used by an employee in the usual course of business. These accounts are not subject to this legislation.

124. *Id.* at Synopsis.

125. *Id.*

126. The wording "*especially* when" seen in the language of the Delaware Act (emphasis added) implies that the Delaware law applies even in cases of intestacy. *Id.*

127. Compare Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3 with UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

128. Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

129. See, e.g., APPLE, *iCloud Terms and Conditions*, *supra* note 6; FACEBOOK, *What Happens When a Deceased Person's Account is Memorialized?*, *supra* note 6; INSTAGRAM, *How Do I Report a Deceased Person's Account on Instagram?*, *supra* note 41.

to limit their responsibilities or liability attached to digital assets once the original user or owner dies or becomes incapacitated.

A. CONFLICTING INTERESTS

1. *Should Inheritance of Digital Assets Be Allowed?*

As far as general estates and trusts policy is concerned, “[o]ne of the most powerful rights granted to citizens of the United States is the right to dictate the disposition of their property at death.”¹³⁰ With that principle in mind, it seems natural and fair that if a testator includes a digital asset in her will or trust, the authorities handling her estate should respect that expressed desire toward the disposition of the asset. In practice, however, online service providers may have business approaches to the situation of inheritance of digital assets that do not promote inheritance.¹³¹ In the case of an owner of digital assets who dies without a will, many would argue that the nature of digital assets is private in a way that is not conducive to inheritance through intestacy.¹³²

General property law policies promoting the ability to pass down one’s assets informs some of the background of an analysis of what to do about inheriting digital assets.¹³³ This background is especially relevant because one study found that U.S. consumers value their digital estate, on average, at \$55,000.¹³⁴ Further, if an analogy to physical property is accepted, understanding online service providers (such as e-mail service providers) as similar to warehouse operators, subject to the field of warehouse law, provides a basis for requiring the transfer of digital assets to heirs upon the death of the original owner.¹³⁵ If e-mail service providers are considered analogous to warehouse operators, then as a general rule, they should be obligated to transfer e-mail messages to heirs.¹³⁶ In addition, the Uniform

130. Justin Atwater, *Who Owns E-mail? Do You Have the Right to Decide the Disposition of your Private Digital Life?*, 2006 UTAH L. REV. 397, 397 (2006) (citing *Hodel v. Irving*, 481 U.S. 704, 716 (1987) (“In one form or another, the right to pass on property—to one’s family in particular—has been part of the Anglo-American legal system since feudal times.”)).

131. *See, e.g.*, Letter from Allison S. Bohm, Advocacy and Policy Strategist for the ACLU, to Suzanne Brown Walsh, *supra* note 85.

132. *Id.*

133. *See generally* *Hodel v. Irving*, 481 U.S. at 716.

134. Kelley Greene, *Passing Down Digital Assets*, WALL ST. J. (Aug. 31, 2012), available at <http://www.wsj.com/articles/SB10000872396390443713704577601524091363102>.

135. Darrow & Ferrera, *supra* note 21, at 308. Warehouse law is a field of law governing long-term storage of goods and personal property.

136. *Id.* at 309–10.

Commercial Code prohibits warehouse operators from including in the receipt for warehouse services a provision that impairs the obligation of delivery to the owner or person entitled to possession of the property.¹³⁷ While the field of warehousemen law and the Uniform Commercial Code do not explicitly apply to e-mail service providers, California law that requires thirty days' notice be given to e-mail account holders prior to termination of service already mirrors the Uniform Commercial Code's requirement of thirty days' notice prior to terminating storage.¹³⁸

Analogizing digital assets to physical property and storage provides a strong case for allowing the inheritance of digital assets and for fiduciary access to digital accounts where the accountholder has expressed the desire to pass those assets to heirs upon his or her death. The more difficult question, however, lies in whether or not inheritance of these assets should be the default. Creating such a default would in many instances not be welcomed by businesses or by users wishing to retain personal privacy even after death.

2. *Businesses' Interests*

Companies may have an interest in not allowing inheritance of digital assets and especially of digital media. Online service providers' terms of use frequently limit users' rights to transfer their digital accounts or assets.¹³⁹ One notable example is Apple's iTunes service, which structures purchases of digital media as nontransferable limited licenses.¹⁴⁰ Interestingly, both Apple and Amazon have recently filed patents for a new service that would allow for a digital media "garage sale" of sorts, whereby users could buy and trade digital media, but this new frontier is

137. U.C.C. § 7-202(3) (2005) ("A warehouseman may insert in its receipt any other terms which are not contrary to the provisions of this Act and do not impair his obligation of delivery Any contrary provisions shall be ineffective.")

138. U.C.C. § 7-206(1) (2005):

A warehouseman may on notifying the person on whose account the goods are held . . . require payment of any charges and removal of the goods from the warehouse at the termination of the period of storage fixed by the document, or, if no period is fixed, within a stated period not less than thirty days after the notification.

Id.; see also CAL. BUS. & PROF. CODE § 17538.35(a) (West 2010).

139. See, e.g., APPLE, *iCloud Terms and Conditions*, *supra* note 6; FACEBOOK, *What Happens When a Deceased Person's Account is Memorialized*, *supra* note 6; INSTAGRAM, *How Do I Report a Deceased Person's Account on Instagram?*, *supra* note 41.

140. APPLE, *iCloud Terms and Conditions*, *supra* note 6; see also Carroll and Romano, *supra* note 12, at 78.

limited in a number of ways.¹⁴¹ Publishers of original content may limit the number of times an asset can be transferred,¹⁴² and the kind of transfers allowed by this new marketplace would not likely include inheritance transfers.

Implementing policies that discourage the transfer of digital media may serve a dual purpose of encouraging more direct purchases from the digital media provider and avoiding copyright disputes from publishers of the content. When it comes to default inheritance of digital accounts and assets, online service providers may also want to avoid unsettling users' privacy expectations. In September of 2014, soon after the ULC adopted the UFADAA, Yahoo publicly disagreed with the newly proposed inheritance law, calling the idea that decedents would have wanted default fiduciary access a "faulty presumption."¹⁴³ A law that would place more affirmative duties on an e-mail service provider is not an attractive one to Yahoo.¹⁴⁴ This underscores the importance of assessing individual users' wishes regarding their digital assets in order to avoid making any presumptions about the disposition of those assets after users' deaths.

3. *Users' Privacy Interests*

While businesses' motives for wanting to bar inheritance of digital assets are partially driven by profit, concern for user privacy fuels these policies as well. An often-cited example of a conflict between digital account holders' privacy and the interests of individuals who may wish to gain access to those accounts after the holders' death is that of Alison Atkins, a sixteen-year-old girl who died after a long battle with illness.¹⁴⁵ Her family wished to retain access to her Facebook account and other online records as a way of remembering her, but the various online service providers with which Alison had been affiliated gradually shut off the family's access, in line with the services' terms of use to protect user privacy.¹⁴⁶ To many individuals, the thought of family gaining access to online accounts containing records such as "dark, private journals" is an unwelcome one.¹⁴⁷

141. Chuong Nguyen, *Apple, Amazon Pave Way for Digital Garage Sale*, (Mar. 12, 2013), <http://www.gottabemobile.com/2013/03/12/apple-amazon-pave-way-for-digital-garage-sale/>.

142. *Id.*

143. Grande, *supra* note 52.

144. *See id.*

145. *See, e.g.*, Haworth, *supra* note 10, at 535–536; Fowler, *supra* note 59.

146. *Id.*

147. Haworth, *supra* note 10, at 535–536.

At the same time, some have called this privacy argument “misplaced,” as deceased individuals are generally thought not to have privacy interests.¹⁴⁸ Jonathan J. Darrow and Gerald R. Ferrera note that “private diaries, letters, and photographs can be inherited, and may contain equally private information [as their digital counterparts].”¹⁴⁹ In fact, the privacy interests generally asserted in regard to deceased individuals are actually that of “surviving family members’ right to personal privacy with respect to their close relative’s [personal information].”¹⁵⁰ In contrast, in the field of digital estate rights, privacy rights of deceased individuals are often asserted against families.¹⁵¹ That being said, general freedom of contract principles may make it possible to create a contractual right of privacy between account holders and account custodians (e.g., services like Facebook and e-mail service providers) that can effectively protect the privacy of deceased individuals, giving those individuals assurances that their request for privacy will be maintained.¹⁵²

Where services’ terms of use seek to protect user privacy, legislation tends to temper that on behalf of surviving families’ sentimental and economic interests.¹⁵³

B. POWER OF LEGISLATION

The legislation discussed *infra* in Part III provides a response to services’ terms of use as well as other areas without clear answers to estate rights issues. Legislation on the topic of digital estate rights generally conflicts to some degree with standards and terms of use set forth by online service providers.¹⁵⁴ In some cases, state legislation may also ostensibly conflict with federal privacy and computer crime law, making its viability questionable.¹⁵⁵ The UFADAA deals with both of these issues by

148. Darrow & Ferrera, *supra* note 21, at 313.

149. *Id.* at 314.

150. Nat’l Archives and Records Admin. v. Favish, 541 U.S. 157, 157 (2004) (holding that the family of Vince Foster, Deputy White House Counsel, had a prevailing privacy interest that outweighed interests calling for public disclosure of Foster’s death scene photographs).

151. See, e.g., CNET, *Yahoo Releases E-mail of Deceased Marine*, *supra* note 47.

152. Darrow & Ferrera, *supra* note 21, at 314.

153. See Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3; UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

154. Compare Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3, with UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

155. Compare Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3, with Electronic Communications Privacy Act of 1986, 18 U.S.C. § 2510 (2012).

including sweeping preemption clauses that either override or sidestep the conflicting law or policy.¹⁵⁶

With respect to potential conflicts found in companies' terms of service, section 8(b) of the UFADAA provides that any terms-of-service clause that conflicts with the UFADAA's provisions is:

void as against the strong public policy of this state . . . unless an account holder . . . agrees to a provision in a terms-of-service agreement that limits a fiduciary's access . . . by an affirmative act separate from the account holder's assent to other provisions of the agreement.¹⁵⁷

Delaware, however, the first state to adopt the substance of the UFADAA, did not choose to include this particular clause.¹⁵⁸ This means that the effect of the legislation is limited because of choice of forum clauses in terms of service like the "clickwrap" agreement employed by Facebook.¹⁵⁹ Because the Delaware Act contains no preemption clause, services' terms of use will control in some instances.

Importantly, the UFADAA's preemption clause leaves open the ability for users and companies to create valid contracts that could include choice of forum restrictions, as long as such contracts actually reflect a bargained-for position on behalf of both parties, rather than a default "clickwrap" agreement to which users must assent in order to use the service at all.¹⁶⁰ The UFADAA's preemption clause demonstrates that although the ULC is primarily concerned with protecting users from unwittingly waiving their litigation rights, the ULC also respects the value in allowing freedom of contract where the parties have both bargained for the position. Because Delaware has not enacted this particular provision of the ULC's suggested law,¹⁶¹ it has not been tested in practice. However, the Delaware Act represents a good step toward compromise between competing interests in the field. The opportunity for meaningful contract negotiations between a Facebook user and the underlying service, as one example, though, is minimal or nonexistent.

As previously noted, the possible conflict between state legislation allowing probate transfer of digital assets and federal legislation

156. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

157. *Id.*

158. See Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3.

159. See E.K.D. *ex rel* Dawes v. Facebook, Inc., 885 F. Supp. 2d 894 (S.D. Ill. 2012).

160. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT § 8(b), *supra* note 4.

161. Fiduciary Access to Digital Assets and Digital Accounts Act, *supra* note 3; UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT, *supra* note 4.

criminalizing unauthorized access to digital accounts was a major concern of the drafters of the UFADAA.¹⁶² The Act attempts to bypass the conflict by setting up fiduciaries as “step[ping] into the shoes of” authorized users, so that persons or entities granted access to decedents’ digital accounts are never considered unauthorized users in the first place.¹⁶³ This solution seems logical, as the computer crime laws that penalize unauthorized access are likely aimed more at preventing identity theft and other types of fraud than protecting the privacy of deceased individuals, especially since such privacy rights are not clearly recognized in all fields.¹⁶⁴ However, like the provision against conflicting terms of use, the effectiveness of such a clause in practice has not been tested. The much simpler way to avoid criminal liability for accessing a deceased person’s digital accounts and records is to obtain the person’s consent prior to their death. Because a sweeping change in the trend of individuals writing wills is unlikely,¹⁶⁵ the best way to do this is at the level of the digital service or product itself.

The next Section proposes a way to reach digital service providers directly and engage them in finding the best way to handle these privacy conflicts.

C. THE PROPOSED SOLUTION: PROACTIVE SERVICE PROVIDERS

This Section outlines a possible co-regulatory solution. The idea is that rather than using sweeping terms of use that almost inevitably create disagreement, it would be better to implement an individualized approach to granting fiduciary access. Further, legislative incentives would substantially increase service provider compliance with such an initiative. One approach to making sense of the conflicting interests of legislation and service providers is to accept that not all digital assets should be treated equally. For example, one author convincingly argues that “intangible” digital assets, such as hidden text in blogs and website profiles, Facebook “likes,” and comments or reviews left on websites and blogs, are akin to client information collected and protected by physical businesses, and as such no statutory protection should be required for these types of assets at death.¹⁶⁶

162. See Section II.A.2, *infra*.

163. UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT (Draft As Approved Before Styling Changes, July 22, 2014).

164. See, e.g., *Nat’l Archives and Records Admin. v. Favish*, 541 U.S. 157, 167 (2004).

165. Nance-Nash, *supra* note 82.

166. Haworth, *supra* note 10, at 538–540.

For assets with real value to decedents and possible heirs, however, a solution is needed. Legislation as it currently stands will face continuing challenges, and on an individual level, time is of the essence for a person who may be unaware of or unprepared for dealing with the fate of their digital estate. Rather than relying on legislative solutions alone, providers of online services and producers of digital products and media can implement systems that follow users' wishes for the disposition of their accounts and assets in the event of their death. By asking users whether they assent to heirs or executors accessing their accounts or obtaining ownership of their assets, businesses may be able to not only avoid later conflict, but also to assure current users that their privacy expectations, if they exist, will be respected and in that way increase the strength of trust in the brand. Having a record of individual users' preferences in this area avoids a problematic default approach to privacy.

In fact, social media services generally already allow a somewhat personalized approach to privacy of accounts.¹⁶⁷ Instagram and Twitter, for example, have "private" settings, where users can specify that other users must request permission to view their stream of photos or status updates.¹⁶⁸ The people who choose to select this setting are likely those who do not want their personal media to show up in a public search of the site. Institutions or individuals building a brand who want to allow unrestricted access to their shared media, however, may prefer the non-private setting. Just as there are legitimate reasons for selecting either the public or private setting for one's Instagram or Twitter feed, users have undoubtedly varied expectations regarding the fate of their digital accounts if they die or become incapacitated. Users should have the same degree of choice in that matter as they are given in the arrangement of their active use of services.

1. *Potential Format*

One option is for online service providers to introduce a question about desired disposition of digital accounts and assets as a pop-up style question that must be answered in order to continue to access the account. Though ascertaining users' wishes at creation of the account would be ideal, service providers will generally want to avoid transaction costs at service sign-up such as requiring users to answer additional questions before creating an account. For this reason, providers should be allowed to

167. *See generally* INSTAGRAM, <http://www.instagram.com>; TWITTER, <http://www.twitter.com>.

168. *Id.*

assess users' wishes regarding their digital assets later, once the user has already established an account with the service and begun using it. A simple example of how such a question could be posed is: *Upon your incapacity or death, do you: a) authorize the deletion of your account and all stored documents, information, and other data, or b) wish to have access given to the executor of your estate?*

Simplicity in this question will reduce the likelihood that a user's answer conflicts with other documents of testamentary expression, such as a will or instructions left with an attorney or executor. For example, if an online service asks a user to name an individual who is allowed access to an online account in the case of the user's death or incapacitation (an "emergency contact" of sorts), there is a reasonable chance that the user could name a person different from the legal executor of his or her estate. Such an inconsistency could give rise to litigation and general confusion, which is exactly what the inclusion of this kind of question aims to avoid. For that reason, simply asking whether the executor may access the content, and leaving the identity of the executor to be identified through other means, will reduce the likelihood of conflict in this area.

In order for an added terms-of-service provision of this kind to be successful, users' wishes regarding access should be assessed outside of the typical clickwrap agreement. It should not be styled as a single "agree" box to be checked in order to proceed in the process of account creation, as very few users typically read the provisions that they are agreeing to in this type of form. Instead, users should be addressed in clear (preferably large-type) language that makes them aware that one of two choices, neither of which affects their ability to use the service, must be selected in order to move forward. The language suggested above serves as an example of a clear, simplified version that offers total deletion as an option for users particularly concerned about privacy. Though the choices are starkly different (total deletion of all data versus complete access given to the executor), adding more options would be likely to confuse users and create a greater burden on online service providers to follow individualized digital estate plans for each user. Alternatively, a third, hybrid solution could ask users if they wished to preserve all information that was "public" (to approved contacts) but not preserve "private" information such as private messages, chat conversations, notes, and the like.

2. *Benefits and Drawbacks*

This simple solution is not perfect. For one thing, even the basic language proposed here could be foreign to users who are unfamiliar with the fundamentals of wills and estates principles. The word "executor,"

while not exactly a term of art, may be a word that is unknown to some. Unfortunately, the danger with using a more generic term is that it may conflict with the legal understanding of who should get access to the account. This reflects a general conflict in drafting terms-of-use agreements between wanting to have legally suitable wording while keeping it digestible for laymen users. In this instance in particular, where users are creating an individualized portion of the terms of service, making sure that a variety of users will understand the question is imperative. Also, a procedure for allowing users to change their decision on the issue of what will happen to their online accounts and assets should be implemented wherever individualized answers to the question are allowed. The nature of a particular online account may drastically change between the time of its creation and the death of the original owner; for example, a casually used Flickr account may later become a portfolio for a professional artist if a user keeps the same account throughout her photography education and career. Fortunately, these drawbacks do not make this solution potentially unworkable; rather, they illustrate the fact that thought, trial, and error will have to go into the implementation of this new type of policy across various platforms.

This solution could also help avoid the issue of criminal liability for accessing deceased users' digital accounts without authorization. NetChoice's warning that consent may not be assumed by courts in cases where state legislation gives fiduciaries access to decedents' digital accounts,¹⁶⁹ mentioned earlier, bolsters support for the proposition that explicit consent should be obtained if possible. Consent could also be made explicit through wills or other testamentary instruments, but obtaining consent at the level of the individual service is preferable. This is because more than half of Americans do not have wills,¹⁷⁰ and those who have made a will are unlikely to update the document every time a new social media account is joined or even when signing up for a service like Cloud storage of files.

A major question in assessing the strength of this solution is whether companies will willingly make these changes to their privacy policies. There is evidence that some may not have the incentive to do so or that this change would actually be incompatible with policies currently in place. For example, Facebook, upon receiving confirmation of a user's death, "memorializes" the person's Facebook account page, which includes

169. Letter from NetChoice to Suzanne Brown Walsh and the Uniform Law Commission, *supra* note 83.

170. Nance-Nash, *supra* note 82.

locking the account from access by anyone.¹⁷¹ This means that the service will delete any photos or other media stored in the person's account but not viewable to the public.¹⁷² There are strong policy reasons for the company's decision to use a memorialization solution rather than allowing access by family members. In the past, allowing access to a person's page after their death made the account appear active, prompting reminders sent to the person's connections to reconnect with the deceased person or send them birthday wishes.¹⁷³ This caused increased grief to the friends and family of the decedent, prompting the memorialization solution.¹⁷⁴ This is an instance of where there are legitimate reasons why online service providers may not wish to implement a policy of asking users whether they grant permission for the executor of their estate to gain access to their accounts or assets. Additionally, it is important to remember that some types of online accounts are only stand-ins for a tangible underlying asset. An online banking account, for example, cannot vanish as easily as a Facebook page that a user wants deleted after her death. With these differences in mind, a one-size-fits-all approach is probably not viable. For online service providers whose accounts or products fit this kind of solution, however, some incentives may be necessary if this type of solution is to have broad-ranging effect.

If online service providers' chief concern is the privacy of users and avoiding related disputes, many companies should strongly consider adding at least a deletion option for users. While it is understandable in certain cases that businesses may not find it in their best interest to give account access to fiduciaries (in the case of non-transferable limited licenses employed by Apple, for example), in almost all cases it would only make online service providers' jobs easier if they obtained user consent to simply delete all accounts and data upon death. This may not be the best solution in terms of property conventions against waste of valuable assets, but if privacy is truly the motivating factor for online service providers, then a question asking users whether they wish for their account to be

171. FACEBOOK, What Happens When a Deceased Person's Account is Memorialized?, *supra* note 6.

172. *Id.*

173. Carroll and Romano, *supra* note 12, at 142.

174. Jon Yates, *Family finds it difficult to memorialize Facebook account*, CHI. TRIB., available at http://articles.chicagotribune.com/2014-05-01/business/ct-facebook-death-account-remains-problem-0501-biz-20140501_1_facebook-account-facebook-page-social-media-company (last visited Feb. 23, 2015) ("On what would have been [the decedent's] 36th birthday, Facebook reminded friends and his siblings to wish him a happy birthday.").

deleted upon death would further that interest and also open the door for a policy of incorporating individual users' wishes into company approaches.

3. *A Co-Regulatory Solution*

Because widespread, organized change in this area is unlikely to happen without an impetus, legislative incentives should be created to encourage it. Online service providers' own motivation to create a procedure for when users and owners of digital assets die combined with legislative requirements that they do so would spur digital asset reform doubly, making change in this area all the more meaningful. Federal legislation, however unlikely, is possible based on the Commerce Clause,¹⁷⁵ but legislation from almost any state would effectively require compliance no matter where the company is based because it would be likely to have at least one user from any U.S. state (or could anticipate having such a user). However, based on the concerns previously noted regarding companies that have legitimate business reasons for creating a "No Right of Survivorship" clause or memorializing accounts, this legislation would ideally provide exceptions to a strict rule.

Ira Rubenstein, Senior Fellow at the Information Law Institute of New York University, posits that the best solution for making real progress in the realm of privacy changes online is "co-regulation" (regulation that is a combination of government and private-sector initiatives) rather than either self-regulation or government regulation.¹⁷⁶ He states "it is better to think of voluntary codes and direct government regulation as opposing ends of a regulatory continuum, with most self-regulatory schemes falling somewhere in the middle."¹⁷⁷ Allowing the industry to entirely self-regulate has not generally been successful; issues include lack of accountability and transparency and weak oversight and enforcement.¹⁷⁸ In practice, co-regulation would allow the industry to

175. Congress is authorized to create laws to regulate the "instruments of interstate commerce." *Houston E. & W. Tex. Ry. Co. v. U.S.*, 234 U.S. 342, 351 (1914). Here, the digital assets or value of digital accounts are the instruments, and creation and use over the Internet generates the interstate quality of the commerce.

176. Ira S. Rubenstein, *Privacy and Regulatory Innovation: Moving Beyond Voluntary Codes*, 6 I/S: J. L. & POL'Y FOR INFO. SOC'Y 355, 357 (2011), available at <http://ssrn.com/abstract=1510275>.

177. *Id.*

178. See, e.g., Peter P. Swire, *Markets, Self-Regulation, and Government Enforcement in the Protection of Personal Information*, in *PRIVACY AND SELF-REGULATION IN THE INFORMATION AGE* (U.S. Dep't of Commerce ed., 1997), available at <http://www.ntia.doc.gov/report/1997/privacy-and-self-regulation-information-age>.

enjoy flexibility in determining what its self-regulatory guidelines will look like, while the government (whether state or federal) sets default requirements and reserves the ability to approve and enforce its defaults.¹⁷⁹ In the area of digital estate rights, this could take the form of stipulated self-regulation, where the industry would be allowed to provide its own solution for the problem or else be required to follow a UFADAA-like approach. Organizations such as the Electronic Privacy Information Center (“EPIC”)¹⁸⁰ already work with various electronic communications industries to create trade guidelines so extending this type of industry-organizing method to this area seems feasible.

One example of how this could work is legislation requiring that companies without a clear policy for what happens to a user’s digital accounts or digital assets upon death must create such a policy or, ideally, ask users their individual preferences by a specified date. This may simply incentivize companies to create highly limiting terms of service and implement deletionist policies, but the benefit is that those policies will at least be defined where before they were not. An approach that may better result in the desired form of change is to require certain types of accounts—for example, those on which user-uploaded photographs, videos, and other media are stored—to give users the choice of whether they want the media deleted upon death or whether they authorize fiduciary access. This would create a hard line and impose obligations where potentially valuable digital media is concerned. Online accounts such as Facebook, Twitter, Instagram, and Flickr, all of which have photo-uploading capabilities, would be required to give users the option to have this media preserved after death (in the form of fiduciary access), while maintaining the privacy-g geared option of calling for total deletion of media. Again, this type of legislative action would work best if it gave online service providers a specified amount of time to implement the changes and outlined sanctions for noncompliance.

Regardless of how well-thought-out any legislative action is, some users and situations will fall through the cracks of this kind of protection. Though rare, there are bound to be users who uploaded valuable digital media to sites but seldom log on, making it hard to reach them to assess

179. Rubenstein, *supra* note 176, at 357.

180. *See generally* ELECTRONIC PRIVACY INFORMATION CENTER, <http://www.epic.org> (last visited Feb. 1, 2015) (“[A]n independent non-profit research center in Washington, DC.[.] EPIC works to protect privacy, freedom of expression, democratic values, and to promote the Public Voice in decisions concerning the future of the Internet.”).

their wishes for their digital media after death. This prompts the possibility of creating a default option that users are then invited to change, but deciding what the default “should” be is a difficult question that only circles back to all of the original issues raised herein. To some extent, both users and online service providers will have to accept that disputes will inevitably arise in this realm and hope that the individuals most concerned with the fate of their assets and accounts will be proactive.

In sum, a practical solution would focus on an individualized approach to digital estate rights, inviting service providers to come up with a best-fit strategy but also allowing government minimums or boundaries to frame that strategy.

IV. CONCLUSION

Customized agreements between users and online service providers could better meet users’ expectations for privacy and control over the disposition of their digital assets than legislation could alone. Although legislation such as the UFADAA and the Delaware Act represents steps toward digital assets being considered part of a person’s account upon death, legislation must be supplemented with other initiatives in order to adequately balance all interests involved. Especially because legislative action is a slower approach to solving a growing problem, proactive initiatives by online service providers to ascertain and respect users’ wishes are the best solution currently available to balance users’ rights to both privacy and the disposition of their digital assets with service providers’ business autonomy and freedom of contract. A co-regulatory solution whereby online service providers are able to come up with an industry-specific solution to these privacy issues but government regulations can set minimums and defaults would go far toward achieving that balance.

CONSTITUTIONAL DRAG RACE: ANONYMOUS ONLINE SPEECH AFTER *DIGITAL MUSIC NEWS V. SUPERIOR COURT*

Thaddeus Houston[†]

Courts typically cite the First Amendment as the justification for the right to speak anonymously on the internet.¹ But in *Digital Music News v. Superior Court of Los Angeles, Escape Media Group* (“*Digital Music News*”), a California appeals court reversed an order compelling the identification of an anonymous speaker because the discovery order violated the online commenter’s constitutional right to privacy provided by the California Constitution.² In finding for the first time that the right to anonymous online speech is grounded both in the First Amendment and the privacy clause of California’s Constitution, the court recognized a novel legal theory that may prove to be influential in other states whose constitutions include a right to privacy, or in anonymous speech cases more generally.

Commentators immediately hailed the expanded right to privacy recognized by the *Digital Music News* court as the most significant aspect of the court’s decision.³ The court held that one who posts anonymous online comments has protection for those acts grounded in both the First

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1. *See, e.g., Doe v. 2TheMart.com Inc.*, 140 F. Supp. 2d 1088, 1091–92 (W.D. Wash. 2001); *Highfields Capital Mgmt. v. Doe*, 385 F. Supp. 2d 969, 974–75 (N.D. Cal. 2005); *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 237–38 (Cal. Ct. App. 2008); *see also* Alison Frankel, *California Finds ‘Right to Privacy’ for Anonymous Online Commenters*, REUTERS BLOG (May 16, 2014), <http://blogs.reuters.com/alison-frankel/2014/05/16/california-finds-right-to-privacy-for-anonymous-online-commenters/>.

2. The court also cited the First Amendment of the federal Constitution as a source of the commenter’s right to anonymous online speech. *See Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014); *see also* Paul Alan Levy, *California Court of Appeals Creates New Argument for Protecting Anonymous Online Speech*, PUB. CITIZEN CONSUMER LAW & POLY BLOG (May 14, 2014), <http://pubcit.typepad.com/clpblog/2014/05/california-court-of-appeals-creates-new-argument-for-protecting-anonymous-online-speech.html>.

3. *See* Frankel, *supra* note 1.

Amendment to the U.S. Constitution as well as the broader right to privacy protected by the ‘privacy clause’ of the California Constitution.⁴ *Digital Music News* is one of the most recent California judicial opinions that provides a broad, but not unlimited, right to speak online anonymously—perhaps granting the broadest right yet. That said, the Ninth Circuit recently issued a decision in *Doe v. Harris*, where it struck down a California law that required sex offenders to register each new online account with the police because it could not survive First Amendment scrutiny and placed too great a burden on the sex offenders’ First Amendment right to anonymous online speech.⁵ Aspects of this decision will also be discussed throughout this Note.

This Note explores the history of the right to anonymous online speech and the privacy clause of the California Constitution, provides a more detailed analysis of *Digital Music News*, and attempts to place the reasoning contained in the *Digital Music News* decision in the larger context of a discussion between courts, scholars, and lawyers about how best to weigh the costs and benefits of anonymous online speech. Part I introduces anonymous online speech, describing its role on the internet and how that role has changed as the social uses of the internet have changed. It next explains what anonymity means in the context of online communication, and how it differs from pseudonymity. It then introduces some of the harmful behavior enabled by anonymous online communication and some of the solutions to these harmful behaviors proposed by legal scholars.

Parts II and III provide the legal background to the *Digital Music News* court’s decision, discussed in detail in Part IV. Part II explains that anonymous online speech is afforded First Amendment protection and describes the framework that state and federal courts use to balance the constitutional right to anonymous online speech against the rights of the parties harmed by the speech; otherwise, the way that courts handle some of the issues described in Part I. Part III explores the privacy clause of the California Constitution, including where it came from and what problems it aimed to solve, how it should be interpreted in new contexts, and how it can be used in litigation. Part IV provides detailed analysis of *Digital Music News*, explaining the facts of the case, how the court reached its decision, and how the case fits into the larger conversation about anonymous online speech—considering that it combines the First

4. *Digital Music News*, 171 Cal. Rptr. 3d at 809–10.

5. *Doe v. Harris*, 772 F.3d 563, 583 (9th Cir. 2014).

Amendment and the privacy clause of the California Constitution in a novel way.

Part V expands on an aspect of the court's reasoning in *Digital Music News*: that courts ultimately want to protect the individual's ability to create her own identity when they attempt to determine whether an individual's identity should be disclosed to someone harmed by her anonymous online comment. The Part does this by highlighting the language that courts have used in "John Doe" and other anonymous online speech cases, the language used in urging the amendment of the privacy clause to the California Constitution, and the language used in *Digital Music News*. Part V also uses the example of a hypothetical legal challenge to Facebook's "Real Names" policy to show how all of these interests and concepts come together in a context familiar to today's internet users. Finally, Part V briefly restates the normative argument that "traceable pseudonymity" strikes the best balance between constitutionally-protected interests based on the First Amendment and the right to privacy on the one hand, and harm caused by anonymous online comments on the other.

I. ANONYMOUS ONLINE SPEECH

This Section explains what anonymous online speech is. It begins by briefly discussing the history of social uses of the internet, explaining some of the advantages that the internet offers to speakers and some of the social problems caused by those speakers' perception of anonymity. It next describes some solutions to these social problems proposed by legal scholars, in part to introduce the idea that civil society is engaged in a discussion about how best to balance the benefits of anonymous online speech against the problems it causes. Finally, this Section considers the differences between anonymity and pseudonymity.

A. ONLINE ANONYMITY AND PSEUDONYMITY FIRST FOUND TO SERVE NOBLE PURPOSES, LATER FOUND TO CAUSE PROBLEMS

The court's decision in *Digital Music News* is part of a larger judicial and scholarly conversation about the value of anonymous online speech. This discussion centers on a fundamental tension: on the one hand, anonymous online speech furthers constitutionally-protected liberty interests, but on the other hand, protection for anonymous online speech shields responsibility for bad and sometimes illegal conduct. When, in *Reno v. ACLU*, in 1997, the Supreme Court first considered the speech implications of the internet, it chose to highlight "electronic mail (e-mail), automatic mailing list services ('mail exploders,' sometimes referred to as 'listservs'), 'newsgroups,' 'chat rooms,' and the 'World Wide Web'" as the

uses of the internet relevant to the First Amendment.⁶ The Web 1.0 internet⁷ that the courts encountered when they began wrestling with online speech had “the advantage of allowing users, or ‘posters,’ to express themselves anonymously, by using ‘screen names’ traceable only through the hosts of the sites or their Internet service providers (ISPs).”⁸

Reno centered on the constitutionality of certain provisions of the Communications Decency Act of 1996 (“CDA”).⁹ While not specifically at issue in *Reno*, § 230(c) of the CDA operates in the background of this Note.¹⁰ Section 230(c) of the CDA shields internet service providers (“ISPs”), like social networks or message boards, from liability for tortious comments posted by their users.¹¹ When an anonymous poster writes something harmful about a person in the United States, the transmitting ISP has no obligation to remove it upon request.¹² Instead, one must learn the identity of the poster by subpoenaing the ISP and then suing the poster if the ISP discloses—or is ordered to disclose—the poster’s identity, or sue the poster directly, as an unknown “John Doe” defendant.¹³

A key feature of the earliest versions of online communications is that they enabled computer users to connect with others that shared similar interests; the offline identity of those posters was not essential for many of these virtual communities.¹⁴ Web 1.0 communication technologies enabled internet speakers to communicate their views to many people simultaneously at low cost.¹⁵ It was in this atmosphere that the Supreme

6. *Reno v. ACLU*, 521 U.S. 844, 851 (1997). Justice Stevens acknowledged that “[t]hese methods [of internet communication] are constantly evolving and difficult to categorize precisely.” *Id.*

7. In this context, Web 1.0 refers to the first version of the social and commercial internet, which was characterized by the predominance of message boards, chat rooms, and GeoCities sites. Web 2.0, in contrast, generally means the internet as a social space dominated by social networks and blogs. See generally Lauren Gelman, *Privacy, Free Speech, and “Blurry-Edged” Social Networks*, 50 B.C. L. REV. 1315, 1320–25 (2009).

8. *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 234 (Cal. Ct. App. 2008).

9. 47 U.S.C.A. §§ 223–230 (West 2014). *Reno v. ACLU* focused on § 223. *Reno v. ACLU*, 521 U.S. at 859–60.

10. 47 U.S.C.A. § 230(c)(1) (West 2014) (“No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider.”).

11. See, e.g., *Zeran v. Am. Online, Inc.*, 129 F.3d 327, 330 (4th Cir. 1997) (recognizing that § 230(c) immunizes ISPs from tort-based lawsuits in the interest of protecting freedom of speech “in the new and burgeoning Internet medium.”).

12. See, e.g., *id.*

13. See, e.g., *Krinsky*, 72 Cal. Rptr. 3d at 235 (explaining that plaintiff subpoenaed Yahoo to learn the identity of an anonymous poster of harmful comment).

14. See Gelman, *supra* note 7, at 1320–22.

15. *Reno v. ACLU*, 521 U.S. 844, 870 (1997).

Court welcomed the speech-enhancing possibilities of the internet, noting in *Reno*—the same decision that recognized the applicability of the First Amendment to the internet—that “[t]hrough the use of chat rooms, any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of Web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer.”¹⁶

But courts since *Reno* have acknowledged the dangers inherent in inexpensive and relatively anonymous online speech.¹⁷ Over the past decade, trolling,¹⁸ cyberbullying,¹⁹ and copyright infringement²⁰ have become common, with perceived poster anonymity undoubtedly a contributing factor. These unintended consequences can have serious adverse effects in the offline world.²¹ Pseudonymous trolls also have persistent and troubling misogynistic tendencies.²² One well-documented example of this disturbing phenomenon is the AutoAdmit controversy,

16. *Id.*

17. See, e.g., Stanley Fish, *Anonymity and the Dark Side of the Internet*, N.Y. TIMES (Jan. 3, 2011), http://opinionator.blogs.nytimes.com/2011/01/03/anonymity-and-the-dark-side-of-the-Internet/?_php=true&_type=blogs&_r=0; Maria Konnikova, *The Psychology of Online Comments*, NEW YORKER (Oct. 23, 2013), <http://www.newyorker.com/tech/elements/the-psychology-of-online-comments> (citing research that shows comments on newspaper websites that allowed anonymous posting tended to be less civil than comments on newspaper websites that did not allow anonymous commenting).

18. Julie Zhuo, *Where Anonymity Breeds Contempt*, N.Y. TIMES, Nov. 30, 2010, at A31, available at <http://www.nytimes.com/2010/11/30/opinion/30zhuo.html?scp=1&sq=Where%20Anonymity%20Breeds%20Contempt&st=cse> (defining trolling as “the act of posting inflammatory, derogatory or provocative messages in public forums . . .”).

19. Karen M. Bradshaw & Souvik Saha, *Academic Administrators and The Challenges of Social Networking Websites*, in THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION 140, 144–45 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011) (explaining how cyber-bullying can be more harmful than traditional bullying because it has “the potential to be more widely broadcast, to take place in groups rather than in individual capacities, and to occur without monitoring by educators and administrators.”).

20. See, e.g., *Sony BMG Music Entm’t v. Tenenbaum*, 660 F.3d 487, 491–92 (1st Cir. 2011) (discussing legal campaign by record labels to identify and prosecute internet users who downloaded copyrighted music files using peer-to-peer file-sharing networks).

21. See Jennifer Steinhauer, *Verdict in MySpace Suicide Case*, N.Y. TIMES, Nov. 26, 2008, at A25, available at <http://www.nytimes.com/2008/11/27/us/27myspace.html> (reporting on the legal proceeding stemming from the first widely-reported suicide caused by cyber-bullying); see also Bryan H. Choi, *The Anonymous Internet*, 72 MD. L. REV. 501, 529 nn.111–113 (2013) (explaining the same phenomena with more examples than provided here).

22. Danielle Keats Citron, *Cyber Civil Rights*, 89 B.U. L. REV. 61, 65–66 (2009).

where two female Yale law students were the targets of online posts by pseudonymous online posters that included violent and sexual content.²³ Another more recent example is “Gamergate,” where female members of the video-gaming community have suffered unjustified real-world consequences for speaking out on the role of women in the video game industry, beginning with waves of attacks by pseudonymous trolls.²⁴

The emergence of Web 2.0 and the accompanying rise of social networking have complicated the context surrounding anonymous online speech in part because online social dynamics have changed since the Supreme Court contemplated the First Amendment value of “mail exploders.”²⁵ Unlike Web 1.0, which emphasized connection over common interests, Web 2.0 emphasizes identity. Some of the most widely used social networks require users to provide their real name when they sign up (at least until recently).²⁶ Scholar and attorney Lauren Gelman has explained that social networks have become more popular than the message boards of Web 1.0 in part because they allow users “to connect with people they cannot identify or find in advance, such as high school friends.”²⁷ Gelman argues that users of social networking services tend to overshare private information to take advantage of the “blurry edges” of their social networks: people that the users want to share and connect with, but have not identified at the moment they post new content.²⁸ This

23. See *Doe 1 v. Individuals (AutoAdmit)*, 561 F. Supp. 2d 249, 251–52 (D. Conn. 2008) (providing background on the trolling); see also Nathaniel Gleicher, Note, *John Doe Subpoenas: Toward a Consistent Legal Standard*, 118 YALE L.J. 320, 364–68 (2008) (summarizing the AutoAdmit controversy).

24. See generally Kyle Wagner, *The Future of the Culture Wars Is Here, and It's Gamergate*, DEADSPIN (Oct. 14, 2014), <http://deadspin.com/the-future-of-the-culture-wars-is-here-and-its-gamergate-1646145844> (explaining what Gamergate is and tracing the development of the scandal over time).

25. *Reno v. ACLU*, 521 U.S. 844, 870 (1997).

26. Until recently, Facebook required users to sign up using their real names. This policy was at least partially premised on the idea that requiring real names increases the quality of the content that users post by making users “more accountable” and making it easier to fight spam accounts. See Valeriya Safronova, *Drag Performers Fight Facebook's 'Real Name' Policy*, N.Y. TIMES (Sept. 24, 2014), http://www.nytimes.com/2014/09/25/fashion/drag-performers-fight-facebooks-real-name-policy.html?_r=0. Google also required users to provide their “real names” when it first launched its Google+ social networking service, a policy that it abandoned after about three years. See Rebecca MacKinnon & Hae-in Lim, *Google Plus Finally Gives Up on Its Ineffective, Dangerous Real-Name Policy*, SLATE (July 14, 2014), http://www.slate.com/blogs/future_tense/2014/07/17/google_plus_finally_ditches_its_ineffective_dangerous_real_name_policy.html.

27. Gelman, *supra* note 7, at 1326.

28. *Id.* at 1317–18.

tendency to overshare creates interesting problems that are outside the scope of this Note.²⁹

The majority of internet users now spend significant time on closed social networks that encourage users to merge their offline and online identities.³⁰ The shift toward social networks has driven anonymous speakers from the social mainstream of the internet to what Professor Brian Leiter has called cyber cesspools: portions of the social internet where trolls predominate and the level of discussion is vulgar and immature.³¹ Cyber cesspools tend to grow in the corners of the internet that still allow anonymous and pseudonymous speech.³² They tend to attract a disproportionately high number of trolls relative to other inhabitants, perhaps because people seek out these corners of the internet to experience the cathartic effects of trolling.³³ The shift in the social mainstream of internet users to social networks—where users are linked to their offline identities—adds to the common impression that all anonymous online speakers are trolls. Scholarly proposals to solve problems like trolling tend to reflect this sentiment.³⁴ But the view that the internet can be fixed by removing its anonymous aspects is problematic because it undervalues the constitutionally protected liberty interests furthered by anonymous online speech.

29. *Id.* at 1327–28 (explaining that the purpose of social networks “is to capture the economic benefit of users’ blurry-edged networks” by ensuring that their users share more information, and with a wider group of people, than they otherwise would).

30. See Maeve Duggan & Aaron Smith, *Social Media Update 2013*, PEW RES. INTERNET PROJECT (Dec. 30, 2013), <http://www.pewInternet.org/2013/12/30/social-media-update-2013/>.

31. Brian Leiter, *Cleaning Cyber-Cesspools: Google and Free Speech*, in *THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION* 155, 155 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011).

32. *Id.* at 166.

33. See *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 238 (Cal. Ct. App. 2008) (noting that, on the internet:

Hyperbole and exaggeration are common, and ‘venting’ is at least as common as careful and considered argumentation. The fact that many Internet speakers employ online pseudonyms tends to heighten this sense that ‘anything goes,’ and some commentators have likened cyberspace to a frontier society free from the conventions and constraints that limit discourse in the real world.

Id. (quoting Lyriisa Barnett Lidsky, *Silencing John Doe: Defamation & Discourse in Cyberspace*, 49 DUKE L.J. 855, 863 (2000)).

34. See generally *THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION* (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011).

B. THE NATURE OF ANONYMITY ONLINE

Courts are receptive to anonymous speech because it “is a shield from the tyranny of the majority.”³⁵ Anonymity serves one of the noble “purpose[s] behind the Bill of Rights, and of the First Amendment in particular: to protect unpopular individuals from retaliation—and their ideas from suppression—at the hand of an intolerant society.”³⁶ But as a practical matter, true anonymity in online postings is difficult and beyond the technical capability of most internet users.³⁷ While Tor and other anonymizing technologies can enable truly anonymous communication if used carefully³⁸—without logging in to a social networking site or any other site that requires login credentials—most internet users are not familiar with these technologies.³⁹

As a result, few internet users, and practically none of the internet users featured in the cases discussed in this Note, are actually anonymous—the link between their offline and online identities is instead held by a third party like their ISP, a social network, or an online message board operator.⁴⁰ Much of the litigation involving anonymous online speech has centered on developing standards that appropriately balance an internet user’s right to speak anonymously against the opposing party’s right to unmask them when they have committed a tortious act such as posting a defamatory statement.⁴¹

35. *McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 357 (1995).

36. *Id.*

37. *Krinsky*, 72 Cal. Rptr. 3d at 237 (noting that, in most cases “no one is truly anonymous on the Internet, even with the use of a pseudonym. Yahoo! warns users of its message boards that their identities can be traced, and that it will reveal their identifying information when legally compelled to do so.”); *accord* *Highfields Capital Mgmt. v. Doe*, 385 F. Supp. 2d 969, 973 (N.D. Cal. 2005) (highlighting that Yahoo reminds its users to “[n]ever assume that you are anonymous and cannot be identified by your posts.”).

38. *See* Nassim Nazemi, *DMCA §512 Safe Harbor for Anonymity Networks Amid a Cyber-Democratic Storm: Lessons from the 2009 Iranian Uprising*, 106 NW. U. L. REV. 855, 869 (2012) (“As information travels from one Tor operator’s tunnel to another, the software adds a new ‘layer’ of encryption . . . such that no operator in the circuit can ever trace the transmission back more than one layer, protecting the Tor user who initiated it.”).

39. *See* Mark Graham & Stefano De Sabbata, *The Anonymous Internet*, INFO. GEOGRAPHIES OXFORD INTERNET INST., <http://geography.oi.ox.ac.uk/?page=tor> (last visited Oct. 23, 2014) (noting that Tor has approximately 750,000 daily users; approximately 126,000 of those users are from the United States).

40. *See, e.g., Krinsky*, 72 Cal. Rptr. 3d at 237.

41. These standards are discussed more extensively later in this Note. *See infra* Part II.B. *See also, e.g., Columbia Ins. Co. v. seescandy.com*, 185 F.R.D. 573, 578 (N.D. Cal. 1999) (discussing the importance of finding an appropriate standard that balances the

C. POTENTIAL SOLUTIONS TO THE ISSUES POSED BY ANONYMITY ONLINE

Scholars have responded to the apparent injustice in particular instances of trolling and cyberbullying—or other tortious acts committed via online comments—primarily by proposing schemes to limit online anonymity, de-emphasizing the value provided by the anonymous internet.⁴² Professor Daniel Solove has proposed rewriting CDA § 230(c) to require ISPs to exercise more editorial control over their platforms by imposing liability on the ISPs for content posted by their users.⁴³ Professor Danielle Keats Citron has called for a new law or set of laws that would provide remedies to those harmed by anonymous online communications.⁴⁴ Professor Martha C. Nussbaum has suggested that all internet users should be required to identify themselves—using their offline identities—before being able to post anything.⁴⁵ And Professor Saul Levmore has predicted that the law will settle on requiring ISPs to turn over identifying information to users harmed by online comments as long as the user seeking the other user’s identity could clear some modest hurdle to weed out baseless requests.⁴⁶

Scholar Bryan Choi has also proposed that we act to limit the anonymous aspect of the internet, but he instead advocates that anonymity should be offered as “bait” to regulators to preserve the generativity of the internet.⁴⁷ Choi agrees with Professor Jonathan Zittrain, who has posited

rights of an internet user to speak anonymously against the rights of a party harmed by those comments in unmasking the anonymous speaker by serving a subpoena on an ISP).

42. See generally THE OFFENSIVE INTERNET, *SUPRA* note 34.

43. Daniel J. Solove, *Speech, Privacy, and Reputation on the Internet*, in THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION 15, 23–28 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011) (proposing reform of CDA § 230).

44. Danielle Keats Citron, *Civil Rights in Our Information Age*, in THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION 31, 38–39 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011) (advocating for a comprehensive legal solution based on criminal law, tort, and civil rights law to the problem of anonymous online mobs and their disproportionate impact on marginalized communities).

45. Martha C. Nussbaum, *Objectification and Internet Misogyny*, in THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION 68, 85 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011) (emphasizing the importance of requiring identification as a condition of posting online to solve the often misogynistic harm inflicted by anonymous mobs on women).

46. Saul Levmore, *The Internet’s Anonymity Problem*, in THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION 31, 57 (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011).

47. Choi, *supra* note 21, at 503.

that generativity is the key to the internet's success.⁴⁸ Zittrain, in turn, describes generativity as "a technology's overall capacity to produce unprompted change driven by large, varied, and uncoordinated audiences."⁴⁹ Choi's proposal is similar to the proposals discussed *supra*⁵⁰ in that he recommends that regulation should be permitted to remove anonymous communication from the internet, but provides a different justification for eliminating anonymity from the internet. Choi concedes that anonymity has some benefits, but argues that generativity creates more value than anonymity.⁵¹ Assuming that increased regulation of the internet is inevitable—and assuming that generativity can be 'picked' over anonymity if the internet has to give up something—Choi proposes that anonymity should be sacrificed to allow generativity to continue to flourish.⁵² Choi says this can be done by forcing identification upon internet users so that those harmed by their speech can seek legal remedies against them directly, obviating the need to impose more stringent requirements on online intermediaries—such as re-writing § 230(c) of the Communications Decency Act—that would likely have responded to more stringent requirements by restricting the output of tools that enable the internet's generativity.⁵³

Still other scholars continue to recognize the value of anonymous online speech and have proposed solutions to the harm caused by anonymous online comments that preserve the ability to communicate anonymously online up to a point—where the illegality of a comment outweighs the benefits it provides. Professor Tal Zarsky, for example, argues that "traceable pseudonymity" strikes the best compromise "between our desire to use the rich personal information landscape now available, our privacy needs, and the ability of governments to track down lawbreakers."⁵⁴ In a system of traceable pseudonymity, intermediaries keep a record of who the person using their service is.⁵⁵ The user of the service

48. *Id.* ("In a set of recent publications, Jonathan Zittrain has posited that the key to the Internet's success is 'generativity' . . .").

49. Jonathan L. Zittrain, *The Generative Internet*, 119 HARV. L. REV. 1974, 1980 (2006).

50. *See generally* THE OFFENSIVE INTERNET, *supra* note 34.

51. Choi, *supra* note 21, at 503.

52. *Id.* at 566.

53. *Id.* at 535–37.

54. Tal Z. Zarsky, *Thinking Outside the Box: Considering Transparency, Anonymity, and Pseudonymity as Overall Solutions to the Problems of Information Privacy in the Internet Society*, 58 U. MIAMI L. REV. 991, 1040 (2004).

55. *Id.* at 1031–32 (explaining the concept of traceable pseudonymity and how it would work in practice).

can correspond pseudonymously with others, but her identity can be obtained from one of the few intermediaries that provide access to online communication if she engages in illegal activity.⁵⁶ The connection between online and offline identities enabled by traceable pseudonymity also provides the benefit of allowing people to conduct business pseudonymously, as the intermediary can store financial information on the user's behalf.⁵⁷ So in a system of traceable pseudonymity, the user remains pseudonymous from the perspective of most other users, but her identity can be disclosed when necessary. Similarly, others have advocated for the adoption of "Identity 2.0" technology,⁵⁸ which would preserve pseudonymity to some degree, but would tie all pseudonyms to an internet user's offline identity through a single portal; her offline identity could be accessed if the user was engaged in illegal activity.⁵⁹

D. THE RELATIONSHIP BETWEEN ANONYMITY AND PSEUDONYMITY

Providing anonymous online speakers with appropriate rights is difficult both because they can almost always be identified (and are therefore not really anonymous) and because many anonymous online speakers use a pseudonym that allows them to develop an online identity that is separate and distinct from their offline identity, sometimes over the course of many years.⁶⁰ The harm caused by unmasking the speaker behind a pseudonym that has been developed over time can be much greater than the harm caused by unmasking an online speaker with an identity that is used once and then discarded.⁶¹ Many courts have conflated anonymity and pseudonymity in the past,⁶² but the difference is best understood by

56. *Id.*

57. *Id.*

58. Jeffrey Aresty, *Digital Identity and the Lawyer's Role in Furthering Trusted Online Communities*, 38 U. TOL. L. REV. 137, 153 (2006) (explaining Identity 2.0, which is essentially an adoption of traceable pseudonymity but with a single login point—meaning that only one intermediary would have all of a particular user's identity information—and where the user retains ultimate control over all of that personal information).

59. *Id.* at 161–62.

60. *See, e.g.*, *Doe v. 2TheMart.com Inc.*, 140 F. Supp. 2d 1088, 1090 (W.D. Wash. 2001) (mentioning that some internet users choose to consistently post online comments using the same pseudonym).

61. *See, e.g.*, Rebecca MacKinnon & Hae-in Lim, *Google Plus Finally Gives Up on Its Ineffective, Dangerous Real-Name Policy*, SLATE (July 14, 2014), http://www.slate.com/blogs/future_tense/2014/07/17/google_plus_finally_ditches_its_ineffective_dangerous_real_name_policy.html (explaining the importance of pseudonyms).

62. *See, e.g.*, *McIntyre v. Ohio Elections Comm'n*, 514 U.S. 334, 342–43 (1995) (noting that "[p]ersecuted groups and sects from time to time throughout history have

considering that, “by serving as storehouses of reputational capital, pseudonymous entities add value to social interaction in a way that anonymous speech does not.”⁶³ The price to the unmasked user who has cultivated a pseudonym is higher than the unmasking cost to a merely ‘anonymous’ user who has not built up social capital through the development of her online identity over time.⁶⁴

In *Digital Music News*, the court held that the anonymous user identified only as Visitor had a privacy interest grounded both in the California Constitution and the right to anonymous speech provided by the First Amendment.⁶⁵ Visitor, who wrote a controversial comment about music streaming service Grooveshark, used the default name that Digital Music News (“DMN”) appears to assign to visitors to its website—not a consciously developed pseudonym. The intentionally developed online pseudonym is more representative of the dignity and identity interests promoted by allowing anonymous online speech.⁶⁶ So the judicial tendency to conflate anonymity and pseudonymity will be helpful if an internet user subject to litigation related to content written under a pseudonym wants to rely on the reasoning in *Digital Music News* in making her case.⁶⁷

Like many courts, the remainder of this Note will seem to conflate anonymity and pseudonymity, referring to online speakers using pseudonyms as “anonymous speakers” or “anonymous internet users.”

been able to criticize oppressive practices and laws either anonymously or not at all,” but using as an example the arguments advanced in favor of the ratification of the Constitution in the Federalist Papers, which were published under pseudonyms such as “An American Citizen.”). *But see Anonymity*, ELECTRONIC FRONTIER FOUND., <https://www EFF.ORG/issues/anonymity> (last visited Sept. 22, 2014) (succinctly summarizing the difference between the two in noting that some “people choose to speak using pseudonyms (assumed names) or anonymously (no name at all).”).

63. David G. Post, *Pooling Intellectual Capital: Thoughts on Anonymity, Pseudonymity, and Limited Liability in Cyberspace*, 1996 U. CHI. LEGAL F. 139, 160 (1996).

64. See Danah Boyd, “Real Names” Policies Are an Abuse of Power, APOPHENIA (Aug. 4, 2011), <http://www.zephoria.org/thoughts/archives/2011/08/04/real-names.html> (explaining the identity value of pseudonyms and listing reasons why people use pseudonyms).

65. See *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 810 (May 14, 2014).

66. See J. Bryan Lowder, *Why Is Facebook Cracking Down on Drag Names?*, SLATE (Sept. 9, 2014), http://www.slate.com/blogs/outward/2014/09/12/facebook_vs_drag_queens_why_is_facebook_cracking_down_on_drag_names.html (including commentary by users of pseudonyms noting that “although our names might not be our ‘legal’ birth names, they are still an integral part of our identities, both personally and to our communities.”).

67. See, e.g., Post, *Pooling Intellectual Capital*, *supra* note 63, at 160.

While technically incorrect, this conflation is often necessary because it reflects the amalgam of the two concepts by the courts. For example, Doe 6 in *Krinsky* is referred to as “the anonymous defendant” though he used the pseudonym “Senor-Pinche-Wey” in all of his contentious online postings.⁶⁸ In some of the internet speech cases discussed below, the speakers used pseudonyms.⁶⁹ Other cases involved “anonymous” speakers because the implicated speaker selected the default name assigned by the website they chose to comment on. But in all of the cases discussed below, the online speakers are not anonymous in the sense that it is impossible to determine who they are; rather, they are anonymous in that it is not immediately apparent who they are in the real world by looking at their online posting alone.⁷⁰

In most cases, third parties like Yahoo! provide the necessary link between the poster’s online and offline identities, because users have to provide personal information before they are allowed to post a comment or sign up for an online service.⁷¹ Regardless of how the posters of online comments are characterized in the remainder of this Note—as anonymous or pseudonymous—it is important to keep the conceptual distinction between the two in mind: “[p]seudonymous speech is valuable in a way that anonymous speech is not and cannot be, because it permits the accumulation of reputational capital and ‘goodwill’ over time in the pseudonym itself, while simultaneously serving as a liability limitation insulating the speaker’s ‘true identity’ from exposure”⁷²

II. JUDICIAL APPROACHES TO ANONYMOUS ONLINE SPEECH

This Section discusses how courts handle cases involving anonymous online speech. It first describes the initial application of First Amendment doctrine to the internet and then discusses the evolution of First Amendment doctrine as it applies to anonymous online speech.

68. *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 235 (Cal. Ct. App. 2008).

69. *See, e.g., id.*

70. Richard Clayton, *Anonymity and Traceability in Cyberspace*, Cambridge University Technical Report Number 653, UCAM-CL-TR-653, at 12 (2005), available at <https://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-653.pdf>.

71. *Krinsky*, 72 Cal. Rptr. 3d at 237–38.

72. Post, *supra* note 63, at 142.

A. THE FIRST AMENDMENT PROTECTS ANONYMOUS ONLINE SPEECH

The First Amendment to the U.S. Constitution provides, in part, that “Congress shall make no law . . . abridging the freedom of speech, or the press,”⁷³ which is a limitation on the power of the federal government, as well as state governments via the Fourteenth Amendment.⁷⁴ Court orders, “even when issued at the request of a private party in a civil lawsuit,” constitute state action and are therefore subject to constitutional limitations.⁷⁵ Political speech is the core content protected by the First Amendment,⁷⁶ but other types of speech—deemed less valuable—are also protected.⁷⁷ However, freedom of speech under the First Amendment “has its limits; it does not embrace certain categories of speech, including defamation, incitement, obscenity, and [some types of] pornography”⁷⁸

First Amendment rights extend to online speech.⁷⁹ The First Amendment protects the right to speak anonymously.⁸⁰ The decision to speak anonymously “may be motivated by fear of economic or official retaliation, by concern about social ostracism, or merely by a desire to preserve as much of one’s privacy as possible.”⁸¹ Regardless of the motivation, courts allow anonymous speech because its value in the marketplace of ideas outweighs “any public interest in requiring disclosure

73. U.S. CONST. amend. I.

74. *Doe v. 2TheMart.com Inc.*, 140 F. Supp. 2d 1088, 1091 (W.D. Wash. 2001) (citing *First Nat’l Bank v. Bellotti*, 435 U.S. 765, 779–80 (1978)).

75. *Id.* at 1091–92.

76. *McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 346–47 (1995).

77. *New York Times Co. v. Sullivan*, 376 U.S. 254, 271 (1964).

78. *Ashcroft v. Free Speech Coal.*, 535 U.S. 234, 245–46 (2002); *see also* KATHLEEN ANN RUANE, CONGRESSIONAL RESEARCH SERVICE, FREEDOM OF SPEECH AND PRESS: EXCEPTIONS TO THE FIRST AMENDMENT 1–5 (2014).

79. *Reno v. ACLU*, 521 U.S. 844, 870 (1997):

Through the use of chat rooms, any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox. Through the use of Web pages, mail exploders, and newsgroups, the same individual can become a pamphleteer. . . . [O]ur cases provide no basis for qualifying the level of First Amendment scrutiny that should be applied to this medium.

Id.

80. *See, e.g., McIntyre*, 514 U.S. at 341–42; *Watchtower Bible & Tract Soc’y v. Vill. of Stratton*, 536 U.S. 150, 166–67 (2002); *Talley v. California*, 362 U.S. 60, 64 (1960).

81. *McIntyre*, 514 U.S. at 341–42 (“[A]n author’s decision to remain anonymous, like other decisions concerning omissions or additions to the content of a publication, is an aspect of the freedom of speech protected by the First Amendment.”).

as a condition of entry.”⁸² In the context of online speech, the First Amendment right to speak anonymously protects both the identity of the speaker when the speaker is pursued as a named “John Doe” defendant⁸³ and preserves the ability of a third party publisher to resist turning over identifying information about the speaker in response to a subpoena stemming from a controversy litigated by two other parties.⁸⁴

B. “JOHN DOE” INTERNET SPEECH CASES

In *Digital Music News*, the plaintiff sought disclosure of the identity of an anonymous internet user who posted a controversial comment. In this type of case—often called a “John Doe” case—one of the key questions is whether parties to a legal proceeding can learn the identity of the poster of an online comment.⁸⁵ Historically, the most influential standard for determining when to unmask an anonymous online speaker has been the five-factor scheme developed by the New Jersey Appellate Division court in *Dendrite International v. Doe*.⁸⁶ The standard is:

1. **Give Notice:** Require reasonable notice to the potential defendants and an opportunity for them to defend their anonymity before issuance of any subpoena;
2. **Require Specificity:** Require the plaintiff to allege with specificity the speech or conduct that has allegedly violated its rights;
3. **Ensure Facial Validity:** Review each claim in the complaint to ensure that it states a cause of action upon which relief may be granted based on each statement and against each defendant;
4. **Require an Evidentiary Showing:** Require the plaintiff to produce evidence supporting each element of its claims; and
5. **Balance the Equities:** Weigh the potential harm (if any) to the plaintiff from being unable to proceed against the harm to the

82. *Id.* (“Whatever the motivation may be . . . the interest in having anonymous works enter the marketplace of ideas unquestionably outweighs any public interest in requiring disclosure as a condition of entry.”).

83. *See, e.g.,* Highfields Capital Mgmt. v. Doe, 385 F. Supp. 2d 969, 971 (N.D. Cal. 2005).

84. *See, e.g.,* Krinsky v. Doe 6, 72 Cal. Rptr. 3d 231, 251–52 (Cal. Ct. App. 2008).

85. *See* Lyrisa Barnett Lidsky, *Anonymity in Cyberspace: What Can We Learn From John Doe?*, 50 B.C. L. REV. 1373, 1378 (2009).

86. *Dendrite Int’l v. Doe*, 775 A.2d 756 (N.J. Super. Ct. App. Div. 2001).

defendant from losing the First Amendment right to anonymity.⁸⁷

The *Dendrite* test was developed in response to earlier cases that allowed plaintiffs pursuing anonymous online defendants to proceed *ex parte*, which allowed plaintiffs to unmask anonymous defendants both without the defendant's knowledge and without making a showing that the anonymous speaker's statements were actually unlawful.⁸⁸ *Ex parte* proceedings raise legitimate due process concerns.⁸⁹ A modified version of the *Dendrite* standard is now used in most cases where the plaintiff alleges defamation or other tortious conduct on the part of a "Doe" defendant.⁹⁰

The modified *Dendrite* standard most courts now use in "John Doe" First Amendment cases is exemplified by the analysis of the Supreme Court of Delaware in *Doe v. Cabill*.⁹¹ In *Cabill*, the court explicitly rejected the final 'balancing' stage of the *Dendrite* test and instead adopted "a modified *Dendrite* standard consisting only of *Dendrite* requirements one and three: the plaintiff must make reasonable efforts to notify the defendant and must satisfy the summary judgment standard."⁹² By 2012, three states were following the *Cabill* standard, while five states were following the *Dendrite* standard.⁹³

The leading *John Doe* case in California is *Krinsky v. Doe 6*, where the court essentially adopted the *Cabill* standard but declined to attach the procedural label of summary judgment to the "showing required of a plaintiff seeking the identity of an anonymous speaker on the Internet" because it was "unnecessary and potentially confusing."⁹⁴ In *Krinsky*, the plaintiff, an executive of a Florida-based drug development company, sued ten anonymous defendants in Florida who posted scathing criticism of her and the company on a Yahoo! Finance message board.⁹⁵ *Krinsky* served a subpoena on Yahoo! to unmask the critical online posters.⁹⁶ In response to the subpoena, Yahoo! notified the posters that their identities would be

87. Paul Alan Levy, *Developments in Dendrite*, 14 FLA. COASTAL L. REV. 1, 10–11 (2012) (citing *Dendrite*, 775 A.2d at 760–61) (emphasis added).

88. See Gleicher, *supra* note 23, at 330 ("If the subpoena becomes *ex parte*, one of the defendant's most important defenses—his own vigorous advocacy—is eliminated.")

89. *Id.*

90. See, e.g., *Doe v. Cahill*, 884 A.2d 451, 462–63 (Del. 2005).

91. *Id.*

92. *Id.* at 461.

93. *Developments in Dendrite*, *supra* note 87, at 12.

94. *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 244 (Cal. Ct. App. 2008).

95. *Id.* at 234–35.

96. *Id.*

disclosed in ten days if they did not file a motion to quash.⁹⁷ Doe 6—also known on the message board as “Senor-Pinche-Wey”—moved to quash, but the superior court denied his motion because it determined he appeared to be engaged in a “pump and dump” scheme to drive down the stock price of the drug development company.⁹⁸ The Court of Appeal for the Sixth District reversed the Superior Court and granted Doe 6’s motion to quash, holding that Doe 6’s right to anonymous online speech outweighed Krinsky’s right to unmask him because she failed to state a claim for defamation and intentional interference with business or contractual relations.⁹⁹ The court noted that, viewed in context, Doe 6’s statements—like “[F]unny and rather sad that the losers who post here are supporting a management consisting of boobs, losers and crooks.”—constituted “crude, satirical hyperbole which, while reflecting the immaturity of the speaker, constitute protected opinion under the First Amendment.”¹⁰⁰

The Ninth Circuit addressed the topic of anonymous online speech in 2011, where it upheld the district court’s use of the *Cabill* standard under the “clear error” standard of review.¹⁰¹ This decision has been criticized for failing to adequately account for different online contexts in determining the presumed accuracy of online speech and failing to provide a definitive standard for lower courts to analyze anonymous online speech cases.¹⁰² However, the fact that the Ninth Circuit declined to reverse the district court’s use of the *Cabill* standard suggests that the *Cabill* standard remains the appropriate framework to analyze online anonymous speech cases in California—essentially the same framework employed by the *Krinsky* court. The Ninth Circuit addressed anonymous online speech more recently in *Doe v. Harris*, but the court’s opinion did not address which standard should be used when determining whether a “John Doe” poster of anonymous online comments should be unmasked.¹⁰³

97. *Id.*

98. *Id.* at 236.

99. *Id.* at 246–52.

100. *Id.* at 248–50.

101. *In re Anonymous Online Speakers*, 661 F.3d 1168, 1177 (9th Cir. 2011).

102. See generally Musetta Durkee, *The Truth Can Catch the Lie: The Flawed Understanding of Online Speech In re Anonymous Online Speakers*, 26 BERKELEY TECH. L.J. 773 (2011).

103. *Doe v. Harris*, 772 F.3d 563, 579–80 (9th Cir. 2014) (characterizing the case as, in part, an anonymous online speech case, but not discussing the standards for unmasking ‘John Doe’ defendants).

Several public interest organizations—including the Public Citizen Litigation Group, the American Civil Liberties Union and the Electronic Frontier Foundation—have spearheaded a campaign to develop more consistent legal standards for unmasking anonymous online speakers that balance the rights of the anonymous internet user against the rights of plaintiffs harmed by anonymous online speech. Paul Alan Levy of the Public Citizen Litigation Group—brought in as counsel *pro hac vice* in *Digital Music News*—has been involved in at least fifty-six cases involving anonymous online speech.¹⁰⁴

Scholars and state legislatures have also weighed in on how best to handle anonymous online speech. Many scholars have proposed standards to balance the First Amendment rights of anonymous and pseudonymous online speakers with the rights of defendants harmed by allegedly tortious online content.¹⁰⁵

In addition, state legislatures have experimented with ways to regulate anonymity online. In 1997, for example, a court struck down a state law criminalizing internet transmissions that falsely identified their sender because it violated the first amendment rights of pseudonymous online

104. See Supplemental Memorandum by Newly Retained Counsel in Opposition to Motion to Compel Subpoena Compliance, *In re Subpoena Issued to Digital Music News, LLC, UMG Recordings, Inc. v. Escape Media Group, Inc.*, No: SS 022 099 (Cal. Super. Ct. May 15, 2012), available at <http://www.citizen.org/documents/Supplemental-Memo-Opportunity-Motion-Compel.pdf>. Paul Alan Levy leads Public Citizen's Internet Free Speech Project and maintains a helpful website on anonymous online speech. See *Internet Free Speech - Right To Speak Anonymously*, PUB. CITIZEN LITIG. GROUP, <http://www.citizen.org/Page.aspx?pid=2702> (last visited Sept. 24, 2014); *Internet Free Speech*, PUB. CITIZEN LITIG. GROUP, <http://www.citizen.org/Page.aspx?pid=396> (last visited Sept. 24, 2014). The Digital Media Law Project at Harvard University's Berkman Center for Internet and Society, which includes a state-by-state guide, is another excellent general resource on legal protections for anonymous online speech. See, e.g., *Legal Protections for Anonymous Speech*, DIGITAL MEDIA LAW PROJECT, <http://www.dmlp.org/legal-guide/legal-protections-anonymous-speech> (last visited Sept. 9, 2014); *Legal Protections for Anonymous Speech in California*, DIGITAL MEDIA LAW PROJECT, <http://www.dmlp.org/legal-guide/legal-protections-anonymous-speech-california> (last visited Sept. 9, 2014).

105. See, e.g., Lyrisa Barnett Lidsky, *Anonymity in Cyberspace: What Can We Learn From John Doe?*, 50 B.C. L. REV. 1373 (2009); Gleicher, *supra* note 23; Michael S. Vogel, *Unmasking "John Doe" Defendants: The Case Against Excessive Hand-Wringing Over Legal Standards*, 83 OR. L. REV. 795 (2004); Susanna Moore, *The Challenge of Internet Anonymity: Protecting John Doe on the Internet*, 26 J. MARSHALL J. COMPUTER & INFO. L. 469 (2009); Jonathan D. Jones, Note, *Cybersmears and John Doe: How Far Should First Amendment Protection of Anonymous Internet Speakers Extend?*, 7 FIRST AMEND. L. REV. 421 (2009); Clay Calvert, et al., *David Doe v. Goliath, Inc.: Judicial Ferment in 2009 for Business Plaintiffs Seeking the Identities of Anonymous Online Speakers*, 43 J. MARSHALL L. REV. 1 (2009).

speakers and was void for being unconstitutionally vague.¹⁰⁶ And in *Doe v. Harris*, the Ninth Circuit struck down a California law that required convicted sex offenders to register any new online account within twenty-four hours of opening it, in part because it violated sex offenders' First Amendment right to anonymous online speech.¹⁰⁷

III. THE RIGHT TO PRIVACY IN THE CALIFORNIA CONSTITUTION

Digital Music News is one of the most recent “John Doe” anonymous online speech cases, but it is especially noteworthy because of the court’s holding that Visitor’s right to anonymous online speech is partially grounded in the privacy clause of the California Constitution. At least eleven states have expressly incorporated a privacy clause into their state constitutions.¹⁰⁸ Indeed, “[t]hese express provisions provide fertile ground for the recognition of expansive privacy rights.”¹⁰⁹ The courts of last resort of other states, including Alabama,¹¹⁰ Texas,¹¹¹ and Tennessee,¹¹² have interpreted their state constitutions to contain an implicit right to privacy. This Section will explain the privacy clause of the California Constitution, including its history, the rights it confers on California citizens, and how it can be used in litigation.

106. *ACLU of Georgia v. Miller*, 977 F. Supp. 1228 (N.D. Ga. 1997).

107. *Doe v. Harris*, 772 F.3d 563, 582 (9th Cir. 2014).

108. See Privacy Protections in State Constitutions, NAT’L CONF. STATE LEGIS., <http://www.ncsl.org/research/telecommunications-and-information-technology/privacy-protections-in-state-Constitutions.aspx> (last visited Sept. 23, 2014). In addition to the states on this list, Missouri also added a privacy clause to its state Constitution in 2014. Missouri’s new privacy clause is explicitly aimed at extending Fourth Amendment protections to electronic communications data. See Becca Stanek, *Missouri Passes Constitutional Amendment to Protect Electronic Privacy*, TIME (Aug. 6th, 2014), <http://time.com/3087608/missouri-electronic-privacy-amendment/>.

109. Jeffrey M. Shaman, *The Right of Privacy in State Constitutional Law*, 37 RUTGERS L. J. 971, 975 (2006).

110. *Jegley v. Picado*, 80 S.W.3d 332, 350 (Ala. 2002) (“[a] fundamental right to privacy is implicit in the Arkansas Constitution.”).

111. *Texas State Emp. Union v. Texas Dept. of Mental Health and Mental Retardation*, 746 S.W.2d 203, 205 (Tex. 1987) (“[a] right of individual privacy is implicit among those ‘general, great, and essential principles of liberty and free government’ established by the Texas Bill of Rights.”).

112. *Davis v. Davis*, 842 S.W.2d 588, 600 (Ten. 1992) (“The right to privacy, or personal autonomy (‘the right to be let alone’), while not mentioned explicitly in our state Constitution, is nevertheless reflected in several sections of the Tennessee Declaration of Rights . . .”).

The right to privacy is explicitly recognized by California's Constitution¹¹³ and is broader than the implied federal right to privacy.¹¹⁴ Proposition 11 added the "privacy clause" to the California Constitution in 1972, as a constitutional amendment presented to California voters.¹¹⁵ It has been construed to provide each California citizen with a self-executing, enforceable right to privacy.¹¹⁶ Further, the privacy clause creates a cause of action against private entities; it is not limited by the state action doctrine.¹¹⁷ However, the right to privacy recognized by the California Constitution is no broader than federal Fourth Amendment privacy rights in the area of search and seizure.¹¹⁸ In applying the privacy clause to new factual contexts, courts must interpret it "in a manner consistent with the probable intent of the body enacting it: the voters of the State of California," by referring to the ballot arguments offered to California voters when the amendment was passed.¹¹⁹

The ballot arguments that accompanied Proposition 11 are therefore essential to understanding the scope and nature of the privacy right conferred by the privacy clause, especially considering the relative lack of other legislative materials to shed light on its meaning.¹²⁰ The argument

113. CAL. CONST. Art. 1, § 1 (West 2014) ("All people are by nature free and independent and have inalienable rights. Among these are enjoying and defending life and liberty, acquiring, possessing, and protecting property, and pursuing and obtaining safety, happiness, and privacy.").

114. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014) (citing *Am. Acad. of Pediatrics v. Lungren*, 66 Cal. Rptr. 2d 210, 221 (Cal. Ct. App. 1997)).

115. Right of Privacy, Proposition 11 (Cal. 1972), *available at* http://repository.uchastings.edu/ca_ballot_props/762; *see also* JOSEPH R. GRODIN, CALVIN R. MASSEY, & RICHARD B. CUNNINGHAM, *THE CALIFORNIA STATE CONSTITUTION: A REFERENCE GUIDE* 23–25, 39 (1993).

116. *White v. Davis*, 120 Cal. Rptr. 94, 106 (Cal. 1975).

117. *In re iPhone Application Litig.*, 844 F. Supp. 2d 1040, 1063 (N.D. Cal. 2012).

118. *Lewis v. Sup. Court*, 172 Cal. Rptr. 3d 491, 500 (Cal. Ct. App. 2014).

119. *Hill v. Nat'l Collegiate Athletic Ass'n*, 26 Cal. Rptr. 2d 834, 843 (Cal. Ct. App. 1994):

When, as here, the language of an initiative measure does not point to a definitive resolution of a question of interpretation, it is appropriate to consider indicia of the voters' intent other than the language of the provision itself. Such indicia include the analysis and arguments contained in the official ballot pamphlet.

Id. (citations and quotations omitted).

120. J. Clark Kelso, *California's Constitutional Right to Privacy*, 19 PEPP. L. REV. 327, 351, 358, 417 (1992). Much of Professor Kelso's argument in his Article actually relies upon other documents that he located through his own research and which help to shed light on the legislative intent behind Proposition 11. The thrust of Professor Kelso's argument in his Article is that the privacy clause should not create a cause of action

that supported a “yes” vote on Proposition 11 characterized the constitutional amendment as necessary in the face of increasing electronic data collection and as a solution to the lack of “effective restraints on the information [gathering] activities of governments and business.”¹²¹ The main arguments for a “no” vote on Proposition 11 were: (1) a state constitutional right to privacy will encourage welfare fraud and tax evasion by making it easier for citizens to decline to disclose income information, and (2) adding the word privacy to the constitution is surplusage that works against efforts to make the California Constitution shorter.¹²² The California Supreme Court has noted that the privacy clause implicitly incorporates common-law privacy jurisprudence because the ballot argument that accompanied Proposition 11 characterized the right offered to voters as “the right to be left alone.”¹²³

The arguments offered in support of adding the privacy clause to the California Constitution are also imbued with overtones that speak to the dignity aspect of our identities. The ballot argument in favor of Proposition 11 states, in part, “The right of privacy is the right to be left alone It protects our homes, our families, our thoughts, our emotions, our expressions, our personalities, our freedom of communion, and our freedom to associate with the people we choose.”¹²⁴ And in defining the common law privacy right incorporated into the privacy clause, the California Supreme Court has discussed the psychological foundations of privacy rights, which

emanat[e] from personal needs to establish and maintain identity and self-esteem by controlling self-disclosure. . . . In a society in

against purely private entities. However, the California Supreme Court disagreed with Professor Kelso three years after the publication of his Article by using only the ballot arguments to determine the legislative intent behind Proposition 11 and ultimately determining that the privacy clause did create a cause of action against private entities. *See Hill*, 26 Cal. Rptr. 2d at 843.

121. *Argument in Favor of Proposition 11*, Right of Privacy, Proposition 11 (Cal. 1972), available at http://repository.uchastings.edu/cgi/viewcontent.cgi?Note=1761&context=ca_ballot_props.

122. *Argument Against Proposition 11*, Right of Privacy, Proposition 11 (Cal. 1972), available at http://repository.uchastings.edu/cgi/viewcontent.cgi?Note=1761&context=ca_ballot_props.

123. *Hill*, 26 Cal. Rptr. 2d at 848. The reference is, of course, to the famous law review article *The Right to Privacy* (Warren & Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 198, 205 (1890)). The court in *Hill* then notes that the ideas expressed in Warren & Brandeis’ law review article were eventually incorporated into the law through Brandeis’ dissent in *Olmstead v. United States* 277 U.S. 438, 478 (1928) and Prosser’s Restatement, Second of Torts.

124. *Argument in Favor of Proposition 11*, *supra* note 121.

which multiple, often conflicting role performances are demanded of each individual, the original etymological meaning of the word ‘person’—mask—has taken on new meaning. . . . Loss of control over which ‘face’ one puts on may result in literal loss of self-identity, and is humiliating beneath the gaze of those whose curiosity treats a human being as an object.¹²⁵

Finally, the ballot argument in support of Proposition 11 stated, “Fundamental to our privacy is the ability to control circulation of personal information. This is essential to social relationships and personal freedom.”¹²⁶

The California Supreme Court established the necessary elements of a cause of action against a private entity under the privacy clause in *Hill v. Nat’l Collegiate Athletic Ass’n*.¹²⁷ In *Hill*, Stanford University athletes brought an unsuccessful challenge against the NCAA’s mandatory drug-testing policy under the privacy clause.¹²⁸ While the athletes lost, the *Hill* court established the framework that California courts continue to use in privacy clause cases.¹²⁹ To state a claim for a violation of the California constitutional right to privacy, a plaintiff must “establish each of the following: (1) a legally protected privacy interest; (2) a reasonable expectation of privacy in the circumstances; and (3) conduct by defendant constituting a serious invasion of privacy.”¹³⁰ The privacy clause protects informational¹³¹ and autonomy privacy,¹³² but informational privacy is the

125. *Hill*, 26 Cal. Rptr. 2d at 849 (quoting *Briscoe v. Reader's Digest Ass’n*, 93 Cal. Rptr. 866, 869 (Cal. 1971)) (citations and quotations omitted).

126. Argument in Favor of Proposition 11, *supra* note 121.

127. 26 Cal. Rptr. 2d at 859.

128. *Id.* at 838.

129. *Id.* For examples of courts applying this framework, see also *420 Caregivers, LLC v. City of L.A.*, 163 Cal. Rptr. 3d 17, 40–41 (Cal. Ct. App. 2012); *Medical Bd. of Cal. v. Chiarottino*, 170 Cal. Rptr. 3d 540, 546 (Cal. Ct. App. 2014); *In re Yahoo Mail Litig.*, 7 F. Supp. 3d 1016 (N.D. Cal. 2012).

130. *Hill*, 26 Cal. Rptr. 2d at 859.

131. *Id.* at 856:

Informational privacy is the core value furthered by the Privacy Initiative. A particular class of information is private when well-established social norms recognize the need to maximize individual control over its dissemination and use to prevent unjustified embarrassment or indignity. Such norms create a threshold reasonable expectation of privacy in the data at issue. As the ballot argument observes, the California Constitutional right of privacy prevents government and business interests from [1] collecting and stockpiling unnecessary information about us and from [2] misusing information gathered for one purpose in order to serve other purposes or to embarrass us.

“core value” furthered by the privacy clause.¹³³ Whether a legally protected privacy interest exists in a given case is a question of law, whereas whether a reasonable expectation of privacy existed and whether the defendant’s conduct constituted a serious invasion of privacy are mixed questions of law and fact.¹³⁴ However, courts that have assessed more recent claims under the privacy clause have noted that it presents a “high bar” for plaintiffs to clear:¹³⁵ even disclosure of sensitive personal information has been found not to breach the California constitutional right to privacy.¹³⁶

IV. *DIGITAL MUSIC NEWS V. SUPERIOR COURT*

A. FACTS OF THE CASE

Escape Media Group owns Grooveshark, which is an online service that allows its users to upload, share, download, and stream music files.¹³⁷ UMG Recordings, Inc. (“UMG”) is a record label that owns a large music catalogue, including the work of many well-known recording artists.¹³⁸ UMG sued Escape in New York state court for state common law copyright infringement and unfair competition, alleging that Escape encouraged Grooveshark users and employees to upload copyright-infringing music files.¹³⁹

Digital Music News, LLC (“DMN”) is a California-based company that operates a website dedicated to reporting on the music industry. DMN ran a story consisting primarily of an exchange between a member of the British band King Crimson and Grooveshark.¹⁴⁰ The exchange

Id. (citations and quotations omitted).

132. *Id.* (“Autonomy privacy is also a concern of the Privacy Initiative. The ballot arguments refer to the federal Constitutional tradition of safeguarding certain intimate and personal decisions from government interference in the form of penal and regulatory laws.”)

133. *Id.*

134. *Id.* at 865.

135. *In re* Yahoo Mail Litig., 7 F. Supp. 3d 1016 (N.D. Cal. 2012).

136. *Id.* (citing *Belluomini v. Citigroup, Inc.*, No. CV 13–01743 CRB, 2013 WL 3855589, at *6 (N.D. Cal. July 24, 2013); *In re* iPhone Application Litig., 844 F. Supp. 2d 1040, 1063 (N.D. Cal. 2012)).

137. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 801–02 (May 14, 2014).

138. *Id.*

139. *UMG Recordings, Inc. v. Escape Media Group, Inc.*, 964 N.Y.S. 2d 106 (N.Y. App. Div. 2013).

140. Rochell Abonalla, *King Crimson Can’t Get Their Music Off of Grooveshark. So They cc’d Digital Music News . . .*, *DIGITAL MUSIC NEWS* (Oct. 13, 2011), <http://www.digitalmusicnews.com/permalink/2011/10/13/cc>.

reflected the musician's attempts to ensure that his copyrighted music would no longer appear on Grooveshark without his permission.¹⁴¹ An anonymous commenter ("Visitor") posted two comments on the website, stating (a) he was an employee of Grooveshark; (b) he was required by Grooveshark executives to upload copyright-infringing content; and (c) there was no way for King Crimson to remove its music from the online platform.¹⁴² Visitor is the handle DMN appears to assign by default to all users who do not wish to provide their name when commenting.¹⁴³

Visitor's comments contradicted positions that Escape took in its New York dispute with UMG.¹⁴⁴ Escape claimed that it exclusively hosted third-party content and removed content when it received copyright complaints. Considering that Visitor's claims would harm Escape's case if they could be verified and introduced as evidence, Escape sought to unmask the identity of "Visitor" by subpoenaing DMN. DMN refused to comply with the subpoena, so Escape petitioned the Los Angeles County Superior Court to enforce the subpoena under the Interstate and International Depositions and Discovery Act.¹⁴⁵

B. PROCEDURAL HISTORY

The trial court held there was (a) a possibility that fragmented data remained on DMN's servers that could be used to identify Visitor; and (b) Escape made a successful *prima facie* case that Visitor's comments were libelous and therefore unprotected by the First Amendment.¹⁴⁶ The trial court ordered DMN to comply with the subpoena.¹⁴⁷ The court issued a supplemental order outlining the compliance process, which required Escape to purchase a backup server where DMN would upload a virtual machine image of its server. A court-appointed third party forensic examiner was then to examine the virtual machine image and determine if

141. *Id.*

142. *See id.*; *see also* Peter Menell, Commentary, *Jumping the Grooveshark: A Case Study in DMCA Safe Harbor Abuse* at 2 (Dec. 21, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1975579 (reprinting and discussing the comment left by "Visitor" that received the most attention).

143. *See generally* Abonalla, *supra* note 140.

144. UMG Recordings, Inc., 964 N.Y.S. 2d at 107.

145. CAL. CIV. PROC. CODE § 2029.300 (West 2014); *see also* Digital Music News v. Super. Ct. of L.A. Cnty., 171 Cal. Rptr. 3d 799, 804 (May 14, 2014).

146. *Digital Music News*, 171 Cal. Rptr. 3d at 809.

147. *Id.*

Visitor could be identified, but only make Visitor's identifying information available to Escape if the court directed the examiner to do so.¹⁴⁸

DMN appealed both the order requiring compliance with the subpoena and the order that laid out the procedure to be followed. The California Court of Appeal for the Second District requested supplemental briefing on two questions: whether disclosure of Visitor's identity was reasonably calculated to lead to admissible evidence under applicable California discovery laws and whether Escape's need for discovery was outweighed by Visitor's privacy interests under the California Constitution.¹⁴⁹

C. THE CALIFORNIA COURT OF APPEALS' ANALYSIS

The California Court of Appeals reversed the trial court's order, refusing to provide Escape with Visitor's identity.¹⁵⁰ The court's decision was based on two, alternative holdings: (1) California discovery law prohibits disclosure of Visitor's identity because it "is not reasonably calculated to lead to the discovery of admissible evidence in the underlying lawsuit between UMG and Escape,"¹⁵¹ and (2) Visitor's privacy rights—grounded both in the First Amendment and California's constitutional right to privacy—outweighed Escape's need for disclosure of Visitor's identity.¹⁵²

1. *California Discovery Law Prohibits Disclosure of Visitor's Identity*

Escape subpoenaed DMN under the Interstate and International Depositions and Discovery Act to obtain Visitor's identity.¹⁵³ DMN refused to comply with the subpoena from the New York court; Escape countered by attempting to compel compliance with the subpoena in

148. *Id.* The backup server provided by Escape was to be wiped of all data upon the conclusion of the court proceeding.

149. Order Requesting Supplemental Letter Briefs, *In re Matter of Subpoena in UMG Recordings*, No. B242700 (Los Angeles Superior Court No. SS022099) (Cal. Ct. App. Jan. 31, 2014), available at <http://www.citizen.org/documents/OrderRequestingSupplementalLetterbriefs.pdf>.

150. *Digital Music News*, 171 Cal. Rptr. 3d at 810. The court reversed the trial court's discovery order even though it was reviewing trial court's order under the "deferential abuse-of-discretion standard." *Id.* at 805. The Court of Appeals treated Digital Music News's appeal from the trial court's order as an extraordinary writ because the extraordinary writ is the judicial review mechanism provided by § 2029.600 of the California Code of Civil Procedure (which incorporates the Interstate and International Depositions and Discovery Act into California law).

151. *Id.* at 809.

152. *Id.*

153. *Id.* at 804; CAL. CIV. PROC. CODE § 2029.900 (West 2014).

California court.¹⁵⁴ The discovery dispute was governed by California civil discovery rules, which permit discovery when the material sought by the party is relevant to the subject matter of the action and “either is itself admissible in evidence or appears reasonably calculated to lead to the discovery of admissible evidence.”¹⁵⁵ A California appellate court may reverse a trial court’s grant of discovery if it concludes there is not a “reasonable possibility” that the information sought will lead to admissible evidence that is relevant to the underlying dispute, meaning it has “tendency in reason to prove or disprove any disputed fact that is of consequence to the determination of the action.”¹⁵⁶

Considering that the scope of civil discovery is “broad,” but not “limitless,”¹⁵⁷ the appellate court reversed the trial court’s order requiring compliance with Escape’s subpoena request because Visitor’s identity was neither relevant to the underlying dispute between UMG and Escape, nor was it “reasonably calculated to lead to the discovery of admissible evidence.”¹⁵⁸ Visitor’s identity was held irrelevant to the underlying dispute between Escape and UMG because UMG’s claims centered on the allegedly copyright infringing conduct of Groovespark’s users, not its employees.¹⁵⁹

The court also rejected Escape’s supplemental arguments that Visitor’s identity was relevant to its case against UMG. Escape alleged that UMG authored Visitor’s comments in support of Escape’s interference with business relations counterclaim against UMG.¹⁶⁰ Escape also argued that Visitor’s identity was relevant to separate litigation in federal court involving the same parties, where UMG cited Visitor’s comment as part of its allegation that Groovespark employees were required to upload copyright-infringing content.¹⁶¹ The court rejected both of these arguments: Escape’s interference with business relations counterclaim did not mention Visitor’s comment and Visitor’s identity was irrelevant to the federal suit because “an anonymous comment on the Internet is nugatory

154. *Digital Music News*, 71 Cal. Rptr. 3d at 804.

155. *Id.* at 805.

156. *Id.* (quoting *Forthmann v. Boyer*, 118 Cal. Rptr. 2d 715, 723 (Cal. Ct. App. 2002); CAL. EVID. CODE § 350; CAL. EVID. CODE § 210).

157. *Id.* (quoting *Calcor Space Facility, Inc. v. Super. Ct.*, 61 Cal. Rptr. 2d 567, 572 (Cal. Ct. App. 1997)).

158. *Id.* at 807.

159. *Id.* at 807–08.

160. *Id.*

161. *Id.*

both as a matter of pleading and of proof.”¹⁶² The court thus held that Visitor’s identity was not reasonably calculated to lead to the discovery of admissible evidence—sufficient grounds to reverse the trial court’s order.¹⁶³

2. *Visitor’s Privacy Interests Outweigh Escape’s Need for Discovery*

The court in *Digital Music News* began its analysis of Visitor’s privacy rights with the observation: “The right to speak anonymously draws its strength from two separate constitutional wellsprings: the First Amendment’s freedom of speech and the right of privacy in Article I, Section I of the California Constitution.”¹⁶⁴ But the court also noted that the California constitution alone provides California internet users the right to anonymous online speech.¹⁶⁵ In California, the privacy rights of online speakers must be weighed heavily against any pressure to reveal that user’s identity when a third party attempts to unmask her with a subpoena.¹⁶⁶ The court ultimately determined that Visitor’s right to privacy outweighed Escape’s “practically nonexistent” need for discovery.¹⁶⁷

The court in *Digital Music News* highlighted the identity and autonomy enhancing aspects of online anonymity in discussing the reasons for constitutional protection of anonymous online speech. Visitor has a right to speak anonymously because she needs “a venue from which to be heard without fear of interference or suppression” and Visitor’s anonymity freed her from “fear of retaliation.”¹⁶⁸ Additionally, “the online forum

162. *Id.* at 808–09.

163. *Id.* at 809.

164. *Id.* (citing *Rancho Publ’ns v. Super. Ct.*, 81 Cal. Rptr. 2d 274, 275 (Cal. Ct. App. 1999)).

165. *Id.*

The California privacy right protects the speech and privacy rights of individuals who wish to promulgate their information and ideas in a public forum while keeping their identities secret, and limits what courts can compel through civil discovery. Both California courts and federal courts have recognized the value in extending the protections afforded anonymous speech to speech made via the Internet.

Id. (citations and quotations omitted). Again, the express right to privacy in the California Constitution is broader than the implied federal right to privacy in this area. *Am. Acad. of Pediatrics v. Lungren*, 66 Cal. Rptr. 2d 210, 221–22 (Cal. Ct. App. 1997).

166. *Digital Music News*, 171 Cal. Rptr. 3d at 809–10 (“The party seeking discovery must demonstrate a compelling need for discovery, and that compelling need must be so strong as to outweigh the privacy right when these two competing interests are carefully balanced.”) (citing *Lantz v. Super. Ct.*, 34 Cal. Rptr. 2d 358, 366–67 (Cal. Ct. App. 1994)).

167. *Id.* at 810.

168. *Id.*

allows individuals of any economic, political, or social status to be heard without suppression or other intervention by the media or more powerful figures in the field.”¹⁶⁹ Finally, “[t]he ability to speak one’s mind on the Internet without the burden of the other party knowing all the facts about one’s identity can foster open communication and robust debate.”¹⁷⁰

To balance Visitor’s privacy rights against Escape’s interest in Visitor’s identity, the *Digital Music News* court did not apply a First Amendment balancing test—like the *Cabill* standard—or the *Hill* standard for establishing an invasion of the California constitutional right to privacy by a private entity.¹⁷¹ Instead, the court applied the standard for balancing privacy rights under the California Constitution against a private party’s need for that information in the civil discovery context developed in *Lantz v. Superior Court* and *Planned Parenthood Golden Gate v. Superior Court*.¹⁷² The *Lantz* standard requires the party who seeks discovery—if the discovery request implicates the California constitutional right to privacy—to go beyond normal discovery requirements¹⁷³ and show “a compelling need for discovery” that is “so strong as to outweigh the privacy right when these two competing interests are carefully balanced.”¹⁷⁴ A litigant establishes “compelling need” by “establishing the discovery sought is directly relevant and essential to the fair resolution of the underlying lawsuit.”¹⁷⁵

The court held that Visitor’s privacy interest outweighed Escape’s weak interest in Visitor’s identity because Visitor’s identity was not essential to a fair resolution of the UMG lawsuit.¹⁷⁶ Visitor’s privacy interest was strong because Visitor needs a “venue from which to be heard without fear of interference or suppression” and “[v]isitor’s anonymity also

169. *Id.* (citing *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 237 (Cal. Ct. App. 2008)).

170. *Id.* (citing *Doe v. 2TheMart.com Inc.*, 140 F. Supp. 2d 1088, 1092 (W.D. Wash. 2001)).

171. See discussion of *Cabill* standard, *supra* Part II.B and see discussion of the *Hill* standard, *supra* Part III.

172. *Digital Music News*, 171 Cal. Rptr. 3d at 809–10.

173. Normally, a party to civil litigation in California may obtain discovery on any matter that is “relevant to the subject matter involved in the pending action or to the determination of any motion made in that action, if the matter either is itself admissible in evidence or appears reasonably calculated to lead to the discovery of admissible evidence.” CAL. CIV. PROC. CODE § 2017.010 (West 2014).

174. *Digital Music News*, 171 Cal. Rptr. 3d at 809 (citing *Lantz v. Superior Court*, 34 Cal. Rptr. 2d 358, 366–67 (Cal. Ct. App. 1994); *Planned Parenthood Golden Gate v. Super. Ct.*, 99 Cal. Rptr. 2d 627, 636 (Cal. Ct. App. 2000)).

175. *Id.* at 810 (citing *Planned Parenthood Golden Gate*, 99 Cal. Rptr. 2d at 367).

176. *Id.* at 810.

frees him or her from fear of retaliation, an even more compelling interest if Visitor truly is an Escape employee, as represented, because exposure could endanger not only his or her privacy but also livelihood.”¹⁷⁷ Visitor’s privacy interest thus outweighed Escape’s “practically nonexistent” need for discovery.¹⁷⁸ The court concluded:

Visitor has done nothing more than provide commentary about an ongoing public dispute in a forum that could hardly be more obscure—the busy online comments section of a digital trade newspaper. Such commentary has become ubiquitous on the Internet and is widely perceived to carry no indicium of reliability and little weight. We will not lightly lend the subpoena power of the courts to prove, in essence, that Someone Is Wrong On The Internet.¹⁷⁹

V. FUTURE EXPANSION AND APPLICATION OF THE RIGHT TO ANONYMOUS ONLINE SPEECH RECOGNIZED IN *DIGITAL MUSIC NEWS V. SUPERIOR COURT*

There is a semantic and substantive difference between identity in the simple sense of determining who posted a comment online and the more robust version of identity through which we define who we are, but these concepts are closely related.¹⁸⁰ This Note has discussed some of the many

177. *Id.*

178. *Id.* The court explained:

If Visitor is not an Escape employee, his or her opinion about Grooveshark not only lacks foundation but would be undermined by Visitor’s misrepresentation concerning employment, and would therefore be of little or no probative value in this or any litigation. And as discussed above, Visitor’s comments, even if made by an employee, are only tangentially related to UMG’s lawsuit, as Visitor makes allegations UMG does not make and undermines a defense Escape is now barred from raising.

Id.

179. *Id.* Here, Judge Chaney is referring to a well-known online comic strip called xkcd. In the particular iteration of xkcd that the Judge refers to, a character typing away on its computer refuses to come to bed because “Someone is wrong on the Internet.” See Randall Munroe, *Duty Calls*, XKCD, <http://xkcd.com/386/>.

180. Lee Tien, *Who’s Afraid of Anonymous Speech? McIntyre and the Internet*, 75 OR. L. REV. 117, 122 (1996) (“The link between identity and interaction is not limited to communication, or even personal privacy; it bears on how we define ourselves and how

cases that have weighed the right of an anonymous online speaker not to have her identity disclosed against the rights of someone allegedly harmed by her speech.¹⁸¹ In many cases when courts determine that an online commenter's identity should not be disclosed—a decision to protect the poster's identity in the simple sense—courts justify their decisions by explaining the identity interests of the online commenter in the robust sense.¹⁸² The identity right ultimately protected when a court decides not to unmask an online speaker is really a type of dignity or autonomy right. It is the right to define who we are, which allows us to work towards self-actualization.¹⁸³ The robust identity right consistently protected by the courts should not be confined to a single persona, but also provide an affirmative right to maintain multiple online pseudonyms, because the process of defining who we are includes trying out different roles.¹⁸⁴

The court's opinion in *Digital Music News v. Superior Court* is notable because it explicitly makes the connection between the First Amendment and the right to privacy in its more robust form,¹⁸⁵ as guaranteed by the

we are defined by others. This aspect of anonymity is especially significant in the online milieu, because compelling identity revelation, while neutral on its face, forces online activity into pre-existing identity-conscious social practices.”) (citations omitted).

181. *See, e.g.,* *Dendrite Int'l v. Doe*, 775 A.2d 756, 760 (N.J. Super. Ct. App. Div. 2001) (“The trial court must consider and decide those applications by striking a balance between the well-established First Amendment right to speak anonymously, and the right of the plaintiff to protect its proprietary interests and reputation through the assertion of recognizable claims based on the actionable conduct of the anonymous, fictitiously-named defendants.”).

182. *Krinsky v. Doe*, 72 Cal. Rptr. 3d 231, 237 (Cal. Ct. App. 2008) (“The use of a pseudonymous screen name offers a safe outlet for the user to experiment with novel ideas, express unorthodox political views, or criticize corporate or individual behavior without fear of intimidation or reprisal. In addition, by concealing speakers' identities, the online forum allows individuals of any economic, political, or social status to be heard without suppression or other intervention by the media or more powerful figures in the field.”).

183. *See* Tien, *supra* note 180, at 133 (providing the example of an artist working in a new medium as somebody who would not want her name associated with her work); *see also* Lawrence Lessig, *Code: Version 2.0* 89–90 (2006), *available at* <http://www.codev2.cc/download+remix/Lessig-Codev2.pdf> (describing the power that the pseudonym ‘StrayCat’ gives to its owner to develop her identity in multifaceted and conflicting ways that she could not offline).

184. *See* Tien, *supra* note 180, at 164–65 (explaining how people have multiple selves that contribute to their identity as a singular being).

185. *See* *Am. Acad. of Pediatrics v. Lungren*, 66 Cal. Rptr. 2d 210, 221–22 (Cal. Ct. App. 1997) (explaining that right to privacy under the California Constitution is broader than the implied federal right to privacy).

California Constitution.¹⁸⁶ In so doing, the court implicitly dismisses the overly simplistic argument that the First Amendment and the right to privacy work at cross-purposes in all circumstances.¹⁸⁷ While the problems caused by anonymous online speech are undeniably significant, the approach taken in *Digital Music News* is an increasingly rare example of the counterargument to the contention that the internet user's ability to communicate anonymously should be limited to solve these problems: that some degree of online anonymity should be preserved because anonymous speech furthers constitutionally provided liberty interests.¹⁸⁸ Thus, *Digital Music News* is not only important because it provides California internet users a clear understanding of the source of their right to post anonymous online comments, but also because it persuasively combines First Amendment and privacy rights, recognizing a right to develop one's own identity.¹⁸⁹

A. A HYPOTHETICAL LEGAL CHALLENGE TO FACEBOOK'S REAL NAMES POLICY

The recent controversy surrounding Facebook's "Real Names" policy— involving the mass disabling of the Facebook accounts of drag queens—is a helpful example to explore some of the issues implicated by anonymous and pseudonymous online speech. Historically, Facebook only allowed new users to sign up for its service on the condition that they use their legal names, meaning names that could be supported with various forms of identification.¹⁹⁰ Facebook, however, tended to under-enforce its own policy.¹⁹¹ Many drag queens created Facebook pages using their stage

186. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014).

187. See Neil M. Richards, *Intellectual Privacy*, 87 TEX. L. REV. 387, 402 n.94 (2008).

188. These problems, which are very serious and certainly must be dealt with, include cyberbullying and trolling. See Parts I.B and I.C (discussing these problems and proposed solutions that focus on reducing internet users' ability to communicate anonymously, or at least operating under a perception of anonymity).

189. See *Hill v. Nat'l Collegiate Athletic Ass'n*, 26 Cal. Rptr. 2d 834, 849 (quoting *Briscoe v. Reader's Digest Ass'n, Inc.*, 93 Cal. Rptr. 866, 869 (Cal. 1971)) ("Privacy rights also have psychological foundations emanating from personal needs to establish and maintain identity and self-esteem by controlling self-disclosure . . .") (citations and quotations omitted).

190. See Lowder, *supra* note 66 (explaining Facebook's "real name policy," which stipulates that "people use their real identities" and "provide their real names, so you always know who you're connecting with." The rule is designed to "keep the community safe.").

191. *Id.* ("[M]any queens note that they've used their drag names in their profiles without incident for years.").

names, such as “Sister Roma” and “Lil Miss Hot Mess.” They used their Facebook pages undisturbed for years. In the fall of 2014, Facebook mass-disabled the accounts of many drag queens, prompted, apparently, by flags from a Facebook user who reported the queens’ technical noncompliance with Facebook’s real names policy.

Drag queens’ names encapsulate the dignity interest in pseudonymous identities that should be protected by a combination of the First Amendment and the right to privacy: the names are used for an expressive purpose,¹⁹² contribute to the development of the identity of their owner, and may physically protect their owners. After discovering that their accounts had been disabled, Sister Roma and Lil Miss Hot Mess led an online campaign on other platforms to raise awareness of their plight.¹⁹³ Many commentators weighed in on the harm caused by not allowing pseudonyms on Facebook,¹⁹⁴ some drawing parallels to the successful campaign waged against Google that led to the permissible use of pseudonyms on the Google+ social network¹⁹⁵—known as the “Nymwars.”¹⁹⁶ Some users left Facebook to join a new social networking service called Ello in protest because it allowed anonymous and

192. *See, e.g.*, *Hurley v. Irish-American Gay, Lesbian & Bisexual Group*, 115 S. Ct. 2338, 2347 (1995) (reversing the decision of a group who administered a parade, which denied the Irish-American Gay, Lesbian & Bisexual Group’s application to have a float in the parade because the denial violated the First Amendment’s protection for expressive conduct).

193. *See* Lowder, *supra* note 66:

Sister Roma started a Twitter hashtag, #MyNameIsRoma, as a way of illustrating that for many queens, their drag name is more ‘real’ than the words on their birth certificate. A coalition of performers has started a Change.org petition to challenge the policy, writing that “although our names might not be our ‘legal’ birth names, they are still an integral part of our identities, both personally and to our communities.”

Id.; *see also* Safronova, *supra* note 26.

194. *See, e.g.*, Jillian C. York, *Facebook’s ‘Real Names’ Policy is Legal, But It’s Also Problematic for Free Speech*, *GUARDIAN* (Sept. 29, 2014), <http://www.theguardian.com/commentisfree/2014/sep/29/facebooks-real-names-policy-is-legal-but-its-also-problematic-for-free-speech>.

195. *See* Eva Galperin & Jillian C. York, *Victory! Google Surrenders in the Nymwars*, *ELECTRONIC FRONTIER FOUND.* (Oct. 19, 2011), <https://www.eff.org/deeplinks/2011/10/victory-google-surrenders-nymwars>.

196. “Nymwars” was the phrase coined to explain the fight to force Google to allow Google+ users to sign up using pseudonyms. The same phrase has been used in the context of the dispute between the drag queens and Facebook. *See* Eva Galperin, *2011 in Review: Nymwars*, *ELECTRONIC FRONTIER FOUND.* (Dec. 26, 2011), <https://www.eff.org/deeplinks/2011/12/2011-review-nymwars>.

pseudonymous use, did not sell advertising, and purported to put users' privacy first.¹⁹⁷ A contingent of drag queens secured a meeting with Facebook aided by David Campos, a member of the San Francisco Board of Supervisors.¹⁹⁸

On Wednesday, October 1st, 2014, Facebook announced a change in its policy¹⁹⁹ allowing drag queens to use Facebook with their stage names.²⁰⁰ "Although our names might not be our 'legal' birth names, they are still an integral part of our identities, both personally and to our communities." Days later, news surfaced that Facebook was developing a new app explicitly focused on anonymous communication.²⁰¹ In short, Facebook appears to have voluntarily reversed its position on pseudonymous and anonymous online communication.

If Facebook had not reversed its real names policy itself, perhaps Lil Miss Hot Mess could have compelled Facebook to reverse its policy in California state court, building her legal argument by combining the reasoning found in *Digital Music News* with the framework for establishing a cause of action against a private entity under the privacy clause of the California Constitution from *Hill v. NCAA*.²⁰² Lil Miss Hot Mess's legal arguments in a hypothetical action against Facebook would be further buttressed by the language courts have used in the anonymous and online speech cases discussed throughout this Note, which provide strong support for the protection of identity interests by allowing anonymous online communication.

To state a claim for a violation of the California constitutional right to privacy under *Hill v. NCAA*, a plaintiff must establish "(1) a legally protected privacy interest; (2) a reasonable expectation of privacy in the circumstances; and (3) conduct by defendant constituting a serious

197. See Nidhi Subbaraman, *Online Identity Matters: Facebook, Ello, and the Right to Pseudonyms*, BETABOSTON (Oct. 1, 2014), <http://betaboston.com/news/2014/09/30/online-identity-matters-facebook-ello-and-the-right-to-pseudonyms/>.

198. See Safronova, *supra* note 26.

199. See Christopher Cox, Post of Oct. 1, 2014 at 11:49am, FACEBOOK (Oct. 1, 2014), <https://www.facebook.com/chris.cox/posts/10101301777354543>.

200. See Amanda Holpuch, *Victory for Drag Queens as Facebook Apologises for 'Real-Name' Policy*, GUARDIAN (Oct. 1, 2014), <http://www.theguardian.com/technology/2014/oct/01/victory-drag-queens-facebook-apologises-real-name-policy>.

201. See Mike Isaac, *Facebook Developing App That Allows Anonymity*, N.Y. TIMES (Oct. 7, 2014), http://bits.blogs.nytimes.com/2014/10/07/facebook-readies-app-allowing-anonymity/?_php=true&_type=blogs&_r=0.

202. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014); *Hill v. Nat'l Collegiate Athletic Ass'n*, 26 Cal. Rptr. 2d 834, 845.

invasion of privacy.”²⁰³ In this hypothetical challenge to Facebook’s real names policy, drag queens would argue that they have a legally protected privacy interest in using their stage names on Facebook. Like in *Digital Music News*, where the court held that Visitor’s privacy interest was strong because Visitor needs a “venue from which to be heard without fear of interference or suppression,” drag queens have a strong privacy interest that supports their ability to use their Facebook accounts with their stage names because they too need a venue from which to be heard without fear of suppression.²⁰⁴ Further, like Visitor in *Digital Music News*, the relative anonymity provided by the use of a pseudonym on Facebook “frees him or her from fear of retaliation;”²⁰⁵ from, say, homophobic members of her offline neighborhood, based on views she expressed on Facebook.²⁰⁶ A drag queen that uses Facebook with her stage name therefore has a legally protected privacy interest.²⁰⁷

The drag queens’ reasonable expectation of privacy in the circumstances and Facebook’s conduct that constituted a serious invasion of that privacy can both be alleged from the actual facts of the controversy. Many drag queens, such as Lil Miss Hot Mess, had been using Facebook accounts associated with their stage name for years—the duration of time that they were allowed to use their accounts supports the argument that they had a reasonable expectation that they would be able to continue to use their accounts.²⁰⁸ Their longstanding ability to use a pseudonym creates an expectation of privacy: the privacy provided by the pseudonym itself. Further, Facebook’s sudden disabling of many drag queens’ Facebook accounts set up using stage names is a serious invasion of privacy because they were not provided with any way to recover the information associated with their disabled account and—at least when their accounts

203. *Hill*, 26 Cal. Rptr. 2d at 859.

204. *See* *Digital Music News*, 171 Cal. Rptr. 3d at 810.

205. *Id.*

206. *See* Safronova, *supra* note 26 (including a quotation from Lil Miss Hot Mess: “It’s not like I’m hiding from the world, but it’s important for me to keep these identities separate.”)

207. *Id.* *See also* *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 237 (Cal. Ct. App. 2008) (noting that use of a pseudonymous screen name offers “a safe outlet for the user to experiment with novel ideas . . . or criticize corporate or individual behavior without fear of intimidation or reprisal.”)

208. *See* Lowder, *supra* note 66 (“[M]any queens note that they’ve used their drag names in their profiles without incident for years.”).

were first disabled—were locked out from future pseudonymous communication.²⁰⁹

Taken together, the facts of the recent controversy involving Facebook's real names policy and the privacy interest in anonymous online speech as defined by the court in *Digital Music News* suggest that the drag queens kicked off Facebook for creating accounts with their stage names may have been able claim for an invasion of privacy under the privacy clause of the California Constitution.²¹⁰ However, the drag queens would likely encounter other issues, such as standing, CDA § 230(c), and their relationship with Facebook as dictated by Facebook's Terms of Service, that may stop their legal challenge from proceeding successfully.²¹¹ This hypothetical legal challenge is merely intended to show how the reasoning of *Digital Music News* could be extended in the future, as well as the ways in which pseudonymous online communication contributes to identity formation. Facebook profiles made using the drag queens' stage names both contribute to their sense of self and allow them to develop their identities over time.

B. COURTS SHOULD SUPPORT TRACEABLE PSEUDONYMITY

Turning to the more general issue of what to do about anonymous online speech, proposals that preserve the ability to communicate anonymously or through a pseudonym should be preferred for the reasons discussed throughout this Note. Solving the trolling problem by de-anonymizing the internet undervalues internet users' identity-formation interests that are fostered by anonymous and pseudonymous online speech.²¹² And simply removing the anonymous aspect of the internet does

209. See Safronova, *supra* note 26 (noting that many drag queens' Facebook accounts were suddenly disabled).

210. See *Hill*, 26 Cal. Rptr. 2d at 843 (determining that the privacy clause created a cause of action against private entities).

211. This challenge against Facebook is also entirely hypothetical because Facebook voluntarily changed its real names policy.

212. See Jillian C. York, *A Case for Pseudonyms*, ELECTRONIC FRONTIER FOUND. (Jul. 29, 2011), <https://www.eff.org/deeplinks/2011/07/case-pseudonyms>; J. Nathan Matias, *Nymrights: Protecting Identity in the Digital Age*, MIT CENTER FOR CIVIC MEDIA (Sept. 30, 2014), <https://civic.mit.edu/blog/natematias/nym-rights-protecting-identity-in-the-digital-age>:

Many people use a variety of names. Maybe they're a sex worker who needs to protect their identity. In some cases, people who face judgment and harassment maintain separate identities to maintain safe spaces for conversation. Others use pseudonyms to create divides between their professional and personal lives. People sometime share

not appropriately weigh the justifications provided by courts for protecting the First Amendment rights of anonymous or pseudonymous online speakers.²¹³ Consider some of the justifications for anonymous online speech that courts have relied upon in the past: online anonymity “provides a way for a writer who may be personally unpopular to ensure that readers will not prejudge her message simply because they do not like its proponent.”²¹⁴ Online anonymity also “permits persons to obtain information relevant to a sensitive or intimate condition without fear of embarrassment.”²¹⁵ Using a pseudonymous screen name allows users of any socioeconomic or political status “a safe outlet for the user to experiment with novel ideas, express unorthodox political views, or criticize corporate or individual behavior without fear of intimidation or reprisal.”²¹⁶ The internet provides “unique opportunities for cultural development[] and myriad avenues for intellectual activity.”²¹⁷ Finally, the “ability of Internet users to communicate anonymously” drives the free exchange of ideas that has made the Internet so culturally important.²¹⁸ And the 9th Circuit recently affirmed these justifications in *Doe v. Harris*, where the court noted that fear of unmasking necessarily chills anonymous online speech—citing to the same cases discussed in this paragraph—including *McIntyre* and *2themart.com*.²¹⁹

the same name for carrying out a common activity under a shared identity, like publishing a book or hosting at Couchsurfing and Airbnb.

Id.

213. *McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 357 (1995) (“[I]n general, our society accords greater weight to the value of free speech than to the dangers of its misuse.”).

214. *Id.* at 342.

215. *Columbia Ins. Co. v. seescandy.com*, 185 F.R.D. 573, 578 (N.D. Cal. 1999).

216. *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 237 (Cal. Ct. App. 2008).

217. *Ashcroft v. ACLU*, 535 U.S. 564, 566 (2002).

218. *Doe v. 2TheMart.com Inc.*, 140 F. Supp. 2d 1088, 1093 (W.D. Wash. 2001).

219. *Doe v. Harris*, 772 F.3d 563, 581(9th Cir. 2014) (“[F]ear of disclosure in and of itself chills their speech. If their identity is exposed, their speech, even on topics of public importance, could subject them to harassment, retaliation, and intimidation. *See McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 341–42 (1995) (“The decision in favor of anonymity may be motivated by fear of economic or official retaliation, by concern about social ostracism, or merely by a desire to preserve as much of one’s privacy as possible.”); *Brown v. Socialist Workers ’74 Campaign Comm.* (Ohio), 459 U.S. 87, 100 (1982) (holding that disclosure requirements may subject unpopular minority groups to “threats, harassment, and reprisals”). Anonymity may also be important to sex offenders engaged in protected speech because it “provides a way for a writer who may be personally unpopular to ensure that readers will not prejudge her message simply because they do not like its proponent.” *McIntyre*, 514 U.S. at 342; *see also Doe v. 2TheMart.com*

In *Digital Music News*, the court recognized that the right to privacy and the First Amendment right to freedom of speech work together to create a powerful justification for anonymous online speech.²²⁰ Neil Richards' theory of intellectual privacy is a helpful framework to understand the initially surprising argument that freedom of speech and privacy work together instead of at cross-purposes:

Intellectual privacy is the ability, whether protected by law or social circumstances, to develop ideas and beliefs away from the unwanted gaze or interference of others. Surveillance or interference can warp the integrity of our freedom of thought and can skew the way we think, with clear repercussions for the content of our subsequent speech or writing. The ability to freely make up our minds and to develop new ideas thus depends upon a substantial measure of intellectual privacy. In this way, intellectual privacy is a cornerstone of meaningful First Amendment liberties.²²¹

Richards argues that there is no freedom of speech without freedom of thought. And freedom of thought is the ability to make up our minds. Freedom of thought liberates us, giving us the space to construct our own identities. The protection extended to Visitor in *Digital Music News* amounts to the provision of a legally protected zone of intellectual privacy. *Digital Music News* should thus be instructive to future courts faced with anonymous online speech cases.

Considering the constitutional significance of intellectual privacy, future approaches to anonymous online speech that are closer to the "traceable pseudonymity" approach described by Tal Zarsky²²² should be preferred over the schemes proposed by other scholars that solve the problems caused by anonymous online speech by attempting to remove the anonymous aspect of online communication.²²³ Indeed, entirely removing the anonymous aspect of the internet could harm marginalized communities²²⁴ and restrict individuals' ability to create and understand

Inc., 140 F. Supp. 2d 1088, 1092 (W.D. Wash. 2001) ("Internet anonymity facilitates the rich, diverse, and far ranging exchange of ideas.").

220. *Digital Music News v. Super. Ct. of L.A. Cnty.*, 171 Cal. Rptr. 3d 799, 809 (May 14, 2014).

221. Richards, *supra* note 187, at 389.

222. See Zarsky, *Thinking Outside the Box*, *supra* note 54, at 1031-32.

223. See generally THE OFFENSIVE INTERNET: SPEECH, PRIVACY, AND REPUTATION (Saul Levmore & Martha C. Nussbaum eds., Harvard University Press 2011).

224. Nadia Kayyali, *Privacy, Identity, and Facebook*, S.F. BAY GUARDIAN ONLINE (Sept. 23, 2014), <http://www.sfbg.com/2014/09/23/privacy-identity-and->

their identities:²²⁵ “The people who most heavily rely on pseudonyms in online spaces are those who are most marginalized by systems of power.”²²⁶ But of course, trolling, cyberbullying, and defamatory content pose significant problems for the internet users that are harmed by them. Traceable pseudonymity balances the need to handle these problems against the constitutionally important dignity and identity interests furthered by anonymous and pseudonymous communication, and is more in line with historical judicial approaches to these issues.

VI. CONCLUSION

The ability to speak online has lowered the barriers to entry for any citizen who seeks to communicate to a broad audience.²²⁷ In order to have something to say, that citizen needs a private space to formulate their ideas and develop their identity.²²⁸ Courts have previously endorsed individuals’ right to speak out on important issues and discussed how the act of speaking contributes to the identity of the speaker. Sometimes, the construction of a robust identity requires experimentation in the form of multiple online identities, each attached to a different pseudonym.²²⁹

As the *Digital Music News* case reveals, the First Amendment and the right to privacy can sometimes work together to protect the identity-construction aspect of anonymous and pseudonymous online speech. If we want the internet to really be a democratic communications medium, we must protect the ability to speak out anonymously, or using a pseudonym. To do otherwise would end “an honorable tradition of advocacy and of dissent.”²³⁰

facebook?page=0%2C0 (“For trans women, who make up 72 percent of the victims of anti-LGBTQ homicide, being forced to reveal their birth names can be deadly.”)

225. Jade Sylvan, *Dear Facebook: This is Why Your New ‘Real Name’ Policy Hurts Queers Like Me*, WASH. POST (Sept. 22, 2014), <http://www.washingtonpost.com/posteverything/wp/2014/09/22/dear-facebook-this-is-why-your-new-real-name-policy-hurts-queers-like-me/> (describing how maintaining an online identity that was separate from the author’s online identity allowed the author to develop her persona as an artist and LGBTQ activist while remaining safe from violence in the author’s religious hometown).

226. Boyd, *supra* note 64.

227. *Reno v. ACLU*, 521 U.S. 844, 870 (1997).

228. Richards, *supra* note 187, at 389.

229. *See* Tien, *supra* note 180, at 164–65 (explaining how people have multiple selves that contribute to their identity as a singular being).

230. *McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 357 (1995).

As the Supreme Court has noted in the past, “[a]nonymity is a shield from the tyranny of the majority.”²³¹ And pseudonyms are enshrined in United States history as the tools that the nation’s Founders used to spread their message of democracy while insulating themselves from political and physical harm.²³² Preserving these tools of advocacy and dissent is critically important for our constitutional rights as American citizens, for allowing us to formulate our own identities, and to preserve a unique and important feature of online communication: speaking to anybody regardless of your social status, where others can weigh your opinions without taking your gender, race, or any other external indicator of who you are into account.

By recognizing that Visitor’s identity, in the narrow sense, should be protected in *Digital Music News*, the California Appeals Court has provided a thoughtful approach for understanding how our identities, in the robust sense, should be protected online. Other courts should follow the *Digital Music News* approach to extend affirmative constitutional protection to freedom of thought and communication.²³³ In general, courts should support “traceable pseudonymity,” where internet users have the right to maintain one or more online pseudonyms, subject to unmasking when a party harmed by the internet user’s pseudonymous speech makes a clear case for illegal conduct.²³⁴

231. *Id.*

232. *Id.* at 367-69 (Thomas, J., concurring).

233. See Richards, *supra* note 187, at 408.

234. The *Dendrite* standard could even continue to serve as the framework for determining when to unmask the user, as it balances the interests of the online speaker against the plaintiff harmed by the speech while remaining sensitive to the Constitutional liberties at play. See generally Levy, *Developments in Dendrite*, *supra* note 87.

RILEY V. CALIFORNIA: CAN YOU HEAR THE EQUILIBRIUM NOW?

Maya Ziv[†]

In 2011, noted Fourth Amendment scholar Orin Kerr hypothesized that the Supreme Court decides Fourth Amendment cases with an eye to maintaining a balance between police power and individual rights initially established by the Framers.¹ Kerr claimed that “judges respond to new facts in Fourth Amendment law in a specific way: judges adjust Fourth Amendment protection to restore the preexisting level of police power.”² As technology evolves, the tools used by both criminals and law enforcement officers change the equilibrium of power. When this occurs, courts address questions regarding the constitutionality of using new technologies to either increase expectations of privacy or to give law enforcement a new tool. Recently, the Court in *Riley v. California* addressed the issue of “whether the police may, without a warrant, search digital information on a cell phone seized from an individual who has been arrested.”³

At first glance, Kerr’s theory seems to hold up as applied through *Riley*. The Court denied police the ability to search through phones without a warrant in order to restore a balance between privacy rights and police power that existed before cell phones became ubiquitous. A closer examination of the application of Kerr’s theory (“Equilibrium-Adjustment”) in *Riley*, however, reveals several flaws in the theory. By thoroughly applying Kerr’s theory to *Riley*, this Note illustrates three limitations to Kerr’s claim that the Equilibrium-Adjustment theory can explain “a great deal of the overall shape and substance of Fourth Amendment doctrine.”⁴

Part I of this Note reviews Fourth Amendment jurisprudence and introduces the relevant caselaw that has shaped the intersection between

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1. Orin Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment*, 125 HARV. L. REV. 476 (2011).

2. *Id.* at 487.

3. *Riley v. California*, 134 S. Ct. 2473, 2480 (2014).

4. Kerr, *supra* note 1, at 481.

digital technology and the Fourth Amendment leading up to *Riley*. Part II investigates *Riley*, illustrating interesting aspects of the Court's analysis and how lower courts are dealing with its rule. Part III examines Kerr's Equilibrium-Adjustment theory and explains how it can be used to analyze *Riley*. Lastly, Part IV applies Kerr's theory to *Riley* in order to illustrate three main limitations on his theory: (1) the application of the theory varies based on the analyst and thus the theory is too broad to provide much insight, (2) the current balance between police power and individual rights that the Court attempts to restore is difficult to define; one jurisdiction's equilibrium may be another's imbalance, and (3) the theory fails to account for profit-minded third parties that may cause a sudden shift in societal norms in a way that neither introduces a new crime nor a new practice yet still upsets the equilibrium.

I. THE FOURTH AMENDMENT AND THE WARRANT CLAUSE

To assess how the theory of Equilibrium-Adjustment can apply to recent Fourth Amendment cases, it will be helpful to briefly review the warrant requirement and how law enforcement may comply with it. The Fourth Amendment establishes:

[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no [w]arrants shall issue, but upon probable cause, supported by [o]ath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.⁵

The Framers said little about how to define key terms within the Fourth Amendment, so courts have interpreted the Amendment through several seminal cases.⁶ A search is considered an infringement of “an expectation of privacy that society is prepared to consider reasonable.”⁷ A seizure of property is a “meaningful interference with an individual's possessory interest in that property.”⁸

Courts have adopted Justice Harlan's definition of a reasonable search in his *Katz v. United States* concurrence: “[T]here is a twofold

5. U.S. CONST. amend. IV.

6. See WILLIAM J. CUDDIHY, *THE FOURTH AMENDMENT: ORIGINS AND ORIGINAL MEANING*, 602-1791 770-72 (Oxford University Press, Inc., 2009).

7. *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

8. *Id.*

requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as ‘reasonable.’”⁹ Yet the Amendment’s text, including the warrant clause and the definition of probable cause, and the parameters of Harlan’s test remain relatively vague.¹⁰ Historically, judges deemed that a search without a warrant was per se unreasonable unless the search fell into one of many categories of exceptions.¹¹ But this per se unreasonable rule has been eroded by the adoption of many exceptions to the warrant requirement. More recently, the Court has recognized this shift, commenting that “the ultimate touchstone of the Fourth Amendment is ‘reasonableness.’”¹² Generally, a court determines whether to exempt a type of search from the warrant requirement “by assessing, on the one hand, the degree to which it intrudes upon an individual’s privacy and, on the other, the degree to which it is needed for the promotion of legitimate governmental interests.”¹³

A. EXCEPTIONS TO THE WARRANT REQUIREMENT

While searches without a warrant may be presumptively unreasonable, the Supreme Court has established dozens of exceptions that make warrantless searches reasonable. A review of these exceptions helps to illustrate the complexity of Fourth Amendment law. The exceptions discussed below display the balance of power between the government and individuals that could come into play in a case dealing with digital information like *Riley v. California*, and thus give context to the debate around the significance of the case.

9. *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring). Justice Harlan understood the majority to want protection for an individual’s subjective expectation of privacy, if and only if society is prepared to regard the expectation of privacy reasonable.

10. See CUDDIHY, *supra* note 6.

11. This reflected the Founders’ fear of warrants. See *Riley v. California*, 134 S. Ct. 2473, 2494 (2014) (“Our cases have recognized that the Fourth Amendment was the founding generation’s response to the reviled ‘general warrants’ and ‘writs of assistance’ of the colonial era, which allowed British officers to rummage through homes in an unrestrained search for evidence of criminal activity.”); Raymond Shih Ray Ku, *The Founders’ Privacy: The Fourth Amendment and the Power of Technological Surveillance*, 86 MINN. L. REV. 1325, 1333 (2002) (“According to conventional wisdom, the Fourth Amendment embodies the Founders’ concerns over general warrants and writs of assistance . . . because of two connecting themes: concern about the privacy of an individual’s home and papers against the government and fear of unbridled official power and discretion.”).

12. *Riley*, 134 S. Ct. at 2482.

13. *Wyoming v. Houghton*, 526 U.S. 295, 300 (1999).

First, police do not require a warrant in cases of searches “incident to arrest.”¹⁴ In *Chimel v. California*, the Court held that it was unreasonable for police to search beyond the area “within [a suspect’s] immediate control,” or the area from which a suspect “might gain possession of a weapon or destructible evidence.”¹⁵ Thus, a search of Chimel’s entire house was beyond the scope of the search incident to arrest warrant exception because it was not necessary to protect the officers or prevent the destruction of evidence.¹⁶ The Court in *United States v. Robinson* held that a search of a cigarette package found on an arrestee was reasonable, though the arresting officer had no concerns regarding the loss of evidence or that Robinson had a weapon.¹⁷ The Court later clarified that this exception was limited to “personal property . . . immediately associated with the person of the arrestee.”¹⁸ Finally, in *Arizona v. Gant* the Court noted that cars are treated differently than individuals within the search incident to arrest exception.¹⁹ After an arrest of an individual within their car, police may justify a warrantless search of a vehicle’s passenger compartment when it would be “reasonable to believe evidence relevant to the crime of arrest might be found in the vehicle.”²⁰ The Court noted that this evidence-based exception was “unique to the vehicle context,” limiting the police from searching a car without a warrant unless there is probable cause to search the whole car or if the compartment is within reaching distance of the arrestee.²¹

Another exception to the warrant requirement exists if police obtain information from a third party. Individuals rarely have an absolute “reasonable expectation of privacy” when they share information with someone else because parties to the conversation can later freely share that information with law enforcement. For example, while police may not be able to use wiretapping technology to overhear a conversation, nothing stops a friend from sharing information with the police on his own.

14. *See Weeks v. United States*, 232 U.S. 383, 392 (1914) (acknowledging in dictum “the right on the part of the Government, always recognized under English and American law, to search the person of the accused when legally arrested to discover and seize the fruits or evidences of crime”).

15. *Chimel v. California*, 395 U.S. 752, 762–63 (1969).

16. *Id.* at 768.

17. 414 U.S. 218, 236 (1973).

18. *United States v. Chadwick*, 433 U.S. 1, 15 (1977) (finding that a 200-pound locked footlocker could not be searched incident to arrest).

19. *See Arizona v. Gant*, 556 U.S. 332, 343 (2009).

20. *Id.* at 333 (quoting *Thornton v. United States*, 541 U.S. 615, 632 (2004) (Scalia, J., concurring)).

21. *See id.*

Applying the exception to people seems reasonable, but the Court also applies it to businesses. In *United States v. Miller*,²² the Court held that an individual who voluntarily provided financial documents to a bank lacked a Fourth Amendment interest in his banking records that were in the custody of the bank. *Miller* informed the Court's holding in *Smith v. Maryland*, in which police used a pen register to record the numbers dialed from an individual's phone.²³ The Court held that individuals lack a "reasonable expectation of privacy" in the phone numbers they dial, even from a private residence, because the numbers were necessarily communicated to the phone company.²⁴ The Fifth Circuit extended this concept to uphold the Stored Communications Act²⁵ ("SCA"), permitting the third-party phone carriers to collect historical cell site data.²⁶

Third, consent frequently justifies a warrantless search, especially in cases like *Riley*. If an individual voluntarily gives the police permission to search a cell phone without a warrant, the subsequent search of the phone does not violate the Fourth Amendment.²⁷ Issues may arise with regards to the scope of consent, but consent will nonetheless play a significant role in dealing with police searches of digital information on mobile devices.

Another sensible exception arises in cases of exigency. The *Riley* Court noted that this exception in particular might justify a warrantless search of a cell phone.²⁸ Sometimes "the exigencies of the situation' make the needs of law enforcement so compelling that [a] warrantless search is objectively reasonable under the Fourth Amendment."²⁹ Such exigencies could include the need to prevent the imminent destruction of evidence,³⁰ to pursue

22. 425 U.S. 435 (1976).

23. *Smith v. Maryland*, 442 U.S. 735, 737 (1979).

24. *Id.* at 746.

25. Stored Communications Act, 18 U.S.C. § 2703 (2012).

26. *In re Application of the United States for Historical Cell Site Data*, 724 F.3d 600 (5th Cir. 2013). For a full discussion of this case and its implications, see Mark Daniel Langer, Note, *Rebuilding Bridges: Addressing the Problems of Historic Cell Site Location Information*, 29 BERKELEY TECH. L.J. 955 (2014).

27. *See generally* *United States v. Drayton*, 536 U.S. 194 (2002) (holding that a warrantless search of a bus passenger comported with the Fourth Amendment because the passenger gave consent to the search). Even the Electronic Frontier Foundation, a digital privacy rights advocacy group, acknowledges that police don't need a warrant if a defendant consented to a search. *See* Hanni Fakoury & Nadia Kayyali, *Know Your Rights!*, ELECTRONIC FRONTIER FOUNDATION, <https://www EFF.org/issues/know-your-rights> (last visited Feb. 13, 2015).

28. *See Riley v. California*, 134 S. Ct. 2473, 2494 (2014).

29. *Id.* (citing *Kentucky v. King*, 131 S. Ct. 1849, 1856 (2011)).

30. *See, e.g., King*, 131 S. Ct. at 1849.

fleeing suspects (hot pursuit),³¹ or to aid injured people.³² Critically, unlike other warrant exceptions, “the exigent circumstances exception requires a court to examine whether an emergency justified a warrantless search in each particular case.”³³

Finally, searches of digital information in practice are very broad,³⁴ because procedures for searching digital devices involve at least a cursory inspection of every file. If, for instance, a search for drug dealing turns up evidence of some unrelated crime, the details of the unrelated crime fall into the “plain view” exception to the Fourth Amendment. A police officer may seize evidence without a warrant if three requirements are met. First, the officer must observe the object from a lawful vantage point.³⁵ Second, the officer must be in a location to seize the object lawfully.³⁶ Third, the incriminating character of the object must be immediately apparent.³⁷ Even if the officer is conducting a legal warrantless search under an exception to the warrant requirement, any information seen during this search may still be seized under the plain view doctrine.³⁸ With the amount of data available on cell phones, this exception could allow police conducting a search of a phone incident to an arrest for evidence of a specific crime to discover and seize a significant amount of information unrelated to the original crime.

These exceptions just scratch the surface of the complexity of Fourth Amendment law. The intricacies of this area of the law make it difficult to predict the long-term ramifications of cases after they are decided. They also illustrate the general balance of police power and individual rights that may be of particular relevance when considering searches of digital

31. *See, e.g.*, *Warden v. Hayden*, 387 U.S. 294 (1967).

32. *See, e.g.*, *Brigham City, Utah v. Stuart*, 547 U.S. 398 (2006).

33. *Riley*, 134 S. Ct. at 2494.

34. For more on the implications of the breadth of digital searches, see *United States v. Comprehensive Drug Testing, Inc.*, 579 F.3d 989, 1004–05 (9th Cir. 2009). Judge Kozinski of the Ninth Circuit wrote:

This pressing need of law enforcement for broad authorization to examine electronic records . . . creates a serious risk that every warrant for electronic information will become, in effect, a general warrant, rendering the Fourth Amendment irrelevant. . . . Once a file is examined, however, the government may claim . . . that its contents are in plain view and, if incriminating, the government can keep it.

Id.

35. *See, e.g.*, *Coolidge v. New Hampshire*, 403 U.S. 443, 465 (1971).

36. *See Horton v. California*, 496 U.S. 128, 136–37 (1990).

37. *Id.*

38. *See Coolidge*, 403 U.S. at 465.

information on mobile devices. The next Section narrows the scope of the discussion to cases discussing the warrant requirement leading up to *Riley* in order to better understand how *Riley* affects this balance.

B. THE PRE-*RILEY* LANDSCAPE

In addition to reviewing general Fourth Amendment concepts, it is helpful to consider the legal landscape of Fourth Amendment jurisprudence and digital technology that existed before *Riley*. A few cases help establish that at this time courts were beginning to consider the impact of digital technology on Fourth Amendment issues. In 2012, *United States v. Jones* addressed whether warrantless use of a global positioning system (“GPS”) tracking device to track a car without the owner’s consent violated the Fourth Amendment.³⁹ Because *Riley* dealt with the kind of information found on cell phones in particular, it is also useful to briefly explain the SCA and the 2013 Fifth Circuit case that upheld its constitutionality, *In re Application of the United States for Historical Cell Site Data* (“*Historical Cell Site*”).⁴⁰ Knowledge of these cases will allow for a more complete understanding of the significance of *Riley* itself.

In *Jones*, the majority of the Court held that police placing a GPS tracking device on a car was a trespass and would be an unreasonable search without a warrant.⁴¹ Through *Jones*, the Court essentially denied police a new searching power simply by using new technology.⁴² In a concurring opinion, Justice Sotomayor wrote that the net result of allowing the police to use such technologies now available in the digital age “may ‘alter the relationship between citizen and government in a way that is inimical to democratic society.’”⁴³ Although a single opinion, this concurrence was particularly strong. Justice Sotomayor’s comments have aged well enough the *Riley* Court found them sufficiently persuasive to

39. 132 S. Ct. 945 (2012).

40. 724 F.3d 600 (5th Cir. 2013).

41. *Jones*, 132 S. Ct. at 954.

42. *See id.*

43. *Id.* at 956 (Sotomayor, J., concurring) (citing *United States v. Cuevas-Perez*, 640 F.3d 272, 285 (7th Cir. 2011) (Flaum, J., concurring)). Justice Sotomayor noted that GPS monitoring is a way to make “available at a relatively low cost such a substantial quantum of intimate information about any person whom the Government, in its unfettered discretion, chooses to track.” *Id.* She also predicted that “it may be necessary to reconsider the premise that an individual has no reasonable expectation of privacy in information voluntarily disclosed to third parties,” holding that the approach is “ill suited to the digital age.” *Id.* at 957.

warrant citation for the proposition that the digital age requires new rules for searches.

The SCA⁴⁴ is another important aspect of the pre-*Riley* landscape. This federal statute sets forth procedures for access to communications metadata (such as call logs and user location) and content.⁴⁵ This statute allows police to access call logs and historical cell site location data on a less than probable cause evidentiary standard.

In *Historical Cell Site*, the government brought applications under the SCA in three separate criminal investigations seeking to compel cell phone service providers to produce cell site information for targeted cell phones by tracking the phones over a two-month period.⁴⁶ The Fifth Circuit held that court orders to compel cell phone service providers to produce the historical cell site information of their subscribers authorized by the SCA under a “specific and articulable facts” standard were not a per se violation of the Fourth Amendment.⁴⁷ The Fifth Circuit is still the only court of appeals to address this particular issue,⁴⁸ and as it stands, has allowed the power to order such disclosure under a less than probable cause standard to remain with the police.

II. *RILEY V. CALIFORNIA*

This Part builds on the previous exploration of Fourth Amendment law to explain *Riley v. California* and how the Court saw that it related to prior cases and general Fourth Amendment concepts. It is also helpful to explore the factual history and Supreme Court’s analysis before determining where *Riley* fits on Kerr’s equilibrium.

44. 18 U.S.C. § 2703 (2012).

45. The statute generally allows government access to “local and long distance telephone connection records, or records of session times and durations,” and “telephone or instrument number or other subscriber number or identity, including any temporarily assigned network address” of electronic communication service or remote computing service subscribers. 18 U.S.C. § (c)(2)(C).

46. *In re* Application of the United States for Historical Cell Site Data, 724 F.3d 600, 602 (5th Cir. 2013).

47. *Id.* at 615.

48. The Fifth Circuit revisited this case in September 2014 in *United States v. Guerrero*, No. 13-50376, 2014 WL 4476565 (5th Cir. Sept. 11, 2014). See Section II.C, *infra*. The Eleventh Circuit is currently hearing a case en banc in *United States v. Davis* where they also address this issue. 754 F.3d 1205, 1209 (11th Cir. 2014) *reh’g en banc granted, opinion vacated*, 12-12928, 2014 WL 4358411 (11th Cir. Sept. 4, 2014).

A. FACTUAL HISTORY

The Court consolidated two cases, *Riley v. California* and *United States v. Wurie*, and held that police need a search warrant before looking through the digital information on a cell phone when the phone is seized incident to the arrest of its owner. This Section will review the facts of each case.

1. Riley v. California

A police officer stopped David Riley for driving with expired registration tags.⁴⁹ During the stop, the officer learned that Riley had been driving with a suspended license.⁵⁰ Pursuant to department policy, the officer impounded Riley's car; another officer conducted an inventory search of the car, finding two handguns under the car's hood.⁵¹ Riley was arrested for possession of concealed and loaded firearms.⁵²

An officer searched Riley incident to the arrest and found items associated with the "Bloods" street gang.⁵³ In addition, the officer seized Riley's smart phone.⁵⁴ The officer searched the phone and noticed that some words⁵⁵ were preceded by the letters "CK," a label he believed represented "Crip Killers," a slang term for members of the Bloods gang.⁵⁶ Later at the station, a detective specializing in street gangs further examined the contents of the phone, looking for evidence of other crimes.⁵⁷ The detective found photographs of Riley in front of a car the police suspected had been involved in a shooting a few weeks earlier.⁵⁸

Riley was ultimately charged for crimes in connection with the shooting.⁵⁹ The State alleged that Riley had committed the crimes for the benefit of a criminal street gang, an aggravating factor carrying an enhanced sentence.⁶⁰ At trial, Riley moved to suppress all evidence

49. *Riley v. California*, 134 S. Ct. 2473, 2480 (2014).

50. *Id.*

51. *Id.*

52. *Id.*

53. *Id.*

54. *Id.*

55. The Court presumed these words were found in text messages or a contact list.

56. *Riley*, 134 S. Ct. at 2480.

57. *Id.* at 2480–81.

58. *Id.*

59. *Id.*

60. *Id.*

obtained by the police off his cell phone, contending that the searches of his phone violated the Fourth Amendment.⁶¹

The trial court rejected the argument.⁶² At trial, police officers testified about the content found on the phone, and some of the photographs were admitted into evidence.⁶³ Riley was convicted on all counts and received an enhanced sentence of fifteen years to life in prison. The California Court of Appeals affirmed, relying on the California Supreme Court's decision in *People v. Diaz*,⁶⁴ which held that the Fourth Amendment permits a warrantless search of cell phone data incident to arrest if the cell phone was immediately associated with the arrestee's person.⁶⁵ The California Supreme Court denied Riley's petition for review, and the Supreme Court granted certiorari in this case in conjunction with another case, *United States v. Wurie*.⁶⁶

2. United States v. Wurie

During routine surveillance, a police officer observed Brima Wurie make an apparent drug sale from a car.⁶⁷ Officers arrested Wurie, and seized two cell phones from Wurie's person.⁶⁸ Five to ten minutes after arriving at the station, the officers noticed that one of the cell phones, a flip phone, was receiving calls from a source identified as "my house" on the phone's external screen.⁶⁹ Officers opened the phone, pressed one button to access the call log, and one button to determine the phone number associated with the label.⁷⁰ The officers used an online phone directory to trace the number, which led to an apartment building.⁷¹

When the officers went to the building, they saw Wurie's name on a mailbox and observed through a window a female resembling a figure in a photograph set as the background on Wurie's phone.⁷² Based on this information, the police obtained a search warrant and found and seized 215 grams of crack cocaine, marijuana, drug paraphernalia, a firearm,

61. *Id.*

62. *Id.*

63. *Id.*

64. 244 P.3d 501, 511 (Cal. 2011).

65. *Riley*, 134 S. Ct. at 2480.

66. *Id.* at 2481.

67. *Id.*

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.*

ammunition, and cash.⁷³ Wurie was charged with distributing crack cocaine, possessing crack cocaine with the intent to distribute, and being a felon in possession of a firearm and ammunition.⁷⁴ At trial, Wurie moved to suppress the evidence obtained from the search of his apartment, claiming it was fruit from the unconstitutional search of his cell phone.⁷⁵

The trial court denied the motion, and Wurie was convicted on all three counts.⁷⁶ A divided First Circuit panel reversed the denial of Wurie's motion and vacated Wurie's convictions for possession with intent to distribute and possession of a firearm as a felon.⁷⁷ In doing so, the First Circuit held that cell phones are distinct from other physical possessions that could be searched incident to an arrest because of the amount of data stored on cell phones and the negligible threat they pose to law enforcement's interests.⁷⁸ The Supreme Court granted certiorari in conjunction with *Riley v. California*.⁷⁹

B. SUPREME COURT'S REASONING

In *Riley*, the Court established a Fourth Amendment rule that differentiated digital property from physical property.⁸⁰ Specifically, the Court declined to extend the search incident to arrest exception to allow police to search the vast quantities of data available on both smartphones and flip phones, holding that police needed a warrant to search the contents of a phone found on the body of the arrestee.⁸¹ The Court analyzed this issue along with previous cases that established the "search incident to arrest" warrant exception.⁸²

The *Riley* Court first considered the importance of officer safety and loss of evidence, otherwise known as the *Chimel* factors, in determining if

73. *Id.*

74. *Id.* at 2482.

75. *Id.*

76. *United States v. Wurie*, 612 F. Supp. 2d 104, 111 (D. Mass. 2009).

77. *See United States v. Wurie*, 728 F.3d 1, 1 (1st Cir. 2013).

78. *Id.* at 7–10.

79. *United States v. Wurie*, 134 S. Ct. 999 (2014).

80. *See Riley v. California*, 134 S. Ct. 2473, 2495 (2014); *see also* Marc Rotenberg & Alan Butler, *Symposium: In Riley v. California, a Unanimous Supreme Court Sets Out Fourth Amendment for Digital Age*, SCOTUSBLOG (June 26, 2014, 6:07 PM), <http://www.scotusblog.com/2014/06/symposium-in-riley-v-california-a-unanimous-supreme-court-sets-out-fourth-amendment-for-digital-age>.

81. *See Riley*, 134 S. Ct. at 2480.

82. *See id.*; *see also Weeks v. United States*, 232 U.S. 383, 392 (1914) (acknowledging in dictum "the right on the part of the Government, always recognized under English and American law, to search the person of the accused when legally arrested to discover and seize the fruits or evidences of crime").

the *Riley* officers were justified in their actions.⁸³ The Court reasoned that these justifications did not apply because a cell phone did not present the risks of harm to officers or destruction of evidence necessary to justify a search.⁸⁴ There is clearly no physical threat to police from the data stored on cell phones. Additionally, once law enforcement officers seize a phone, the Court saw no risk of the arrestee deleting incriminating data from the phone.⁸⁵ Though the State claimed that the risk of loss of evidence was strong due to the power of remote-wiping technologies, the Court was not persuaded by the anecdotal examples of remote wiping triggered by an arrest included in the briefing.⁸⁶ The Court noted that in cases that police are confronted with an emergency situation, such as recognizing a defendant's phone will be the target of a remote-wipe attempt, police may be able to rely on the exigent circumstances warrant exception to search the phone immediately.⁸⁷

Furthermore, though *Robinson* established that people under arrest have a reduced expectation of privacy, the Court considered a search of the massive quantities of data on a cell phone as beyond the scope of *Robinson's* holding.⁸⁸ The Court believed that the storage capacity of cell phones, inherent pervasiveness of cell phone data, and qualitative difference of data available on cell phones as compared to physical records allowed for too high of a level of intrusion on privacy.⁸⁹ The Court noted that to carry around the same amount of information in physical form, a person would need a truck⁹⁰ rather than a cigarette package as in *Robinson*.⁹¹ Finally, the fact that some data accessed through a cell phone might actually be stored on the "cloud" raises additional privacy concerns such that "the privacy interests here dwarf those in *Robinson*."⁹² The Court also rejected the argument that officers should be able to search a phone's

83. *Riley*, 134 S. Ct. at 2484.

84. *Id.* at 2484–85.

85. *Id.* at 2486.

86. *Id.*

87. *Id.* at 2487.

88. *Id.* at 2484 ("while *Robinson's* categorical rule strikes the appropriate balance in the context of physical objects, neither of its rationales has much force with respect to digital content on cell phones"); *id.* at 2488 ("The fact that an arrestee has diminished privacy interests does not mean the Fourth Amendment falls out of the picture entirely.").

89. *Riley*, 134 S. Ct. at 2489.

90. The Court noted that such a truck would require a search warrant under *United States v. Chadwick*, 433 U.S. 1 (1977).

91. *Riley*, 134 S. Ct. at 2489.

92. *Id.* at 2491.

call log as done in Wurie's case because of the amount of information that exists in a call log.⁹³ Combined, these rationales hint that other digital devices in possession of an individual, such as laptops, would be protected based on the volume of data stored on their hard drives.

While the Court emphasized that this holding applies to the search incident to arrest exception, they hinted at other issues they would consider in the future. In particular, the Court disagreed with the United States's assertion that a search of data on a cell phone was "materially indistinguishable" from searches of physical items like the *Chimel* house or the *Robinson* cigarette package.⁹⁴ The Court instead asserted that "[c]ell phones differ in both a quantitative and qualitative sense from other objects that may be kept on arrestee's person."⁹⁵ The quantitative differences come in the form of storage capacity and pervasiveness of data.⁹⁶ The qualitative differences exist mainly in the kind of information stored on a cell phone, which can reveal where the owner's prior locations, website searches, and interests.⁹⁷

Citing *Kerr*, the Court added that before cell phones, "a search of a person was limited by physical realities and tended as a general matter to constitute only a narrow intrusion on privacy."⁹⁸ Because of the amount and kind of information now stored on cell phones,

a cell phone search would typically expose to the government far more than the most exhaustive search of a house: A phone not only contains in digital form many sensitive records previously not found in the home; it also contained a broad array of private information never found in a home in any form—unless the phone is.⁹⁹

In addition, the prevalence of cloud computing means that "officers searching a phone's data would not typically know whether the information they are viewing was stored locally at the time of the arrest or

93. *Id.* The United States argued that *Smith v. Maryland*, 442 U.S. 735 (1979), which held that no warrant was required to use a pen register at a telephone company premises to identify numbers dialed by a caller, allows for a warrantless search of a cellphone call log. However, the Court in that case concluded the use of the pen register was not a Fourth Amendment search at all. *Id.* at 745–46.

94. *Riley*, 134 S. Ct. at 2488.

95. *Id.* at 2489.

96. *Id.* at 2489–90.

97. *See id.* at 2490–91.

98. *Id.* at 2489. (citing Orin Kerr, *Foreword: Accounting for Technological Change*, 36 HARV. J.L. & PUB. POL'Y 403, 404–05 (2013)).

99. *Id.* at 2491.

has been pulled from the cloud.”¹⁰⁰ The possibility that a search could reach information not actually available on the body of the arrestee is, again, “yet another reason that the privacy interests here dwarf those in *Robinson*.”¹⁰¹ Thus, the Court created a new rule for the digital age, preventing warrantless searches of items that contain too much information.¹⁰²

C. RILEY IN THE COURTS

State and federal courts are beginning to hear cases that fall within *Riley*'s “grey area,” or cases regarding searches that occurred before *Riley*'s decision but that are being litigated now. In 2011, the Supreme Court ruled that the good faith exception to the exclusionary rule applies when a defendant successfully persuades a court to overturn precedent in favor of expanded Fourth Amendment rights.¹⁰³ Trial courts have begun to apply the good faith exception to cases dealing with pre-*Riley* surveillance that relied on *Diaz*, and it is likely that this trend will continue at the appellate level.¹⁰⁴

The Fifth Circuit, however, recently held that *Riley* does not provide rights to the individual that counter the government's search abilities under the SCA. On September 11, 2014, the Fifth Circuit published its opinion in *United States v. Guerrero*.¹⁰⁵ Guerrero had been charged with various counts related to his membership in the Mexican Mafia.¹⁰⁶ As part

100. *Id.*

101. *Id.*

102. In a separate concurrence, Justice Alito added that the Court should not “mechanically apply the rule used in the pre-digital era to the search of a cell phone,” and called for a “new balancing of law enforcement and privacy interests.” *Id.* at 2496–97. Second, Justice Alito called on Congress to enact legislation that distinguished privacy interests in different types of data, concluding “it would be very unfortunate if privacy protection in the 21st century were left primarily to the federal courts using the blunt instrument of the Fourth Amendment.” *Id.* at 2497.

103. *See* *Davis v. United States*, 131 S. Ct. 2419 (2011).

104. *See, e.g.*, *United States v. Garcia*, No. 13-CR-00601-JST-1, 2014 WL 4543163, at *6 (N.D. Cal. Sept. 12, 2014) (“*Diaz* provides sufficient ‘binding appellate precedent’ that ‘specifically authorized’ the actions the officers took in this case.”). *But see* *United States v. Martinez*, No. CR 13-00794 WHA, 2014 WL 3956677, at *5 (N.D. Cal. Aug. 12, 2014) (declining to apply the good faith exception based on *Diaz* because “a cell-phone search occurring one to two hours after an arrest was not incident to that arrest”). *See also* *Nebraska v. Henderson*, 854 N.W.2d 616 (Neb. 2014). Here a warrant was issued before the search, but it was faulty. Thus the court had to consider if the warrantless search was reasonable. The application of the “good faith” exception was different here than in *Davis*.

105. No. 13-50376, 2014 WL 4476565 (5th Cir. Sept. 11, 2014).

106. *Id.* at *1.

of the investigation, police had received “historical cell site location data that roughly indicated where he was, or at least where his cell phone was, on the afternoon that [a victim] was killed,” from third party communications providers.¹⁰⁷ Guerrero moved to suppress the evidence of the cell site location data, arguing it had been obtained in violation of the Fourth Amendment.¹⁰⁸ Guerrero relied on *Riley*, seeking to overturn the effects of *Historical Cell Site*.¹⁰⁹ The Fifth Circuit held that because *Historical Cell Site* relied on the third-party doctrine and not the search incident to arrest warrant exception, *Riley* did not apply to the case at hand.¹¹⁰

The court cited various sources debating the effect of *Riley* on the third-party doctrine, but noted that “the mere existence of that spirited academic debate, however, resolves our limited inquiry. In determining the effect of Supreme Court developments on our precedents, we . . . only decide whether an issued Supreme Court decision has ‘unequivocally’ overruled our precedent.”¹¹¹ Because *Riley* did not explicitly overrule *Historical Cell Site* and the impact of *Riley* on the third-party doctrine was unclear, the court rejected Guerrero’s argument.¹¹² As it stands, the police can only receive access to data known to be shared with a network provider through a process involving further investigation than simply digging through a cell phone’s records. The balance between government interests and Guerrero’s privacy rights are maintained, if not slightly tipped towards police power. It seems as if this slight tip in favor of the government is the current status quo.

From *Jones* to *Riley*, in Kerrian terms, the Court seems to have been correcting the balance between government powers and privacy rights. Commentators should anticipate that the Court will continue to engage in equilibrium-adjustment. If cases like *Guerrero* wind up in front of the Supreme Court, Fourth Amendment scholars applying Kerr’s theory should believe that the Court will establish rules that skew towards upholding individual privacy rights.¹¹³

107. *Id.* at *5.

108. *Id.*

109. *Id.* at *6.

110. *Id.* at *7.

111. *Id.* at *8.

112. *Id.*

113. On a related issue, the Eleventh Circuit recently granted en banc review of *United States v. Davis*, a case that addresses the issue of the constitutionality of the SCA. 754 F.3d at 1209, *reh’g en banc granted, opinion vacated*, 12-12928, 2014 WL 4358411 (11th Cir. Sept. 4, 2014). *Davis* had moved to suppress electronic location evidence that

III. ORIN KERR'S EQUILIBRIUM-ADJUSTMENT THEORY

Some scholars theorize that the plethora of warrant exceptions and the generally unclear definition of the warrant clause in the Fourth Amendment itself have led to “messy” Fourth Amendment jurisprudence with inconsistent rules.¹¹⁴ Through his Equilibrium-Adjustment theory, Kerr attempts to make sense of Fourth Amendment jurisprudence and draw a connection between the potentially difficult to reconcile rules.

Kerr's article proposes the idea that generally the Supreme Court adjusts the boundaries of Fourth Amendment protection in response to changing technologies to maintain the status quo level of protection of individual rights from government power.¹¹⁵ Kerr claims that this theory explains various seemingly odd holdings that have created exceptions to the warrant requirement, and further exceptions to those exceptions, based on new technologies.¹¹⁶ For example, the Court has held that use of a beeper to follow a car on public highways does not amount to a search, but as soon as the beeper enters a location in which the driver has a reasonable expectation of privacy and the police can tell where it is, a search has occurred.¹¹⁷ The location where the beeper was used changed the determination that a search had occurred, despite the same technology being used in both cases. In another example, police may solicit information regarding cell phone positioning data from a third party (the carrier), but cannot receive the same information from the cell phone itself.¹¹⁸ In other words, one exception to the warrant requirement justifies the search while another does not.

the government obtained without a warrant under the SCA, claiming that the obtainment of that evidence violated his Fourth Amendment rights. *Id.* The Court of Appeals held that “cell site location information is within the subscriber's reasonable expectation of privacy. The obtainment of that data without a warrant is a Fourth Amendment violation.” *Id.* at 1217. This holding, however, has already been vacated, as the judges will review the case en banc. Such a controversial issue is virtually guaranteed to find its way to the Supreme Court, where we may anticipate that a Court with an eye for equilibrium-adjustment will seek to restore the status quo.

114. See, e.g., Ronald J. Allen & Ross M. Rosenberg, *The Fourth Amendment and the Limits of Theory: Local Versus General Theoretical Knowledge*, 72 ST. JOHN'S L. REV. 1149, 1149 (1998) (noting that many commentators have expressed that the Fourth Amendment is a “mess”); Craig M. Bradley, *Two Models of the Fourth Amendment*, 83 MICH. L. REV. 1468, 1468 (1985). See CUDDIHY, *supra* note 6.

115. Kerr, *supra* note 1, at 481.

116. *Id.*

117. *Id.* at 499–500, contrasting *United States v. Karo*, 468 U.S. 705 (1984), with *United States v. Knotts*, 460 U.S. 276 (1983).

118. Compare *In re Application of the United States for Historical Cell Site Data*, 724 F.3d 600 (5th Cir. 2013) (allowing police to request historical cell site data from a

A. KERR'S SCENARIOS AND YEAR ZERO

Kerr argues that courts decide Fourth Amendment cases with an eye to restoring the equilibrium to a time he calls “Year Zero.”¹¹⁹ Year Zero “represents an imaginary time, a sort of beginning of the universe for criminal investigations. . . . By starting with a hypothetical world with no tools, we can see how the introduction of new tools poses a constant challenge to any legal system that seeks to regulate police investigations.”¹²⁰ Furthermore, Year Zero operates with a few basic rules; Kerr posits these are the rules the Framers had in mind when crafting the Fourth Amendment.¹²¹ First, “the police are always free to watch suspects in public.”¹²² However, if police seek to make an arrest, “they need probable cause to believe the suspect has committed a crime.”¹²³ If the police wish to enter a suspect’s home, they need a warrant based on probable cause.¹²⁴ These rules have established “a certain level of police power to enforce the law . . . [T]he rules give the police the powers needed to investigate crime successfully in many cases.”¹²⁵ Yet these rules also limit police power to avoid abuses through the probable cause and warrant requirements.¹²⁶

Kerr establishes this balance as the original equilibrium, claiming that even if the balance is not perfect, it is stable.¹²⁷ New facts and tools, however, “render the balance of police power struck by Year Zero inherently unstable.”¹²⁸ The critical question that Kerr attempts to answer is how Fourth Amendment doctrine should respond when these changes do occur.¹²⁹ To do so, Kerr explores six scenarios in which the balance is upset.¹³⁰ First, where “the government uses a new tool to find evidence,” perhaps involving the use of a new surveillance device to obtain

carrier on a standard less than probable cause), *with* *Riley v. California*, 134 S. Ct. 2473, 2495 (2014) (ordering police to secure a warrant before searching a cell phone incident to arrest).

119. *Id.* at 482.

120. *Id.* at 483.

121. *Id.* at 484.

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.*

127. *Id.* at 485.

128. *Id.* at 486.

129. *Id.* at 487.

130. *Id.* at 489.

information that was previously unobtainable.¹³¹ Second, where “criminals use a new tool to evade detection,” which makes it harder for the government to observe the crime.¹³² Third, “new crimes and new practices,” where new social or political developments emerge, but crime occurs using the same technologies.¹³³ Fourth, where “both criminals and the police use a new tool,” where criminals use a new technology to commit crime and police use a method of surveillance to detect the crimes using the same technology.¹³⁴ Fifth, “the status quo,” in which the facts remain the same as they were in Year Zero.¹³⁵ Finally, “defeating countermeasures,” where both the police and criminals try to use new advances in technology to gain an advantage over the other.¹³⁶

Kerr claims his theory is defensive, that it is a “theory of interpretation seeking guidance from prior historical moment—rather than a theory of legal evolution.”¹³⁷ Kerr contrasts his theory with the trend he views in right to privacy and Commerce Clause caselaw.¹³⁸ In the right to privacy cases, Kerr claims the Court attempts to apply principles informed by a sense of current societal values and the broader role of the Supreme Court in American society.¹³⁹ In the Commerce Clause cases, the Court has expanded the federal government’s authority dramatically, which Kerr believes is hardly the goal of the Framers.¹⁴⁰ While these cases have evolved in standard common law fashion, Fourth Amendment jurisprudence “has been guided by the restorative principles of equilibrium-adjustment.”¹⁴¹

B. JUDICIAL DELAY AS A LIMITATION ON EQUILIBRIUM-ADJUSTMENT

Kerr also provides some ideas for how judges can maximize their impact that holdings in such cases will have in balancing police power and privacy rights. One of these concepts is “Judicial Delay,” or waiting for the best time to determine if a technology is disruptive enough to deserve a

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. *Id.* at 493.

138. *Id.* at 493–94.

139. *Id.*

140. *Id.*

141. *Id.* at 494.

holding.¹⁴² Essentially, if a court intervenes too soon, “it may wrongly assess the need for adjustment because either the technology hasn’t evolved to a reasonably stable state or else social practices relating to the use of the technology continue to evolve.”¹⁴³ Kerr points to 1928’s *Olmstead v. United States*¹⁴⁴ decision as an example of early judicial intervention, ultimately triggering its reversal by *Katz* in 1967.¹⁴⁵ Resolution of the reasonable expectation of privacy test ultimately depends on the stability of society’s notion of what is reasonable; deciding a case too early would undermine this part of the *Katz* test. Courts can solve this problem by either putting off deciding how the Fourth Amendment applies to a new technology until the use of the technology has stabilized, or stepping in earlier while recognizing the decision must remain tentative while the technology is in flux.

The Supreme Court recently addressed this notion in *City of Ontario v. Quon*.¹⁴⁶ While Justice Kennedy expressed a preference to avoid ruling on how the Fourth Amendment applies to changing technology “before its role in society has become clear,”¹⁴⁷ Justice Scalia wrote otherwise in his concurring opinion:

Applying the Fourth Amendment to new technologies may sometimes be difficult, but when it is necessary to decide a case we have no choice. The Court’s implication that where electronic privacy is concerned we should decide less than we otherwise would (that is, less than the principle of law necessary to resolve the case and guide private action)—or that we should hedge our bets by concocting case-specific standards or issuing opaque opinions—is in my view indefensible. The-times-they-are-a-changin’ is a feeble excuse for disregard of duty.¹⁴⁸

142. *Id.* at 539.

143. *Id.*

144. 277 U.S. 438 (1928).

145. *Katz v. United States*, 389 U.S. 347, 353 (1967). *Olmstead* focused on the text of the amendment, explaining there was no search without physical intrusion on a person, house, paper, or effect. *Id.* Thus, the Fourth Amendment did not cover eavesdropping from beyond the boundaries of a house. *Id.* *Katz* shifted the focus to expectations of privacy generally, holding “once it is recognized that the Fourth Amendment protects people—and not simply “areas”—against unreasonable searches and seizures, it becomes clear that the reach of that Amendment cannot turn upon the presence or absence of a physical intrusion into any given enclosure.” *Id.*

146. 130 S. Ct. 2619 (2010).

147. *Id.* at 2629.

148. *Id.* at 2635 (Scalia, J., concurring in part and concurring in the judgment) (citation omitted).

Yet Kerr believes that judicial delay will “tend to resolve the issues more quickly, and with greater interim assistance from legislative privacy protection, than will efforts to address the Fourth Amendment issues early on while the risk of error is high.”¹⁴⁹ This concept will become especially useful in discussions of the practical effects of *Riley* after the private sector’s reaction to government surveillance of digital data.¹⁵⁰

C. WHAT COULD SHIFT THE EQUILIBRIUM?

Before diving into an analysis of where *Riley* and related cases fall along this equilibrium, it is useful to consider what kind of case could actually disprove Kerr’s theory. In other words, what would trigger a “shift” of the equilibrium as opposed to a court’s attempt to restore Year Zero’s balance of power?

A shift might come in the form of consecutive holdings that either expand or contract the interpretation of the Fourth Amendment. Expansion or contraction of the law may not appear in the exact same form. A restriction could come in the form of expanding the definition of a “search” or by refusing to apply an exception to the warrant clause. An expansion could occur by holding that a search was reasonable or by creating a new exception to the warrant requirement. Consecutive holdings that similarly change the interpretation of the Fourth Amendment would indicate a significant shift towards either privacy rights or police power.

Though a perfect balance is impossible as the world changes, Kerr argues that the Court’s holdings historically seem to oscillate over an ideal center, the Kerrian Year Zero equilibrium.¹⁵¹ Yet factors beyond the legal system’s control mean that the Court may not continue to follow its historic pattern. Because the Court has been frequently dealing with technology in the last three years, now is an opportune time to revisit Kerr’s thesis by applying it to the cases decided since he published the theory in 2011.

D. JONES, THE STORED COMMUNICATIONS ACT, RILEY, AND EQUILIBRIUM-ADJUSTMENT

Kerr’s theory can be tested by analyzing cases that were decided after he published his article. *Jones*, *Historical Cell Site*, and *Riley* provide the

149. Kerr, *supra* note 1, at 539.

150. See Section IV.C, *infra*.

151. See Kerr, *supra* note 1, at 481–82.

perfect starting point to determine if the Court acted in compliance with a desire to maintain an equilibrium as Kerr suggests. The first case used here to analyze the theory is the 2012 case *Jones*, which held that the police could not use a GPS tracker without a warrant to track the movements of a car.¹⁵² The second case is 2013's *Historical Cell Site*, which held that the SCA allows police to access via subpoena historic cell site location data (which can also be found on the phone itself).¹⁵³ Third, *Riley* held in 2014 that police could not search a cell phone found on the person of an arrestee without a warrant.¹⁵⁴ This Section will plot each of these issues on the spectrum between privacy rights and police power to determine if Kerr's theory holds along these technological changes.

The *Jones* majority held that warrantlessly tracking a suspect using a GPS device was unconstitutional because the police had to trespass on the defendant's property in order to engage in the search. A strong concurrence by Justice Sotomayor added that securing GPS data without a warrant was an unreasonable search because such a search was too intrusive due to the amount of data easily collected through such little effort by police.¹⁵⁵ *Jones* thus tilts the balance towards more individual privacy rights because it held that the police must show probable cause before attaching a GPS device to a suspect's car.

Yet in 2013, *Historical Cell Site* employed the third-party doctrine to hold that police may obtain cell phone user information under the SCA,¹⁵⁶ which allows the government to access call logs and historical cell site location data with less than a warrant. While *Jones* held that police need a warrant to use a GPS device to track a defendant's location, police can now gain historical cell site information on a standard lower than probable cause.¹⁵⁷ Given operator retention policies, this search could turn up years of location data.¹⁵⁸ Such a conclusion tilted the balance towards more police power in certain situations. If Kerr's theory were valid, in order to counteract this grant of police power given by the *Historical Cell Site* court, the Supreme Court would be expected to limit police power through *Riley*.

152. *United States v. Jones*, 132 S. Ct. 945, 954 (2012).

153. *In re United States for Historical Cell Site Data*, 724 F.3d 600 (5th Cir. 2013).

154. *Riley v. California*, 134 S. Ct. 2473, 2495 (2014).

155. *Jones*, 132 S. Ct. at 954.

156. *In re Application of the United States for Historical Cell Site Data*, 724 F.3d 600, 600 (5th Cir. 2013).

157. *See id.*

158. David Kravets, *Which Telecoms Store Your Data the Longest? Secret Memo Tells All*, WIRED (Sept. 28, 2011, 6:30 AM), <http://www.wired.com/2011/09/cellular-customer-data>.

Because the *Riley* Court mentioned both Justice Sotomayor's "digital age" concurrence in *Jones* and historic cell site location data in their analysis of *Riley*, the Court seemed to analogize the large amount of data available for low cost to police by using a GPS tracking device or through requests to a cell phone provider as to the amount of data available on a smartphone found on an arrestee's person. However, GPS trackers or a request for cell site location information from a third party only reveal historical metadata, while data available on cell phones is typically much more detailed.

In Kerrian terms, the *Riley* Court recognized that that the information available in a comprehensive cell phone search give police too much surveillance power and sought to restore a balance of this power and privacy rights that existed in the pre-digital era.¹⁵⁹ Allowing police the power to examine every aspect of a cell phone user's life because there was probable cause to arrest him for one crime shifts the balance so far that the Court could not stand for it.¹⁶⁰ Thus, by declining to give police this tool, the Court provided more robust privacy rights to the arrestee. Because the Court adjusted the balance back towards individual's privacy rights after Congress enacted the SCA, *Riley* seems to validate Kerr's theory.

Together, these cases and statutes do not signal the significant shift that one looks for to disprove Equilibrium-Adjustment. Kerr's theory thus seems to hold through *Riley*, and can arguably assist in predicting the outcome of cases currently pending in various federal courts.¹⁶¹ Upon closer examination, however, this analysis also shows a few flaws in Kerr's

159. *See Riley*, 134 S. Ct. at 2495. The Court specifically wrote:

The fact that technology now allows an individual to carry such information in his hand does not make the information any less worthy of the protection for which the Founders fought. Our answer to the question of what police must do before searching a cell phone seized incident to an arrest is accordingly simple—get a warrant.

Id.

160. *See id.*

161. As an interesting thought experiment, applying Kerr's theory may allow attorneys and law enforcement officers to predict what the court will do in upcoming cases such as *United States v. Davis*. *See Davis*, 754 F.3d at 1209, *reh'g en banc granted, opinion vacated*, 12-12928, 2014 WL 4358411 (11th Cir. Sept. 4, 2014). Assuming the en banc panel holds as expected, that the SCA comports with the Constitution, Kerr's theory predicts that the Supreme Court will uphold the statute. As it stands, *Riley* has demanded that police secure a warrant before collecting digital data from a cell phone. To maintain the equilibrium, the Supreme Court will likely not also demand that police obtain a warrant to gain access to historical cell phone location data from a third party. While the Court has hinted that it may be time to revisit the third party doctrine, Kerr's theory predicts that it will unlikely do so through an appeal of *Davis*.

claim that Equilibrium-Adjustment can draw connections among the large body of Fourth Amendment jurisprudence. The next Part of this Note uses the above analysis to illustrate and explain three limitations on Kerr's claim that his theory can explain a variety of results of Fourth Amendment cases: (1) the application of the theory can vary between analysts, (2) it does not specify what information should be used to determine the equilibrium that ought to be restored, and (3) it fails to account for actions of private actors that don't fit in to any of Kerr's categories.

IV. ISSUES WITH EQUILIBRIUM-ADJUSTMENT

The previous application of Kerr's theory to *Riley* illustrates some tensions with the theory. Kerr's claim that his theory can explain a variety of Fourth Amendment cases should thus be taken with a grain of salt. First, the theory is inherently analyst-dependent and overbroad. Second, it does not explain if lower court decisions, previously unaddressed technologies, or the state of technology that exists when the Court is actually deciding a case should be used to determine the equilibrium sought to be restored. Finally, the theory fails to account for actions of private actors that change the status quo but do not introduce new crimes or practices.¹⁶²

A. RESOLUTION OF EQUILIBRIUM-ADJUSTMENT VARIES WITH THE ANALYST

One of the main critiques of Kerr's thesis is that it closely resembles an already existing theory: originalism.¹⁶³ Thus, the argument goes, the theory suffers from the same problems as originalism. Specifically, a given case is analyst-dependent (as the way people define Year Zero may vary) and therefore the theory lacks predictive power.¹⁶⁴

Kerr has already responded to this criticism by illustrating how equilibrium-adjustment occurred in *Jones*:

162. A primary counterargument may be that the *Jones-SCA-Riley* setup was not the only way to apply Equilibrium-Adjustment to *Riley*. Yet this application was the best way to establish the state of technology that existed before *Riley* that the Court also considered. The Court relied on the state of the balance between police power and privacy rights set up above to reach its conclusion. Thus, Kerr would likely hold that those cases were the ones that factored into the Court's equilibrium which they sought to restore through its holding.

163. See generally Christopher Slobogin, *An Original Take on Originalism*, 125 HARV. L. REV. F. 14 (2011).

164. *Id.*

The three opinions in *Jones* proceed from different premises. One is originalist; two are not. . . . The majority opinion seeks to preserve the privacy protections that existed in 1791; the concurring opinions seek to preserve the privacy protections that existed in the “pre-computer age” (in Justice Alito’s words) or before “the digital age” (in Justice Sotomayor’s). But all three opinions interpret the Fourth Amendment to restore a prior level of government power. All three opinions engage in equilibrium-adjustment.¹⁶⁵

This argument, however, illustrates an inherent problem with the theory. Kerr argues that each opinion in *Jones* created a different Year Zero for the purpose of their analysis, but that only the majority opinion is “originalist.” Each opinion, however, created its own “original” balance of power it sought to restore. Just because a Justice can define Year Zero as some time after the 1700s does not exempt the theory from the same criticisms levied at originalism: application of the theory to a case inherently depends on the analyst and the theory lacks predictive power.

First, the application of equilibrium-adjustment in *Riley* was analyst-dependent. The majority of the *Riley* Court quoted Sotomayor’s “digital age” approach in *Jones*, implying that the *Riley* Court’s Year Zero was a time before the digital age, even though none of the other Justices had concurred with her in the context of *Jones*.¹⁶⁶ In fact, the *Riley* Court had the benefit of selecting from three different kinds of analyses done in *Jones*, and could possibly have selected any of them. The fact that the Court chose to focus on Justice Sotomayor’s concurrence implies that they selected which equilibrium they choose to restore. Yet if another commentator believed that the true equilibrium to focus on should be something other than the balance of power that existed in the pre-digital age, that commentator would claim that the Court did not actually engage in equilibrium-adjustment.

Second, the theory lacks predictive power. Moving forward, how is a Court to analyze related issues? Are all issues dealing with digital technology now under the *Riley* umbrella, or may a future Court ignore *Riley*’s proscription of a new rule for digital technology and return to Scalia’s trespass theory in *Jones* or the even more generic “reasonable

165. Orin S. Kerr, *Defending Equilibrium-Adjustment*, 125 HARV. L. REV. F. 84, 89 (2011).

166. Note that the concurrence agrees with the need for a new rule in the digital era. Justice Alito wrote only to disagree with the need to limit the search incident to arrest exception to the *Chimel* factors. This issue is irrelevant to Kerr’s equilibrium-adjustment analysis.

expectation of privacy” theory in *Katz*? Kerr’s theory fails to explain how this might play out. If a Court adopts Scalia’s trespass theory, police would have to physically place tracking technologies on a suspect themselves; using a remote technique would not create liability, regardless of how invasive the search actually might be. A “reasonable expectation of privacy” approach would cover more activities than the trespass approach, as society may have expectations of privacy that remote police activities would violate. For example, a Court adopting the Alito approach would find an activity like remotely hacking into the hard drive of a suspect’s mobile device without a warrant to be an unconstitutional search, while the Scalia approach would not because it does not involve any physical trespass onto a suspect’s property. The Alito approach might also differ from the Sotomayor approach in that it may find a warrantless search of a cell phone incident to arrest reasonable because suspects could have the contents of their pockets searched incident to arrest in the pre-computer age. It may thus be reasonable to believe that society is not willing to protect an expectation of privacy in an arrestee’s pocket contents. Finally, a Court that adopts Sotomayor’s emphasis on needing new rules for the digital age would find that searching a cell phone found incident to arrest is a constitutional violation; this is what occurred in *Riley*. Thus, given which opinion a Court decides to apply in the future, the result can be very different. Because Kerr gives no guidance on which opinion should be most influential in this situation, the theory creates a circular argument with regards to how a Court defines the equilibrium: the equilibrium is that which the Court sought to restore because that is the balance of power the Court selected as their Year Zero.

Kerr’s defense of his theory through his illustration of how equilibrium-adjustment is achieved in *Jones* exposes another inherent flaw. The theory is so broad that Kerr can argue that the three very different kinds of analysis in *Jones* fit within it. Is a court engaging in equilibrium-adjustment every time they consider the balance of police power and privacy rights within the context of the Fourth Amendment? If yes, then Kerr is simply giving *Katz*’s “reasonable expectation of privacy” test a new name and it becomes unclear that the theory encompasses cases that diverge from this analysis. If no, then Equilibrium-Adjustment fails in the same way as originalism fails: it is inherently analyst-dependent and lacks predictive power.

Finally, even if Kerr admits that his theory lacks predictive power, there also exist challenges in applying his theory retroactively.¹⁶⁷ *Riley* provides a good example about how one can apply the same theory to come to opposite conclusions: one could argue that the equilibrium in *Riley* was either maintained or ignored. Those arguing that *Riley* validates Kerr's thesis would point out that the case's conclusion, that police may not search a cell phone incident to arrest, did technically adjust the status quo. Yet opponents will note that this holding is potentially limited to the search incident to arrest exception, causing a very minor restoration of the balance that existed in the pre-digital age. The Court even left open the possibility that exigent circumstances that threaten the destruction of evidence may be enough to allow a search as in *Riley*. In addition, as a day-to-day matter, the easy-to-surmount "voluntariness" standard for consent to search a phone may affect the majority of cases with similar facts.¹⁶⁸ By leaving open the possibility that other warrant exceptions may justify a warrantless search of a cell phone, it remains unclear that the Court effectuated a significant restoration of the equilibrium that existed before cell phones were searched for evidence of crimes. Thus, *Riley* illustrates how Kerr's thesis is analyst-dependent, allowing commentators to see what they want to see in the Court's analysis, and cautions against

167. See Kerr, *supra* note 165.

168. Mark Eckenwiler, a former deputy chief of the Justice Department's computer crime section[,] . . . said that Chief Justice Roberts's opinion allows searches when the owner of the phone gives consent, and that "police will now, as a routine matter, ask for consent. . . . And an extraordinary number of arrestees will give that consent," Mr. Eckenwiler said, "just as people consent today to all sorts of searches of cars and containers, very much against their personal interest."

John Schwartz, *Cellphone Ruling Could Alter Police Methods, Experts Say*, N.Y. TIMES (June 25, 2014), <http://www.nytimes.com/2014/06/26/us/cellphone-ruling-could-alter-police-methods-experts-say.html>.

As a brief aside, Kerr's theory also fails to account for how technology may implicate other issues in connection with a Fourth Amendment argument. For example, what would happen if Riley's phone was locked, requiring him to provide a passcode to police? Would the *Riley* court have determined that this functioned as implicit consent to search the phone, or would it still address the issue under the search incident to arrest warrant exception? This situation would implicate Fifth Amendment self-incrimination issues, but it is unclear how Kerr would factor this into the equilibrium analysis. Note that courts are struggling with this question. See *Virginia v. Baust*, No. CR141439, 2014 WL 6709960, at *3 (Va. Cir. Ct. Oct. 28, 2014) (holding that a fingerprint was not testimonial and thus not protected under the Fifth Amendment).

accepting the theory as a broad resolution of the messy state of Fourth Amendment law.

B. THE DEFINITIONS OF THE EQUILIBRIUM ARE UNCLEAR

Another issue arises when trying to determine which “equilibrium” a court is trying to maintain. While Supreme Court holdings apply across the whole country, circuit and district courts make geographically scoped decisions that are sometimes in conflict. This makes it unclear to determine which lower court decisions should factor into the equilibrium analysis, if any. This becomes especially relevant when the Supreme Court does not actually deal with every technology that may upset the balance; how does the existence of those technologies factor into the equilibrium analysis? To further complicate matters, technology develops quickly and may outpace the rate of decision-making at the Court. How does rapidly changing technology factor into the Court’s analysis? Kerr’s theory does not acknowledge the fact that different balances between police power and individual rights exist in different jurisdictions, and thus the Court’s nationwide rulemaking may affect each balance differently.

First, Kerr does not clarify how the Court should treat inferior courts’ decisions when attempting to restore the equilibrium. This can be especially problematic for Kerr’s theory when there is a split in authority regarding the effect of a certain technology under the Fourth Amendment. It seems like lower court decisions must be factored into the Court’s thinking in some way, because they too establish the balance of police power and individual rights in their respective jurisdictions. For example, in *Riley*, the Court mentioned the ability of police to gather historic cell site information from the user’s device as a reason for why a search warrant is necessary.¹⁶⁹ Yet *Historical Cell Site* upheld the constitutionality of the SCA, which allows for acquisition of similar information from a third party with just a subpoena.¹⁷⁰ Thus, by emphasizing that a search of a cell phone can reveal historical cell site location as justification for requiring a search warrant, the Court potentially affected the Fifth Circuit more than any other.¹⁷¹ Kerr’s theory fails to acknowledge that the Court’s decisions create the same rules in every jurisdiction, even though there may be a

169. *Riley v. California*, 134 S. Ct. 2473, 2489 (2014).

170. *See In re Application of the United States for Historical Cell Site Data*, 724 F.3d 600, 600 (5th Cir. 2013).

171. This is the issue that the Fifth Circuit in *United States v. Guerrero*, No. 13-50376, 2014 WL 4476565 (5th Cir. Sept. 11, 2014), had to tackle. The Fifth Circuit held that *Riley* did not affect police power under the SCA because the *Riley* Court did not explicitly overrule *Historical Cell Site*.

different balance of police power and individual rights in each. The Court could thus restore or upset balances with the same holding based on how the new rules affect different jurisdictions.

One may counter the previous argument by claiming that Kerr's theory only incorporates the equilibrium established by the Court itself, making any lower court decisions irrelevant. Yet this argument is problematic because the Court frequently addresses new technologies without having ever addressed preceding technology. If analysts are only to consider the Court's cases when engaging in equilibrium-adjustment, how does predecessor technology factor into the definition of the equilibrium?

This conundrum becomes clear in cases like *Maryland v. King*, where the Court held that "taking and analyzing a cheek swab of the arrestee's DNA is, like fingerprinting and photographing, a legitimate police booking procedure that is reasonable under the Fourth Amendment."¹⁷² In his dissent, Justice Scalia argued that this justification was flawed because the Court had never addressed the constitutionality of fingerprinting technology itself and had yet to do so even in this case.¹⁷³ Could the Court have decided the case the same way without considering fingerprinting practices? Was fingerprint database technology a part of the equilibrium though it had never been considered by the Court?¹⁷⁴ If previously undiscussed technology could factor into the equilibrium, how is an analyst of Fourth Amendment jurisprudence supposed to anticipate which precedent technology the Court will find meaningful? If Kerr is claiming that the Court is only meant to consider technology that it had previously commented on, then *Maryland v. King* is an important instance where the Court does not engage in equilibrium-adjustment. If the Court does not engage in equilibrium-adjustment in addressing such an important issue, the constitutional validity of warrantless DNA database searches, then perhaps Kerr's theory does not explain as much as he purports it does.¹⁷⁵

172. *Maryland v. King*, 133 S. Ct. 1958, 1980 (2013).

173. *Id.* at 1987 (Scalia, J., dissenting) ("It is on the fingerprinting of arrestees, however, that the Court relies most heavily. The Court does not actually say whether it believes that taking a person's fingerprints is a Fourth Amendment search, and our cases provide no ready answer to that question.").

174. These questions just skim the surface. In addition, more can be learned about an individual with DNA than with a photo. In Year Zero, one could not collect physical information from someone and use it to determine that the person was related to the actual offender—the purpose of DNA sweeps.

175. The following further illustrates this dilemma. If the use of a fingerprint database was previously a police power that the Court considers part of the equilibrium, wouldn't the Court have attempted to balance police power and privacy rights and deny police the ability to use an even more intrusive technology? Either they shouldn't be

Finally, it remains unclear how the general change of technology affects how the Court may answer the issues before it. Kerr does not explain if the Court does, or should, consider the current state of technology when deciding cases on the facts before them. Does the Court only define the equilibrium as whatever existed prior to the initiation of the police activity in question, or does the Court factor in the current state of technology when attempting to restore the equilibrium? If the former, then the Court could be making rules about already outdated technologies that may no longer be relevant. If the latter, then the Court could be providing advisory opinions. Either way, even if Kerr's theory indeed can explain previous holdings of the Court, it still does not explain how to determine what effect current technology has on the equilibrium the Court is attempting to restore.

C. THE THEORY IS MISSING A CATEGORY: INTERVENING PRIVATE ACTORS

Finally, Kerr's theory could benefit from considering a seventh category of technological change: the destabilizing effect of private actors. This category is similar to Kerr's "new crimes and new practices," where new social or political developments emerge but crime occurs using the same technologies. Yet "new crimes and new practices" does not call for analysis of the increasing ubiquity of already existing practices.

Because of the rate at which they can act, private actors can cause a sudden shift in the status quo. After *Riley*'s mandate that police obtain a search warrant before searching the phone of an arrestee, actions by private companies may do more to alter the balance than the Court could have anticipated. One of the main examples of this effect comes from top tech companies Apple and Google, which recently announced their new default data encryption software for mobile devices.

On September 17, 2014, Apple CEO Tim Cook announced that the company would be encrypting all data communicated between their servers and the customers in order to prevent Apple's ability to share such information when subpoenaed.¹⁷⁶ A corresponding letter from Mr. Cook

accounted for in the equilibrium sought to be restored because the Court has never spoken on those topics, or the Court isn't actually engaging in equilibrium-adjustment because they continue to uphold police power within certain technological groups (like using biometric data to identify suspects without a warrant). Kerr's theory fails to account for these effects when establishing which equilibrium the Court is considering in each case.

176. See Cyrus Farivar, *Apple Expands Data Encryption Under iOS 8, Making Handover to Cops Moot*, ARS TECHNICA (Sept. 17, 2014, 9:57 PM),

on the privacy section of the Apple website states the following: “I want to be absolutely clear that we have never worked with any government agency from any country to create a backdoor in any of our products or services. We have also never allowed access to our servers. And we never will.”¹⁷⁷ The Apple website goes on to explain exactly what data law enforcement cannot get from Apple:

On devices running iOS 8, your personal data such as photos, messages (including attachments), email, contacts, call history, iTunes content, notes, and reminders is placed under the protection of your passcode. Unlike our competitors, Apple cannot bypass your passcode and therefore cannot access this data. So it’s not technically feasible for us to respond to government warrants for the extraction of this data from devices in their possession running iOS 8.¹⁷⁸

Essentially, “[w]hat is new is *the amount of data* your phone will now encrypt. Apple has extended encryption protections to nearly all the data [users] produce on a daily basis and will also require you to enter the passcode (or fingerprint) each time [users] reboot [their] phone.”¹⁷⁹ Top competitor Google has also implemented default encryption with the release of its latest operating system.¹⁸⁰

<http://arstechnica.com/apple/2014/09/apple-expands-data-encryption-under-ios-8-making-handover-to-cops-moot>; Craig Timberg, *Apple Will No Longer Unlock Most iPhones, iPads for Police, Even with Search Warrants*, WASH. POST (Sept. 18, 2014), http://www.washingtonpost.com/business/technology/2014/09/17/2612af58-3ed2-11e4-b03f-de718edeb92f_story.html.

177. *A Message from Tim Cook About Apple’s Commitment to Your Privacy*, APPLE, <http://www.apple.com/privacy> (last visited Feb. 13, 2015). Note that while technically Apple has not allowed outside parties direct access to their servers, they claim that “0.00358% of customers had data disclosed due to government information requests,” and that they received 250 or less of those kinds of requests in the first sixth months of 2014. See Apple Privacy Policy, Government Information Requests APPLE, <http://www.apple.com/privacy/government-information-requests> (last visited Feb. 13, 2015).

178. Apple Privacy Policy, Government Information Requests, APPLE, <http://www.apple.com/privacy/government-information-requests> (last visited Feb. 13, 2015). Recall that some of the evidence introduced against Riley included photos found on his iPhone.

179. Matthew Green, *Is Apple Picking a Fight With the U.S. Government?*, SLATE (Sept. 23, 2014), http://www.slate.com/articles/technology/future_tense/2014/09/ios_8_encryption_why_apple_won_t_unlock_your_iphone_for_the_police.html (emphasis in original).

180. See Andrea Petersen, *Google Officially Announces Android 5.0 ‘Lollipop’ with Default Encryption*, WASH. POST (Oct. 28, 2014), <http://www.washingtonpost.com/blogs/the-switch/wp/2014/10/28/google-officially-announces-android-5-0-lollipop-with-default-encryption>.

This change is sudden enough that it has instigated serious debate and an outcry from the law enforcement community. Reporters have already noted that “[i]n June, the Supreme Court ruled that police needed search warrants to gain access to data stored on phones in most circumstances. But that standard is quickly being rendered moot; eventually no form of legal compulsion on service providers will suffice to force the unlocking of most smartphones.”¹⁸¹ FBI Director James Comey has already shared that “he doesn’t understand why companies would ‘market something expressly to allow people to place themselves beyond the law.’”¹⁸² Comey and others have called on Congress to act to ban default smartphone encryption.¹⁸³ Unfortunately for Comey, members of Congress have already expressed that there is “zero chance” of the FBI Director’s proposal passing.¹⁸⁴ If Congress does not act, might it fall to the courts once again to handle the matter through the slow and blunt judicial tool that Justice Alito feared in his concurrence in *Riley*?¹⁸⁵

The fact that law enforcement may not be able to get the information they need through serving warrants on the service providers raises an interesting question: If *Riley* were in front of the Court today, would these announcements change the outcome of the case? It is possible; because the Court left open the potential for exigent circumstances to be a valid exception, it seems likely that an argument claiming that evidence is permanently lost once a phone locks could be persuasive. Thus, if these announcements occurred before the case was decided, it might have been argued as a different warrant exception and the outcome might have

181. *Id.*

182. Brian Naylor, *Apple Says iOS Encryption Protects Privacy; FBI Raises Crime Fears*, NPR (Oct. 18, 2014), <http://www.npr.org/blogs/alltechconsidered/2014/10/08/354598527/apple-says-ios-encryption-protects-privacy-fbi-raises-crime-fears>. Comey’s reaction is still not as extreme as that of others like John Escalante, the chief of detectives in Chicago, who said the iPhone would become “the phone of choice for the pedophile.” *Id.*

183. See Jason Keobler, *FBI Director: If Apple and Google Won’t Decrypt Phones, We’ll Force Them To*, MOTHERBOARD (Oct. 16, 2014, 11:20 AM), <http://motherboard.vice.com/read/fbi-director-if-apple-and-google-wont-decrypt-phones-well-force-them-to>.

184. Jason Keobler, *Congress to the FBI: There’s ‘Zero Chance’ We’ll Force Apple to Decrypt Phones*, MOTHERBOARD (Oct. 20, 2014, 9:25 AM), <http://motherboard.vice.com/read/congress-to-the-fbi-theres-zero-chance-well-force-apple-to-decrypt-phones>.

185. *Riley v. California*, 134 S. Ct. 2473, 2497 (2014).

different.¹⁸⁶ Whether or not this would have ultimately happened is not important; this thought exercise illustrates that Kerr's theory does not clearly account for the potential of private actors to change the Court's analysis. In this time of fast-paced technological evolution, intervening private actors may be the most important actors in upsetting the balance between police power and individual privacy rights. The failure to acknowledge these kinds of effects shows the theory is underinclusive.

Kerr's discussion of judicial delay highlights one possible way to handle the issue of private action.¹⁸⁷ Because these actors drive changes in technology, the Court could wait until the use of the technology stabilizes before weighing in with a decision. The *Katz* test itself is dependent on stable expectations of privacy, as the second part of the test requires that the expectation of privacy is one which society is ready to recognize. If expectations are shifting along with technology, it may be impossible for the Court to effectively weigh in on the case. After all, Apple has just changed the status quo of who has access to encryption, but the technology itself has not changed. Thus, police can still use the same tools they currently do when they need access to an encrypted phone. Until this movement to default encryption sparks an empirically proven paradigm shift, the Court should delay any decisions that may disturb the naturally forming equilibrium before it has a chance to stabilize.

Yet given the rate at which technology is developing, it is possible that private actors may move quickly enough to prevent a stable equilibrium from ever forming before the Supreme Court considers an issue. Thus, even Kerr's recommendation of Judicial Delay may not suffice to address the legal issues that these actors cause. Because Courts cannot delay dealing with issues forever, Kerr should amend his Equilibrium-Adjustment theory to explain how a Court deals with the actions of third parties that do not introduce a new practice but still lead to a disruption of the balance between police power and individual rights.

186. We may still see this argument appear in the future. In fact, *Riley* might have the effect of encouraging police to find "exigent circumstances" in more cases. Did default encryption counter-intuitively undermine the balance maintenance of *Riley*?

187. See Orin Kerr, *Apple's Dangerous Game*, WASH. POST (Sept. 19, 2014), <http://www.washingtonpost.com/news/volokh-conspiracy/wp/2014/09/19/apples-dangerous-game> ("Incidentally, I have long argued that the Supreme Court should wait until a technology stabilizes before applying the Fourth Amendment to it to avoid the problem of announcing a rule that doesn't make sense over time. In light of Apple's new iOS8, *Riley* may be an interesting example.").

V. CONCLUSION

Riley, related cases, and the response from both the courts and private sector raise fascinating questions about how the Fourth Amendment protection against unreasonable searches and seizures will function in an increasingly digital age. The search incident to arrest warrant exception already bars police from searching mobile phones without a warrant; if a phone “locks” before police can obtain a warrant, and police cannot compel a company or the individual to give them the password, will such technology completely stall any investigation? As technology continues to evolve, will the courts’ Fourth Amendment holdings continue to be made immediately less relevant by private action? If police have the ability to hack a phone, does *Riley* even significantly change the ultimate outcome of cases; in other words, is the protection of a warrant strong in these cases, or is it just a matter of how long it will take police to get data from a mobile device? If technology evolves too quickly for the courts to establish a stable, long-term equilibrium, could this indicate that society is ready for a shift in the equilibrium away from the Year Zero balance? Does the prevalence of digital data mean that we need to establish a new norm instead of trying to return to the old norm? When only the user knows passcodes or encryption keys, does the use of encrypted technology run afoul of the Fifth Amendment and its proscription against compelling self-incriminating statements?

Kerr’s Equilibrium-Adjustment theory does little to answer these important questions. It assumes that the Court’s Year Zero is clearly definable. It fails to account for changes from the private sector that may push courts to provide more power to police. The theory is so broad that it can encompass seemingly unlimited different kinds of analyses, raising uncertainties about its utility. It is unclear in how to deal with lower court decisions or the precise way in which the Court reaches a conclusion. These issues are inherent flaws in Kerr’s claim that his theory can explain “a great deal of the overall shape and substance of Fourth Amendment doctrine.”¹⁸⁸ Applying Kerr’s Equilibrium-Adjustment theory to *Riley v. California* illustrates these flaws and cautions against overvaluing Kerr’s theory.

188. Kerr, *supra* note 1, at 481.

SURVEY OF ADDITIONAL IP AND TECHNOLOGY LAW DEVELOPMENTS

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I. PATENT DEVELOPMENTS

A. *APPLE INC. v. SAMSUNG ELECTRONICS CO.*¹

In 2013–2014, Judge Lucy Koh of the Northern District of California issued two decisions in the recent *Apple Inc. v. Samsung Electronics Co.* “smartphone wars.” These decisions have added to the litigation spanning from April 2011 to the present.

On April 15, 2011, plaintiff Apple, Inc. (“Apple”) filed suit against defendants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively, “Samsung”) for trade dress, trademark, design patent, and utility patent infringement.² In this action, the court found that certain Samsung devices diluted Apple’s trade dress on some products, infringed the utility patents, and did not infringe the design patents.³

Apple alleged that Samsung’s Galaxy cell phones and computer tablets infringed on several of Apple’s trade dress, trademarks, and utility and design patents.⁴ A U.S. jury trial began on July 30, 2012.⁵ On August 24, 2012, the jury found that Samsung willfully infringed on Apple’s design and utility patents, diluted Apple’s registered iPhone, iPhone 3, and “Combination iPhone” trade dress on some products, and found that there was no Apple infringement of Samsung utility patents.⁶ Accordingly, the jury awarded Apple \$1.049 billion in damages and Samsung zero damages in its countersuit.⁷

After the jury verdict, Apple brought a motion for a permanent injunction seeking to enjoin Samsung “from infringing, contributing to the infringement, or inducing the infringement” of several Apple utility

1. *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2011 WL 1938154, at *1 (N.D. Cal. May 18, 2011); *Apple Inc. v. Samsung Elecs. Co.*, 727 F.3d 1214, 1217 (Fed. Cir. 2013).

2. *Apple Inc. v. Samsung Elecs. Co.*, No. 11-CV-01846-LHK, 2011 WL 1938154, at *1 (N.D. Cal. May 18, 2011).

3. *Id.*

4. *Id.*

5. *Apple Inc. v. Samsung Elecs. Co.*, 727 F.3d 1214, 1217 (Fed. Cir. 2013).

6. *Id.*

7. Amended Verdict Form, No. 1931, *Apple Inc. v. Samsung Elecs. Co.*, Case No. 11-CV-01846-LHK (Aug. 24, 2012); Josh Lowensohn, *Jury awards Apple more than \$1B, finds Samsung infringed*, CNET (Aug. 24, 2012, 3:53 PM), <http://www.cnet.com/news/jury-awards-apple-more-than-1b-finds-samsung-infringed/>.

and design patents.⁸ The district court denied Apple's motion, stating that the fact that Apple may have lost customers and downstream sales to Samsung was not enough to justify an injunction.⁹ On appeal, the Federal Circuit vacated the order denying an injunction with respect to Apple's U.S. Design Patent No. D504,889.¹⁰ The preliminary injunction was granted in June 2012, however, after Samsung's Galaxy Nexus cellphone was found not to infringe Apple's patents, the Federal Circuit vacated the injunction on October 11, 2012.¹¹

In March 2013, Judge Koh ordered a new trial to recalculate the damages, striking \$450.5 million from the original \$1.05 billion judgment because there was an "impermissible legal theory on which the jury based its award."¹² The court found that certain Samsung devices infringed only on utility patents, and not on design patents.¹³ On November 21, 2013, a jury found that Samsung needed to pay Apple an additional \$290 million in damages for patent infringement, bringing the total damages to \$930 million.¹⁴

While the first case was still ongoing, Apple brought a second suit against Samsung on February 8, 2012, alleging that Samsung's Galaxy Nexus smartphone infringed eight utility patents.¹⁵ One of the patents at issue, U.S. Patent No. 8,086,604 ("the '604 patent"), had a claim that directed an apparatus for "unified" search using heuristic modules to search multiple data storage locations.¹⁶ According to this claim, when a user inputted a search query in the unified search interface, the query was submitted to multiple heuristic modules in predetermined search areas, and the search results were then returned by the search modules to the user.¹⁷ After Apple filed a motion for a preliminary injunction, seeking to

8. Proposed Order Granting Apple's Motion for a Preliminary Injunction and Damages Enhancement, No. 2133, No. 11-CV-01846-LHK (Nov. 10, 2012).

9. *Id.*

10. Apple Inc. v. Samsung Elecs. Co., 678 F.3d 1314, 1333 (Fed. Cir. 2012).

11. Diane Bartz & Dan Levine, *U.S. court clears Samsung phone, hands Apple setback*, REUTERS (Oct. 11, 2012, 4:44 PM), <http://www.reuters.com/article/2012/10/11/us-apple-samsung-patent-idUSBRE89A11C20121011>.

12. Order Re: Damages, No. 2231, Apple Inc. v. Samsung Elecs. Co., No. 11-CV-01846 (Mar. 1, 2013); Bartz & Levine, *supra* note 11.

13. *Id.*

14. Shara Tibken, *Samsung Owes Apple \$290M More in Damages, Jury Says*, CNET (Nov. 21, 2013, 12:33 PM), <http://www.cnet.com/news/samsung-owes-apple-290m-more-in-damages-jury-says/>.

15. Apple Inc. v. Samsung Elecs. Co., 695 F.3d 1370, 1372 (Fed. Cir. 2012).

16. *Id.*

17. *Id.* at 1373.

enjoin the sales of the Galaxy Nexus, the district court found that three of the four asserted patents forming the basis of Apple's request for relief did not justify granting the motion.¹⁸ However, the district court enjoined the sales of the Galaxy Nexus on June 26, 2012 after it determined that there was infringement of the fourth patent, the '604 patent.¹⁹ The district court held that the '604 patented feature was "core to [Apple's] Siri's functionality" and a "but-for driver of demand."²⁰

On appeal, the Federal Circuit reversed and remanded the decision, holding that the district court abused its discretion.²¹ The Federal Circuit held that the causal nexus between harm and infringement was not satisfied.²² The court found that Apple failed to show that consumers bought the Galaxy Nexus because it was equipped with the apparatus claimed in the '604 patent, rather than because it could search in general.²³ Consequently, there was not a sufficient showing that the harm flowed from Samsung's alleged infringement.²⁴

On May 5, 2014, a jury instructed Samsung to pay Apple \$119.6 million, returning a verdict that nine of ten accused Samsung products infringed one or both of Apple's U.S. Patent No. 5,946,647 ("the '647 patent") and U.S. Patent No. 8,046,721 ("the '721 patent").²⁵ This was a substantial decrease from the \$2.1 billion that Apple sought in damages for infringement.²⁶ However, the jury also found Apple guilty of infringing one of Samsung's patents and awarded Samsung \$158,400, which was a marginally small number compared to the \$6.2 million that Samsung sought.²⁷

B. *BARD PERIPHERAL VASCULAR, INC. v. W.L. GORE & ASSOCIATES*²⁸

In a divided panel, the United States Court of Appeals for the Federal Circuit held that W.L. Gore & Associates, Inc. ("Gore") willfully

18. *Id.*

19. *Id.*

20. *Apple Inc. v. Samsung Elecs. Co.*, 877 F. Supp. 2d 838, 909 (N.D. Cal. 2012).

21. *Apple*, 695 F.3d at 1376.

22. *Id.* at 1377.

23. *Id.*

24. *Id.*

25. *Apple Inc. v. Samsung Elecs. Co.*, No. 12-CV-00630-LHK, 2014 WL 7496140 (N.D. Cal. Aug. 27, 2014).

26. *Id.* at *4.

27. *Apple Inc. v. Samsung Elecs. Co.*, No. 12-CV-00630-LHK, 2014 WL 4443407, at *14 (N.D. Cal. Sep. 8, 2014).

28. No. 2014-1114, 2015 U.S. App. LEXIS 473 (Fed. Cir. Jan. 13, 2015)

infringed U.S. Patent No. 6,436,135 (“the ’135 patent”) because Gore’s inventorship invalidity defense was not reasonable.²⁹

The dispute began in 1973 when a Gore employee, Peter Cooper, invited Dr. David Goldfarb to participate in a study on expanded polytetrafluoroethylene (“ePTFE”) for use as a graft to repair and replace blood vessels.³⁰ Goldfarb tested samples given to him by Cooper and then filed a patent application in 1974 on the structure of the most effective sample.³¹ However, Cooper had previously filed a patent application for the same structure.³² The Patent and Trademark Office eventually awarded the ’135 patent to Goldfarb in 2002, with Gore developing ePTFE grafts commercially in the interim.³³ Goldfarb granted an exclusive license of the ’135 patent to Bard Peripheral Vascular, Inc., and they jointly brought a patent infringement suit against Gore in 2003.³⁴

At trial, the jury found the ’135 patent to be valid and held that Gore willfully infringed.³⁵ The Federal Circuit affirmed, but an en banc court granted a rehearing to authorize the panel to revise the willfulness part of the opinion.³⁶ The panel vacated that part and held that the determination of “objective” recklessness, which is the threshold inquiry when establishing willful infringement, should be “decided by the judge as a question of law subject to *de novo* review.”³⁷ As such, the judge is the arbiter of whether an accused infringer’s defense is reasonable.³⁸ Yet the outcome for Gore did not change when applying this standard on remand; the district court stated that it was “clear to this Court, just as it was to the jury, that [Gore] . . . could not have ‘realistically expected’ its defenses to succeed.”³⁹ Subsequently, Gore appealed the district court’s determination that its inventorship defense was not objectively reasonable.⁴⁰

Here, the Federal Circuit reviewed Gore’s position *de novo*.⁴¹ Gore’s inventorship defense rested on its claim that Cooper was a joint inventor of the ’135 patent, and since he was not joined as a co-inventor, the patent

29. *Id.* at *20.

30. *Id.* at *25 (Newman, J., dissenting).

31. *Id.* at *27 (Newman, J., dissenting).

32. *Id.*

33. *Id.* at *28 (Newman, J., dissenting).

34. *Id.* at *2–4.

35. *Id.* at *2.

36. *Id.* at *3.

37. *Id.*

38. *Id.* at *12.

39. *Id.* at *3.

40. *Id.* at *4, *13.

41. *Id.* at *12.

was invalid.⁴² The court addressed two questions to objectively assess Gore's defense.⁴³ The first looked into what constituted "the 'definite and permanent idea' of the invention."⁴⁴ The court noted that the invention was not merely the use of ePTFE in vascular grafts.⁴⁵ Rather, the '135 patent claims identified specific dimensions of fibril length essential for successful grafts.⁴⁶ The second question was "whether Cooper and Goldfarb acted in concert to jointly arrive at that idea."⁴⁷ The court stated that Cooper, while he identified ePTFE as a promising material, actually believed that pore size was the key to success.⁴⁸ Therefore, because Cooper had not yet recognized the importance of fibril length when he sent the samples to Goldfarb, he did not conceive the invention.⁴⁹

Interestingly, the court held in prior appeals that Cooper did conceive of the invention, including the fibril length limitation.⁵⁰ Nonetheless, the court found that, because Cooper had minimal contact with Goldfarb regarding the fibril length, he conceived of the length limitation independently of Goldfarb.⁵¹ As a result, the court held that "Gore's position was not susceptible to a reasonable conclusion that the patent was invalid on inventorship grounds," affirming the district court's determination.⁵²

In a concurring opinion, Judge Hughes noted that recent Supreme Court decisions called into question the willfulness test and standard of review, and therefore the full court should review the willfulness jurisprudence.⁵³ Further, Judge Hughes deemed the *de novo* review of willfulness problematic and that a more deferential standard of review was more appropriate.⁵⁴

42. *Id.* at *14.

43. *Id.* at *16–17.

44. *Id.* at *16.

45. *Id.* at *17.

46. *Id.*

47. *Id.* at *16–17.

48. *Id.* at *17.

49. *Id.* at *17–18.

50. *Id.* at *18.

51. *Id.* at *19.

52. *Id.* at *21.

53. *Id.* (Hughes, J., concurring) (discussing the *Highmark Inc. v. Allcare Health Mgmt. Sys.*, 134 S. Ct. 1744 (2014) and *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014) cases).

54. *Id.* at *21–22 (Hughes, J., concurring).

Judge Newman strongly dissented, stating that “the panel majority d[id] not review the evidence and apply the law objectively.”⁵⁵ The dissent concluded that Gore’s inventorship argument was viable, and it therefore “raise[d] a substantial question of validity.”⁵⁶ It listed several lines of evidence supporting its conclusion, including the fact that the Patent and Trademark Office found Cooper to be the first to conceive the invention.⁵⁷ Further, the dissent noted that “joint invention does not require collaboration as to every limitation.”⁵⁸ And, willfulness is an inquiry into whether the defense of invalidity could “reasonably be raised” and “not whether it eventually succeed[s].”⁵⁹ As such, the dissent reasoned that “the entirety of the premises” and application of “the correct legal standards” did not support a judgment of willful infringement.”⁶⁰

C. *E.DIGITAL CORP. V. FUTUREWEI TECHNOLOGIES, INC.*⁶¹

A three-judge panel of the United States Court of Appeals for the Federal Circuit unanimously held that when an intervening re-examination of a patent does not address a claim term, collateral estoppel still applies against the patent holder for construction of that claim term.⁶² However, the court also noted that collateral estoppel does not apply to unrelated patents that use the same claim term.⁶³

In a prior suit, e.Digital Corp. (“e.Digital”) asserted claims 1 and 19 of U.S. Patent No. 5,491,774 (“the ’774 patent”) against Pentax of America, Inc. (“Pentax”) in the U.S. District Court for the District of Colorado.⁶⁴ The ’774 patent disclosed a microphone with a removable, interchangeable flash memory recording medium.⁶⁵ The district court construed the ’774 patent claim’s memory limitation to only use flash memory, not random-access memory (“RAM”) or any other memory system, because the inventor disclaimed RAM and other memory systems.⁶⁶ During prosecution, the patentee had amended his claims in order to avoid a

55. *Id.* at *24 (Newman, J., dissenting).

56. *Id.* at *35 (Newman, J., dissenting).

57. *Id.*

58. *Id.* at *36 (Newman, J., dissenting).

59. *Id.*

60. *Id.* at *36–37 (Newman, J., dissenting).

61. 772 F.3d 723 (Fed. Cir. 2014).

62. *Id.* at 726.

63. *Id.* at 726–27.

64. *Id.* at 725.

65. *Id.*

66. *Id.*

rejection by prior art that used RAM memory.⁶⁷ After this construction, e.Digital and Pentax stipulated to dismissal with prejudice.⁶⁸ e.Digital followed this lawsuit with an ex-parte reexamination of the '774 patent, during which the United States Patent and Trademark Office cancelled claims 1 and 19 of the '774 patent and issued a reexamined claim 33.⁶⁹ New claim 33 combined the limitations of claims 1 and 19, including the same memory limitation, and added some additional limitations like using a microprocessor.⁷⁰

e.Digital then sued various defendants in the U.S. District Court for the Southern District of California, including Futurewei Technologies, Inc. ("Futurewei"), asserting infringement of claim 33 of the '774 patent and other claims of U.S. Patent No. 5,839,108 ("the '108 patent").⁷¹ The '108 patent was unrelated to the '774 patent.⁷² However, in disclosing a purported improvement to the '774 patent, the '108 patented incorporated the '774 patent by reference and contained the same memory limitation used in the '774 patent.⁷³ After consolidating e.Digital's cases, the district court applied collateral estoppel to the memory limitation in the v774 patent based on e.Digital's earlier case against Pentax.⁷⁴ The district court also applied collateral estoppel to the same memory limitation construction used in the '108 patent.⁷⁵ e.Digital and Futurewei stipulated to final judgment of non-infringement, allowing appeal to the Federal Circuit on the application of collateral estoppel to the memory limitation in the two patents.⁷⁶

The Federal Circuit first noted that it reviews issues of collateral estoppel de novo, applying the law of the regional circuit.⁷⁷ As this case was issued out of the Ninth Circuit, the court proceeded to list the three elements of collateral estoppel under Ninth Circuit law: (1) whether the issue necessarily decided in the previous proceeding is identical to the one which is sought to be re-litigated; (2) whether the first proceeding ended

67. *Id.*; *e.Digital Corp. v. Pentax of Am., Inc.*, No. 09-CV-02578-MSK-MJW, 2011 WL 2560069, at *6 (D. Colo. June 28, 2011).

68. *e.Digital*, 772 F.3d at 725.

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.* at 726.

73. *Id.*

74. *Id.* at 725–26.

75. *Id.* at 726.

76. *Id.*

77. *Id.* (citing *Aspex Eyewear, Inc. v. Zenni Optical LLC*, 713 F.3d 1377, 1380 (Fed. Cir. 2013)).

with a final judgment on the merits; and (3) whether the party against which collateral estoppel is asserted was a party or in privity with a party at the first proceeding.⁷⁸ The court observed that the parties only disputed the first of the three collateral estoppel elements, which was whether the issue was identical to the issue decided in the previous proceeding.⁷⁹ The court addressed this issue with respect to both the '774 patent and the '108 patent.⁸⁰

Addressing the '774 patent first, the court found that claim 33 in the '774 patent recited a memory limitation identical to the previously construed term in claims 1 and 19 of the '774 patent.⁸¹ The court also found that the reexamination focused on an unrelated term, and did not affect the memory limitation.⁸² The court concluded that the dispute over claim construction was identical, and collateral estoppel applied to the '774 patent.⁸³

Turning to the '108 patent, the court found the '108 patent was unrelated to the '774 patent since it only incorporated the '774 patent by reference.⁸⁴ The court observed that the '108 patent claimed a different invention, supported by a different description, with a different prosecution history.⁸⁵ The court cited to *Texas Digital Systems, Inc. v. Telegenix*, where the Federal Circuit refused to constrain the meaning of a term in one patent based on the inventor's representations of that same term in an unrelated patent.⁸⁶ Reiterating that claims of unrelated patents must be construed separately, the court found that collateral estoppel did not apply to the '108 patent.⁸⁷

In dicta, the court advised that collateral estoppel does not necessarily apply even in constructions of related patents, noting that differences such as new matter disclosed in a continuation-in-part could make the issues of construction different.⁸⁸

78. *Id.* (citing *Hydranautics v. FilmTec Corp.*, 204 F.3d 880, 885 (9th Cir. 2000)).

79. *Id.*

80. *Id.* at 726–27.

81. *Id.* at 726.

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.* at 726–27.

86. *Id.* at 727 (citing *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1211 (Fed. Cir. 2002)).

87. *Id.*

88. *Id.*

D. *ERICSSON, INC. V. D-LINK SYSTEMS*⁸⁹

In *Ericsson, Inc. v. D-Link Systems, Inc.*, the United States Court of Appeals for the Federal Circuit clarified some of the issues that determine damages in cases where standard essential patents (“SEPs”) are implicated.⁹⁰

Ericsson, Inc. & Telefonaktiebolaget LM Ericsson (collectively, “Ericsson”), the owner of U.S. Patent Nos. 6,424,625 (“the ’625 patent”); 6,466,568 (“the ’568 patent”); and 6,772,215 (“the ’215 patent”), sued D-Link Systems, Inc. and others (collectively, “D-Link”) for patent infringement.⁹¹ All of the patents at issue were SEPs, patents that cover technology incorporated into standards that ensure interoperability among compliant devices.⁹² Because compliant devices “necessarily infringe certain claims in patents that cover technology incorporated into the standard,” SEP owners must pledge that they will grant licenses on “reasonable and nondiscriminatory” (“RAND”) terms.⁹³

At the district court level, the jury found that D-Link infringed on various claims on the three patents at issue and awarded around \$10 million in damages—fifteen cents per infringing device.⁹⁴ D-Link moved for judgment as a matter of law (“JMOL”), arguing that the jury’s findings and the damages award were not supported by substantial evidence.⁹⁵ In addition, D-Link argued that Ericsson’s expert violated the entire market value rule and that the jury was inadequately instructed regarding Ericsson’s RAND obligation.⁹⁶

On appeal, the Federal Circuit affirmed the infringement findings related to the ’568 and ’215 patents, but reversed the infringement finding with respect to the ’625 patent.⁹⁷ The Federal Circuit also affirmed the jury’s finding that the ’625 patent was not invalid.⁹⁸ However the court vacated the damages award and remanded the decision for proceedings consistent with the guidance it provided in its opinion.⁹⁹

89. 773 F.3d 1201 (Fed. Cir. 2014).

90. *Id.* at 1235.

91. *Id.* at 1207.

92. *Id.* at 1208.

93. *Id.* at 1209.

94. *Id.* at 1207.

95. *Id.* at 1213.

96. *Id.* at 1213–14.

97. *Id.* at 1236.

98. *Id.*

99. *Id.* at 1225.

D-Link argued that certain testimony by Ericsson's damages expert should have been excluded because the calculations were, in part, based on licenses that were tied to the entire value of the licensed products.¹⁰⁰ Because the licensed technology related to only a component of the accused products, D-Link argued that Ericsson violated the entire market value rule by basing its damages on the price of the end products.¹⁰¹

The Federal Circuit first held that the legal standard for determining the royalty consists of two parts: a substantive legal rule and a separate evidentiary principle.¹⁰² The substantive legal rule holds that "the ultimate combination of royalty base and royalty rate must reflect the value attributable to the infringing features of the product, and no more."¹⁰³ Therefore, to avoid excessive damages, the only value measured should be the value of the infringing features of the accused product.¹⁰⁴ The separate evidentiary principle requires that a party must take care to avoid misleading the jury and thus must avoid placing "undue emphasis on the value of the entire product" where there is a multi-component product and where the entire value of the product is not "properly and legally attributable to the patented feature."¹⁰⁵ In light of this two-pronged test, the Federal Circuit held that Ericsson's expert testimony properly apportioned the value of the patented technology and thus did not violate the legal standard, and that Ericsson's evidence did not mislead the jury and thus did not violate the evidentiary standard.¹⁰⁶

The Federal Circuit also expanded the type of evidence that could be presented to the jury to help decide an appropriate royalty award.¹⁰⁷ The court held that prior licenses are admissible evidence to the extent that they would not unfairly affect the jury's ability to apportion damages.¹⁰⁸ Therefore, when licenses based on the value of a multi-component product are admitted, the court should give a "cautionary instruction regarding the limited purposes for which such testimony is proffered if the

100. *Id.*

101. *Id.*

102. *Id.* at 1226.

103. *Id.* (citing *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326 (Fed. Cir. 2014) (citing *Garretson v. Clark*, 111 U.S. 120, 121 (1884))).

104. *Id.*

105. *Id.* at 1226–27 (quoting *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011)).

106. *Id.* at 1227.

107. *Id.*

108. *Id.* at 1227–28 (stating that "the fact that a license is not perfectly analogous generally goes to the weight of the evidence, not its admissibility.").

accused infringer requests the instruction.”¹⁰⁹ Furthermore, the court should ensure that the instructions fully explain the need to apportion the royalty determination to the “incremental value of the patented feature” from the accused product.¹¹⁰

The Federal Circuit also held that the district court erred in failing to adequately instruct the jury about proper apportionment, determining a proper RAND royalty rate from the value of the invention, and Ericsson’s RAND commitment.¹¹¹ The court found that listing all fifteen *Georgia-Pacific* factors in a RAND determination is improper because many factors are not relevant, and even contrary to RAND principles, when an SEP is involved.¹¹² Furthermore, the Federal Circuit stated that “[t]rial courts should also consider the patentee’s actual RAND commitment in crafting the jury instruction.”¹¹³ The district court judge failed to instruct the jury about Ericsson’s “actual” RAND obligation; instead the judge instructed the jury that Ericsson had an obligation to “license its technology on RAND terms.”¹¹⁴ Furthermore, the Federal Circuit held that the district court erred in not instructing the jury to ensure that the royalty award is apportioned to the value of the patented invention, and not the value of the standard as a whole,¹¹⁵ but did not err when it did not instruct the jury on patent hold-up and royalty stacking.¹¹⁶

In summary, the Federal Circuit affirmed the infringement findings related to the ’568 and ’215 patents, reversed the infringement finding related to the ’625 patent, and vacated and remanded the royalty award to the district court.¹¹⁷

109. *Id.*

110. *Id.*

111. *Id.* at 1235.

112. *Id.* at 1230–31 (noting that factors such as 4, 5, 8, 9, and 10 are not relevant, or are misleading); *see also* *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

113. *Id.*

114. *Id.* (“The court therefore must inform the jury what commitments have been made and of its obligation (not just option) to take those commitments into account when determining a royalty award.”)

115. *Id.* at 1233.

116. *Id.* at 1230, 1235.

117. *Id.* at 1236.

E. *IN RE BRCA1- & BRCA2-BASED HEREDITARY CANCER TEST PATENT LITIGATION*¹¹⁸

In *In re BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litigation*, the United States Court of Appeals for the Federal Circuit held that claims relating to BRCA primers and comparison of BRCA sequences via hybridization or genetic sequencing are patent-ineligible subject matter under 35 U.S.C. § 101 as products of nature and abstract ideas, respectively.¹¹⁹

In the 1990s, Myriad Genetics, Inc., the University of Utah Research Foundation, the Trustees of the University of Pennsylvania, HSC Research and Development Limited Partnership, and Endorecherche, Inc. (collectively “Myriad”) discovered the locations and sequences of the BRCA1 and BRCA2 genes.¹²⁰ Mutations of these two genes increase a patient’s susceptibility to breast or ovarian cancer.¹²¹ Myriad owns U.S. Patent No. 5,753,441 (“the ’441 patent”), U.S. Patent No. 5,747,282 (“the ’282 patent”), and U.S. Patent No. 5,837,492 (“the ’492 patent”), and its patents concern compositions of matter and methods relating to the BRCA1 and BRCA2 genes.¹²² The Supreme Court, as well as the Federal Circuit, previously addressed several of Myriad’s patents at issue in former lawsuits.¹²³ The Supreme Court ruled that Myriad’s discovery and isolation of BRCA DNA were patent ineligible because they yielded products of nature, i.e., genetic information in the BRCA1 and BRCA2 genes remained unchanged.¹²⁴ On the other hand, BRCA cDNA, which is synthetically created DNA coding only amino acids, was patent eligible because it does not exist in nature.¹²⁵

After the *Myriad* decision, competitors including Ambry Genetics Corp. (“Ambry”) began selling generic versions of Myriad’s medical kits designed to test for BRCA1 and BRCA2 mutations.¹²⁶ On July 8, 2013, Myriad brought suit against Ambry in the United States District Court for the District of Utah, seeking to enjoin alleged infringement of six claims of its three patents that had not yet been addressed by the Supreme Court

118. 774 F.3d 755 (Fed. Cir. 2014).

119. *Id.* at 757.

120. *Id.* at 758.

121. *Id.*

122. *Id.* at 757.

123. *See, e.g., Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107 (2013).

124. *Id.* at 2111.

125. *Id.*

126. *In re BRCA1*, 774 F.3d 755, 758 (Fed. Cir. 2014).

or the Federal Circuit: claims 7 and 8 of the 441 patent, claims 16 and 17 of the '282 patent, and claims 29 and 30 of the '492 patent.¹²⁷ These six claims included four composition of matter claims relating to BRCA primers and two method claims involving comparisons between typical, i.e., "wild-type," BRCA sequences and patients' BRCA sequences.¹²⁸ On March 10, 2014, the district court denied Myriad's motion for a preliminary injunction even though Myriad would likely suffer irreparable harm from the denial, finding that "Myriad was unlikely to succeed on the merits because the claims were likely drawn to ineligible subject matter[.]"¹²⁹ On appeal, Myriad argued patent eligibility of its four composition of matter claims by distinguishing them from the claims at issue in *Myriad* and its two method claims by analogizing them to other method claims previously held to be patent eligible.¹³⁰

Concerning Myriad's four claims related to BRCA primers, which are "short, synthetic, single-stranded DNA molecules that bind specifically to intended target nucleotide sequences,"¹³¹ the Federal Circuit found that the claims were patent ineligible.¹³² Guided by the Supreme Court's reasoning in *Myriad*, the Federal Circuit found that the primers were indistinguishable from patent-ineligible isolated DNA.¹³³ Although Myriad argued that its claims were patent eligible because primers are synthetically created genetic sequences and perform new functions, the court observed that the "[p]rimers are structurally identical to their naturally occurring DNA counterpart and are routinely synthetically created."¹³⁴ Furthermore, the fact that their natural function is exploited in a scientific technique does not give primers themselves a new function.¹³⁵ The court held that DNA with a function similar to that found in nature must be structurally unique from anything found in nature in order to be patentable subject matter.¹³⁶

Regarding Myriad's two claims related to methods for comparing BRCA sequences, the court concluded that the claims were patent

127. *Id.* at 757–58.

128. *Id.* at 758–59.

129. *Id.* at 758.

130. *Id.* at 760, 764.

131. *Id.* at 758 (internal quotation marks omitted).

132. *Id.* at 761.

133. *Id.* at 760.

134. *Id.*

135. *Id.* at 761.

136. *Id.*

ineligible as well.¹³⁷ One method claim compared wild-type and patient's BRCA genes via a hybridization method.¹³⁸ The other method claim compared wild-type and patient's BRCA genes via genetic sequencing.¹³⁹ Both method claims were comprised of two paragraphs: one relating to another claim ("Claim 1") and the other covering specific comparison techniques.¹⁴⁰ Claim 1 was determined to be patent-ineligible by the Federal Circuit in 2012 because it "claimed an abstract mental process of 'comparing' and 'analyzing' two gene sequences" within meaning of 35 U.S.C. § 101.¹⁴¹ The second paragraph relating to specific mechanisms of comparisons was not "inventive" enough to transform the claims into patent eligible subject matter.¹⁴² Hybridization and genetic sequencing techniques are "well-understood, routine and conventional activit[ies]" regularly engaged by scientists.¹⁴³ The court did not find anything added by Myriad's identification of routine, ordinary techniques for comparing genetic sequences.¹⁴⁴

F. *INTEGRATED TECHNOLOGY CORP. V. RUDOLPH TECHNOLOGIES, INC.*¹⁴⁵

In *Integrated Technology Corp. v. Rudolph Technologies, Inc.*, the Federal Circuit found that prosecution history estoppel barred a finding of patent infringement by the doctrine of equivalents when the patentee had narrowed the scope of its patent claim during prosecution in response to patentability rejections.¹⁴⁶

Integrated Technologies Corporation ("ITC") owned U.S. Patent No. 6,118,894 ("the '894 patent"), involving a probe system for testing chips on semiconductor wafers.¹⁴⁷ The '894 patent discloses a digital viewing system to assess whether the testing probes are misaligned.¹⁴⁸ During the prosecution of the '894 patent before the United States Patent and Trademark Office, ITC amended a patent claim to specify that a probe

137. *Id.*

138. *Id.*

139. *Id.*

140. *Id.* at 764.

141. *Id.* at 763.

142. *Id.* at 764.

143. *Id.*

144. *Id.*

145. 734 F.3d 1352 (Fed. Cir. 2013), *cert. denied*, 134 S. Ct. 2873 (2014).

146. 734 F.3d 1352, 1354–55 (Fed. Cir. 2013).

147. *Id.*

148. *Id.* at 1355.

had to be driven into contact with the viewing window.¹⁴⁹ The amendment was in response to the patent examiner's rejection of ITC's original claim as being anticipated by prior art.¹⁵⁰

Rudolph Technologies ("Rudolph") manufactured two categories of related products: products in which the probe actually touches the viewing window ("touch" products) and products in which it does not ("no touch" products).¹⁵¹ ITC sued Rudolph for infringement of several '894 patent claims, accusing both touch products (literal infringement) and no-touch products (infringement by equivalence).¹⁵²

The district court granted summary judgment to ITC on literal infringement regarding Rudolph's touch products.¹⁵³ The matter proceeded to trial on: 1) whether touch product infringement was willful, 2) whether the no-touch products were also infringing, and 3) damages.¹⁵⁴ The jury found that the touch product infringement was not willful, but that the no-touch products also infringed by the doctrine of equivalents, and that infringement on these products was willful.¹⁵⁵ The jury awarded ITC damages of \$7.7 million on the touch product infringement and \$7.8 million on the no-touch product infringement (lost profits).¹⁵⁶

Rudolph moved for judgment as a matter of law ("JMOL"), arguing that prosecution history estoppel barred no-touch product infringement by the doctrine of equivalents.¹⁵⁷ The court denied Rudolph's JMOL motion, trebled damages for willful infringement of the no-touch products and awarded ITC attorneys' fees, finding that the case was exceptional.¹⁵⁸

On appeal, the Federal Circuit analyzed the prosecution history estoppel doctrine as described in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*,¹⁵⁹ which bars a patentee from recapturing subject matter through the doctrine of equivalents surrendered during prosecution of the patent.¹⁶⁰ At the first stage of its analysis, the court found that prosecution history estoppel presumptively applied because ITC had amended its

149. *Id.* at 1358.

150. *Id.*

151. *Id.* at 1355.

152. *Id.*

153. *Id.*

154. *Id.* at 1355–56.

155. *Id.* at 1356.

156. *Id.* at 1356.

157. *Id.*

158. *Id.*

159. 535 U.S. 722 (2002).

160. *Integrated Tech. Corp.*, 734 F.3d at 1356.

patent claim to narrow its scope (specifying that the probe be in contact with the viewing window) during prosecution of the '894 patent.¹⁶¹

Next, the court found that none of the *Festo* exceptions applied.¹⁶² First, ITC could not prove that its amendment was “tangential” to the no-touch products made by Rudolph, i.e. the equivalents ITC claimed infringed its patent.¹⁶³ In fact, the court found that ITC relied substantially on the physical contact between the probe and the window to overcome prior art.¹⁶⁴ Second, ITC did not prove that Rudolph’s no-touch products were unforeseeable at the time either, because its own original patent claim did not claim the probe necessarily touching the viewing window.¹⁶⁵

The court affirmed, however, the damages of lost profits for literal infringement by the touch products, despite Rudolph’s argument on appeal that its expert had testified at trial that if the no touch products had not infringed, those products would have been noninfringing alternatives.¹⁶⁶ The court rejected Rudolph’s argument, finding that because Rudolph and ITC were the only players in the market, the jury could have relied on a two-supplier theory of lost profits, and thus the award passed the “substantial evidence” standard the Federal Circuit uses in reviewing jury verdicts.¹⁶⁷ In the two-supplier theory, when only two companies make a product, it can be assumed that the patentee would have made the infringer’s sales.¹⁶⁸ Nevertheless, the court concluded that the district court’s finding that the case was exceptional was predicated on its finding of willful infringement by the doctrine of equivalents and therefore vacated and remanded it to the district court.¹⁶⁹

In summary, the Federal Circuit reversed and vacated the finding of infringement under the doctrine of equivalents related to the no-touch products, affirmed the finding of literal infringement by the touch products, vacated the award of attorney’s fees, and remanded to the district

161. *Id.*

162. *Id.* (listing the *Festo* exceptions that could rebut a presumption of prosecution history estoppel).

163. *Id.* at 1358–59.

164. *Id.*

165. *Id.* at 1359.

166. *Id.* at 1360.

167. *Id.*

168. *Id.* (citing *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1578 (Fed. Cir. 1989)).

169. *Id.*

court to examine the willfulness finding.¹⁷⁰ A subsequent petition by Rudolph for certiorari to the U.S. Supreme Court was denied.¹⁷¹

G. *STC.UNM v. INTEL CORP.*¹⁷²

In *STC.UNM v. Intel Corp.*, the United States Court of Appeals for the Federal Circuit ruled that a court cannot hear a patent infringement case if one of the patent co-owners refuses to join the suit, and a co-owner cannot be involuntarily joined under Federal Rule of Civil Procedure 19 if it has not given its consent to sue.¹⁷³

STC, the licensing arm of the University of New Mexico (“UNM”), had an assignment for U.S. Patent No. 5,705,321 (“the ’321 patent”), whose inventors were employees of UNM and Sandia Corporation.¹⁷⁴ Sandia became a co-owner of the ’321 patent in 1996 through an explicit assignment from UNM, accounting for one inventor’s status as a Sandia employee.¹⁷⁵ In 1997 two of the UNM inventors submitted a related patent application, which matured into U.S. Patent No. 6,042,998 (“the ’998 patent.”).¹⁷⁶ To overcome a double-patenting rejection by the United States Patent and Trademark Office, UNM filed a terminal disclaimer restricting the enforceability of the ’998 patent to such period that the ’321 and ’998 patents were commonly owned.¹⁷⁷

STC filed suit in 2010 against Intel in the U.S. District Court for the District of New Mexico, alleging infringement of the ’998 patent.¹⁷⁸ To quell objections from Intel that the ’998 patent could be asserted only when commonly owned with the ’321 patent, in December 2011 STC assigned an undivided interest in each of the ’321 and ’998 patents to Sandia.¹⁷⁹

The district court first granted partial summary judgment to Intel, finding no infringement before December 2011 because the patents were

170. *Id.* at 1361.

171. *Rudolph Techs., Inc. v. Integrated Tech. Corp.*, 134 S. Ct. 2873 (2014). Rudolph’s petition centered on its argument that the two-supplier theory did not apply, because its no-touch products were non-infringing alternatives and thus the assumption that ITC would have made Rudolph’s sales was legally flawed. *See* Brief of Respondents at 15-16, *Rudolph Techs. v. Integrated Tech. Corp.*, No. 13-1062 (U.S. Mar. 4, 2014).

172. 754 F.3d 940 (Fed. Cir. 2014).

173. *Id.* at 946.

174. *Id.* at 941–42.

175. *Id.* at 942.

176. *Id.*

177. *Id.*

178. *Id.*

179. *Id.* at 943.

not commonly owned before that time.¹⁸⁰ Then, the court dismissed the case altogether, finding that STC did not have standing because patent co-owner Sandia refused to join the litigation against Intel.¹⁸¹ The court relied on its earlier decision in *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456 (Fed. Cir. 1998) for the proposition that when a patent is co-owned, all owners must join as plaintiffs to establish standing.¹⁸²

On appeal, the Federal Circuit reiterated the “settled principle” of its earlier *Ethicon* decision that “[a]n action for infringement must join as plaintiffs all co-owners.”¹⁸³ The court held that the *Ethicon* holding was “a matter of substantive patent law” and only had two exceptions.¹⁸⁴ The first applied when the suing owner had been granted an exclusive license, while the second was relevant when a co-owner waived his right to refuse to join the suit.¹⁸⁵ Neither applied in the case at bar.¹⁸⁶

Next, the court rejected STC’s contention that Federal Rule 19(a)’s involuntary joinder provision was controlling in the case.¹⁸⁷ The court held that Rule 19(a), as a rule of procedure, had to give way to a patent co-owner’s “substantive patent right” to impede an infringement suit brought by another co-owner.¹⁸⁸

Finally, the Federal Circuit did not find its holding at odds with the equities at play in the case.¹⁸⁹ While admitting that a license demand from STC had “less bite” if STC could not sue potential licensees, the court emphasized a patent co-owner’s right to not be involuntarily thrust into costly litigation where his patent would be at risk.¹⁹⁰ The court also pointed out that its rule would prevent an accused infringer from being subject to multiple infringement suits on the same patent.¹⁹¹

In her dissent, Judge Newman found the court’s holding contrary to both Rule 19 and case precedent.¹⁹² The dissent found that because Sandia was an indispensable party to the suit, Rule 19 applied, requiring Sandia to

180. *Id.*

181. *Id.*

182. *Id.*

183. *Id.* at 945 (quoting *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1467 (Fed. Cir. 1998)).

184. *Id.* at 946.

185. *Id.*

186. *Id.*

187. *Id.* at 945–46.

188. *Id.* at 946.

189. *Id.* at 946–47.

190. *Id.* at 947.

191. *Id.*

192. *Id.* at 947 (Newman, J., dissenting).

be joined whether it agreed or not.¹⁹³ Judge Newman also stated that the court incorrectly relied on Ethicon because the Ethicon court's ruling involved neither involuntary joinder nor Rule 19.¹⁹⁴

II. COPYRIGHT DEVELOPMENTS

A. *AUTHORS GUILD, INC. V. GOOGLE, INC.*¹⁹⁵

On November 14, 2013, the United States District Court for the Southern District of New York dismissed The Authors Guild Inc.'s ("Authors Guild") copyright infringement suit against Google, Inc. ("Google"). In denying Authors Guild's motion for summary judgment and granting Google's motion for partial summary judgment, the court held that Google's use of copyrighted works as part of the Google Books program constituted fair use under copyright laws.¹⁹⁶

Since 2004, while working in partnership with public libraries and some publishers and copyright holders, Google scanned and digitized more than twenty million books, indexed and created a searchable database of book content linkable to those books, and made portions or "snippets" of books available for online search.¹⁹⁷ However, Google did not obtain permission or compensate copyright holders for its usage of copyrighted works.¹⁹⁸ Google Books program users can research books and book content via search and can conduct data mining-based research and scholarship.¹⁹⁹ Google Books also provides increased access for underserved populations and to rare or inaccessible books, and can benefit authors and publishers by helping readers find their books.²⁰⁰

In 2005, individual book owners and Authors Guild brought a class action suit against Google, alleging copyright infringement for scanning and making available for search copyrighted books without the permission of copyright holders.²⁰¹ In March 2011, the U.S. District Court for the Southern District of New York rejected a proposed settlement between the parties on the grounds that it was not fair, adequate, and reasonable.²⁰²

193. *Id.* at 950 (Newman, J., dissenting).

194. *Id.* at 951 (Newman, J., dissenting).

195. 954 F. Supp. 2d 282 (S.D.N.Y. 2013)

196. *Id.* at 289.

197. *Id.* at 284.

198. *Id.* at 286.

199. *Id.* at 287.

200. *Id.* at 288.

201. *Id.*

202. *Id.*

Thereafter the parties pursued additional negotiations but were unsuccessful in reaching an agreement.²⁰³ In March 2012, the court granted Authors Guild's motion for class certification and held that Authors Guild had standing to sue on behalf of its members.²⁰⁴ Google then issued an interlocutory appeal, and on July 1, 2013, the U.S. Court of Appeals for the Second Circuit vacated the class certification and remanded the case to the Southern District of New York for consideration and resolution of Google's fair use defense.²⁰⁵ Both parties then filed motions for summary judgment with the court.²⁰⁶

Assuming a *prima facie* case of copyright infringement, the Southern District of New York addressed whether Google's use of copyrighted works was fair use under § 107 of the Copyright Act.²⁰⁷ The court first stated that the fair use doctrine "permits the fair use of copyrighted works 'to fulfill copyright's very purpose, [t]o promote the Progress of Science and useful Arts.'"²⁰⁸ The court then weighed the four factors of fair use in light of the overall purposes of copyright laws.²⁰⁹ The court held that the first, second, and fourth factors all favored a finding of fair use, while the third weighed slightly against fair use.²¹⁰

The first factor, purpose and character of use, weighed "strongly" in favor of a finding of fair use.²¹¹ The court found that Google's use of books was "highly transformative," as showing snippets and allowing readers to discover books and conduct research "does not supersede or supplant books" but rather "adds value to the original."²¹² Further, while Google received some commercial benefit, the court found that this fact was outweighed by the fact that "Google Books serves several important educational purposes."²¹³

The second factor, nature of the copyrighted work, pointed toward fair use, as the books are already published and publicly available, and as they

203. *Id.*

204. *Id.* at 289.

205. *Id.*

206. *Id.*

207. *Id.*

208. *Id.* (quoting *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575 (1994)).

209. *Id.* at 289–90.

210. *Id.* at 291–93.

211. *Id.* at 293.

212. *Id.* at 291.

213. *Id.* at 291–92.

are predominantly non-fiction works, they are thus entitled to lesser protection than works of fiction.²¹⁴

Additionally, the fourth factor, effect of the use upon the potential market, weighed “strongly in favor of a finding of fair use.”²¹⁵ Here the court rejected the plaintiffs’ contention of negative market impact and market replacement, concluding that “Google does not sell its scans, and the scans do not replace books.”²¹⁶ On the contrary, the court found that Google Books encourages books sales and benefits copyright holders.²¹⁷

The third factor, amount and substantiality of the portion taken, weighed “slightly” against fair use, however.²¹⁸ Though Google scans and copies entire works, which weighed against fair use, the court also recognized that “full-work reproduction is critical to the functioning of Google Books” and that Google limits the amount of text visible to users through search.²¹⁹

The court found that Google Books serves as “an invaluable research tool,” preserves books, expands access and readership, and generates new sources of income for copyright holders.²²⁰ The court thus concluded, “Google Books provides significant public benefits. It advances the progress of the arts and sciences, while maintaining respectful consideration for the rights of authors and other creative individuals, and without adversely impacting the rights of copyright holders.”²²¹

After weighing the four fair use factors, the court held that Google Books constituted a protected fair use consistent with the purposes of copyright laws, and provided substantial benefits to society at large.²²² Thus, the court granted Google’s motion for summary judgment, and dismissed plaintiffs’ complaint against Google.²²³

B. *AUTHORS GUILD, INC. V. HATHITRUST*²²⁴

On June 10, 2014, the United States Court of Appeals for the Second Circuit held that the fair use doctrine under 17 U.S.C. § 107 allowed

214. *Id.* at 292.

215. *Id.* at 293.

216. *Id.* at 292–93.

217. *Id.*

218. *Id.* at 292.

219. *Id.*

220. *Id.*

221. *Id.*

222. *Id.* at 293.

223. *Id.* at 294.

224. 755 F.3d 87 (2d Cir. 2014).

HathiTrust to use copyrighted material to make books fully text searchable and to provide full access to print-impaired patrons.²²⁵

In 2011, twenty authors and authors' associations, including Author's Guild, Inc., Australian Society of Authors Limited, and Writers' Union of Canada, sued HathiTrust and others for copyright infringement seeking declaratory and injunctive relief.²²⁶ HathiTrust is a library organization set up by several research universities to share collections with one another.²²⁷ HathiTrust operates the HathiTrust Digital Library, a repository of digitally scanned books, containing ten million digital works from the collections of eighty universities and nonprofit institutions.²²⁸

HathiTrust allows three uses of the copyrighted work in its repository.²²⁹ First, the public can search for a particular term across all digital copies in the HathiTrust collection and find out how many times a search term appears on a given page.²³⁰ Search results for copyrighted works have no text displayed, as snippets or otherwise, unless authorized by the copyright holder.²³¹ Second, users with certified disabilities that prevent them from reading printed text (such as blindness or inability to hold books) can receive full access to the digital copies of copyrighted works.²³² Finally, the member libraries of HathiTrust are allowed to use the digital copies in the collection for preservation purposes: if members lose an original copy and are unable to replace it at a fair price, they can use the digital copy to create a replacement copy.²³³ Plaintiffs claimed the above activities constituted copyright infringement and sought an injunction against any further use of the works.²³⁴

At trial in the Southern District of New York, HathiTrust moved for summary judgment arguing that its activities were protected by the fair use doctrine under 17 U.S.C. § 107.²³⁵ After holistically looking at the four fair use factors, which include the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the work used, and the impact of the use on the market for the copyrighted work,

225. *Id.* at 105.

226. *Id.* at 92.

227. *Id.* at 90.

228. *Id.*

229. *Id.* at 91.

230. *Id.*

231. *Id.*

232. *Id.*

233. *Id.* at 92.

234. *Id.*

235. *Id.*

the trial court held that HathiTrust's usage of its digital books constituted fair use and granted defendants' motion for summary judgment.²³⁶ This decision was considerably motivated by the "transformative" nature of the uses adding new uses for the underlying works and what the court saw as HathiTrust's "invaluable contribution to the advancement of knowledge."²³⁷

On appeal, the Second Circuit largely affirmed the lower court ruling. The court considered and analyzed the three different uses of HathiTrust's digital collection: full-text search, access to the print-disabled, and preservation.²³⁸ On full-text search, the court ruled that the use was fair.²³⁹ Under the first fair use factor, the purpose and character of the use, creating a fully searchable book database was "quintessentially transformative," which added "a great deal more" to the copyrighted works than did the previously protected uses in other fair use cases.²⁴⁰ The court observed that by enabling full-text search, HathiTrust's digital collection "add[ed] the original something new with a different purpose and a different character."²⁴¹ Looking at the third factor, the amount and substantiality of the work used, the court held that it was "reasonably necessary" to copy entire books in order to make them fully searchable.²⁴² The court also found that it was "reasonably necessary" to maintain copies of the works at four different locations in order to facilitate the services the digital collection provided and to protect against the risk of data loss.²⁴³ Finally, under the fourth market harm factor, which examines whether the secondary use "usurps the market of the original work," because the full-text search function did not serve as a substitute for the books that were being searched, the court was satisfied that this factor weighed towards fair use.²⁴⁴ The court emphasized that under the fourth factor any economic harm caused by transformative uses did not count because such uses cannot be substitutes for the original work.²⁴⁵ Balancing the factors,

236. *Id.* at 93.

237. *Id.*

238. *Id.* at 97.

239. *Id.*

240. *Id.*

241. *Id.*

242. *Id.* at 98.

243. *Id.* at 98–99.

244. *Id.* at 99–100.

245. *Id.* at 99.

the court concluded that digitizing copyrighted works for full-text search was fair.²⁴⁶

The court also held that on balance providing access to books for print-disabled patrons was fair.²⁴⁷ Though providing access to the print-disabled was not transformative, it was still a “valid purpose” under the first factor.²⁴⁸ The court also noted that it was necessary to retain full digital image files of books to allow print-disabled patrons to perceive the books fully because certain information relevant to the book’s content, such as charts or other graphics, could not be stored as text.²⁴⁹ Finally, the fourth factor weighed in favor of finding fair use because the market for books for the disabled was so insignificant.²⁵⁰

On the final use of digital copies for preservation purposes, the appellate court vacated the district court’s judgment and declined to rule on the fairness of the use because the court was unconvinced that the plaintiffs had shown standing.²⁵¹

In summary, the Second Circuit affirmed the finding of fair use in creating a full-text searchable database of copyrighted works and providing access of those works to those with disabilities, vacated the judgment on the use of copies for preservation of copyrighted works, and remanded to the district court.²⁵²

C. *BROWNSTEIN V. LINDSAY*²⁵³

The United States Court of Appeals for the Third Circuit held that courts could not issue judgment as a matter of law against a claimant where factual disputes over joint authorship remained. It further held that courts have no authority to cancel copyright registrations.²⁵⁴

In 1996, Tina Lindsay obtained two copyright registrations for the Ethnic Determinate System (“EDS”).²⁵⁵ While working at a direct mailing list company with the appellant, Peter Brownstein, she created EDS, a system of rules categorizing names by ethnicity.²⁵⁶ Brownstein translated

246. *Id.* at 101.

247. *Id.*

248. *Id.* at 101–02.

249. *Id.* at 102–03.

250. *Id.* at 103.

251. *Id.* at 104.

252. *Id.* at 105.

253. 742 F.3d 55 (3d Cir. 2014).

254. *See id.* at 58.

255. *Id.* at 59.

256. *Id.*

the rules into a code known as the Lindsay Cultural Identification Determinate (“LCID”).²⁵⁷ In obtaining her second copyright registration for EDS, Lindsay asserted sole authorship of both EDS and Brownstein’s LCID.²⁵⁸ Brownstein claimed to have been unaware of Lindsay’s claim to sole authorship until 2010.²⁵⁹ Four years later, in his pleading for the case at bar, Brownstein sought “a declaratory judgment of joint authorship of the LCID [and] an accounting of the profits.”²⁶⁰

On Brownstein’s joint authorship claim, the District Court for the District of New Jersey granted judgment as a matter of law in favor of Lindsay, finding that the statute of limitations under the Copyright Act had run,²⁶¹ that Brownstein was not a co-author of the LCID, and that Brownstein had cancelled his copyright registration.²⁶² In calculating the statute of limitations, the district court pointed to “storm warnings,” as early as 1996, which provided Brownstein with inquiry notice. The warning included his physical possession of the copyright registrations and his knowledge of the LCID licensing agreements.²⁶³ The court found that Brownstein was not a co-author and cancelled his rights, because there was an absence of convincing co-authorship evidence.²⁶⁴

In reviewing the district court’s rulings on this issue of joint authorship, the court of appeals focused on three issues: (1) Brownstein’s co-authorship claim, (2) the statute of limitations under the Copyright Act, and (3) the authority of the district court to cancel copyright registrations.²⁶⁵

On the first issue, the court concluded that genuine disputes over Brownstein’s authorship remained.²⁶⁶ The court based its determination on the following definition of joint authorship: “for two or more people to become co-authors, each author must contribute some non-trivial amount of creative, original, or intellectual expression to the work and both must intend that their contributions be combined.”²⁶⁷ Applying this test to the EDS dispute, the court relied on oral arguments, during which the

257. *Id.*

258. *Id.*

259. *Id.* at 62.

260. *Id.*

261. *Id.*

262. *Id.* at 63.

263. *Id.* at 62.

264. *Id.* at 63.

265. *Id.* at 64.

266. *Id.* at 65.

267. *Id.*

“appellees conceded Brownstein and Lindsay had been co-authors until 1997.”²⁶⁸ “This concession meant . . . Appellees admitted that Brownstein contributed a non-trivial amount of creative expression.”²⁶⁹ Although Lindsay may have created the general framework for the program, Brownstein coded the program, applying his own creativity and discretion to combine Lindsay’s rules and his code.²⁷⁰ Such a non-trivial contribution translated into Brownstein’s inherent copyrights over the LCID.²⁷¹

The court also found that Brownstein’s inherent copyrights and ownership remained undisturbed by Lindsay’s various licensing agreements.²⁷² Exclusive rights can only be conveyed if all authors agree, which did not occur in this case.²⁷³ Thus, Lindsay’s various licenses only conveyed “non-exclusive rights to the joint work,” leaving Brownstein’s inherent copyrights over the LCID untouched.²⁷⁴

On the second issue, the court assessed the storm warnings cited by the district court, because civil actions must be brought within a three-year timeframe under the Copyright Act regardless of inherent copyrights.²⁷⁵ When viewed in the light most favorable to Brownstein, the court found that a reasonable jury would possess a legally sufficient evidentiary basis to find for Brownstein.²⁷⁶ Thus, the District Court’s Rule 50(a) ruling was improper.²⁷⁷

On the third issue, the court held that “courts have no authority to cancel copyright registrations because there is no statutory indication whatsoever that courts have such authority.”²⁷⁸ Section 701 of the Copyright Act states, “all administrative functions and duties under this title, except as otherwise specified, are the responsibility of the Register of Copyrights.”²⁷⁹ According to the court, cancellations of copyrights are analogous to registrations of copyright, which have been held to be administrative functions under the purview of the Copyright Office.²⁸⁰ Further, an intratextualist reading of the Act advises against a general

268. *Id.*

269. *Id.*

270. *Id.*

271. *See id.* at 68.

272. *Id.*

273. *See id.*

274. *Id.*

275. *Id.*

276. *Id.*

277. *Id.* at 75.

278. *Id.*

279. 17 U.S.C. § 701(a).

280. *Brownstein*, 742 F.3d at 75.

cancellation authority, and comparable legislation, such as the Lanham Act, lends credence to this viewpoint.²⁸¹ The court noted that despite the lack of cancellation, courts continue to oversee the Copyright Office as well as to invalidate copyrights, which may then be canceled by the Copyright Office.²⁸²

In summary, the court concluded that the district court's Rule 50(a) grant of judgment as a matter of law and copyright cancellation were improper and remanded for a new trial.²⁸³

D. *FOX BROADCASTING CO., INC. V. DISH NETWORK, L.L.C.*²⁸⁴

The United States Court of Appeals for the Ninth Circuit, given its "limited and deferential" review of preliminary injunction appeals, affirmed the district court's denial of a network broadcaster's request for a preliminary injunction, because the broadcaster did not show a likelihood of success on its claims against one of its distributors for (1) direct infringement, (2) secondary infringement, (3) contract breach, or (4) irreparable harm.²⁸⁵

In 2012, Fox Broadcasting Company, Twentieth Century Fox Film Corp., and Fox Television Holdings, Inc. (collectively, "Fox") brought action against Dish Network, L.L.C. ("Dish") for copyright infringement and breach of contract and sought a preliminary injunction.²⁸⁶ Fox owns the copyrights to television shows that air on the Fox television network.²⁸⁷ Dish is a satellite-television multichannel video programming distributor that retransmits Fox's broadcast signal under a contract stating that Dish could not "record, copy, duplicate and/or authorize the recording, copying, duplication (other than by consumers for private home use) or retransmission" of any part of Fox's signal.²⁸⁸ Fox and Dish amended the contract several times, most recently in 2010, wherein Dish was permitted to provide Fox Video On Demand to its subscribers but was required to "disable fast forward functionality during all advertisements."²⁸⁹

281. *See id.* at 76 (noting the Lanham Act explicitly grants courts cancellation authority over trademarks).

282. *Id.*

283. *Id.*

284. 747 F.3d 1060 (9th Cir. 2013).

285. *Id.* at 1066.

286. *Id.*

287. *Id.* at 1064.

288. *Id.*

289. *Id.*

In March 2012, Dish released the Hopper, a set-top box with video recorder and video on demand capabilities, and a feature called PrimeTime Anytime that allows a subscriber to set a timer to record any primetime Fox programs.²⁹⁰ Dish later started offering a new feature, AutoHop, which allows users to automatically skip commercials.²⁹¹ Concurrently, three quality assurance copies were recorded to check that the shows and commercials were being aired properly.²⁹²

At trial, Fox contended that it was likely to succeed on its claims against Dish for direct copyright infringement, derivative copyright infringement, and contract breach, and the court should therefore grant its motion for injunction to prohibit Dish from “operating, distributing, selling, or offering to sell any version of [PrimeTime Anytime] or AutoHop[.]”²⁹³ The United States District Court for the Central District of California denied the motion, finding that Fox failed to show a likelihood of success on most of its copyright infringement and contract claims, except for the quality assurance copies.²⁹⁴ The court reasoned that although, in making these copies, Dish likely directly infringed Fox’s reproduction right and breached its contract,²⁹⁵ Fox failed to show it would likely suffer “irreparable harm” from those copies.²⁹⁶ Fox appealed to the Ninth Circuit, which reviewed the district court’s decision for an abuse of discretion.²⁹⁷

The Ninth Circuit affirmed the district court’s conclusion on Fox’s direct copyright infringement claim.²⁹⁸ The court noted that establishing a claim of direct infringement requires “copying by the defendant,” which includes a requirement that the defendant caused the copying.²⁹⁹ The court reasoned that because “Dish’s program create[d] the copy only in response to the user’s command[.]” the user, not Dish, made the copy.³⁰⁰

The Ninth Circuit also affirmed the district court’s holding on Fox’s secondary infringement claim.³⁰¹ The court observed that Dish met the

290. *Id.*

291. *Id.*

292. *Id.*

293. *Fox Broadcasting Co., Inc. v. Dish Network, L.L.C.*, 905 F. Supp. 2d 1088, 1096 (C.D. Cal. 2012).

294. *Id.* at 1088.

295. *Id.* at 1102–06, 1108.

296. *Id.* at 1109–11.

297. *Fox Broadcasting Co.*, 747 F.3d at 1066.

298. *Id.* at 1068.

299. *Id.* at 1067.

300. *Id.*

301. *Id.* at 1068.

burden of showing that its customers' copying was fair use, overcoming Fox's prima facie case of direct infringement by Dish's customers.³⁰² In reaching this conclusion, the court looked to *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), wherein Sony was not liable for secondary infringement for manufacturing VCRs because customers primarily used the device for time-shifting, i.e., recording a program to view it later and then erasing the content. The court saw this time-shifting as fair use.³⁰³ Although *Sony* never explicitly decided whether commercial-skipping, for which Dish customers allegedly used AutoHop in addition to time-shifting, was fair use, the court found that ad-skipping did not implicate Fox's copyright interest because Fox did not own the advertisements.³⁰⁴

Analyzing PrimeTime Anytime under the fair use factors under 17 U.S.C. § 107, the Ninth Circuit largely affirmed the lower court's ruling and found that on balance, Dish showed a likelihood of success on its customers' fair use defense.³⁰⁵ Concerning the first factor, the purpose and character of the use, the court held that the factor weighed towards fair use because PrimeTime Anytime was used for time-shifting and available only to private consumers, and thus indicated a "noncommercial, nonprofit activity."³⁰⁶ For the second and third factors, the nature of the copyrighted work and the amount and substantiality of the work used, the court looked to *Sony* for guidance. The court concluded that the act of time-shifting only allowed a viewer to see a work he could watch free of charge, and the fact that such a work was entirely reproduced, did not have its ordinary effect of weighing against fair use.³⁰⁷ Lastly, under the final factor that examines the impact of the use on the market for the copyrighted work, the court affirmed the district court's ruling that PrimeTime Anytime did not cause any market harm.³⁰⁸ The court held that "the ease of skipping commercials," not the recording through PrimeTime Anytime, caused "market harm."³⁰⁹ And because commercial-skipping (i.e., AutoHop) did not implicate any copyright interest, the market harm caused by the

302. *Id.*

303. *Id.*

304. *Id.*

305. *Id.*

306. *Id.* at 1069.

307. *Id.*

308. *Id.*

309. *Id.*

quality assurance copies that were used to perfect AutoHop was irrelevant to whether Dish customers' copying caused market harm.³¹⁰

Fox's breach of contract claim was a close call, but applying a "very deferential standard of review," the court upheld the district court's ruling, finding the lower court's defendant-friendly construction of "reproduce," "distribute," and "video-on-demand" reasonable.³¹¹ The court also noted that the record did not indicate intent to frustrate the contract, as Dish's actions were grounded in Dish's technological limitations.³¹²

Finally, the court affirmed the district court's decision that Fox failed to establish a likelihood of irreparable harm.³¹³ Even if Fox was likely to succeed on its copyright and contract claims as to the quality assurance copies, the court reasoned that Fox's alleged harm, including "loss of control over its copyrighted works and loss of advertising revenue," did not result from these copies, but "from the entire AutoHop program."³¹⁴ The court observed that the quality assurance copies were used only to test whether the technology was working properly through an entirely separate process.³¹⁵ Further, the court found that "monetary damages could compensate Fox for its losses from the copies" because the damages were not difficult to calculate.³¹⁶

E. *INHALE, INC. V. STARBUZZ TOBACCO, INC.*³¹⁷

The United States Court of Appeals for the Ninth Circuit held that the shape of Inhale's hookah water container was not copyrightable under 17 U.S.C §§ 101, 102(a)(5).³¹⁸

Inhale, Inc. ("Inhale") sued Starbuzz Tobacco, Inc. and Wael Salim Elhalawani (collectively "Starbuzz") in 2012, alleging that Starbuzz sold hookah water containers infringing on its own copyrighted design.³¹⁹ Inhale claimed copyright protection over the shape of its hookah water container, first published on August 29, 2008 and later registered as "sculpture/3-D artwork" with the United States Copyright Office on April

310. *Id.* at 1070.

311. *Id.* at 1070–71.

312. *Id.* at 1072.

313. *Id.*

314. *Id.*

315. *Id.* at 1072–73.

316. *Id.*

317. 755 F.3d 1038 (9th Cir. 2014).

318. *Id.* at 1042.

319. *Id.* at 1040.

21, 2011.³²⁰ Both parties agreed that the hookah water container is a “useful article” meant to hold water and serve as a hookah’s base.³²¹ Because useful articles have limited copyright protection, the shape of the water container is entitled to copyright protection under 17 U.S.C. § 102(a)(5) only if the shape satisfies 17 U.S.C. § 101’s condition that the design of a useful article be separately identifiable from its utilitarian aspects.³²² Section 101’s requirement is satisfied by either physical or conceptual separability.³²³ Because Inhale did not argue for physical separability, the Ninth Circuit reviewed de novo whether the shape of the container is “conceptually separable.”³²⁴

At trial, Inhale argued that the water container’s shape was separately identifiable from its utilitarian aspects.³²⁵ By looking to other hookah water containers with different shapes, it argued that because the “container’s shape [wa]s not critical to its function[,]” it was separate from its function.³²⁶

The United States District Court of Central District of California entered summary judgment for Starbuzz, finding that the container’s shape was physically and conceptually inseparable from the container’s utility and thus not subject to copyright protection.³²⁷ The district court reasoned that the “overall shape of a useful article is not copyrightable no matter how aesthetically pleasing that shape may be” when Inhale intended the container to “serve as a liquid-holding receptacle for a hookah—and not as a museum piece[.]”³²⁸ Inhale appealed, claiming that the water container’s distinctive shape made it conceptually separable from its utility.³²⁹

In addressing Inhale’s distinctive shape argument, the Ninth Circuit noted that courts in general have had difficulty creating an effective test for determining whether artistic aspects of a useful article could be separately identifiable, with courts either taking the distinctiveness of

320. *Inhale, Inc. v. Starbuzz Tobacco, Inc.*, No. 2:11-cv-03838-ODW, 2012 WL 2321573, at *1 (C.D. Cal. June 18, 2012).

321. *Id.* at *3.

322. *Id.* at *2; see also *Inhale, Inc.*, 755 F.3d at 1040.

323. *Inhale, Inc.*, 755 F.3d at 1040.

324. *Id.* at 1040, 1041.

325. *Inhale, Inc.*, 2012 WL 2321573, at *3.

326. *Id.*

327. *Id.*

328. *Id.* (internal quotation marks omitted).

329. *Inhale, Inc.*, 755 F.3d at 1041.

shape into account or discounting it altogether.³³⁰ Because of the lack of clear precedent, the Ninth Circuit chose to defer to the Copyright Office's interpretations of copyrightability.³³¹ The Copyright Office determined that the distinctiveness of an item's shape did not make it conceptually separable from its utility.³³² The Copyright Office opined that analogizing the general shape of a useful article to a modern sculpture's shape was insufficient for conceptual separability.³³³

The Ninth Circuit ultimately adopted the Copyright Office's reasoning.³³⁴ It reasoned that although Inhale's water container had a distinctive shape like that of a work of modern sculpture, the shape's alleged artistic features and utility "[were] one and the same"—that is, the shape of the water container simultaneously accomplished its function of holding water.³³⁵ By holding that any part of a container merely accomplishing the containment of water was not copyrightable, the court concluded that the shape of Inhale's hookah water container was not copyrightable.³³⁶ In reaching this conclusion, however, the court emphasized that it did not mean to suggest that no elements of a container were separately identifiable from the container.³³⁷ Noting that Inhale did not argue that the exterior shape of the drooping ring or the imagery on the container was copyrightable, the court emphasized that its holding did not extend to the copyrightability of "[p]ictorial, graphic, and sculpture works" under § 101 that may be affixed to or made part of a container.

F. *KLINGER V. CONAN DOYLE ESTATE, LTD.*³³⁸

The United States Court of Appeals for the Seventh Circuit held that Conan Doyle Estate, Ltd. ("Conan Doyle") owed attorneys' fees in the amount of \$30,679.93 to Leslie Klinger ("Klinger") as a result of the litigation between Klinger and Conan Doyle.³³⁹ The court held that Conan Doyle's estate provided no reasonable justification for the suit, and that instead it sought a licensing fee to avoid the nuisance lawsuit.³⁴⁰

330. *Id.* at 1041 n.2.

331. *Id.* at 1041.

332. *Id.* at 1042.

333. *Id.*

334. *Id.*

335. *Id.*

336. *Id.*

337. *Id.*

338. *Klinger I*, 755 F. 3d 496 (7th Cir. 2014); *att'y fees awarded, Klinger II*, 761 F.3d 789 (7th Cir. 2014).

339. *Klinger II*, 761 F.3d at 789.

340. *Id.*

Before this case, the US District Court for the Northern District of Illinois held that Klinger did not infringe the estate's copyrights on Conan Doyle's Sherlock Holmes works.³⁴¹ The issue in the initial case was whether "complex" characters, such as Sherlock Holmes or John Watson, whose full complexity was not revealed until later stories, remain under copyright until the later stories fall into the public domain.³⁴² When Conan Doyle defaulted by failing to appear or respond to Klinger's complaint, the court granted Klinger's motion for summary judgment, and Conan Doyle lost on appeal.³⁴³ The court permitted Klinger to move forward with publishing his derivative work.³⁴⁴ The Seventh Circuit then affirmed the lower court's holding.³⁴⁵

Klinger published his first anthology of modern Sherlock Holmes stories in 2011.³⁴⁶ His publisher at the time, Random House, paid the copyright license fee that Conan Doyle demanded for its alleged copyright ownership of all works featuring Sherlock Holmes characters.³⁴⁷ Klinger then attempted to publish a sequel, for which Conan Doyle demanded the same license fee.³⁴⁸ Klinger's new publisher, Pegasus Books, refused to publish the book until Klinger obtained a license from Conan Doyle.³⁴⁹ Additionally, Conan Doyle implicitly threatened to prevent distribution and sue for copyright infringement if Klinger published the book without a license.³⁵⁰ Instead of paying for the license, Klinger sued Conan Doyle, won, and sought reimbursement of the attorneys' fees he incurred in the appeal.³⁵¹

Based on the Copyright Act's consideration for "award of a reasonable attorney's fee to the prevailing party as part of the costs,"³⁵² the strength of Klinger's case and the fairness of the amount of relief initially awarded provided compelling reasons for the court to award attorney's fees.³⁵³ The court reasoned that attorneys' fees ensure that a defendant whose case has merit does not capitulate to the alleged copyright holder in situations

341. *Klinger I*, 755 F.3d 496, 503 (7th Cir. 2014).

342. *Id.* at 497.

343. *Id.* at 498.

344. *Id.*

345. *Klinger II*, 761 F.3d at 798.

346. *Klinger I*, 755 F.3d at 497.

347. *Id.*

348. *Id.*

349. *Id.*

350. *Id.*

351. *Klinger II*, 761 F.3d at 792–93.

352. *Id.* at *5.

353. *Id.*

where “the cost of vindication exceeds the private benefit to the party.”³⁵⁴ The court noted that, in such cases, the defendant’s rights to prepare derivative works are at stake, and copyright holders also tend to face less risk in suits where they would receive damages if they win but pay no damages if they lose, even while enforcing “non-existent” rights.³⁵⁵ As such, the court held that attorneys’ fees should be awarded to compensate Klinger because this suit serves the public in challenging Conan Doyle’s disreputable business practice.³⁵⁶

G. *ORACLE AMERICA, INC. V. GOOGLE, INC.*³⁵⁷

On May 9th, 2014, the Federal Circuit in *Oracle America, Inc. v. Google, Inc.* ruled that the Java programming language and platform is copyrightable, therein reinstating a jury verdict that Google’s Android operating system infringes the Java software.³⁵⁸ The court overruled the Northern District of California’s May 2012 ruling that the Java source code is not eligible for copyright protection.³⁵⁹

This litigation centered on the copyrightability of the Java platform’s application programming interfaces (“APIs”), which are packages of Java code used to speed programming by performing common computer functions.³⁶⁰ Many companies use Java language and Oracle’s API to design their applications.³⁶¹ Sun Microsystems originally developed the Java platform; ownership of Java passed to Oracle in 2010.³⁶² Sun wrote many Java programs that were “ready-to-use” for performing common functions, and organized programs into “packages” that allowed programmers to “build certain functions into their own programs”; in effect, APIs are programmer shortcuts.³⁶³ Codes for specific operations are “methods” while “classes” are specified methods with other elements and variables on which the methods operate.³⁶⁴ The district court likened Oracle’s API packages to “a library, [where] each package is like a

354. *Id.* at 795.

355. *Id.*

356. *Id.*

357. *Oracle Am., Inc. v. Google Inc. (Oracle II)*, 750 F.3d 1339 (Fed. Cir. 2014).

358. *Id.* at 1381.

359. *Oracle Am., Inc. v. Google Inc. (Oracle I)*, 872 F. Supp. 2d 974, 1002 (N.D. Cal. 2012).

360. *Oracle II*, 750 F.3d at 1348–49.

361. *Id.* at 1347.

362. *Id.* at 1348 n.1.

363. *Id.* at 1349.

364. *Id.* at 1348–49.

bookshelf in the library, each class is like a book on the shelf, and each method is like a how-to chapter in a book.”³⁶⁵

In this appeal, the software platform Android was the accused product.³⁶⁶ Google, the developer of Android, and Oracle attempted to negotiate a license for use of Java, but failed to come to terms.³⁶⁷ Afterwards, Google used the Java programming language to create its own “virtual machine,” in which it wrote its own implementations for key Java API functions.³⁶⁸ The Android platform includes 168 API packages, 37 of which correspond to Java API packages.³⁶⁹ Google used the same names for these packages as Java, and also copied “the elaborately organized taxonomy of all of the names of methods, classes, interfaces, and packages”—including over six hundred classes and six thousand methods (“the SSO”).³⁷⁰ Google wrote its own implementing code except for the `rangeCheck` function, comprised of nine lines of code, and eight security files.³⁷¹

Oracle thus sued Google for copyright infringement in the Northern District of California, on the grounds that Google’s Android system (1) literally copied seven thousand lines of class and method declaration source code and (2) non-literally copied the API packages’ SSO.³⁷²

At the district court level, a jury and district court Judge William Alsup heard the case on parallel tracks, with Judge Alsup responsible for determining the copyrightability of the 37 API packages at issue.³⁷³ As the jury was instructed to assume the APIs were copyrightable, the jury originally found that Google infringed the SSO of the Java APIs, but could not reach a unanimous decision on whether Google’s actions were protected by a fair use defense.³⁷⁴

Judge Alsup ruled that the replicated elements of the Java APIs were merely functional works, and thus did not merit copyright protection.³⁷⁵

365. *Oracle I*, 872 F. Supp. 2d at 977.

366. *Oracle II*, 750 F.3d at 1350.

367. *Id.*

368. *Id.*

369. *Id.*

370. *Id.* at 1351.

371. *Id.*

372. *Oracle I*, 872 F. Supp. 2d at 975–76.

373. Note that the case was split into three phases: patent, copyright, and damages. This summary only references the copyright and relevant damages from this case. *Id.* at 975.

374. *Id.* at 976.

375. *Id.* at 998.

The court concluded that there was only one way to write the declaring code at issue, that “names and short phrases cannot be copyrighted,” and that the “merger doctrine bars anyone from claiming exclusive copyright ownership of that expression.”³⁷⁶ On the SSO of the Java API packages, the court concluded that although Oracle’s API packages were creative and original, the structure was “a system or method of operation” not entitled to protection under § 102(b) of the Copyright Act.³⁷⁷ Of the 37 Java API packages at issue in this case, the court found that “97 percent of the Android lines were new from Google, and the remaining three percent were freely replicable under the merger and names doctrine.”³⁷⁸ The court dismissed Oracle’s copyright claims on these grounds.³⁷⁹

On appeal, the Federal Circuit affirmed the jury verdict and overturned Judge Alsup’s determination on the copyrightability of the Java API declaration source code and SSO.³⁸⁰ The court held that computer programs that serve a function are not “automatically” beyond the scope of copyright protection.³⁸¹ Furthermore, the Federal Circuit stated that while “questions regarding originality are considered questions of copyrightability, concepts of merger and scenes a faire are affirmative defenses to claims of infringement” under Ninth Circuit law, so the district court erred in weighing these issues in its analysis.³⁸²

On the issue of declaration source code, the Federal Circuit determined that the merger doctrine does not “bar copyright protection for any lines of declaring source code unless Sun/Oracle had only one way, or a limited number of ways, to write them.”³⁸³ The district court also erred in its application of the merger doctrine, by focusing on Google’s options at the time of infringement rather than at the time of creation.³⁸⁴ At this time, Oracle had “unlimited options as to the selection and arrangement of the 7000 lines Google copied” and thus no merger occurred.³⁸⁵ The court analogized the source code at issue to the opening

376. *Id.*

377. *Id.* at 999.

378. *Id.* at 1001.

379. In the final judgment, the court entered a judgment for Oracle for zero dollars for copyright infringement on the rangeCheck function and the eight decompiled files. Final Judgment, Oracle Am., Inc. v. Google Inc., No. 3:10-cv3561 (N.D. Cal. June 20, 2012).

380. *Oracle II*, 750 F.3d at 1354.

381. *Id.* at 1367.

382. *Id.* at 1358 (citation omitted).

383. *Id.* at 1361.

384. *Id.*

385. *Id.*

of Charles Dickens' Tale of Two Cities, a series of short phrases that exhibit creativity because of how they are strong together.³⁸⁶ And "[b]ecause Oracle 'exercised creativity in the selection and arrangement' of the method declarations when it created the API packages and wrote the relevant declaring code, they contain protectable expression that is entitled to copyright protection."³⁸⁷

On the copyrightability of the Java APIs' SSO, the court first distinguished the facts of *Lotus Development Corp. v. Borland International, Inc.* as to the instant case. Here, unlike in *Lotus*, Google copied portions of Oracle's source code, the declarations and structure of the API packages at issue were creative and original, and Google did not need to copy the SSO of Java's API packages to use the Java language.³⁸⁸ Furthermore, the Ninth Circuit never adopted *Lotus's* reasoning and the reasoning was inconsistent with the circuit's caselaw in *Atari Games Corp. v. Nintendo of America, Inc.*³⁸⁹ Based on relevant circuit caselaw from other circuits, the Federal Circuit in *Oracle* determined that "an original work—even one that serves a function—is entitled to copyright protection as long as the author had multiple ways to express the underlying idea."³⁹⁰ Google could permissibly have used a package-class-method system to organize its own API packages, but was not free to group and organize them in the same manner as the Java packages.³⁹¹ Thus, the Federal Circuit rejected the trial court's SSO copyrightability analysis, as accepting the withholding of copyright protection from functional elements would require precluding the functional nature of computer programs from copyright protection entirely.³⁹²

Finally, the court ruled that interoperability was irrelevant to the discussion of copyrightability at the core of this case.³⁹³ The district court's

386. *Id.* at 1363

387. *Id.*

388. *Id.* at 1365. Notably, the court did not cite to *Lotus* when making these comparisons, and the *Lotus* majority never concluded that the commands at issue were not creative. See generally *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807 (1st Cir. 1995).

389. The court found that *Lotus's* holding that "expression that is part of a 'method of operation' cannot be copyrighted" conflicted with the reasoning of *Atari*, where the Federal Circuit applied Ninth Circuit law in finding that copyright "protects the expression of [a] process or method." *Atari Games Corp. v. Nintendo of Am. Inc.*, 975 F.2d 832, 839 (Fed. Cir. 1992).

390. *Oracle II*, 750 F.3d at 1367.

391. *Id.* at 1367–68.

392. *Id.* at 1367.

393. *Id.* at 1368–72.

focus should have been whether the need for compatibility with other programs limited Sun's API design choices.³⁹⁴ Also, the court rejected Google's argument that its use of Java elements was the "only and essential means of achieving interoperability with existing programs written the Java language."³⁹⁵ Google did not provide evidence of interoperable applications relying on the thirty-seven copied API packages.³⁹⁶ The court additionally rejected Google's argument that because the API packages were the "effective industry standard," copying was permissible.³⁹⁷ Under Ninth Circuit law copyrighted works do not lose protection merely because they become the industry standard.³⁹⁸

The Federal Circuit court remanded the decision to the Northern District of California to examine the issue of a fair use defense, and noted that jurors may wish to examine Google's goal of achieving "commercial interoperability" as relevant to this inquiry.³⁹⁹

On October 8, 2014, Google filed a petition with the Supreme Court for a writ of certiorari.⁴⁰⁰ The Supreme Court asked the Solicitor General to offer an opinion on the grant of certiorari in this case in January 2015. On May 27, 2015, the Solicitor General authored a brief stating that the Federal Circuit correctly decided the case, and recommending that the Supreme Court not take the case on certiorari.⁴⁰¹ The Court denied certiorari on June 29, 2015.⁴⁰²

III. TRADEMARK DEVELOPMENTS

A. *BLACKHORSE V. PRO-FOOTBALL, INC.*⁴⁰³

The Trademark Trial and Appeal Board ("the Board") held that a series of trademarks owned by Pro-Football, Inc. ("PFI") containing the term "REDSKINS" and related materials must be cancelled because they

394. *Id.* at 1371.

395. *Id.* (internal quotations, brackets, and citation omitted).

396. *Id.* at 1371, 1371 n.15.

397. *Id.* at 1372.

398. *Id.* (citing Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520 n. 8 (9th Cir. 1997)).

399. *Id.* at 1377.

400. Petition for Certiorari, Google, Inc. v. Oracle Am., Inc. No. 14-410 (U.S. Oct. 8, 2014).

401. Brief of Solicitor General, Google, Inc. v. Oracle Am., Inc., No. 14-410 (U.S. May 27, 2015).

402. Google, Inc. v. Oracle Am., Inc., No. 14-410, 2015 WL 2473490 (U.S. June 29, 2015) (denying writ of certiorari).

403. 111 U.S.P.Q.2d (BNA) 1080, (T.T.A.B. 2014)

constitute disparagement against Native Americans and were disparaging at the time of their registration.⁴⁰⁴

The plaintiffs in this suit were Amanda Blackhorse and a group of related and similarly situated individuals who collectively found the term “REDSKINS” offensive (collectively “Blackhorse”).⁴⁰⁵ The group brought an action against PFI⁴⁰⁶ alleging that the “REDSKINS” trademarks owned by PFI are disparaging to Native Americans and violate 15 U.S.C. §1052(a).⁴⁰⁷ This statute “prohibits registration of marks that may disparage persons or bring them into contempt or disrepute” at the time of the registration of the marks.⁴⁰⁸ PFI is a franchise in the National Football League doing business as the Washington Redskins.⁴⁰⁹ PFI filed for multiple trademarks between the years 1967 and 1990 that included text and graphical logos containing the words “REDSKINS,” “WASHINGTON REDSKINS,” and Native American imagery.⁴¹⁰

The court used the standard for disparagement under 15 U.S.C. §1052(a), which “prohibits registration of matter that disparages a substantial composite, which need not be a majority, of the referenced group.”⁴¹¹ The marks must have been disparaging at the time of their registration.⁴¹²

This case was the second time that the Board handled a petition concerning these marks.⁴¹³ In 1999, the Board held in *Harjo v. Pro-Football, Inc.*, 50 U.S.P.Q. 2d 1705 (T.T.A.B. 1999) that the REDSKINS marks in question were disparaging when registered and ordered their cancellation.⁴¹⁴ That cancellation was overturned on appeal by the U.S. District Court for the District of Columbia, which held that the petition was precluded under laches.⁴¹⁵ Laches precluded the petition because one of the petitioners in that case waited eight years after reaching the age of

404. *Id.* at 1082.

405. *Id.* at 1087.

406. *Id.* at 1082.

407. *Id.*

408. *Id.*

409. *Id.* at 1083.

410. *Id.*

411. *Id.* at 1110.

412. *Id.* at 1089.

413. *Id.* at 1083–84.

414. *Id.* at 1084.

415. *Id.*

majority and becoming eligible to file suit before joining the litigation.⁴¹⁶ No judgment in *Harjo* was entered on the merits.⁴¹⁷

In contrast, in the case at bar, the Board held that consideration of this petition was not precluded on the basis of laches.⁴¹⁸ It found no evidence of unreasonable delay in bringing the case by any of the petitioners and that PFI suffered no economic prejudice from any delay that may have taken place.⁴¹⁹ It also held that “laches does not apply to a disparagement claim where the disparagement pertains to a group of which the individual plaintiff or plaintiffs simply comprise one or more members.”⁴²⁰

Blackhorse introduced evidence that beginning in 1966, a representative sample of dictionaries began to note that the term REDSKIN is “often offensive.”⁴²¹ From 1986 onward, these dictionaries included some label that the word was, for example, “not the preferred term” or “often disparaging or offensive.”⁴²² Blackhorse’s expert witness also introduced a survey of media references to the term REDSKINS, all of which were used in a non-neutral context.⁴²³ PFI introduced statements of support from a variety of Native American tribes noting that they did not find the term REDSKINS to be offensive.⁴²⁴

The Board found that the evidence introduced by Blackhorse showed that the National Congress of American Indians (“NCAI”) consistently objected to PFI’s use of the term REDSKINS from the late 1960s through 1993.⁴²⁵ This evidence included a 1993 NCAI resolution in opposition to the mark and an account of a 1972 meeting between the president of the NCAI and representatives of PFI at which the NCAI president asked PFI to cease using the term REDSKINS because of its offensive nature.⁴²⁶ The Board also found that NCAI is an advocacy group that effectively represented 30 percent of Native Americans during the period 1972 to 1993, and inferred that that NCAI also represented

416. *Id.*

417. *Id.*

418. *Id.* at 1114.

419. *Id.*

420. *Id.* at 1112.

421. *Id.* at 1093.

422. *Id.*

423. *Id.* at 1095–97.

424. *Id.* at 1104–06.

425. *Id.* at 1110.

426. *Id.* at 1098–1102.

approximately 30 percent of Native Americans at the time the first trademark had been filed in 1967.⁴²⁷

Based on these facts, the Board held that the term REDSKINS was disparaging and ordered cancellation of PFI's six registrations that contained the term REDSKINS.⁴²⁸ It found that the term was offensive to 30 percent of Native Americans represented by NCAI, which undoubtedly constituted "a substantial composite"⁴²⁹ of the referenced group. And the term was offensive to a substantial composite of that group throughout the period of time during which the marks were registered, thereby meeting the requirement that "the marks be disparaging at the time of registration."⁴³⁰

B. *HERB REED ENTERPRISES, LLC V. FLORIDA ENTERTAINMENT MANAGEMENT, INC.*⁴³¹

The United States Court of Appeals for the Ninth Circuit held, as a matter of first impression, that "the likelihood of irreparable harm must be established—rather than presumed, as under prior Ninth Circuit precedent—by a plaintiff seeking injunctive relief in the trademark context."⁴³²

This judgment arose from a trademark infringement action brought by Herb Reed Enterprises ("HRE"), on behalf of Herb Reed, against Larry Marshak and Florida Entertainment Management, Inc. ("Marshak"). In 1953, Herb Reed founded the hit band, The Platters.⁴³³ However, in 1956, he signed away his rights in the "The Platters" trademark to his manager's company, Five Platters, Inc. ("FPI").⁴³⁴ While the legitimacy of Herb Reed's transfer of his rights to FPI was the subject of intense litigation,⁴³⁵ Herb Reed eventually settled with FPI in 1987 by promising not to exercise his rights in "The Platters" mark unless at any time in the future a final judgment was entered against FPI holding that it did not have a valid right to "The Platters."⁴³⁶ In 2011, a Nevada district court did so in a

427. *Id.* at 1109.

428. *Id.* at 1111–12.

429. *Id.* at 1111.

430. *Id.*

431. 736 F.3d 1239 (9th Cir. 2013)

432. *Id.* at 1242.

433. *Id.*

434. *Id.* at 1243.

435. *Id.*

436. *Id.*

default judgment against FPI.⁴³⁷ In the meantime, through a chain of transfers, Marshak had acquired the rights to the “The Platters” mark in 2009.⁴³⁸

Once again able to assert Herb Reed’s rights in the “The Platters” mark, HRE brought the present action against Marshak.⁴³⁹ In the United States District Court for the District of Nevada, HRE alleged that Marshak’s use of the “The Platters” mark infringed Herb Reed’s trademark rights and sought a preliminary injunction.⁴⁴⁰

The district court granted HRE a preliminary injunction upon a finding that HRE was likely to succeed on the merits of its claim that Marshak’s use of the “The Platters” mark infringed upon HRE’s rights and therefore damaged HRE’s goodwill.⁴⁴¹ Marshak appealed, arguing primarily that HRE had failed to demonstrate a likelihood of irreparable harm from Marshak’s continued use.⁴⁴² Specifically, Marshak asserted that the district court relied on “unsupported and conclusory statements regarding harm [HRE] *might* suffer.”⁴⁴³

In determining whether the district court abused its discretion in granting a preliminary injunction, the Ninth Circuit looked to two recent Supreme Court cases that “cast doubt” on its previous rule that the likelihood of “irreparable injury may be *presumed* from a showing of likelihood of success on the merits of a trademark infringement claim.”⁴⁴⁴ It concluded “the landscape for benchmarking irreparable harm has changed” after the Supreme Court’s decisions in *eBay Inc. v. MercExchange, L.L.C.*⁴⁴⁵ and *Winter v. Natural Resources Defense Council, Inc.*⁴⁴⁶

In *eBay*, the Court held that the traditional four-factor test for finding that the equities favor an injunction, including the requirement of irreparable harm, applies in the patent context.⁴⁴⁷ Following its consistent rejection of “a rule that an injunction automatically follows a determination that a copyright has been infringed,” the Court reasoned

437. *Id.* at 1244.

438. *Id.* at 1243.

439. *Id.* at 1245.

440. *Id.*

441. *Id.* at 1250.

442. *Id.* at 1247.

443. *Id.* at 1250.

444. *Id.* at 1248–49 (emphasis in original).

445. 547 U.S. 388 (2006)

446. 555 U.S. 7 (2008).

447. *Herb Reed*, 736 F.3d at 1249.

that, likewise in the patent context, “a departure from the traditional principles of equity ‘should not be lightly implied.’”⁴⁴⁸

In *Winter*, the Court underscored the importance of finding that irreparable harm is “likely” before issuing a preliminary injunction, and reversed a preliminary injunction based on a showing that irreparable harm was merely possible.⁴⁴⁹

Following these two Supreme Court decisions, the Ninth Circuit rejected its previous standard for issuing a preliminary injunction based on a presumption of harm following a likelihood of success on the merits in a trademark infringement case.⁴⁵⁰ The Ninth Circuit had already applied *eBay* to a permanent injunction for trademark infringement in 2006, reasoning that the same principles as apply to patent injunctions apply to trademark infringement under the Lanham Act.⁴⁵¹ Following *Winter*’s call for a higher standard of irreparable harm to obtain a preliminary injunction and Supreme Court precedent that the standard for irreparable harm is the same for preliminary injunctions as for permanent injunctions,⁴⁵² the Ninth Circuit “join[ed] other circuits in holding that the *eBay* principle—that a plaintiff must establish irreparable harm—applies to a preliminary injunction in a trademark infringement case.”⁴⁵³

Applying its new standard to the issue on appeal, the court held that the district court’s conclusions as to irreparable harm, grounded as they were in pronouncements rather than evidence, collapsed the likelihood of success and irreparable harm factors in a manner that reinstated the presumption standard, which was no longer permitted after *eBay*.⁴⁵⁴ Given the absence of factual findings of likely irreparable harm, the court reversed the preliminary injunction and remanded the case to the district court.⁴⁵⁵ On remand, the district court granted HRE summary judgment

448. *Id.* (citing *eBay*, 547 U.S. at 391–93).

449. *Id.* (citing *Winter*, 555 U.S. at 22).

450. *Id.*

451. *Id.* (citing *Reno Air Racing Ass’n, Inc. v. McCord*, 452 F.3d 1126, 1137–38 (9th Cir. 2006)).

452. *Id.* (citing *Amoco Prod. Co. v. Gambell*, 480 U.S. 531, 546 n.12 (1987)).

453. *Id.* (citing *N. Am. Med. Corp. v. Axiom Worldwide, Inc.*, 522 F.3d 1211 (11th Cir. 2008); *Audi AG v. D’Amato*, 469 F.3d 534 (6th Cir. 2006) (granting a permanent injunction)).

454. *Id.* at 1250–51.

455. *Id.* at 1251.

on its trademark infringement claim.⁴⁵⁶ On October 6, 2014, the Supreme Court denied the defendant's petition for writ of certiorari.⁴⁵⁷

IV. TRADE SECRET DEVELOPMENTS

A. *CELLULAR ACCESSORIES FOR LESS, INC. V. TRINITAS LLC*⁴⁵⁸

In determining whether the use of a previous employer's LinkedIn contacts violated the California Uniform Trade Secrets Act ("CUTSA"), Cal. Civ. Code § 3426, the United States District Court of the Central District of California denied defendants' motion for summary judgment, finding genuine issues of material fact as to whether LinkedIn contacts were a protectable trade secret.⁴⁵⁹

Cellular Accessories for Less, Inc. brought an action against its former sales account manager, David Oakes, and his new company, Trinitas, alleging that Trinitas retained Oakes's LinkedIn contacts created during his employment with Cellular in violation of CUTSA, Cal. Civ. Code § 3426.⁴⁶⁰ After being terminated by Cellular in 2010, Oakes started his own company, which eventually became Trinitas, keeping the LinkedIn contacts he built while working with Cellular.⁴⁶¹ Trinitas directly competed with Cellular in selling mobile phone accessories to businesses.⁴⁶²

Defendants argued that the LinkedIn contacts were not a trade secret.⁴⁶³ They claimed that Cellular encouraged its employees to use LinkedIn, and that Oakes's list of LinkedIn contacts was publicly available, as any affiliated contact could view it.⁴⁶⁴ Cellular contended, however, that one's LinkedIn contacts were not automatically viewable to all, but one could choose to what extent one's contacts were shared with others.⁴⁶⁵ Oakes did not comment on whether this LinkedIn functionality

456. Herb Reed Enters., LLC v. Florida Entm't Mgmt., Inc., No. 2:12-cv-00560, 2014 WL 1305144, at *7 (D. Nev. Mar. 31, 2014).

457. Herb Reed Enters., LLC v. Florida Entm't Mgmt., Inc., 736 F.3d 1239 (9th Cir. 2013), *cert. denied*, 135 S. Ct. 57 (Oct. 6, 2014).

458. No. CV 12-06736 DDP (SHx), 2014 WL 4627090 (C.D. Cal. Sept. 16, 2014).

459. *Id.* at *4.

460. *Id.* at *1-2.

461. *Id.* at *2.

462. *Id.*

463. *Id.* at *4.

464. *Id.*

465. *Id.*

was true or, if that was the case, whether his settings made the contacts viewable to other contacts.⁴⁶⁶

Defendants also argued that Cellular failed to meet trade secret standards under CUTSA, Cal. Civ. Code § 3426.1, because it did not take reasonable steps to protect the information, that is, Oakes's list of LinkedIn contacts.⁴⁶⁷ Defendants asserted that Cellular employees' computers were generally left on and unprotected.⁴⁶⁸ Cellular countered, claiming that it "[went] to great lengths to keep its proprietary information confidential and protected, using layers of passwords and SSL encryption[.]"⁴⁶⁹

In deciding whether genuine issues of material fact existed concerning LinkedIn contacts, the court looked to the definition of a trade secret under CUTSA, Cal. Civ. Code § 3426.1, noting a two-prong test for trade secret qualification: 1) economic value from being "generally [un]known to the public," and 2) reasonable efforts to maintain secrecy.⁴⁷⁰ With regard to public knowledge, the court found it unclear whether and to what degree Oakes's LinkedIn contacts were made public, and if so, whether Cellular explicitly or implicitly permitted this setting.⁴⁷¹ The court also declined to "take judicial notice of the functions of LinkedIn," that is, verify on its own the functionality of LinkedIn's contacts settings.⁴⁷² Thus, the court concluded that issues of material fact remained regarding the first prong.⁴⁷³ The court also found issues of material fact as to whether Cellular took reasonable steps to protect Oakes's LinkedIn contacts from being viewable to the public as the parties disputed certain facts.⁴⁷⁴

The court declined to make credibility determinations on the parties' competing statements, and found genuine disputes of material fact regarding Cellular's claim that defendants misappropriated trade secrets when Oakes maintained his LinkedIn contacts after his employment with Cellular terminated.⁴⁷⁵ Therefore, the court denied Trinitas's motion for summary judgment.⁴⁷⁶

466. *Id.*

467. *Id.* at *5.

468. *Id.*

469. *Id.*

470. *Id.* at *2.

471. *Id.* at *4.

472. *Id.*

473. *Id.* at *5.

474. *Id.*

475. *Id.*

476. *Id.*

B. *GUARDSMARK, LLC v. BOWMAN*⁴⁷⁷

On May 9, 2014, the Superior Court of California, San Francisco County, ordered a rare non-compete injunction against a former manager of a security firm, Guardsmark, LLC (“Guardsmark”), because he attempted to take over one of Guardsmark’s largest contracts.⁴⁷⁸ California typically does not grant non-compete injunctions.

In January 2014, Guardsmark, a provider for security services, filed a complaint against its former branch manager, Derrick Bowman, his company Teton Security Services, Inc. (“Teton”), and Teton’s other leader William Bodin for injunctive relief.⁴⁷⁹ As Guardsmark alleged in the complaint, Guardsmark hired Bowman in 1993 and he became the manager in charge of Guardsmark’s San Francisco branch in 2005.⁴⁸⁰ As part of his job, Bowman was responsible for managing all San Francisco accounts, including the San Francisco Department of Human Services (“DHS”) account, to whom Guardsmark provided sizable and significant services.⁴⁸¹ While assuming this responsibility, Bowman, without notifying Guardsmark, served as founder of Teton, which Guardsmark alleged to be Guardsmark’s competitor providing private security services.⁴⁸² Furthermore, according to the complaint, when the DHS account came up for re-bid in Fall 2013, Bowman concealed certain information from Guardsmark about the bid he prepared for DHS and his affiliation with Teton, and submitted Teton’s own bid for the same DHS account using his managerial access to Guardsmark’s trade secrets and other confidential information.⁴⁸³ Consequently, Guardsmark lost the DHS contract to Teton and Bowman’s actions jeopardized Guardsmark’s opportunity to administratively challenge DHS’s decision.⁴⁸⁴

According to Guardsmark, Bowman had signed an employment agreement that stated that he would refrain from misappropriating Guardsmark’s confidential information, including trade secrets.⁴⁸⁵

477. Case No. CGC-14-537022 (Cal. Super. Ct. 2014).

478. Court Judgment at 2, *Guardsmark, LLC v. Bowman*, Case No. CGC-14-537022 (Cal. Super. Ct. May 9, 2014).

479. Complaint at 2, *Guardsmark, LLC v. Bowman*, Case No. CGC-14-537022 (Cal. Super. Ct. Jan. 28, 2014).

480. *Id.* at 2, 5.

481. *Id.* at 2, 4.

482. *Id.* at 6

483. *Id.* at 8

484. *Id.* at 9–10.

485. *Id.* at 5

The court established a temporary restraining order, stating that “Guardsmark ha[d] established a strong likelihood of success on the merits on its claims that Defendants engaged in unfair business practices and wrongfully acquired Guardsmark’s confidential/trade secret information[.]”⁴⁸⁶

Subsequently, the parties reached a settlement agreement and per their joint request, in May 2014, the court approved the injunction, including non-solicitation restrictions. According to the injunction order, for a period of twelve months following the issuance of the injunction defendants may not solicit or contact Guardsmark’s current customers in San Francisco, or take any action to induce them to discontinue a service relationship with Guardsmark.⁴⁸⁷ In reaching this ruling, the order referred to *Wanke, Industrial, Commercial, Residential, Inc. v. Superior Court*,⁴⁸⁸ where the court held that a former employee may be barred from soliciting existing customers to redirect their business away from the former employer and to the employee’s new business in certain circumstances.⁴⁸⁹

These situation include when the employee is utilizing trade secret information to solicit those customers and the stipulated injunction is valid to the extent that it protects the former employer’s trade secrets, in the case where two former employees had misappropriated the trade secrets of their former employer by using confidential customer lists to solicit the former employer’s customers after leaving the employ.⁴⁹⁰

C. *UNITED STATES V. ZHANG*⁴⁹¹

The United States Court of Appeals for the Ninth Circuit held that Suibin Zhang was guilty under 18 U.S.C. § 1832 of various forms of theft of Marvell Semiconductor’s trade secrets.⁴⁹²

Zhang was employed by Netgear Inc., as a project engineer when he accepted a position at Netgear’s biggest competitor, Broadcom Corp., in March 2005.⁴⁹³ On March 9, 2005, Zhang began downloading Marvell

486. Order Granting Plaintiff Guardsmark’s Ex Parte Application at 1, *Guardsmark, LLC v. Bowman*, Case No. CGC-14-537022 (Cal. Super. Ct. Feb. 3, 2014).

487. Court Judgment at 1–2, *Guardsmark, LLC v. Bowman*, Case No. CGC-14-537022 (Cal. Super. Ct. May 9, 2014).

488. 209 Cal. App. 4th 1151 (2012).

489. *Id.* at 1174–75, 1178.

490. *Id.*

491. 590 F. App’x 663 (9th Cir. Nov. 5, 2014).

492. *Id.* at 665.

493. *U.S. v. Suibin Zhang*, No. CR-05-00812 RMW, 2012 WL 1932843, at *3 (N.D. Cal. May 29, 2012)

Semiconductor Inc.'s trade secrets via his Netgear account since Netgear is Marvell's parent company.⁴⁹⁴ Zhang then proceeded to transfer the downloaded information concerning Marvell's trade secrets onto his Broadcom issued laptop.⁴⁹⁵ The FBI searched and seized said laptop on June 4, 2005 and proceeded to investigate the intellectual property claim.⁴⁹⁶

The United States District Court for the Northern District of California found Zhang guilty of theft, copying, and the transmission of trade secrets.⁴⁹⁷ Zhang then appealed, challenging the sufficiency of the evidence supporting the verdict, challenging an evidentiary ruling of the district court, and contending that his Sixth Amendment right to a public trial was violated.⁴⁹⁸ The first and third claims were reviewed de novo whereas the evidentiary rulings for abuse of discretion and factual determinations were found to be for clear error.⁴⁹⁹

With respect to Zhang's challenge of the sufficiency of the evidence, the Ninth Circuit found that there was sufficient evidence to find Zhang guilty.⁵⁰⁰ The court investigated five different aspects to establish sufficiency of evidence.⁵⁰¹ First, Marvell took the appropriate "reasonable measures" to protect its trade secrets.⁵⁰² Access to Marvell's Extranet required a username and password, additional passwords and licenses for specific documents, and an agreement to Marvell's Terms of Use (which explicitly advised users of the existence of trade secrets in the Extranet).⁵⁰³ Such evidence led the court to conclude that Marvell took reasonable measures in protecting its trade secrets.⁵⁰⁴

Second, Zhang "knowingly" misappropriated Marvell's trade secrets.⁵⁰⁵ Circumstantial evidence suggested that Zhang was familiar with the non-disclosure agreement ("NDA") with Marvell. Zhang signed an NDA with Netgear, and the extranet website and Terms of Use repeatedly mentioned the protection of confidential information, including a directive requiring

494. *Id.*

495. *Id.* at *5.

496. *Id.*

497. *Id.*

498. *Zhang*, 590 F. App'x at 665.

499. *Id.*

500. *Id.*

501. *Id.* at 666.

502. *Id.* at 665.

503. *Id.*

504. *Id.*

505. *Id.*

Zhang to “immediately destroy any downloaded materials and return any printed [m]aterials” upon leaving the company.⁵⁰⁶ Zhang also evaded FBI questioning suggesting that he was aware of the confidentiality issue.⁵⁰⁷

Third, Zhang stole or misappropriated Marvell information.⁵⁰⁸ The court observed that the volume and timing of Zhang’s downloads were “highly suspicious[,]” as Zhang had never needed to download so many files and he proceeded to upload the files onto his newly issued Broadcom laptop.⁵⁰⁹

Fourth, Zhang intended to use the downloaded Marvell information for his own or Broadcom’s economic benefit.⁵¹⁰ Zhang told the FBI that the information would profit him at Broadcom.⁵¹¹ The court concluded that a reasonable jury would conclude that Zhang intended to benefit himself or Broadcom economically.⁵¹²

Lastly, Zhang intended to or knew that his actions would injure Marvell based on Zhang’s course of conduct, including copying Marvell’s secrets onto his laptop and intending to reap an economic benefit. In addition, Marvell took reasonable measures to protect its trade secrets.⁵¹³

With respect to Zhang’s challenge of the district court’s evidentiary ruling, the Ninth Circuit found that the admittance of a spreadsheet was permissible because even if it were done in error, it was “harmless” and would not have affected Zhang’s conviction.⁵¹⁴ With respect to Zhang’s last challenge on his Sixth Amendment right to a public trial, the court found that Zhang’s Sixth Amendment right was not violated because it was necessary to close the courtroom to the public to protect Marvell’s trade secrets during witness testimony.⁵¹⁵ Therefore, the Ninth Circuit affirmed Zhang’s criminal conviction for the theft of trade secrets.⁵¹⁶

506. *Id.* at 665–66 (internal quotation marks omitted).

507. *Id.*

508. *Id.* at 666.

509. *Id.*

510. *Id.*

511. *Id.*

512. *Id.*

513. *Id.*

514. *Id.* at 667.

515. *Id.*

516. *Id.*

V. PRIVACY AND CYBERLAW DEVELOPMENTS

A. *AF HOLDINGS, LLC v. DOES 1-1058*⁵¹⁷

The United States Court of Appeals for the District of Columbia Circuit held that a copyright owner, seeking to identify more than a thousand John Does who had illegally downloaded a pornographic movie, sought unduly burdensome discovery from the internet service providers (“ISP”) involved, as well as the improper joinder of the unknown defendants.

In 2012, AF Holdings, LLC (“AF Holdings”) brought action in the District Court for the District of Columbia against 1058 unknown individuals, alleging that they had illegally downloaded and shared the copyrighted pornographic film *Popular Demand* through the peer-to-peer (“P2P”) protocol known as BitTorrent.⁵¹⁸ AF Holdings moved for immediate discovery, and sought to discover the identities of these individuals by serving subpoenas on five ISPs linked to the internet protocol (“IP”) addresses of the individuals; the district court granted the motion.⁵¹⁹ The ISPs refused to comply, arguing that the subpoenas represented an “undue burden” as laid out in the Federal Rules of Civil Procedure⁵²⁰ and that the court should “quash or modify” the subpoenas.⁵²¹ The court rejected these arguments, but certified its order for immediate appeal, noting that other district courts had reached opposite holdings under similar circumstances.⁵²² The ISPs then filed an interlocutory appeal to the D.C. Circuit.⁵²³

The issue before the court was whether AF Holdings had abused the discovery process by seeking identification over individuals the court was not likely to have jurisdiction over, or who could only be improperly joined to the case. At trial, AF Holdings argued that considerations of personal jurisdiction were premature because the defendants had yet to raise such issues, and that defendants could be joined because each defendant was part of the same transaction.⁵²⁴ The ISPs, however, asserted that personal jurisdiction was lacking, and defendants could not be properly joined.⁵²⁵

517. 752 F.3d 990 (D.C. Cir. 2014).

518. *Id.* at 992.

519. *Id.* at 993.

520. FED. R. CIV. P. 45(d)(3)(A).

521. *AF Holdings*, 752 F.3d at 993.

522. *Id.* at 994.

523. *Id.* at 992.

524. *Id.* at 994, 998.

525. *Id.* at 994.

The D.C. Circuit held that the court was not the proper venue because it was not likely to have jurisdiction over a majority of the defendants, and that most of the defendants could not be properly joined to the case.⁵²⁶

In deciding whether AF Holdings' use of the discovery process was proper, the court first looked at whether they had a "good faith belief that such discovery will enable it to show that the court has personal jurisdiction over the defendants."⁵²⁷ However, three of the ISPs listed did not even serve the District of Columbia, and of the other two, only twenty-one of the 588 IP addresses provided appeared to come from the District of Columbia.⁵²⁸ Given that personal jurisdiction could only be established if the individuals were residents of the District of Columbia or had downloaded the file in the District of Columbia, the court found that such a good faith belief did not exist, as a vast majority of the 1,058 individuals were very unlikely to be subject to the personal jurisdiction of the court.⁵²⁹ Supporting this holding was the fact that AF Holdings could have easily and cheaply determined the geographical locations of the IP addresses, and amended its defendant list to only include the IP addresses located in the District of Columbia, but that it "made absolutely no effort" to do so.⁵³⁰

As for the question of joinder, the court looked at Federal Rule of Civil Procedure 20(a), which allowed for joinder if the plaintiff seeks relief from "the same transaction, occurrence, or series of transactions or occurrences."⁵³¹ AF Holdings argued that joinder was appropriate here, because of how the BitTorrent P2P protocol worked.⁵³² Instead of a direct link between the source and the downloader, multiple packets of data which, taken together, would comprise the entire file, were flagged and downloaded from multiple uploaders; this network was described in case materials as a "swarm."⁵³³ However, no evidence was presented indicating that the defendants named participated in the swarm at the same time; the evidence presented by AF Holdings indicated only that the 1,058 Does allegedly shared the file at some point over a period of five months,

526. *Id.* at 996, 999.

527. *Id.* at 995.

528. *Id.* at 994.

529. *Id.* at 996–97.

530. *Id.* at 996.

531. *Id.* at 997.

532. *Id.* at 998.

533. *Id.*

supporting the notion that many defendants named could not be properly joined.⁵³⁴

The D.C. Circuit not only reversed the ruling of the district court with regard to the subpoenas, but also concluded that AF Holdings had sought to “abuse[] the discovery process” to reveal identities and information for future cases.⁵³⁵ It described AF Holdings as a “porno-trolling collective,” and left it to the district court to decide sanctions.⁵³⁶

B. *IN RE A WARRANT FOR ALL CONTENT & OTHER INFO. ASSOCIATED WITH THE EMAIL ACCOUNT XXXXXXX@GMAIL.COM MAINTAINED AT PREMISES CONTROLLED BY GOOGLE, INC.*⁵³⁷

The United States District Court for the Southern District of New York held on July 18, 2014 that a search warrant for the entirety of a suspect’s Gmail account comported with the Fourth Amendment reasonableness standard and did not require limiting protocol.⁵³⁸

In June 2014, the U.S. government applied for a search warrant to obtain emails and other information from a Gmail account in conjunction with an investigation into unlawful money remitting and a conspiracy to commit money laundering.⁵³⁹ After presenting probable cause that emails sent from the Gmail account contained evidence of these crimes, the government requested a warrant which would allow for an examination of all content associated with the Gmail account including received, sent and drafted emails.⁵⁴⁰

Deviating from recent decisions issued in similar situations, notably in the District of the District of Columbia⁵⁴¹ and the District of Kansas,⁵⁴² the court granted the warrant application in full and did not impose limiting protocols for record destruction, the length of document retention or

534. *Id.*

535. *Id.* at 997.

536. *Id.* at 992, 999.

537. 33 F. Supp. 3d 386 (S.D.N.Y. 2014).

538. *Id.*

539. *Id.*

540. *Id.*

541. In the Matter of the Search of Information Associated with [redacted]@mac.com that is Stored at Premises Controlled by Apple, Inc., 13 F. Supp. 3d 145 (D.D.C. Apr. 7, 2014).

542. In the Matter of Applications for Search Warrants for Information Associated with Target Email Accounts/Skype Accounts, Nos. 13–MJ–8163–JPO, 13–MJ–8164–DJW, 13–MJ–8165–DJW, 13–MJ–8166–JPO, 13–MJ–8167–DJW, 2013 WL 4647553 (D. Kan. Aug. 27, 2013).

search procedures.⁵⁴³ In considering the legality of such a broad warrant, the court found that the warrant application did not violate the Stored Communications Act of 1986, 18 U.S.C. §§ 2701–2717, or the Fourth Amendment.⁵⁴⁴ The Stored Communications Act of 1986 governs the disclosure of customer communications and records for the purposes of criminal investigations, and a government agency, under this statute, may obtain a warrant seeking the disclosure of electronic communication without notice to the customer.⁵⁴⁵ The process for obtaining such a warrant is guided by the Federal Rules of Criminal Procedure and requires “specific and articulable facts showing that there are reasonable grounds to believe that the contents of a wire or electronic communication [. . .] are relevant and material to an ongoing criminal investigation.”⁵⁴⁶ Here, the court held that “an affidavit from an agent of the Federal Bureau of Investigation” provided sufficient probability of evidentiary relevance.⁵⁴⁷

Designed to safeguard citizens against unwanted and unwarranted invasions of privacy, the Fourth Amendment, as implemented by Rule 41 of the Federal Rules of Criminal Procedure, requires particularity and reasonableness in warrant applications while forbidding overbreadth.⁵⁴⁸ The court found the warrant application to meet these requirements by analogizing to “copious precedent.”⁵⁴⁹ Among such precedent are cases concerning paper documents as well as information stored on hard drives and other electronic storage mediums.⁵⁵⁰ Courts have, in various cases related to these mediums, upheld a broad level of scrutiny comparable to the breadth sought in this case.⁵⁵¹ Practical considerations undergird this broadness: content must be examined to produce a determination of its relevance, on-site examinations are often difficult and burdensome to the government, and electronic searches present inherent complexities for government agents.⁵⁵² By extending this accepted practice of broad assessment to email communications, the court found that a warrant for

543. *In the Matter of a Warrant*, 33 F. Supp. 3d at 386.

544. *Id.*

545. 18 U.S.C. §§ 2701–2717 (2012).

546. *Id.* § 2703(d).

547. *In re A Warrant*, 33 F. Supp. 3d at 386.

548. *Id.* at 387.

549. *Id.* at 389.

550. *Id.*

551. *Id.*

552. *Id.* at 389–91.

the entirety of the suspect's Gmail account falls within the bounds of the Fourth Amendment.⁵⁵³

In doing so, the court rejected the District of the District of Columbia's proposal that the government seek a warrant requiring the email host to filter for and produce relevant emails.⁵⁵⁴ Not only did the court express skepticism over the email host's ability to exercise the necessary professional judgment and expertise, it also expressed concern regarding the burden on email hosts and their lack of constitutional duties (acting presumably as restraints) in handling sensitive, personal information.⁵⁵⁵

The court then turned to a consideration of imposing limiting protocols, or "minimization procedures," on the warrant.⁵⁵⁶ Although the Fourth Amendment does not require minimization procedures in the issuance of warrants, minimization procedures have been adopted in recent cases.⁵⁵⁷ In a 2012 case concerning the seizure of a personal computer connected to an identity theft investigation, the Vermont Supreme Court ruled that limiting procedures on how to execute a warrant were within the scope of a judicial officer's authority.⁵⁵⁸ The minimization procedures mandated in this case included "requiring third parties or specially trained computer personnel to conduct the search behind a firewall and provide to State investigatory agents only digital evidence relating to identity theft offenses."⁵⁵⁹

Despite this precedent, the court ruled against a mandatory inclusion of protocols relating to search strategies, destruction of unnecessary or extraneous documents, timelines and other minimizing procedures.⁵⁶⁰ In doing so, the court pointed to the need to afford government agents flexibility and discretion in an investigation and raised the potential for unpredictable developments.⁵⁶¹ It is not unusual, for instance, that investigators decipher code language midway through an investigation, necessitating another review of documents and thus validating an extended timeline for record retention.⁵⁶² The court found such deference to

553. *Id.* at 391.

554. *Id.* at 392.

555. *Id.*

556. *Id.* at 394.

557. *Id.*

558. *In re Appeal of Application for Search Warrant*, 71 A.3d 1158 (Vt. 2012).

559. *Id.* at 59.

560. *In re A Warrant*, 33 F. Supp. 3d at 386.

561. *Id.* at 397–98.

562. *Id.*

investigational needs particularly compelling when remedies against any governmental overreach already exist.⁵⁶³ These remedies may take the form of “a suppression motion, a motion under Rule 41(g) and . . . civil actions for damages”—the availability of which should also act as deterrents against any potential government misbehavior.⁵⁶⁴ Thus, in balancing both the availability of remedies against government overreach and the need for flexibility in ongoing investigations, the court dismissed the inclusion of any minimization procedures with the warrant.⁵⁶⁵

C. *PEOPLE V. MARQUAN M.*⁵⁶⁶

In the first case to weigh the constitutionality of criminalizing cyberbullying, the New York Court of Appeals held that the Albany County law criminalizing cyberbullying was so broad that it violated the Free Speech Clause of the First Amendment.⁵⁶⁷

In 2010, the Albany County Legislature enacted a law to combat the crime of cyberbullying, specifically to address “non-physical bullying behaviors transmitted by electronic means[.]”⁵⁶⁸ The law defines cyberbullying as:

any act of communicating or causing a communication to be sent by mechanical or electronic means, including posting statements on the internet or through a computer or email network, disseminating embarrassing or sexually explicit photographs; disseminating private, personal, false or sexual information, or sending hate mail, with no legitimate private, personal, or public purpose, with the intent to harass, annoy, threaten, abuse, taunt, intimidate, torment, humiliate, or otherwise inflict significant emotional harm on another person[.]⁵⁶⁹

After the law became effective, defendant Marquan M., a sixteen-year-old student, launched a Facebook page called the “Cohoes Flame” in which he anonymously posted photographs of high school classmates and other adolescents, with detailed descriptions of their alleged sexual practices and other types of personal information.⁵⁷⁰ Marquan M. was charged with cyberbullying under the Albany County local law, under

563. *Id.* at 399.

564. *Id.*

565. *Id.*

566. 19 N.E.3d 480 (N.Y. 2014).

567. *Id.*

568. Albany County Local Law No. 11 For 2010, § 1 (2010).

569. *Id.* § 2.

570. *Marquan M.*, 19 N.E.3d at 481.

which cyberbullying “against any minor or person” in the county was a misdemeanor, punishable with up to one year of imprisonment and with a \$1,000 fine.⁵⁷¹

At trial, Marquan M. filed a motion to dismiss, arguing that the law violated the Free Speech Clause of the First Amendment because it was overbroad and unlawfully vague.⁵⁷² Specifically, Marquan M. contended that the law was overbroad because it proscribed protected expression and unlawfully vague because it failed to give fair notice to the public.⁵⁷³ Following the city court’s denial of his motion to dismiss, Marquan M. pleaded guilty, but raised constitutional arguments on appeal.⁵⁷⁴ The county court affirmed the city court’s denial of the motion to dismiss and held that the local law did not contravene Marquan M.’s First Amendment rights.⁵⁷⁵ The county found that whereas parts of the law are invalid, they are nonetheless severable and rendered the remainder of the law constitutional if interpreted in a restrictive manner.⁵⁷⁶ The New York Court of Appeals granted Marquan M. leave to appeal.⁵⁷⁷

In weighing the constitutionality of the Albany County law, and whether it may coexist with free speech under the First Amendment, the court applied fundamental principles of statutory interpretation while placing the burden of proof on the Legislature to show the law’s constitutionality. In a 5–2 decision, the court concluded that the law, as drafted, was “overbroad and facially invalid under the Free Speech Clause of the First Amendment.”⁵⁷⁸ The court noted that under the First Amendment, free speech is generally protected and may not be restricted by the government except in limited categories and specific types of communication.⁵⁷⁹ The court considered a law to be broad if it “prohibits a real and substantial amount of expression”⁵⁸⁰ and vague if it fails to give “notice of the nature of proscribed conduct, and permits arbitrary and discriminatory enforcement.”⁵⁸¹ Basing its decision on the breadth and vagueness doctrines, the court concluded that the law is of “alarming

571. Albany County Local Law No. 11 For 2010, §§ 3–4 (2010).

572. *Marquan M.*, 19 N.E.3d at 482.

573. *Id.*

574. *Id.* at 482.

575. *Id.*

576. *Id.* at 486.

577. *Id.* at 482.

578. *Id.* at 483.

579. *Id.*

580. *Id.* at 483.

581. *Id.*

breadth”⁵⁸² as it criminalized a broad spectrum of protected communications “far beyond the cyberbullying of children.”⁵⁸³ While recognizing that a “court should strive to save a statute,” the court found it could not employ the severance doctrine in a way that would “cure all of the law’s constitutional ills.”⁵⁸⁴ The court reasoned that it would require an excessive judicial revision that may result in an unlawful rewriting of a legislative enactment.⁵⁸⁵

While acknowledging the public interest in protecting children from harmful publications, that cyberbullying is not conceptually immune from government regulation even if “vulgar and offensive,”⁵⁸⁶ and that the First Amendment “permits the prohibition of cyberbullying directed at children,”⁵⁸⁷ the court yet found the law to be overbroad as it criminalizes “any act of communicating . . . by mechanical or electronic means . . . with no legitimate . . . personal . . . purpose, with the intent to harass [or] annoy. . . another person.”⁵⁸⁸ The court decided the law was overbroad in covering communications “aimed at adults, and fictitious or corporate entities,”⁵⁸⁹ as it is not limited to cyberbullying, but includes every form of electronic communication “such as telephone conversations, a ham radio transmission or even a telegram.”⁵⁹⁰ The law is framed so that it includes a much broader scope than bullying, for example, “an email disclosing private information about a corporation or a telephone conversation meant to annoy an adult,”⁵⁹¹ “annoying and embarrassing speech,”⁵⁹² and it attempts to qualify certain speech as ‘legitimate,’ which is forbidden by the First Amendment.⁵⁹³

The court noted that if it were to reflect legislative intent to restrict the law “to the three discrete types”⁵⁹⁴ of electronic bullying of a sexual nature designed to cause emotional harm to children,” it would add up to a

582. *Id.*

583. *Id.*

584. *Id.* at 484.

585. *Id.*

586. *Id.* at 482.

587. *Id.* at 483.

588. *Id.* at 483.

589. *Id.*

590. *Id.*

591. *Id.*

592. *Id.* at 483.

593. *Id.*

594. The three types of electronic communications that the court refers to are: (1) sexually explicit photographs, (2) private or personal sexual information, and (3) false sexual information with no legitimate public, personal or private purpose. *Id.* at 484.

“judicial rewrite encroach[ing] on the authority of the legislative body that crafted the provision and would enter the realm of vagueness.”⁵⁹⁵

The dissent argued that the provisions found by the court to be unconstitutional should be “severed from the rest of the legislation and that what remains . . . be interpreted in a way that renders it constitutionally valid”⁵⁹⁶ and that “speech designed to inflict serious emotional injury is protected only when . . . [it] is directed at a matter of public concern.”⁵⁹⁷

D. *UNITED STATES V. DAVIS*⁵⁹⁸

The United States Court of Appeals for the Eleventh Circuit held that the defendant’s Fourth Amendment rights had been violated when his cell site location information, comprised of phone calls, the cell tower carrying the calls, and the direction from the cell tower, was obtained for “reasonable grounds” rather than for “probable cause[.]”⁵⁹⁹ The Third Circuit⁶⁰⁰ and the Fifth Circuit⁶⁰¹ Courts of Appeal have both previously considered this issue, though the Eleventh Circuit distinguished the present case from the Third and Fifth Circuits’ holdings because the facts were not analogous.⁶⁰²

Defendant Quartavius Davis (“Davis”) was charged under the Anti-Racketeering Act as codified in 18 U.S.C. § 1951 (“the Hobbs Act”) and 18 U.S.C. § 924.⁶⁰³ Under the Hobbs Act, Davis was charged with two counts of conspiracy to engage in robbery and seven counts of robbery.⁶⁰⁴

595. *Id.*

596. *Id.* at 486–87 (Smith, J., dissenting) (suggesting the removal of the phrase “or person” from the operative provision so that the law apply solely to children; the removal of “embarrassing” and “hate mail”; interpretation of the phrase “no legitimate purpose” as non-protected speech; and reading of the words “annoy” and “humiliate” as “a non-exhaustive list of ways that the wrongdoer may formulate his or her intent to inflict *emotional harm on the victim*” (emphasis added)).

597. *Id.* at *8.

598. 754 F.3d 1205 (11th Cir. 2014); *vacated and reh’g granted en banc*, 573 F. App’x 925 (11th Cir. Sept. 4, 2014).

599. *Davis*, 754 F.3d at 1205, 1211, 1217.

600. *In re Application of U.S. for an Order Directing a Provider of Elec. Comm’n Serv. To Disclose Records to Gov’t*, 620 F.3d 304, 317–18 (3d Cir. 2010).

601. *In re Application of U.S. for Historical Cell Site Data*, 724 F.3d 600, 612 (5th Cir. 2013).

602. The Third Circuit held that a search warrant showing “probable cause” might be required under certain circumstances while the Fifth Circuit held that production of records on a “reasonable grounds” basis is not *per se* unconstitutional. *Davis*, 754 F. 3d at 1211–12.

603. *Davis*, 754 F.3d at 1208–09.

604. *Id.*

Under 18 U.S.C. § 924, Davis was charged with seven counts of knowingly using, carrying, and possessing a firearm in furtherance of a crime of violence.⁶⁰⁵ The prosecution offered as evidence at trial “cell site location information,” comprised of calls from Davis’ phone, which cell tower that carried the call, and his direction from the cell tower.⁶⁰⁶ From this evidence, it was possible to extrapolate Davis’ general location from the transmission between the mobile phone and the cell tower to locate him within the vicinity of the alleged robberies.⁶⁰⁷

During pretrial proceedings and at trial, Davis unsuccessfully moved to suppress this electronic location evidence on the grounds that the prosecution had obtained it without a search warrant, in violation of his Fourth Amendment rights.⁶⁰⁸ The jury convicted Davis and the district court sentenced him to 161 years and nine months in prison.⁶⁰⁹ Davis appealed, contending that the cell site location information offered as evidence required “probable cause” and a search warrant under the Fourth Amendment.⁶¹⁰ The prosecution countered that the Fourth Amendment did not protect the cell site location information because it was obtained with a court order under the Stored Communications Act,⁶¹¹ and thus its introduction into evidence only required a showing of “reasonable grounds to believe that the . . . records or other information sought, are relevant and material to an ongoing criminal investigation.”⁶¹²

The court relied on *United States v. Jones*,⁶¹³ where the Supreme Court held that the warrantless gathering of Global Positioning System (“GPS”) location information had violated the Fourth Amendment.⁶¹⁴ In *Jones*, the prosecution used a GPS tracking device to collect data reflecting the movements of the defendant’s car for a month and subsequently argued during trial that the suspect had no reasonable expectation of privacy on public streets and highways.⁶¹⁵ The Supreme Court rejected this argument

605. *Id.*

606. *Id.* at 1211.

607. *Id.*

608. *Id.* at 1209.

609. *Id.* at 1208.

610. *Id.* at 1211.

611. As relevant to this case, under the Stored Communications Act, the government can use a court order, which does not require probable cause, to obtain records from providers of electronic communication services. *Id.* at 1210 (citing 18 U.S.C. § 2703(d) (2012)).

612. *Id.* at 1211.

613. 132 S. Ct. 945 (2012).

614. *Davis*, 754 F.3d at 1214.

615. *Id.*

and concluded that, although individual elements of the defendant's daily movements might have been exposed to the public, the aggregation of a month's worth of movements was not exposed, and thus the defendant held a reasonable expectation of privacy concerning the data.⁶¹⁶

Applying the reasoning in *Jones*, the Eleventh Circuit found that the prosecution's warrantless gathering of Davis' cell site location information violated Davis' reasonable expectation of privacy.⁶¹⁷ Further, since the exposure of cell site data "can convert what would otherwise be considered a private event into a public one," cell site data functioned "more like communications data" than GPS information.⁶¹⁸

The prosecution presented two counterarguments: that cell site location information is less precise than other data, and that Davis had no reasonable expectation of privacy by exposing his cell site location information to his service provider when he placed a call.⁶¹⁹ The court rejected the first counterargument on the grounds of relevancy, noting that the distinctions should not be significant.⁶²⁰ The court also rejected the second counterargument, holding that a user has not "voluntarily" shared his location with a provider and is unlikely aware that his cell provider collects and stores historical location information.⁶²¹ Furthermore, when a person makes a call, the only information voluntarily and knowingly shared is the dialed number and when a person receives a call, that person has not voluntarily exposed anything.⁶²²

Thus, the court held that by obtaining Davis' cell site location information without probable cause, law enforcement violated his Fourth Amendment rights.⁶²³

VI. ANTITRUST DEVELOPMENTS

A. *FTC v. Ross*⁶²⁴

On February 25, 2014, the U.S. Court of Appeals for the Fourth Circuit upheld a lower court's authority to award consumer redress under Section 5(a) of the Federal Trade Commission Act ("the Act"), 15 U.S.C.

616. *Id.* at 1213–14.

617. *Id.* at 1215.

618. *Id.* at 1215–16.

619. *Id.* at 1216.

620. *Id.*

621. *Id.* at 1216–17.

622. *Id.* at 1217.

623. *Id.* at 1211, 1217.

624. 743 F.3d 886 (4th Cir. 2014).

§ 45(a) in a case involving a deceptive internet advertising “scareware” scheme.⁶²⁵ The court also upheld the challenged standard for holding a person individually liable under the Act.⁶²⁶

In 2008, the Federal Trade Commission (“FTC”) sued Innovative Marketing Inc. and several of its executives and founders, including Ross, in the United States District Court for the District of Maryland, alleging that defendants operated “a massive, internet-based scheme that trick[ed] consumers into purchasing computer security software.”⁶²⁷ While other defendants settled or had a default judgment entered against them, Ross defended the suit.⁶²⁸ The district court entered summary judgment in favor of the FTC on whether the advertising was “deceptive,” and after a bench trial found that Ross was individually liable under the Act as she “had authority to control and directly participated in the deceptive acts[.]”⁶²⁹ The court entered judgment against Ross for \$163,167,539.95 and enjoined her from engaging in deceptive advertising practices.⁶³⁰ Ross appealed the decision.⁶³¹

On appeal, Ross contended that the text, history, and purpose of the Act did not authorize the district court to award consumer redress (money judgment), as 15 U.S.C. § 53(b) only specifies that the “Commission may seek, and . . . the court may issue a permanent injunction.”⁶³² The U.S. Court of Appeals for the Fourth Circuit disagreed, holding that the district court had authority to award consumer redress under § 5(a) of the Act.⁶³³ Though the court acknowledged that this authority was not explicitly granted in the statute, it nonetheless noted that the Supreme Court has long held that with Congress’s invocation of the federal district court’s equitable jurisdiction, the court has the “power to decide all relevant matters . . . and to award complete relief[.]”⁶³⁴ Absent any further limitations on this power in the Act, the court concluded that the power to award “complete relief,” included “monetary consumer redress[.]”⁶³⁵

625. *Id.* at 891.

626. *Id.* at 892.

627. *Id.* at 889–90.

628. *Id.* at 890.

629. *Id.*

630. *Id.*

631. *Id.*

632. *Id.*

633. *Id.* at 890–91.

634. *Id.* at 890 (citing *Porter v. Warner Holding Co.*, 328 U.S. 395, 399 (1946)).

635. *Id.* at 891.

The court also rejected Ross's contention that the district court adopted an overly broad standard in holding her individually liable.⁶³⁶ The district court ruled that one could be held individually liable if he "(1) participated directly in the deceptive practices or had authority to control them, and (2) had knowledge of the deceptive conduct . . . [including] actual knowledge, reckless indifference to the truth, or an awareness of a high probability of fraud combined with intentionally avoiding the truth[.]"⁶³⁷ Arguing that the district court's standard was wrong, Ross proposed a standard requiring a "specific intent/subjective knowledge" that allows the Federal Trade Commission to sue only when individuals "had actual awareness" of the deceptive practices and "failed to act to stop" them.⁶³⁸ The court concluded that Ross's proposed specific intent and specific knowledge requirement would in effect exempt from liability individuals that are actually responsible for illegal activities.⁶³⁹ Instead, the court held that "an individual may be found liable under the [Act] if she (1) participated directly in the deceptive practices or had authority to control those practices, and (2) had or should have had knowledge of the deceptive practices."⁶⁴⁰ The court's decision was motivated by the attempt to "maintain uniformity" across the federal appellate courts.⁶⁴¹

Finally, Ross unsuccessfully challenged both the district court's evidentiary rulings and its factual findings.⁶⁴² The court concluded that testimony from Ross's expert witness had been properly precluded as irrelevant, that the company's profit and loss statement had been properly admitted to calculate consumer redress, and that a challenged e-mail was properly admitted under the hearsay exception for conspiracies.⁶⁴³ Finding no grounds for reversal, the court affirmed the judgment of the district court.⁶⁴⁴

The Fourth Circuit affirmed the district court's decision.⁶⁴⁵ Ross appealed the decision, and on October 6, 2014 the Supreme Court denied the petition for writ of certiorari.⁶⁴⁶

636. *Id.* at 892.

637. *Id.* at 892.

638. *Id.*

639. *Id.*

640. *Id.*

641. *Id.*

642. *Id.* at 893–95.

643. *Id.* at 893–94.

644. *Id.* at 895.

645. *Id.*

646. *Id.* at 891.

B. IN RE *ADDERALL XR ANTITRUST LITIGATION*⁶⁴⁷

On June 9, 2014, the United States Court of Appeals for the Second Circuit held the contractual duty to deal of a patent holder does not, by itself, give rise to an antitrust duty to deal.⁶⁴⁸

Plaintiffs Louisiana Wholesale Drug Company and the Value Drug Company of Altoona, Pennsylvania, who are wholesale dealers in pharmaceutical products, brought a class action against Defendants Shire LLC and Shire U.S., Inc. (together, “Shire”), alleging that Shire violated the anti-monopolization provision of the Sherman Act, 15 U.S.C. § 2.⁶⁴⁹ Shire allegedly breached contracts with Plaintiffs’ suppliers, Teva and Impax, executed pursuant to a settlement agreement of a separate patent litigation brought by Shire.⁶⁵⁰ While not parties to the contracts with Shire, Teva, and Impax, Plaintiffs argued that these contracts gave rise to a “duty to deal” under antitrust law because Shire could “fix[], raise[], maintain[], or stabilize[] the price of AXR at supra-competitive levels” by breaching the contracts.⁶⁵¹ Plaintiffs expressly disclaimed any reliance on the patent settlement between Shire, Teva, and Impax.⁶⁵²

Shire is the patent holder of Adderall XR (“AXR”), a drug approved by the Federal Drug Administration (“FDA”) to treat attention-deficit/hyperactivity disorder.⁶⁵³ In separate patent litigation, settled in 2006, Shire sued Teva Pharmaceuticals USA, Inc. and Impax Laboratories, Inc. for patent infringement following Teva and Impax’s certification with the FDA to make and sell a generic equivalent of AXR.⁶⁵⁴ Pursuant to the settlement agreements, the parties agreed that Teva and Impax “would stay out of the market for AXR for three years.”⁶⁵⁵ In exchange, Shire would effectively give its competitors Teva and Impax “both the rights and supplies to participate in the market for AXR,” as well as supply Teva and Impax with requirements for AXR for resale if the FDA had not approved their applications by 2009.⁶⁵⁶ In 2009, Teva and Impax began purchasing AXR from Shire, and in the following months, Teva and Impax complained that Shire breached the settlement terms by

647. 754 F.3d 128 (2d Cir. 2014)

648. *Id.*

649. *Id.*

650. *Id.* at 131.

651. *Id.*

652. *Id.* at 134–35.

653. *Id.* at 130.

654. *Id.*

655. *Id.*

656. *Id.*

only partially filling their orders, creating a shortfall of AXR to Teva and Impax's wholesale dealers.⁶⁵⁷ As a result, the wholesale dealer plaintiffs paid an increased price for AXR, giving rise to the issue before the Second Circuit in this case.⁶⁵⁸

The United States District Court for the Southern District of New York dismissed the plaintiffs' complaint.⁶⁵⁹ The court opined that the terms of the settlement contracts fell within the scope of monopoly granted under Shire's AXR patents, and as the patent holder, Shire could "refuse[] outright to issue a license in the first instance" without facing liability from the narrow duty to deal doctrine.⁶⁶⁰ Thus, liability could only attach if the settlement contracts enlarged the scope of Shire's monopoly.⁶⁶¹

On appeal, the Second Circuit affirmed the district court's ruling and held that the "mere existence of a contractual duty to supply goods does not by itself give rise to an antitrust duty to deal."⁶⁶² The court held that "the sole exception to the broad right of a firm to refuse to deal with its competitors" applies when a monopolist seeks to "terminate a prior (voluntary) course of dealing with a competitor."⁶⁶³ In the present case, none of the "particulars" cited by the Supreme Court that evidence a duty to deal were found, such as a "willingness to forsake short-term profits to achieve an anticompetitive end" and the refusal to enter into a sale of the product "*even if compensated at retail price.*"⁶⁶⁴

The court reasoned that, in this case, Shire did not terminate any prior, presumably profitable, course of dealing.⁶⁶⁵ By entering into the requirements contracts that were "explicitly unprofitable[.]" Shire in fact "created competition" in the market for AXR and lost fifty to sixty percent of its market share.⁶⁶⁶ Although the court recognized that Shire's alleged breach of its agreements with Teva and Impax might have prevented the price of AXR from falling further, that fact alone did not give rise to a

657. *Id.*

658. *Id.*

659. *Id.* at 132.

660. *Id.*

661. *Id.*

662. *Id.* at 135.

663. *Id.* (quotations omitted).

664. *Id.* at 134–35 (citing *Verizon Comm'ns v. Trinko*, 540 U.S. 398, 408–09 (2004) (emphasis in original) (quoting *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985))).

665. *Id.* at 135.

666. *Id.* at 134.

cause of action for a duty to deal.⁶⁶⁷ The court concluded that “plaintiff’s allegations amount[ed] to the self-defeating claim that Shire monopolized the market by ceding its monopoly.”⁶⁶⁸

The court did not consider whether the settlement agreements may ever give rise to antitrust duty to deal, but expressly confined the holding to the “plaintiffs’ theory of the case.”⁶⁶⁹ Three months after the district court’s ruling, the Supreme Court decided *Federal Trade Commission v. Actavis, Inc.*, finding that the potentially important anticompetitive effects of reverse payment settlements—settlements in which a brand-name pharmaceutical company pays a generic manufacturer to delay entry into the marketplace—are not immune from antitrust scrutiny merely because they fall within the patent holder’s monopoly.⁶⁷⁰ Patent holders should note, therefore, that the Second Circuit’s holding does not immunize them from duty to deal claims relating to settlement agreements or breach of contract claims. Indeed, Shire faced and settled breach of contract claims from both Teva and Impax.⁶⁷¹

667. *Id.* at 135.

668. *Id.*

669. *Id.* at 136.

670. *Federal Trade Commission v. Actavis, Inc.*, 133 S. Ct. 2223, 2230–31 (2013).

671. *In re Adderall*, 754 F.3d at 131 n.2.