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FOREWORD

Elizabeth C. Eraker[†] & *David K. Stark*^{††}

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 into a particular area of law, discusses a development in that area of law, and offers commentary on that development.

The twenty-three 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 the areas of cyberlaw and privacy. Following the Notes in each area of law, we have included Additional Developments, which are brief descriptions of important developments not addressed in the Notes.

I. PATENT LAW

This year's Annual Review covers a wide range of developments in the area of patent law. Our first Note¹ discusses patent eligibility after *Bilski v. Kappos*.² The *Bilski* Court reviewed the scope of the word “process” in § 101 of the Patent Act.³ The Court held that business methods are patentable but that the specific patent at issue was unpatentable under § 101. Building up to the *Bilski* decision, the Note surveys case law and charts the relative strictness of patent eligibility. The Note then analyzes where the *Bilski* decision falls within this spectrum of patent strictness. The Note then compares recent Board of Patent Appeals decisions with post-*Bilski* Federal Circuit decisions to show how these entities are applying *Bilski*.

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1. Ebby Abraham, Note, *Bilski v. Kappos: Sideline Analysis from the First Inning of Play*, 26 BERKELEY TECH. L.J. 15 (2011).

2. 130 S. Ct. 3218, 3221 (2010).

3. 35 U.S.C. § 101 (2006).

The second Note⁴ examines the backlog at the United States Patent and Trademark Office (“USPTO”) and how new programs by the USPTO have addressed this. The Patent Office currently faces a backlog of over 700,000 patent applications—a number that has been trimmed by 50,000 since 2009. In June 2010, the Director of the USPTO announced a proposal designed to “provide applicants greater control over the speed with which their applications are examined and promote greater efficiency in the patent examination process.”⁵ The Note highlights the USPTO’s past programs meant to address the backlog and specifically analyzes this newly announced Three-Track Proposal. The Note suggests improvements to the Three-Track Proposal and concludes that this is a positive step towards reducing the USPTO’s patent backlog.

The next Note⁶ highlights the growing prominence of the International Trade Commission (“ITC”) as a patent litigation forum. The Note examines the founding of the ITC as a means of protecting American industry at the borders. Section 337 of the Tariff Act of 1930 grants the ITC power to initiate investigations after a complaint is filed. Investigations may result in the Commission granting exclusion orders preventing infringing articles from entering the United States. One of the requirements to bringing an ITC complaint is that the patent owner must have a domestic industry within the United States. The Note tracks the development of this requirement and finds that legislation and ITC jurisprudence have eased the traditional domestic industry burden on complainants. The Note suggests that the softening of this requirement allows non-practicing entities an easier path to bring actions in this forum. Given the bluntness of an exclusion order, the Note suggests that any changes to the domestic industry requirement need to strike a balance between protecting actual industries in the United States and protecting the patent owner’s intellectual property rights.

The fourth Note⁷ examines the “control or direction” requirement for joint patent infringement. The Federal Circuit has held that when two or more parties cooperate—and their combined acts would constitute

4. Lily J. Ackerman, Note, *Prioritization: Addressing the Patent Application Backlog at the United States Patent and Trademark Office*, 26 BERKELEY TECH. L.J. 67 (2011).

5. Press Release, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Proposes to Establish Three Patent Processing Tracks (June 3, 2010), available at http://www.uspto.gov/news/pr/2010/10_24.jsp.

6. 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 (2011).

7. Reza Dokhanchy, Note, *Cooperative Infringement: I Get By (Infringement Laws) with a Little Help from My Friends*, 26 BERKELEY TECH. L.J. 135 (2011).

infringement—there is no “joint infringement” unless the patent holder can prove that one party exercised “‘control or direction’ over the entire process such that all steps of the process can be attributed to the controlling party,”⁸ The “control or direction” rule originated in *BMC Res., Inc. v. Paymentech, L.P.*⁹ The *BMC* court acknowledged that parties could circumvent this by entering into an “arms-length agreement” but thought that this could be solved with proper claim drafting.¹⁰ A recent case held that parties satisfy the “control or direction” test if they are in a principal-agent relationship or contractually obligated to perform all the steps.¹¹ The Note argues that this standard is too high for joint infringement and is unsupported by precedent. The Note further suggests three solutions courts might adopt to ensure that parties cannot avoid liability for joint infringement by being at “arms-length” in their business dealings.

The next Note¹² focuses on the problems of using “black-box” or general verdicts for issues of patent obviousness. The Note argues that the question of obviousness is too technically complicated to answer with a simple “yes” or “no” for two reasons. The first is that nonobviousness attempts to formulate an abstract inquiry—the measure of technical accomplishment or non-triviality. The second is that jurors and judges are asked to measure the level of technical accomplishment of the patent even though they may be unfamiliar with, or have little background in, the technology involved. The Note argues that allowing general verdicts for issues of obviousness is ill-advised and that the Federal Circuit should require special interrogatories for issues of obviousness. The Note then explores the risk of extralegal factors that might influence patent jury decisions on obviousness. The Note concludes that the Federal Circuit has the legal authority to mandate special interrogatories and that the risk of these extralegal factors should cause the court to exercise this authority.

The sixth Note¹³ discusses the Federal Circuit’s recent decision in *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*¹⁴ *Cardiac Pacemakers* analyzed 35 U.S.C. § 271(f), which deals with supplying “components” of a patented invention

8. *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1380 (Fed. Cir. 2010) (quoting *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008)).

9. 498 F.3d 1373 (Fed. Cir. 2007).

10. *Id.* at 1381.

11. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, No. 2009-1372, 2010 WL 5151337, at *6–7 (Fed. Cir. Dec. 20, 2010).

12. Indraneel Ghosh, Note, *The Road to Transparency: Abolishing Black-Box Verdicts on Patent Obviousness*, 26 BERKELEY TECH. L.J. 171 (2011).

13. Amy E. Hayden, Note, *Cardiac Pacemakers v. St. Jude Medical: The Federal Circuit Has Re-opened the DeepSouth Loophole for Method Claims*, 26 BERKELEY TECH. L.J. 197 (2011).

14. 576 F.3d 1348 (Fed. Cir. 2009).

from the United States to be combined and utilized outside of the country.¹⁵ Section 271(f) codified the Supreme Court's decision in *Deepsouth Packing Co. v. Laitram Corp.*,¹⁶ a case that dealt with a patented shrimp deveining machine. The infringer in *Deepsouth Packing* sold and shipped the machine abroad in parts which could be assembled in less than an hour.¹⁷ *Cardiac Pacemakers* explores § 271(f) as it relates to method patents. The Note analyzes the decision and finds that the Federal Circuit has excluded method patents from § 271(f) liability. The Federal Circuit concluded that components of a method patent cannot be "supplied" abroad.¹⁸ The Note then explores § 271(f) and analyzes it under three different theories of statutory interpretation, offering a new version of the statute to bring method patents within § 271(f) liability.

The next Note¹⁹ discusses diagnostic method patents. Diagnostic method patents attempt to claim exclusive rights to the correlation between a patient's medical data and a medical prognosis. The patentability of diagnostic method patents under 35 U.S.C. § 101 is still an unresolved question—three cases are currently litigating it. The Note starts with an exploration of patentable subject matter and the current controversy of diagnostic method patents. The Note then discusses modern diagnostic medicine and the public policy concerns with granting diagnostic method patents. The Note points to four public policy considerations that support granting diagnostic method patents and concludes that granting patents on diagnostic correlations is in the public interest.

The eighth Note²⁰ explores the issue of patent licenses arising from litigation after *ResQNet.com Inc. v. Lansa Inc.*²¹ These licenses are commonly referred to as settlement licenses or litigation licenses. Settlement licenses often depend on many factors including the technology involved, the competitive position of the parties, the anticipated cost of further litigation, and the relative strength of each party's claims. As a result, courts have traditionally deemed settlement licenses inadmissible as evidence due to the question of their probative value. *ResQNet* brought the admissibility of these licenses back into question. The Note begins with a discussion of the discoverability and admissibility of litigation-induced licenses and the

15. 35 U.S.C. § 271(f) (2006).

16. 406 U.S. 518 (1972).

17. *Id.* at 524.

18. *Cardiac Pacemakers*, 576 F.3d at 1364.

19. Asher Hodes, Note, *Diagnosing Patentable Subject Matter*, 26 BERKELEY TECH. L.J. 225 (2011).

20. Parker Kuhl, Note, *Rescue Me!: The Attack on Settlement Negotiations After ResQNet v. Lansa*, 26 BERKELEY TECH. L.J. 269 (2011).

21. 594 F.3d 860 (Fed. Cir. 2010).

underlying negotiations. The Note then reviews *ResQNet* and subsequent district court cases interpreting that decision. The Note concludes that courts should determine the admissibility of settlement licenses on a case-by-case basis. It finds that the increased discovery of settlement induced licenses and the admissibility of these licenses in court conflicts with a policy of encouraging settlements to litigation.

The next Note²² analyzes gene patents and the patentability of the BRCA gene. The Supreme Court validated genetic patents for man-made genetic organisms in *Diamond v. Chakrabarty*.²³ The *Chakrabarty* court held that a bacterium created by combining pieces of naturally occurring bacteria into a new organism was patentable under 35 U.S.C. § 101, finding that the bacterium was a “product of human ingenuity” and was “not nature’s handiwork but [the patentee’s]”²⁴ Although this ruling can be applied to manufactured genes, the question of patents on naturally occurring genes is not settled. The USPTO routinely issues patents on human DNA sequences, reasoning that the material has been purified from its natural form through human intervention. The Southern District of New York, in *Ass’n of Molecular Pathology v. USPTO*,²⁵ recently addressed the question of the patentability of DNA sequences and found a patent on the BRCA gene invalid. The court found that even in its purified form, the BRCA gene maintains essentially the same structure and function as its natural form.²⁶ The Note then explores the traditional rationales for, and concerns of, gene patents and their treatment under the *AMP* holding. The Note concludes that limiting gene patents to the application of the gene, and not the gene sequence itself, may address these concerns.

The final Patent law Note²⁷ discusses the topic of patent damage awards and reasonable royalties. Under 35 U.S.C. § 284, a successful patent litigant shall be awarded “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.”²⁸ One approach to the reasonable royalty calculation is hypothetical negotiations; an attempt to determine what willing parties would have agreed upon had they negotiated a license prior to the infringement. The Federal Circuit, in *Lucent Technologies Inc. v. Gateway*,

22. Tina Renee Saladino, Note, *Seeing the Forest Through the Trees: Gene Patents & the Reality of the Commons*, 26 BERKELEY TECH. L.J. 301 (2011).

23. 447 U.S. 303 (1980).

24. *Id.* at 309, 310.

25. 702 F. Supp. 2d 181 (S.D.N.Y. 2010).

26. *Id.* at 227, 231–32.

27. Bo Zeng, Note, *Lucent v. Gateway: Putting the “Reasonable” Back into Reasonable Royalties*, 26 BERKELEY TECH L.J. 329 (2011).

28. 35 U.S.C. § 284(a) (2006).

Inc.,²⁹ vacated a \$358 million jury award and closely scrutinized the district court's application of the hypothetical negotiations approach. The Note explores the history of patent damages and then looks at the *Lucent* case and post-*Lucent* decisions. The Note argues that these cases have both strengthened the evidentiary standards for introducing past licenses for royalty calculation and asked courts to exclude questionable expert testimony concerning damages. The Note concludes that judges need to be the gatekeepers for reasonable royalty damages and ensure that these calculations are accurate and useful to the court.

II. COPYRIGHT LAW

The first Note³⁰ in the Copyright section discusses the implications of the Second Circuit's finding that albums are compilations in *Bryant v. Media Right Productions*, a 2010 case concerning statutory damages for the alleged infringement of the copyrights in two musical albums.³¹ *Bryant* followed the language of the Copyright Act in deciding that albums are "compilations" for the purposes of determining statutory damage awards,³² but the court failed to acknowledge that doing so would also have other consequences, namely that albums would now be considered works made for hire. Musicians could begin losing the ability to terminate transfers of their music, in direct conflict with Congress's purpose behind the termination-of-transfer and work-made-for-hire doctrines. The Note concludes that the legislative history of the Copyright Act gives reason to question the Second Circuit's labeling of an album as a "compilation."

The second Copyright law Note³³ discusses the recent *Viacom v. YouTube* decision finding that the DMCA's safe harbor provision protects YouTube from Viacom's claims of copyright infringement.³⁴ The Note critiques the court for ignoring instances of YouTube's specific knowledge of infringement on its site and choosing the blunt instrument of DMCA takedown notices over content filtering as the method of choice for "red flag" notification. The Note argues that summary judgment should not have been granted as there was a genuine issue of material fact as to whether

29. 580 F.3d 1301, 1308 (Fed. Cir. 2009).

30. Wyatt Glynn, Note, *Musical Albums as "Compilations": A Limitation on Damages or a Trojan Horse Set to Ambush Termination Rights?*, 26 BERKELEY TECH. L.J. 375 (2011).

31. 603 F.3d at 141.

32. *Id.* at 140.

33. Amir Hassanabadi, Note, *Viacom v. YouTube—All Eyes Blind: The Limits of the DMCA in a Web 2.0 World*, 26 BERKELEY TECH. L.J. 405 (2011).

34. *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010).

YouTube was entitled to the § 512(c) safe harbor. The Note further argues that the consequence of the decision is a strict notice and takedown regime because the court suggested that was the only way for a “red flag” to be triggered. Furthermore, the Note argues that the *Viacom* decision results from a DMCA that is unsustainable in a Web 2.0 world.

The third Note³⁵ explores the tension between property rights and public access rights at issue in the recent *Apple, Inc. v. PsyStar Corp.* litigation concerning Apple’s efforts to contractually preclude users from installing its operating system on any non Apple-branded hardware.³⁶ The court ultimately decided that Apple’s use of a licensing agreement to ensure that its operating system was only installed on Apple-branded hardware was not a misuse of copyright. The copyright misuse doctrine renders a copyright unenforceable in situations where a copyright is used to “secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant.”³⁷ Although courts have been hesitant to adopt copyright misuse, the Note argues that the doctrine should have greater bearing on future cases that require a balancing of the needs of public access against the property rights of platform owners. It concludes that a re-aligned copyright misuse doctrine in today’s technological world might restore the balance between the intellectual property regimes, and also the balance between intellectual property creators and intellectual property consumers.

The next Note³⁸ in the Copyright law section explores courts’ interpretations of the anti-circumvention clause of the DMCA and how the various legal standards apply to efforts to circumvent technological protection measures (“TPMs”).³⁹ Since courts do not agree on the legal standard to apply in anti-circumvention cases,⁴⁰ it is unclear to many copyright owners whether their TPMs “effectively control access”⁴¹ under the various legal standards. This Note describes and categorizes the various legal standards that courts have used to decide anti-circumvention cases, and

35. Jonas P. Herrell, Note, *The Copyright Misuse Doctrine’s Role in Open and Closed Technology Platforms*, 26 BERKELEY TECH. L.J. 441 (2011).

36. *Apple, Inc. v. PsyStar Corp.*, 673 F. Supp. 2d 931 (N.D. Cal. 2009).

37. *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 977 (4th Cir. 1990) (citing *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 492 (1942)).

38. Ryan Iwahashi, Note, *How to Circumvent Technological Protection Measures Without Violating the DMCA: An Examination of Technological Protection Measures Under Current Legal Standards*, 26 BERKELEY TECH. L.J. 491 (2011).

39. 17 U.S.C. § 1201(a)(1)(A) (2006) (emphasis added).

40. *Compare* *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff’d*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001), *with* *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004).

41. 17 U.S.C. § 1201(a)(1)(A) (2006).

then it undertakes a technical examination of the most common technological measures used to protect copyrighted material. Based on these technical specifications, the Note offers guidance on how each legal standard may be applied to the technological measures and assesses which are likely to constitute valid TPMs under each test.

The last Note⁴² in the Copyright section analyzes the Copyright Office's recent issuance of the final rule⁴³ in the fourth round of the triennial rulemaking process under the DMCA.⁴⁴ The Note argues that the final rule reveals how agency regulation can re-infuse flexibility in both the DMCA specifically and copyright law generally, which has increasingly adopted the regulatory model. It discusses how the breadth reflected in the latest round of triennial rulemaking—particularly in the number, scope, and importance of exemptions—could be combined with other reforms, such as modifying the rulemaking process and expanding the authority of the Copyright Office, to serve as a model for implementing agency regulation in copyright law.

III. TRADEMARK LAW

The first Note⁴⁵ in the Trademark law section addresses the problem of trademark infringement of luxury brands on eBay.com (“eBay”). The Note examines the Second Circuit's decision in *Tiffany v. eBay* that generalized knowledge is insufficient to impose upon eBay an affirmative duty to remedy the counterfeiting problem on its website.⁴⁶ It argues that this approach to eBay's secondary liability fails to provide a reasonable template for addressing misaligned interests and complex issues of technological change. Given evidence that eBay's efforts at combating infringement have not been effective, this Note proposes that courts adopt a balancing framework to determine secondary trademark liability that would promote the integrity of the online marketplace while allowing room for the public to engage in legitimate secondary market activity.

42. Arielle Singh, Note, *Agency Regulation in Copyright Law: Rulemaking Under the DMCA and Its Broader Implications*, 26 BERKELEY TECH. L.J. 527 (2011).

43. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

44. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified as amended in scattered sections of 17 U.S.C.).

45. Michelle Leu, Note, *Authenticate This: Revamping Secondary Trademark Liability Standards to Address a Worldwide Web of Counterfeits*, 26 BERKELEY TECH. L.J. 591 (2011).

46. *Tiffany (NJ) Inc. v. eBay, Inc.*, 600 F.3d 93, 109 (2d Cir. 2010).

The second Note⁴⁷ in the Trademark section discusses two recent circuit court decisions interpreting the standard for trademark dilution by tarnishment created by the Trademark Dilution Revision Act (“TDRA”).⁴⁸ It compares the vastly divergent approaches taken by the Second and Sixth Circuits in *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*⁴⁹ and *V Secret Catalogue, Inc. v. Moseley*⁵⁰ to the standard for dilution by tarnishment. The Note highlights the extent of the judicial discretion created by the statute’s ambiguity over what a plaintiff must show in order to prove likelihood of tarnishment. While the Second Circuit in *Starbucks* applied the dilution by tarnishment standard outlined in the TDRA in a relatively straightforward manner,⁵¹ the Sixth Circuit created an unprecedented “rebuttable presumption” of tarnishment to be applied in cases where the defendant has used the plaintiff’s mark in association with sex-related products.⁵² In comparing the two decisions, the Note argues that the Second Circuit’s application of the federal dilution by tarnishment standard more accurately reflects the intent of Congress as revealed by the legislative history of the TDRA.

The third Trademark law Note⁵³ discusses the issue of contributory liability for trademark infringement in cases involving online service providers (“OSPs”). The Note focuses on the recent case of *Rosetta Stone v. Google Inc.*,⁵⁴ in which the federal district court in Eastern Virginia granted summary judgment for Google after determining that Google’s online keyword advertising program did not violate the Lanham Act.⁵⁵ The Note argues that the opinion highlights the inadequacy of the current “control” test for contributory trademark liability in providing courts guidance, especially given that OSPs are not always easily conceptualized as either

47. Britt N. Lovejoy, Note, *Tarnishing the Dilution by Tarnishment Cause of Action: Starbucks Corp. v. Wolfe’s Borough Coffee, Inc. and V Secret Catalogue, Inc. v. Moseley, Compared*, 26 BERKELEY TECH. L.J. 623 (2011).

48. Federal Trademark Dilution Revision Act, Pub. L. No. 109-312, 120 Stat. 1730 (2006) (codified at 15 U.S.C. § 1125(c) (2006)).

49. *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*, 588 F.3d 97 (2d Cir. 2009).

50. *V Secret Catalogue, Inc. v. Moseley*, 605 F.3d 382 (6th Cir. 2010), *cert. denied*, 79 U.S.L.W. 3301 (U.S. Jan. 18, 2011) (No. 10-604).

51. *See Starbucks*, 588 F.3d at 110–12.

52. *Moseley*, 605 F.3d at 385.

53. Lauren Sims, Note, *When Enough Control Is Not Enough: The Conflicting Standards of Secondary Liability in Rosetta Stone*, 26 BERKELEY TECH. L.J. 655 (2011).

54. *Rosetta Stone Ltd. v. Google Inc.*, No. 1:09cv736 (GBL/TCB), 2010 U.S. Dist. LEXIS 78098, at *1 (E.D. Va. Aug. 3, 2010) (granting summary judgment for defendant search engine operator predominantly because Rosetta Stone failed to show that sponsored links were likely to cause confusion under the Lanham Act).

55. *Id.* at *2–4.

products or services. The Note proposes that courts adopt a tailored test for contributory trademark infringement, arguing that a set of factors similar to those used by the district court in *Tiffany v. eBay*⁵⁶ could be developed to provide guidance to courts considering claims involving OSPs.

The last Trademark law Note⁵⁷ discusses two recent federal court cases concerning the liability of payment intermediaries for trademark infringing merchants, *Perfect 10, Inc. v. Visa International Service Ass'n*⁵⁸ and *Gucci America, Inc. v. Frontline Processing Corp.*⁵⁹ In *Perfect 10*, the Ninth Circuit declined to extend secondary copyright and trademark liability to the payment intermediaries.⁶⁰ The *Frontline* court, however, made waves by issuing the first ruling to find that payment intermediaries may be liable for secondary trademark infringement. The Note argues that *Frontline* is not as shocking a departure from established case law as some commentators have posited, and that the *Frontline* court's careful consideration of the background of the credit card industry and the realities of the internet marketplace is a superior analysis to the Ninth Circuit's majority's in *Perfect 10*.

IV. CYBERLAW

The Note⁶¹ in the Cyberlaw section of the Annual Review discusses recent developments in the net neutrality debate—mainly the D.C. Circuit's decision in *Comcast Corp. v. Federal Communications Commission*, which invalidated the FCC's jurisdiction over broadband internet service providers ("ISPs"),⁶² and the FCC's subsequent adoption of net neutrality rules that require transparency and forbid most blocking and discrimination.⁶³ It further explores theoretical, legal, and technical definitions of net neutrality, finding that an operational legal definition of net neutrality must encompass not only the theoretical principles underlying the term but also the technical realities of the Internet. The Note argues that debate over the definition of net neutrality and reasonable network management is best resolved through

56. *Tiffany (NJ) Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 506–07 (S.D.N.Y. 2008), *aff'd*, 600 F.3d 93 (2d Cir. 2010).

57. Kelly K. Yang, Note, *Paying for Infringement: Implicating Credit Card Networks in Secondary Trademark Liability*, 26 BERKELEY TECH. L.J. 687 (2011).

58. 494 F.3d 788 (9th Cir. 2006).

59. 721 F. Supp. 2d 228 (S.D.N.Y. 2010).

60. *Perfect 10*, 494 F.3d at 793.

61. Alexander Reicher, Note, *Redefining Net Neutrality After Comcast v. FCC*, 26 BERKELEY TECH. L.J. 733 (2011).

62. *See Comcast Corp. v. FCC*, 600 F.3d 642, 661 (D.C. Cir. 2010).

63. *See* Preserving the Open Internet Broadband Industry Practices, Report and Order, WC Docket No. 07-52 (Dec. 23, 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf.

the FCC's enforcement of full ISP transparency and proposes a two-step analysis to determine whether a given practice should be considered reasonable or unreasonable network management.

V. PRIVACY LAW

The first Privacy Note⁶⁴ discusses the Ninth Circuit's recent decision in *In re Anonymous Online Speakers*, which is the first circuit court opinion addressing the standard for granting subpoena or discovery orders for unmasking anonymous speakers in online speech cases.⁶⁵ The Note critiques the Ninth Circuit for failing to distinguish between internet infrastructure and online platforms, services, and applications, and inaccurately characterizing the effect of these various online spaces on the accuracy, verifiability, and correct-ability of anonymous speech. The Note argues that regardless of the standard employed in balancing the rights of the anonymous online speakers with the rights of allegedly harmed plaintiffs, courts cannot afford to misunderstand the nature of the Internet nor, by extension, the nature of speech occurring in online contexts. This Note concludes that an enhanced understanding of online speech and attention to the context surrounding online spaces will better equip courts to balance the rights of anonymous speakers and the rights of harmed parties.

The second Note⁶⁶ in the Privacy law section of the Annual Review addresses the imbalance between the public's interest in privacy protection and law enforcement's legitimate interest in evidence gathering activities that has resulted with the rise of new electronic communication and surveillance technologies, specifically the cell phone and GPS tracking. It discusses recent circuit court decisions that suggest a recent trend by the federal courts towards curbing the government's ability to gather personal electronic information through drag-net type surveillance without a warrant or notice.⁶⁷ In affirming these decisions, the Note argues that unfettered warrantless access to such information by law enforcement is an encroachment on our basic Fourth Amendment rights due to the intrusive and private nature of the information obtained. It concludes by proposing that courts apply a totality

64. Musetta Durkee, Note, *The Truth Can Catch the Lie: The Flawed Understanding of Online Speech in In re Anonymous Online Speakers*, 26 BERKELEY TECH. L.J. 773 (2011).

65. *In re Anonymous Online Speakers*, No. 09-71205, 2011 WL 61635 (9th Cir. Jan. 7, 2011).

66. David H. Goetz, Note, *Locating Location Privacy*, 26 BERKELEY TECH. L.J. 823 (2011).

67. *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2010); *In re United States for an Order Directing a Provider of Elec. Comm'n Serv. to Disclose Records to the Gov't*, 620 F.3d 304 (3d Cir. 2010); *United States v. Pineda-Moreno*, 591 F.3d 1212 (9th Cir. 2010).

of the information theory to warrantless GPS and historical and real-time cell phone tracking by law enforcement agencies, and that they return to fundamental Fourth Amendment principles to safeguard stored electronic communications.

The third Privacy law Note⁶⁸ discusses the Court's recent decision concerning the Fourth Amendment's protection of sensitive information shared using new communication technologies in public workplaces, *Ontario v. Quon*.⁶⁹ This Note reviews the Fourth Amendment's development and its application to the *Quon* case, and it draws on recent privacy scholarship to discuss gaps in the Court's analysis and application of the Fourth Amendment. The Note considers three scholarly perspectives on privacy that enhance an understanding of *Quon's* gaps and suggest that the Fourth Amendment can and should adopt stronger protection for sensitive information.

68. Miles Palley, Note, *Ontario v. Quon: In Search of a Reasonable Fourth Amendment*, 26 BERKELEY TECH. L.J. 859 (2011).

69. *Ontario v. Quon*, 130 S. Ct. 2619 (2010).

BILSKI V. KAPPOS: SIDELINE ANALYSIS FROM THE FIRST INNING OF PLAY

Ebby Abraham[†]

On June 28, 2010, the U.S. Supreme Court decided *Bilski v. Kappos*,¹ a case that some described as having “the makings of a landmark decision in patent law.”² The Supreme Court reviewed the scope of the word “process,” one of the four legislatively-enacted categories that are eligible for patent protection in § 101 of the Patent Act.³ A restrictive reading of the word “process” could curtail or eliminate the scope of patent protection for business method patents⁴ and information-intensive processes—namely software and diagnostic patents. But an expansive reading of the word “process” could ensure patent protection for “anything under the sun that is made by man.”⁵

When the decision arrived, business method patent owners narrowly avoided a strikeout. The Supreme Court held, by a scant 5–4 vote, that business methods were patent eligible. However, the decision also brought ominous news for business method patents.⁶ The Supreme Court held the particular business method at issue, the *Bilski* patent, unpatentable under § 101, thereby casting an invalidity shadow over many existing business method patents.⁷

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1. 130 S. Ct. 3218 (2010).

2. Adam Liptak, *New Court Term May Give Hints to Views on Regulating Business*, N.Y. TIMES, Oct. 5, 2009, at A1.

3. 35 U.S.C. § 101 (2006); *Bilski*, 130 S. Ct. at 3221.

4. There is not a clear definition for a business method patent, besides defining it tautologically—a patent claiming a method of doing business. See John W. Bagby, *Business Method Patent Proliferation: Convergence of Transactional Analytics and Technical Scientifics*, 56 BUS. LAW. 423, 423 (2000) (“[B]usiness methods have not been patentable, that is, methods of doing business.”); Bronwyn H. Hall, *Business and Financial Method Patents, Innovation, and Policy*, 56 SCOTTISH J. POL. ECON. 443, 445 (2009) (“There is no precise definition of . . . business method patents.”).

5. See S. REP. NO. 1979, at 5 (1952); H.R. REP. NO. 1923, at 6 (1952).

6. *Bilski v. Kappos*, 130 S. Ct. at 3220.

7. *Id.* at 3231.

The decision did not provide sweeping reform as predicted by many commentators, let alone provide guidance to courts to determine patent-eligibility for processes. Instead, the Court appeared only to reaffirm its traditional limits on patentability. As many commentators stated, the outcome from the decision might be described best as “business as usual.”⁸

But what exactly is business as usual? Over the course of multiple decades, several Supreme Court decisions and resulting lower court tests reshaped the legally recognized scope of patent protection.⁹ Does business as usual follow the scope of patent protection from the Supreme Court decisions in *Benson*,¹⁰ *Diehr*,¹¹ and *Flook*?¹² Does business as usual shadow the most permissive point of patent-eligibility in the useful, concrete, and tangible result test?¹³ Or does business as usual continue with the recently implemented Federal Circuit machine-or-transformation test?¹⁴

This Note charts the relative strictness of patent-eligibility across multiple Supreme Court and Federal Circuit decisions to provide a historical representation of patent-eligibility strictness in Part I. Further, in Parts II and III, this Note analyzes patterns evolving from recent Board of Patent Appeal and Interferences and Federal Circuit decisions to predict the new level of patent-eligibility severity stemming from the *Bilski v. Kappos* decision.

I. DEVELOPMENT OF THE BOUNDARIES OF PATENT-ELIGIBILITY

A. PATENTABLE SUBJECT MATTER

35 U.S.C. § 101 enumerates the types of patentable inventions that are valid in the United States.¹⁵ The statute provides that “[w]hoever 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 thereof,

8. See, e.g., Dennis Crouch, *Bilski v. Kappos*, PATENTLY-O, Jun. 28, 2010, 2010 WLNR 13013837, available at <http://www.patentlyo.com/patent/2010/06/bilski-v-kappos-business-methods-out-software-still-patentable.html> (last visited Feb. 5, 2011) (“Rather, the outcome from the [*Bilski v. Kappos*] decision might be best stated as ‘business as usual.’”).

9. See *infra* Part II.

10. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972).

11. *Diamond v. Diehr*, 450 U.S. 175, 191 (1981).

12. *Parker v. Flook*, 437 U.S. 584, 593 (1978).

13. *Infra* Section I.F.2; see *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998).

14. *Infra* Section I.F.3; see *In re Bilski*, 545 F.3d 943, 952 (Fed. Cir. 2008), cert. granted, 129 S. Ct. 2735 (2009), and *aff’d but criticized sub nom. Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

15. 35 U.S.C. § 101 (2006).

subject to the conditions and requirements of this title.”¹⁶ Judge Giles Rich in *In re Bergy* explained, “[a] person may have ‘invented’ a machine or a manufacture, which may include anything under the sun that is made by man, but it is not necessarily patentable under section 101 unless the conditions of the title are fulfilled.”¹⁷

35 U.S.C. § 101 is the gatekeeper to patentability: failing the requirements of § 101 bars a claim from advancing to the other considerations of patentability.¹⁸ To pass the standard of § 101, a claim must be directed towards one of the four statutory categories of patentable subject matter: a “process, machine, manufacture, or composition of matter.”¹⁹

B. PRACTICAL APPLICATION TEST

For as long as the United States granted patents for innovation, the courts have wrestled with the scope of patent-eligibility.²⁰ In 1852, the Supreme Court acknowledged in *Le Roy v. Tatham* that there were limits to patentability.²¹ Specifically, a fundamental principle—i.e., a law of nature, natural phenomenon, or abstract idea—is not patentable because these principles are the “basic tools of scientific and technological work.”²² Allowing individuals to patent these fundamental principles would pre-empt the public’s access to these basic tools, thus impeding future innovation.²³

Justice Nelson, dissenting in *Le Roy*, argued that an inventor deserves patent protection if the patent states a “new application of the principle or property of matter.”²⁴ This theory of practical application influenced the Court’s initial concept of patent-eligibility.²⁵ For many years, courts employed

16. *Id.* (emphasis added).

17. 596 F.2d 952 (C.C.P.A. 1979) (Rich, J.), *aff’d sub nom.* *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

18. *Parker v. Flook*, 437 U.S. 584, 593 (1978).

19. 35 U.S.C. § 101.

20. *See generally* Jeremy J. Carney, *Retreat from the Brink of Clarity: Why the Federal Circuit Got In Re Bilski Wrong, and What Can Be Done About It*, 2009 U. ILL. J.L. TECH. & POL’Y 473, 475 (2009) (describing the history of patent-eligibility and Supreme Court’s interpretation of patent-eligibility throughout this process).

21. 55 U.S. 156, 174–75 (1852).

22. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *see Le Roy*, 55 U.S. at 175.

23. *Gottschalk*, 409 U.S. at 67 (“Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”).

24. *Le Roy*, 55 U.S. at 187 (Nelson, J., dissenting).

25. *See* Sam Han, *Analyzing the Patentability of “Physical” Yet “Intangible” Subject Matter*, 3 COLUM. SCI. & TECH. L. REV. 2, 16–21 (2001) (tracing the emergence of the practical application framework across the court’s early patent case law); N. Scott Pierce, *Common*

the practical application framework to distinguish patentable and unpatentable subject matter.²⁶ The practical application framework distinguished claims that embodied a principle in the abstract as unpatentable from claims that employed a principle as patentable.²⁷

For example, the Supreme Court determined in *O'Reilly v. Morse* that Samuel Morse's claim for his telegraph invention was unpatentable.²⁸ The patent covered the use of electromagnetism to send intelligible characters across distances.²⁹ In finding the claim unpatentable, the Court explained that it pre-empted³⁰ any use of electro-magnetism.³¹

However, the Supreme Court upheld the patentability of Alexander Graham Bell's process for converting electric signals to audible speech in *Dolbear v. American Bell Telephone Co.*³² Bell claimed a "method of and apparatus for transmitting vocal or other sounds telegraphically."³³ The Court distinguished Bell's claim from Morse's claim by noting Bell's claim applied to transmitting voice, a particular process for the use of electricity.³⁴

Sense: Treating Statutory Non-Obviousness as a Novelty Issue, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 539, 581–85 (2009) (discussing Justice Nelson embracing an English doctrine to develop the practical application concept).

26. *See* Mackay Radio & Tel. Co. v. Radio Corp. of Am., 306 U.S. 86, 94 (1939) ("[W]hile a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be."); Rubber-Tip Pencil Co. v. Howard, 87 U.S. 498, 507 (1874) ("[A]n idea of itself is not patentable."); *LeRoy*, 55 U.S. at 175 ("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.")

27. *Le Roy*, 55 U.S. at 183 (Nelson, J., dissenting).

28. 56 U.S. 62, 113 (1853).

29. *Id.* at 112.

30. Courts apply the word pre-emption to establish that a claim covers the entirety of a principle such that it would preclude subsequent inventors. *See* *Bilski v. Kappos*, 130 S. Ct. 3218, 3231 (2010) ("Allowing petitioners to patent risk hedging would *pre-empt* use of this approach in all fields, and would effectively grant a monopoly over an abstract idea.") (emphasis added); *Gottschalk v. Benson*, 409 U.S. 63, 72 (1972) ("[I]f the judgment below is affirmed, the patent would wholly *pre-empt* the mathematical formula and in practical effect would be a patent on the algorithm itself.") (emphasis added).

31. *O'Reilly*, 56 U.S. at 113 ("For aught that we now know some future inventor, in the onward march of science, may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using any part of the process or combination set forth in the plaintiff's specification.")

32. *Dolbear v. Am. Bell Tel. Co.*, 126 U.S. 1, 531 (1888).

33. *Id.*

34. *Id.* at 534 (holding that Bell's electric transmission of speech put electricity into "a certain specified condition," thereby making it patentable).

C. JUDICIALLY ESTABLISHED EXCEPTIONS TO PATENT-ELIGIBILITY:
LAWS OF NATURE, PHYSICAL PHENOMENA, AND ABSTRACT IDEAS

Eventually, the court excluded “laws of nature, physical phenomena, and abstract ideas” from patentability.³⁵ The judicially created exceptions to patentability furthered the practical application approach because it illustrated the Court’s willingness to grant patent protection only to inventions that produce a useful physical manifestation, and not simply for innovative ideas.

As previously discussed,³⁶ *O’Reilly v. Morse* initiated the laws of nature exception to patentable subject matter.³⁷ In *O’Reilly*, the Court held Morse’s claim invalid because it attempted to claim the concept of electronic communications, which the Court deemed to be a law of nature.³⁸

The Court derived the physical phenomena exception in *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, when it declared a mixture of naturally occurring bacteria unpatentable because it was a product of nature.³⁹ According to the Court, the patentee did not invent anything; therefore, he did not deserve patent protection for his discovery.⁴⁰

Finally, the abstract idea exception arose out of the Court’s decision in *Rubber Tip Pencil Co. v. Howard*.⁴¹ The inventor in *Rubber Tip Pencil* claimed an attachment of a small piece of rubber eraser to the blunt end of a pencil.⁴² The Court held that “[a]n idea of itself is not patentable, but a new device by

35. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980); see *Parker v. Flook*, 437 U.S. 584, 593 (1978); *Gottschalk*, 409 U.S. at 67; *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948); *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874) (“An idea of itself is not patentable.”); *Le Roy v. Tatham*, 14 U.S. 156, 175 (1853) (“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.”).

36. *Supra* Section I.B.

37. 56 U.S. at 132–33 (Grier, J., concurring) (“The mere discovery of a new element, or law, or principle of nature, without any valuable application of it to the arts, is not the subject of a patent. But he who takes this new element or power, as yet useless, from the laboratory of the philosopher, and makes it the servant of man; who applies it to the perfecting of a new and useful art, or to the improvement of one already known, is the benefactor to whom the patent law tenders its protection.”).

38. *Id.* at 113.

39. 333 U.S. at 130 (“He who discovers a hitherto unknown phenomenon of nature has no claim to a monopoly of it which the law recognizes. If there is to be invention from such a discovery, it must come from the application of the law of nature to a new and useful end.”).

40. *See id.* at 130–32.

41. 87 U.S. 498, 502 (1874).

42. *Id.* at 500.

which it may be made practically useful is.”⁴³ The Court determined that the only novel aspect of the invention was the idea that a pencil would cling to an enclosed piece of rubber.⁴⁴ Therefore, the Court held that the invention did not deserve patent protection.⁴⁵

D. CONGRESS CHANGED THE TEXT OF § 100 IN THE 1952 PATENT ACT BUT DID NOT CHANGE PATENT-ELIGIBILITY ITSELF

Congress enacted the 1952 Patent Act to codify the revisions in patent law established by court decisions and to implement certain substantive amendments.⁴⁶ The 1952 Patent Act changed certain language pertaining to patent-eligibility without changing its scope.⁴⁷ Congress changed the definition of “invention” in § 100 of the Patent Act to include “invention or discovery,” simplifying the statute’s language.⁴⁸ Moreover, Congress changed the term “art” in § 101 to “process,” and defined “process” to include both “method” and “new uses of a known” product or process.⁴⁹ Congress thus intended to clarify the current scope of patent-eligibility subject matter without altering it.⁵⁰

E. EVOLUTION OF PATENT-ELIGIBILITY: *BENSON*, *FLOOK*, AND *DIEHR*

A trilogy of Supreme Court cases (*Gottschalk v. Benson*,⁵¹ *Parker v. Flook*,⁵² *Diamond v. Diehr*⁵³) further defined the bounds of patent-eligibility.

43. *Id.* at 507.

44. *Id.*

45. *Id.*

46. See Brief Amici Curiae of Professors Peter S. Menell and Michael J. Meurer In Support of Respondent at 9–29, *Bilski v. Kappos* 130 S. Ct. 3218 (2010) (No. 08-964) (discussing the subject matter provision of the 1952 Patent Act); see also Kimberly M. Ruch-Alegant, *Markman: In Light of De Novo Review, Parties to Patent Infringement Litigation Should Consider the ADR Option*, 16 TEMP. ENVTL. L. & TECH. J. 307, 312–13 (1998) (arguing that Congress enacted the 1952 Patent Act in response to an anti-patent bias developed by court decisions).

47. For information regarding the impetus behind the 1952 Patent Act, see Brief Amici Curiae of Professors Peter S. Menell and Michael J. Meurer In Support of Respondent, *supra* note 46.

48. P.J. Federico, *Commentary on the New Patent Act*, 35 U.S.C.A. 1 (West 1954), reprinted in 75 J. PAT. & TRADEMARK OFF. SOC’Y 161 (1993). (explaining that the old statute used “invention or discovery” in many places; the new definition allowed use of the singular “invention”).

49. 35 U.S.C. §§ 100(a), (b), 101 (2006); see H.R. REP. NO. 82-1928, at 6 (1952).

50. See *Bilski v. Kappos*, 130 S. Ct. 3218, 3247 (2010); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); accord H.R. REP. NO. 1923, at 17 (1952) (explaining that “the word ‘art’ ” in § 101 “has been interpreted by the courts as being practically synonymous with process or method,” and that the switch to the word “[p]rocess” was intended only for clarity).

51. 409 U.S. 63 (1972).

1. Gottschalk v. Benson

The first case in the trilogy addressing the scope of patent-eligibility was *Gottschalk v. Benson*, decided in 1972.⁵⁴ The claim at issue was a computer-implemented algorithm for converting numbers from binary coded decimal form to pure binary form.⁵⁵

The Supreme Court rejected the claim as unpatentable because allowing the claim would pre-empt the algorithm itself.⁵⁶ The Court considered the algorithm an abstract principle.⁵⁷ The Court defined “algorithm” as a “procedure for solving a given type of mathematical problem” and concluded that such an algorithm is not eligible for patent protection.⁵⁸

2. Parker v. Flook

The Supreme Court again confronted the patent-eligibility of a method claim in *Parker v. Flook*.⁵⁹ The claims in *Flook* described a method for updating alarm limits used for governing the catalytic chemical conversion of hydrocarbons.⁶⁰

52. 437 U.S. 584 (1978).

53. 450 U.S. 175 (1981).

54. 409 U.S. at 63; *see In re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008).

55. *Gottschalk*, 409 U.S. at 64.

The claim at issue in *Gottschalk* reads:

The method of converting signals from binary coded decimal form into binary which comprises the steps of:

- (1) storing the binary coded decimal signals in a recentrant shift register,
- (2) shifting the signals to the right by at least three places, until there is a binary ‘1’ in the second position of said register,
- (3) masking out said binary ‘1’ in said second position of said register,
- (4) adding a binary ‘1’ to the first position of said register,
- (5) shifting the signals to the left by two positions,
- (6) adding a ‘1’ to said first position, and
- (7) shifting the signals to the right by at least three positions in preparation for a succeeding binary ‘1’ in the second position of said register.

Id. at 73 (App.).

56. *Id.* at 72.

57. *Id.*

58. *Id.* at 65.

59. 437 U.S. 584 (1978).

60. *Id.* at 585–86.

The claim at issue in *Flook* reads:

A method for updating the value of at least one alarm limit on at least one process variable involved in a process comprising the catalytic chemical conversion of hydrocarbons wherein said alarm limit has a current value

Flook argued that his method was patentable because it did not pre-empt all uses of the algorithm contained in the claim; instead it only covered the algorithm applied to a catalytic chemical conversion of hydrocarbons.⁶¹ The Court did not accept Flook's argument.⁶² The Court emphasized that an unpatentable algorithm does not become patentable by adding post-solution activity.⁶³ However, the Court explained that a claim involving an algorithm is patentable only when the application of the principle is inventive.⁶⁴ Thus, the Court found the invention unpatentable, emphasizing that the process applying the fundamental principle was not new or useful.⁶⁵

3. *Diamond v. Diehr*

In *Diamond v. Diehr*, the Supreme Court further refined the scope of process claim patent-eligibility, but in this instance, did so to validate the patent-eligibility of a claim.⁶⁶ Here, the Court upheld the patentability of a computer program controlling a physical process.⁶⁷ The claim at issue in *Diehr* involved a method in which a computer controlled the curing of synthetic rubber according to a mathematical equation.⁶⁸

of $Bo + K$ wherein Bo is the current alarm base and K is a predetermined alarm offset which comprises:

(A) Determining the present value of said process variable, said present value being defined as PVL ;

(B) Determining a new alarm base $B1$, using the following equation: $B1 = Bo(1.0-F) + PVL(F)$ where F is a predetermined number greater than zero and less than 1.0;

(C) Determining an updated alarm limit which is defined as $B1 + K$; and there-after

(D) Adjusting said alarm limit to said updated alarm limit value.

Id. at 596–97 (App.).

61. *Id.* at 589–90.

62. *Id.*

63. *Id.* at 590.

64. *Id.* at 594 (“Even though a phenomenon of nature or mathematical formula may be well known, an inventive application of the principle may be patented. Conversely, the discovery of such a phenomenon cannot support a patent unless there is some other inventive concept in its application.”).

65. *Id.* at 591.

66. 450 U.S. 175, 192–93 (1981).

67. *Id.*

68. *Id.* at 177.

The claim at issue in *Diehr* reads:

A method of operating a rubber-molding press for precision molded compounds with the aid of a digital computer, comprising:
 providing said computer with a data base for said press including at least, natural logarithm conversion data (\ln),

Although the claim contained a well-known mathematical algorithm, the Court held that the claim was patentable.⁶⁹ The claim did not pre-empt all uses of the mathematical fundamental principle; rather, the claim limited its use with the steps for curing rubber process.⁷⁰

4. *Relative Strictness of the Supreme Court Patent-Eligibility Trilogy*

Benson and *Flook* employed similar reasoning to determine that the claims in question were not patent eligible.⁷¹ Both cases fundamentally involved methods that recalculated input data.⁷² Moreover, in both cases the Supreme Court affirmed mathematical algorithms as nonstatutory to determine that neither claims were patentable.⁷³ In *Benson*, the Court held that a stand-alone mathematical algorithm such as a conversion of binary-coded decimals into

the activation energy constant (C) unique to each batch of said compound being molded, and
 a constant (x) dependent upon the geometry of the particular mold of the press,
 initiating an interval timer in said computer upon the closure of the press for monitoring the elapsed time of said closure,
 constantly determining the temperature (Z) of the mold at a location closely adjacent to the mold cavity in the press during molding,
 constantly providing the computer with the temperature (Z),
 repetitively calculating in the computer, at frequent intervals during each cure, the Arrhenius equation for reaction time during the cure, which is

$$\ln v = CZ + x$$

where v is the total required cure time,
 repetitively comparing in the computer at said frequent intervals during the cure each said calculation of the total required cure time calculated with the Arrhenius equation and said elapsed time, and
 opening the press automatically when a said comparison indicates equivalence.

See id. at 179 n. 5.

69. *Id.* at 187.

70. *Id.* at 192–93.

71. Ben Klemens, *The Rise of the Information Processing Patent*, 14 B.U.J. SCI. & TECH. L. 1, 13 n.44 (2008) (“The discussions of both *Benson* and *Flook* were similar.”).

72. *Compare* Gottschalk v. Benson, 409 U.S. 63, 65 (1972) (“The patent sought is on a method of programming a general-purpose digital computer to convert signals from binary-coded decimal form into pure binary form.”), *with* Parker v. Flook, 437 U.S. 584, 585 (1978) (“Respondent’s patent application describes a method of updating alarm limits.”). *See also* *In re* Walter, 618 F.2d 758, 767 (C.C.P.A. 1980), *abrogated by* *In re* Bilski, 545 F.3d 943 (Fed. Cir. 2008) (“If, however, the mathematical algorithm is merely presented and solved by the claimed invention, as was the case in *Benson* and *Flook* . . .”).

73. *Flook*, 437 U.S. at 590; *Benson*, 409 U.S. at 72; *see In re* Walter, 618 F.2d at 766 (“It is well-settled that a statutory invention will result from the application of a scientific truth (law of nature) to an otherwise statutory structure or process In both *Benson* and *Flook*, the Court again relied on this well-settled precedent.”).

pure binary numbers was not patent eligible.⁷⁴ In *Flook*, the Supreme Court reaffirmed that a stand-alone mathematical algorithm for a process that updated alarm limits in a catalytic converter was not patent eligible.⁷⁵

On the other hand, the *Diehr* decision relaxed the patent-eligibility standard from the previous *Benson* and *Flook* decisions.⁷⁶ The Court in *Diehr* retreated from its previous absolute prohibition of mathematical algorithms.⁷⁷ After *Diehr*, if an algorithm was a component of a larger process, the process itself may be patentable. Some commentators even found the decisions in *Diehr* and *Flook* so contrasting that their holdings were irreconcilably inconsistent.⁷⁸

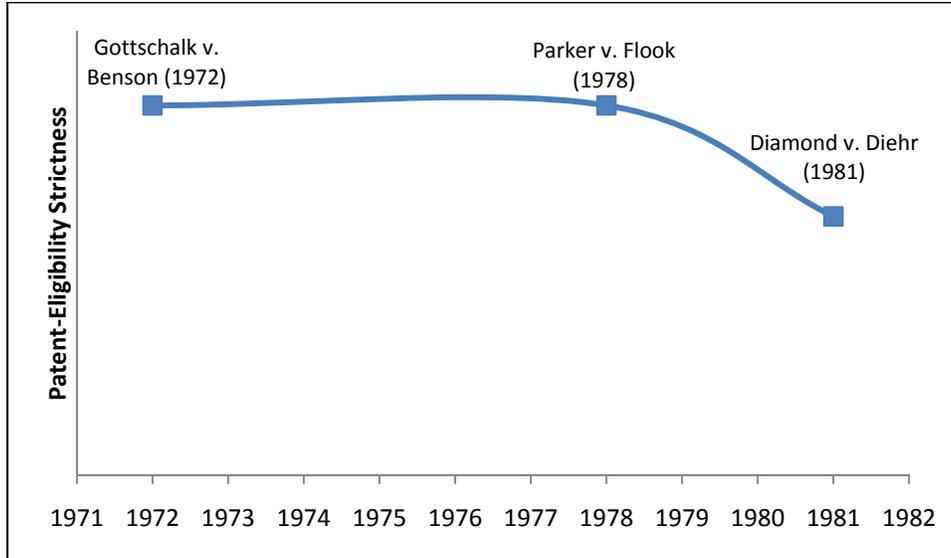
74. *Benson*, 409 U.S. at 72.

75. *Flook*, 437 U.S. at 590.

76. David Abraham, *Suggestions for Improved Intellectual Property Protection of Software, or Where is Alexander When You Really Need Him?*, 23 S.U. L. REV. 293, 305 n.29 (1996) (“Judge Rader also states that he believes the Supreme Court, in *Diamond v. Diehr*, to have cut the ‘Gordian Knot’ surrounding the algorithm exclusion through the strict limitation of *Benson*, thus allowing for a more liberal interpretation of 35 U.S.C. § 101.”); Shawn McDonald, *Patenting Floppy Disks, or How the Federal Circuit’s Acquiescence has Filled the Void Left by Legislative Inaction*, 3 VA. J.L. & TECH. 9, 29 (1998) (“The Supreme Court’s most recent opinion addressing the patent eligibility of software inventions, *Diamond v. Diehr*, expressed a view fundamentally different from its *Benson* and *Flook* decisions. With *Diehr* the Court began a process of invalidating the bars to § 101 eligibility that it had announced in *Flook*. This weakening of *Flook* continued unabated in the CAFC’s subsequent decisions.”).

77. See *In re Taner*, 681 F.2d 787, 791 (C.C.P.A. 1982) (“Most recently in *Diehr*, the Supreme Court made clear that *Benson* stands for no more than the long-established principle that laws of nature, natural phenomena, and abstract ideas are excluded from patent protection.”).

78. See Jur Strobos, *Stalking the Elusive Patentable Software: Are There Still Diehr or Was it Just a Flook?*, 6 HARV. J.L. & TECH. 364, 387–93 (examining the irreconcilable holdings of *Flook* and *Diehr*); cf. David Schumann, *Obviousness With Business Methods*, 56 U. MIAMI L. REV. 727, 741–43 (2002) (contending that *Flook* and *Diehr* are not inconsistent decisions).

Figure 1: Scope of Patent-Eligibility from 1972 to 1982⁷⁹

F. THE FEDERAL CIRCUIT’S RESPONSE TO THE PATENT-ELIGIBILITY TRILOGY

As seen in *Diehr*, a claim may include a fundamental principle so long as the claim as a whole is restricted to a particular application of that fundamental principle.⁸⁰ However, to determine if a claim restricts a fundamental principle to a particular application is “hardly straightforward.”⁸¹ Therefore, the Federal Circuit and its predecessor court attempted to more concretely define the boundaries of patent-eligibility by creating tests to determine if a claim pre-empted “substantially all” uses of a fundamental principle or if it was sufficiently restrictive.⁸²

79. Methodology of Graphs: These charts are a historical representation of the patent-eligibility cases and their relative strictness. The points representing the cases are placed on a relative scale based on the preceding explanation. The actual marking and distance between the points are arbitrary, only used to reference which test has a more limited scope of patent protection to another. Again, the distance between the points is not reflective of a metric of severity; instead, it is meant to be used as a guide to determine which test is more stringent in patent-eligibility relative to other tests. For a head-to-head comparison of the claims in the cases, see *infra* App. IV.C. App. IV.C is a table consisting of the case, year, summary of the process claim, the process input and output, and whether the claim was statutory.

80. See *Diamond v. Diehr*, 450 U.S. 175, 187 (1981).

81. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008); see *Diehr*, 450 U.S. at 187.

82. See *Diehr*, 450 U.S. at 187.

1. *Freeman-Walter-Abele Test and Subsequent Cases*

a) Freeman-Walter-Abele Test Overview

The Freeman-Walter-Abele test emerged from three Court of Customs and Patent Appeals⁸³ decisions: *In re Freeman*,⁸⁴ *In re Walter*,⁸⁵ and *In re Abele*.⁸⁶ The test contained two steps: “(1) determining whether the claim recites an ‘algorithm within the meaning of *Benson*’, then (2) determining whether the algorithm is applied in any manner to physical elements or process steps.”⁸⁷

The Federal Circuit formulated and applied the Freeman-Walter-Abele test in *In re Abele* to evaluate the patentability of a computer-related process.⁸⁸ The patent at issue in *Abele* claimed an improvement in the reliability of CAT scans.⁸⁹ The court particularly focused on a broad process claim and its dependent claim.⁹⁰ Applying the Freeman-Walter-Abele test, the court specified that a mathematical algorithm was present in the both of the claims, because the independent claim at issue required “calculating [a] difference.”⁹¹

83. The Court of Customs and Patent Appeals is the predecessor court to the Federal Circuit. In 1982, Congress passed The Federal Courts Improvement Act, which abolished the Court of Customs and Patent Appeals and transferred the court’s jurisdiction, docket and judges to the United States Court of Appeals for the Federal Circuit. Federal Courts Improvement Act, Pub. L. No. 97-164, 96 Stat. 25 (1982). In the Federal Circuit’s first opinion, *South Corp. v. United States*, 690 F.2d 1368, 1370 (Fed. Cir. 1982) (en banc), the Federal Circuit adopted the precedents of the Court of Customs and Patent Appeals.

84. 573 F.2d 1237 (C.C.P.A. 1978).

85. 618 F.2d 758 (C.C.P.A. 1980).

86. 684 F.2d 902 (C.C.P.A. 1982).

87. *In re Bilski*, 545 F.3d 943, 958–59 (Fed. Cir. 2008) (citing *In re Abele*, 684 F.2d at 905–07).

88. *In re Abele*, 684 F.2d at 903.

89. *Id.*

90. *Id.*

The broad process claim at issue in *In re Abele* reads:

5. A method of displaying data in a field comprising the steps of calculating the difference between the local value of the data at a data point in the field and the average value of the data in a region of the field which surrounds said point for each point in said field, and displaying the value of said difference as a signed gray scale at a point in a picture which corresponds to said data point.

Id. at 908.

The dependent claim at issue in *In re Abele* reads:

6. The method of claim 5 wherein said data is X-ray attenuation data produced in a two dimensional field by a computed tomography scanner.

Id.

91. *Id.* at 907.

This finding necessitated the second stage of analysis: determining whether the claimed process applied to any physical element or process step.⁹²

The court in *Abele* applied the second step to independent claim 5, an algorithm for processing and displaying undefined “data,” and dependent claim 6, where the “data” is limited to CAT-scan data.⁹³ The court held that claim 5 was not patent eligible because it did not apply to a certain process and, instead, applied only to a mathematical formula.⁹⁴ In contrast, the court determined that claim 6 was patent eligible because it required the performance of a CAT-scan, even absent the algorithm.⁹⁵

b) Subsequent Decisions Post-Freeman-Walter-Abele: *In re Alappat* and *In re Warmerdam*

In the first decade of the Federal Circuit’s existence, patent-eligibility remained unchanged after the Court of Customs and Patent Appeals’ holding in *Abele*. However, in 1994, the Federal Circuit decided several cases involving computer-implemented inventions. The two most significant decisions were the en banc decision, *In re Alappat*,⁹⁶ and the decision promptly thereafter, *In re Warmerdam*.⁹⁷

The Federal Circuit in *Alappat* upheld the patent for a machine that created a smooth waveform display in a digital oscilloscope.⁹⁸ Specifically, by

92. *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1059 (Fed. Cir. 1992).

93. *In re Abele*, 684 F.2d at 907–08.

94. *Id.* at 909.

95. *Id.* at 908.

96. 33 F.3d 1526, 1537 (Fed. Cir. 1994).

97. 33 F.3d 1354, 1355 (Fed. Cir. 1994); see Suzanne Swanson, *The Patentability of Business Methods, Mathematical Algorithms and Computer-Related Inventions After the Decision by the Court of Appeals for the Federal Circuit in State Street*, 8 FED. CIR. B.J. 153, 171 (1999) (“Then in 1994, five cases were decided including the long awaited decision in *In re Alappat*.”).

98. *In re Alappat*, 33 F.3d at 1545.

The claim at issue in *In re Alappat* reads:

A rasterizer for converting vector list data representing sample magnitudes of an input waveform into anti-aliased pixel illumination intensity data to be displayed on a display means comprising:

- (a) means for determining the vertical distance between the endpoints of each of the vectors in the data list;
- (b) means for determining the elevation of a row of pixels that is spanned by the vector;
- (c) means for normalizing the vertical distance and elevation; and
- (d) means for outputting illumination intensity data as a predetermined function of the normalized vertical distance and elevation.

Id. at 1538–39.

regulating the degree of illumination of the pixels, the machine would diminish any oscillation, resulting in a smooth continuous waveform.⁹⁹ The Federal Circuit reasoned that the machine was not a “disembodied mathematical concept,” but rather “a specific machine” that “produce[d] a useful, concrete, and tangible result.”¹⁰⁰

According to the court in *Alappat*, implementing a program on a general-purpose computer creates a new machine because it programs the general-purpose computer to perform particular useful functions.¹⁰¹ Accordingly, a person wishing to obtain patent protection in software can claim the software algorithm in connection with any known hardware.

Less than a month after *Alappat*, the Federal Circuit again evaluated computer-implemented claims in *In re Warmerdam*.¹⁰² The Warmerdam patent claimed a method and a machine for using a mathematical concept called “bubble hierarchy.”¹⁰³ The autonomous machines implemented bubble hierarchy to avoid collisions with other objects.¹⁰⁴ The Federal Circuit determined that the method claim in the Warmerdam patent was not patentable because it only contained the manipulation of abstract ideas.¹⁰⁵ However, the court decided that the machine claim, wherein the machine processed and stored the rejected method claim, was “clearly patentable subject matter” because it was “for a machine.”¹⁰⁶ Thus, the court—similar to its holding in *Alappat*—recognized that claims directed at programming a computer to accomplish a specific result were patent eligible.¹⁰⁷

99. *Id.*

100. *Id.*

101. *Id.* at 1549.

102. *In re Warmerdam*, 33 F.3d 1354, 1355 (Fed. Cir. 1994).

103. *Id.*

One of the method claims at issue in *In re Warmerdam* reads:

1. A method for generating a data structure which represents the shape of [sic] physical object in a position and/or motion control machine as a hierarchy of bubbles, comprising the steps of:
first locating the medial axis of the object and
then creating a hierarchy of bubbles on the medial axis.

Id. at 1358.

One of the machine claims at issue in *In re Warmerdam* reads:

5. A machine having a memory which contains data representing a bubble hierarchy generated by the method of any of Claims 1 through 4.

Id.

104. *Id.* at 1360.

105. *Id.* (“[T]he claim involves no more than the manipulation of abstract ideas.”).

106. *Id.*

107. *Id.*

c) Relative Strictness of the Freeman-Walter-Abele Test and
Ensuing Cases

The Court of Customs and Patent Appeals designed the Freeman-Walter-Abele test to identify unpatentable mathematical algorithms in the wake of *Benson* and *Flook*.¹⁰⁸ However, the Freeman-Walter-Abele test loosened the blanket prohibition of mathematical algorithms in *Benson* and *Flook* by providing patentability exceptions if the mathematical algorithm applied to a physical element or process step.¹⁰⁹

Despite being more permissive than *Benson* and *Flook*, the Freeman-Walter-Abele test was a stricter test for patent-eligibility than the holding in *Diehr*.¹¹⁰ Even the Federal Circuit in *AT&T Corp. v. Excel Commc'ns, Inc.* acknowledged that the Freeman-Walter-Abele test added an additional unfounded limitation—a structural limitation—to establish patentability of abstract claims.¹¹¹ Because the Freeman-Walter-Abele test added an unsupported structural limitation, scholars argue that the Freeman-Walter-Abele test is a more severe patent-eligibility standard than the holding in *Diehr*.¹¹² One scholar noted that the computerized calculation at issue in *Diehr* would not be patentable under the Freeman-Walter-Abele test, even though the Supreme Court found the computerized calculation patentable.¹¹³ In

108. See *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373–74 (Fed. Cir. 1998), *abrogated by In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008) (“The Freeman-Walter-Abele test was designed by the Court of Customs and Patent Appeals, and subsequently adopted by this court, to extract and identify unpatentable mathematical algorithms in the aftermath of *Benson* and *Flook*.”).

109. See Vincent Chiappetta, *Patentability of Computer Software Instruction as an “Article of Manufacture.” Software as Such as the Right Stuff*, 17 J. MARSHALL J. COMPUTER & INFO. L. 89, 125 n.81 (1998) (“Arguably, the development of the Freeman-Walter-Abele two step-test is more about limiting the unfortunate effects of *Benson* and *Flook* than the development of a rational approach to the patentability of computer software.”).

110. *In re Bilski*, 545 F.3d 943, 958–59 (citing *In re Abele*, 684 F.2d 902, 905–07 (C.C.P.A. 1982)); see also Sandra Szczerbicki, *The Shakedown on State Street*, 79 OR. L. REV. 253, 264 (2000) (“While quite strict, the Freeman-Walter-Abele test suggested that some computer software was patentable subject matter.”).

111. 172 F.3d 1352, 1359–60 (Fed. Cir. 1999), *abrogated by In re Bilski*, 545 F.3d 943.

112. See, e.g., David S. Olson, *Taking the Utilitarian Basis for Patent Law Seriously: The Case for Restricting Patentable Subject Matter*, 82 TEMP. L. REV. 181, 217 (2009) (“In the case of *In re Alappat*, the Federal Circuit further expanded the patentability of algorithms.”); J.D. Roberts, *Presidents and Mummies and Patents, Oh My: Why Patenting Special Effects Technology is Like a Box of Chocolates, You Never Know What You’re Going to Get*, 7 VILL. SPORTS & ENT. L.J. 237, 243 (2000) (“The next significant case after *Diehr* is *In Re Warmerdam* Thus, [after *In re Warmerdam*] the standard under § 101 became less and less strict.”).

113. Arti Rai, *Addressing the Patent Gold Rush: The Role of Deference to PTO Patent Denials*, 2 WASH. U. J.L. & POL’Y 199, 209 (2000).

addition, the Federal Circuit in *In re Bilski* concluded the Freeman-Walter-Abele test did not exhaustively include all patent eligible inventions.¹¹⁴

On the other hand, the Federal Circuit in *Alappat* greatly reduced the Court of Customs and Patent Appeals' strict stance on patent-eligibility.¹¹⁵ The Federal Circuit considered the machine in *Alappat* a "new machine" because "it is programmed to perform particular functions pursuant to instructions from program software."¹¹⁶ Based on the *Alappat* decision, the Federal Circuit effectively held software claims patentable as long as the claim recited hardware capable of running the software program.

The *Alappat* holding expanded the patentability of algorithms beyond the initial physical element requirement devised by the Freeman-Walter-Abele test.¹¹⁷ After *Alappat*, the use of a general purpose computer was sufficient to render any algorithm patentable.¹¹⁸

Similarly, the *Alappat* holding expanded patent-eligibility from the previous Supreme Court holding in *Diehr*.¹¹⁹ After *Diehr*, if an algorithm was a component of a larger process, the process itself may be patentable.¹²⁰ But after *Alappat*, a program solely consisting of a mathematical algorithm may be patentable if implemented on a general purpose computer.¹²¹

114. *In re Bilski*, 545 F.3d 943, 159 (Fed. Cir. 2008), *cert. granted*, 129 S. Ct. 2735 (2009), and *aff'd but criticized sub nom.* *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

115. *See In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) ("[A] computer operating pursuant to software *may* represent patentable subject matter, provided, of course, that the claimed subject matter meets all of the other requirements of Title 35.>").

116. *Id.* ("The unfounded suggestion that abstract claims require structural limitations may stem from the antiquated Freeman-Walter-Abele test.>").

117. *See Olson*, *supra* note 112, at 217 ("In the case of *In re Alappat*, the Federal Circuit further expanded the patentability of algorithms.>").

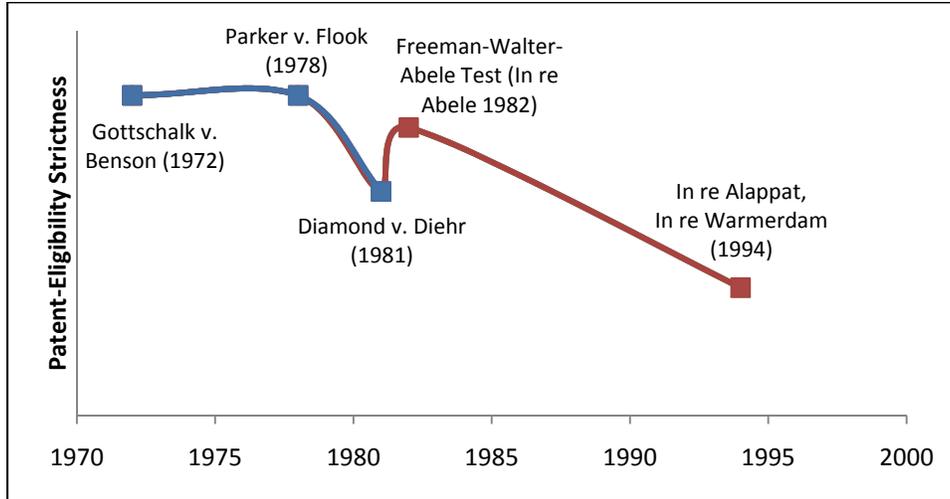
118. *Alappat*, 33 F.3d at 1544–45 (finding the computer a "specific machine to produce a useful, concrete, and tangible result").

119. *See Debra Greenfield, Intangible or Embodied Information: The Non-Statutory Nature of Human Genetic Material*, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 467, 504 (2009) ("Lower courts after *Diehr* expanded the patentability of algorithms embedded within process claims, but only when the process had a similarly transformative result."); Roberts, *supra* note 112, at 243 ("The next significant case after *Diehr* is *In Re Warmerdam* Thus, [after *In re Warmerdam*] the standard under § 101 became less and less strict.>").

120. *See Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (finding an inventive application of a fundamental principle statutory because it was embodied in an otherwise patentable process).

121. *Alappat*, 33 F.3d at 1549.

Figure 2: Scope of Patent-Eligibility from 1972 to 1998



d) Downfall of the Freeman-Walter-Abele Test

The Federal Circuit rejected the Freeman-Walter-Abele test in two stages. First, the court adopted a more liberal viewpoint toward subject-matter eligibility with its en banc decision in *In re Alappat*.¹²² Second, the Federal Circuit explicitly repudiated the Freeman-Walter-Abele test in *State Street*, describing the test as having “little, if any, applicability in determining the presence of statutory subject matter.”¹²³

2. *Useful, Concrete, and Tangible Result Test and Ensuing Cases*

a) Overview of the Useful, Concrete, and Tangible Result Test

After rejecting the Freeman-Walter-Abele test, the Federal Circuit attempted to hold abstract claims patent eligible if the claim provided useful, concrete, and tangible results—the Federal Circuit’s definition of a practical application.¹²⁴ In *State Street*, the Federal Circuit determined that that the patent in question, a data processing system for managing mutual funds to determine a share price, was patentable subject matter because it produced “a

122. *Id.* at 1526; see ROGER E. SCHECHTER & JOHN R. THOMAS, INTELLECTUAL PROPERTY: THE LAW OF COPYRIGHTS, PATENTS AND TRADEMARKS 395 (2003) (addressing *In re Alappat* as major turning point in the Federal Circuit’s approach to computer-related inventions impacting the subject-matter eligibility of processes as well as machines).

123. *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1375 (Fed. Cir. 1998).

124. *Id.* at 1373 (“In *Diehr*, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., ‘a useful, concrete and tangible result.’”).

useful, concrete and tangible result—a final share price momentarily fixed.”¹²⁵

Moreover, the Federal Circuit overruled the district court’s holding that business methods were unpatentable.¹²⁶ Currently, there is not a clear definition for a business method, besides defining it tautologically as a method of doing business.¹²⁷ Business method patents were not patentable prior to *State Street* because courts believed there was a judicially-created

125. *Id.*

The claim at issue in *State Street* reads:

1. A data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising:
 - (a) computer processor means [a personal computer including a CPU] for processing data;
 - (b) storage means [a data disk] for storing data on a storage medium;
 - (c) first means [an arithmetic logic circuit configured to prepare the data disk to magnetically store selected data] for initializing the storage medium;
 - (d) second means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases or decreases based on specific input, allocate the results on a percentage basis, and store the output in a separate file] for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds [sic], assets and for allocating the percentage share that each fund holds in the portfolio;
 - (e) third means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases and decreases based on specific input, allocate the results on a percentage basis, and store the output in a separate file] for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund;
 - (f) fourth means [an arithmetic logic circuit configured to retrieve information from a specific file, calculate incremental increases and decreases based on specific input, allocate the results on a percentage basis, and store the output in a separate file] for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and
 - (g) fifth means [an arithmetic logic circuit configured to retrieve information from specific files, calculate that information on an aggregate basis, and store the output in a separate file] for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

Id. at 1371–72.

126. *Id.* at 1375.

127. *Supra* note 4.

business method exemption from patentability.¹²⁸ The Federal Circuit rejected the idea that business methods are nonstatutory, holding that “§ 101 should not turn on whether the claimed subject matter does ‘business’ as opposed to something else.”¹²⁹

b) Subsequent Decisions Post-Useful, Concrete, and Tangible Result Test: *In re Comiskey* and *In re Nuijten*

After the Federal Circuit’s *State Street* decision, several Supreme Court Justices expressed reservations about the appropriateness of the useful, concrete, and tangible result test. In *Laboratory Corp. v. American Holdings*, Justice Breyer, in a dissent joined by Justices Stevens and Souter, questioned the Federal Circuit’s patentable subject matter standards: “[*State Street*] does say that a process is patentable if it produces a ‘useful, concrete, and tangible result.’ But this Court has never made such a statement and, if taken literally, the statement would cover instances where this Court has held the contrary.”¹³⁰

In a possible response to this statement, the Federal Circuit tightened its patent-eligibility approach in several subsequent decisions. The Federal Circuit in *In re Comiskey*¹³¹ and *In re Nuijten*¹³² reigned in the permissibility of patent-eligibility under the useful, concrete, and tangible result test.

The Federal Circuit in *Comiskey* rejected the patent-eligibility of a claim to a legal arbitration process, but held a method claim, which contained a physical component, patentable.¹³³ The claim in *Comiskey* covered a method and system for mandatory arbitration involving legal documents, such as wills or contracts.¹³⁴ The patent examiner and the BPAI rejected the claims on § 103 obviousness grounds.¹³⁵

128. See Emir Aly Crowne Mohammed, *What is an Invention? A Review of the Literature on Patentable Subject Matter*, 15 RICH. J.L. & TECH. 2, 39 (2008) (“[T]he court in *State Street Bank & Trust Company v. Signature Financial Group, Inc.* put the ‘ill-conceived’ business method exemption aside.”).

129. *State St. Bank*, 149 F.3d at 1376.

130. *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 136 (2006).

131. 499 F.3d 1365, 1368 (Fed. Cir. 2007), *opinion revised and superseded*, 554 F.3d 967 (Fed. Cir. 2009).

132. 500 F.3d 1346, 1348–51 (Fed. Cir. 2007).

133. *Comiskey*, F.3d at 981–82.

134. *Id.* at 1368.

The claim not requiring a machine at issue in *In re Comiskey* reads:

A method for mandatory arbitration resolution regarding one or more unilateral documents comprising the steps of:

enrolling a person and one or more unilateral documents associated with the person in a mandatory arbitration system at a time prior to or as of the time of creation of or execution of the one or more unilateral documents; incorporating arbitration language, that is specific to the enrolled person, in the previously enrolled unilateral document wherein the arbitration language provides that any contested issue related to the unilateral document must be presented to the mandatory arbitration system, in which the person and the one or more unilateral documents are enrolled, for binding arbitration wherein the contested issue comprises one or more of a challenge to the documents, interpretation of the documents, interpretation or application of terms of the documents and execution of the documents or terms of the documents;

requiring a complainant to submit a request for arbitration resolution to the mandatory arbitration system wherein the request is directed to the contested issue related to the unilateral document containing the arbitration language;

conducting arbitration resolution for the contested issue related to the unilateral document in response to the request for arbitration resolution;

providing support to the arbitration; and

determining an award or a decision for the contested issue related to the unilateral document in accordance with the incorporated arbitration language, wherein the award or the decision is final and binding with respect to the complainant.

Id. at n.1.

The claim requiring a machine at issue in *In re Comiskey* reads:

A system for mandatory arbitration resolution regarding one or more unilateral documents comprising:

a registration module for enrolling a person who is executing and one or more unilateral documents associated with the person in a mandatory arbitration system at a time prior to or as of the time of creation of or execution of the one or more unilateral documents;

an arbitration module for incorporating arbitration language, that is specific to the enrolled person, in the previously enrolled unilateral document wherein the arbitration language provides that any contested issue related to the unilateral document must be presented to the mandatory arbitration system, in which the person and the one or more unilateral documents are enrolled, for binding arbitration wherein the contested issue comprises one or more of a challenge to the documents, interpretation of the documents, interpretation or application of terms of the documents and execution of the documents or terms of the documents; and for providing this arbitration language to the enrolled person;

an arbitration resolution module for requiring a complainant to submit a request for arbitration resolution to the mandatory arbitration system wherein the request is directed to the contested issue related to the unilateral document containing the arbitration language; and

a means for selecting an arbitrator from an arbitrator database to conduct an arbitration resolution for the contested issue related to the unilateral

The Federal Circuit, however, held that the method claims, which required use of a mechanical device, were patentable, whereas similar claims that did not specifically require the use of a mechanical device were unpatentable.¹³⁶ The Federal Circuit explained that an abstract idea or mental process is only patent eligible to the extent that it embodies statutory subject matter.¹³⁷ Therefore, the court decided that the claims solely reciting the legal arbitration process were unpatentable.¹³⁸ However, the *Comiskey* claims reciting the legal arbitration process implemented within a machine constituted patent-eligible subject matter.¹³⁹

On the same day the Federal Circuit decided *Comiskey*, the court addressed the patent-eligibility of electrical signals in *In re Nuijten*.¹⁴⁰ The Federal Circuit denied patentability for (1) claims drawn to a method of embedding supplemental data, or “watermarks,” in an electromagnetic signal; and (2) claims drawn to the signals with embedded supplemental data themselves.¹⁴¹ The Federal Circuit reasoned that an electrical signal does not fit within a statutory patentable subject matter—a process, machine, manufacture, or composition of matter.¹⁴²

document in response to the request for arbitration resolution, for providing support to the arbitrator, and where the arbitrator determines an award or a decision for the contested issue related to the unilateral document in accordance with the incorporated arbitration language, wherein the award or the decision is final and binding with respect to the complainant.

Id. at n.3.

135. *Id.* at 1369.

136. *Id.* at 1377.

137. *Id.*

138. *Id.*

139. *Id.*

140. *In re Nuijten*, 500 F.3d 1346, 1348 (Fed. Cir. 2007).

141. *Id.*

The claim at issue in *In re Nuijten* reads:

A method of embedding supplemental data in a signal, comprising the steps of:

encoding the signal in accordance with an encoding process which includes the step of feeding back the encoded signal to control the encoding; and modifying selected samples of the encoded signal to represent the supplemental data prior to the feedback of the encoded signal and including the modifying of at least one further sample of the encoded signal preceding the selected sample if the further sample modification is found to improve the quality of the encoding process.

Id. at 1351.

142. *Id.*

c) Relative Strictness of the Useful, Concrete, and Tangible Result Test and Ensuing Cases

The Federal Circuit's holding in *State Street* presented a more permissive test to patent-eligibility than its subsequent *Alappat* holding.¹⁴³ In *State Street*, the Federal Circuit allowed any algorithm that produced a "useful, concrete, and tangible result" to be patent eligible.¹⁴⁴ Additionally, the *State Street* test led to the Federal Circuit considering business methods as patentable subject matter so long as the claim produced useful, concrete, and tangible results.¹⁴⁵ In contrast, after *Alappat*, the Federal Circuit only allowed computer software claims to be patent eligible if they produced a "useful, concrete, and tangible result."¹⁴⁶

The useful, concrete, and tangible test represents the most permissive point of patent-eligibility history. Many commentators criticized this test for focusing on the utility of an invention, a requirement analyzed as a separate inquiry under § 101 of the Patent Act.¹⁴⁷ Because the test analyzed the utility requirement instead of patent-eligibility, the useful, concrete, and tangible result test rendered the patent-eligibility requirement of § 101 pointless.

As explained above, the Federal Circuit responded to the critiques by tightening its patent-eligibility approach in *Comiskey* and *Nuijten*.¹⁴⁸ In particular, in *Nuijten*, the Federal Circuit further limited patent-eligibility compared to both the previous useful, concrete, and tangible result test and

143. See Andrew Patrick, *Patent Eligibility and Computer-Related Processes: A Critique of In Re Bilski and the Machine-or-Transformation Test*, 14 VA. J.L. & TECH. 181, 196 (2009) ("The Federal Circuit gradually turned away from the FWA [Freeman-Walter-Abele] test, adopting a more permissive stance toward subject-matter eligibility with its en banc decision in *In re Alappat*.").

144. *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998).

145. *State St. Bank*, 149 F.3d at 1375–76.

146. See *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) ("[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.").

147. William Michael Schuster, *Predictability and Patentable Processes: The Federal Circuit's In Re Bilski Decision and its Effect on the Incentive to Invent*, 11 COLUM. SCI. & TECH. L. REV. 1, 7 (2009) ("The Federal Circuit has recognized the utility and subject matter requirements as distinct inquiries under § 101. As such, it is necessarily an improper statutory interpretation to define patentable subject matter in terms of a useful, concrete, and tangible result when the utility requirement of § 101 already requires such results.").

148. *Supra* Section I.F.2.b); see *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 136 (2006) ("[State Street] does say that a process is patentable if it produces a 'useful, concrete, and tangible result.' But this Court has never made such a statement and, if taken literally, the statement would cover instances where this Court has held the contrary.").

the *Alappat* decision.¹⁴⁹ Even though the court found the Nuijten patent “useful to publishers of sound and video recordings,” the court concluded that an electrical signal was not patentable because the electrical signals were not statutory subject matter.¹⁵⁰ This is opposite from the useful, concrete, and tangible result test, which allowed patentability for all algorithms that produced a useful, concrete, and tangible result.

However, the holding in *Comiskey* and *Nuijten* is still more permissive to patent-eligibility than the Supreme Court holding in *Diehr*. In particular, the *Comiskey* holding is a mere formality.¹⁵¹ The *Comiskey* rule places only a few practical limitations upon the scope of patent-eligibility.¹⁵² Proper drafting techniques can qualify otherwise unpatentable subject matter as patent eligible.¹⁵³ *Diehr*, on the other hand, determined whether the process that claimed a fundamental principle pre-empted substantially all uses of that fundamental principle.¹⁵⁴ The *Diehr* holding, unlike the *Comiskey* rule, is a more substantive, and thus stricter, test for patent-eligibility.

149. See *supra* Section I.F.2.b).

150. *In re Nuijten*, 500 F.3d 1346, 1349 (Fed. Cir. 2007).

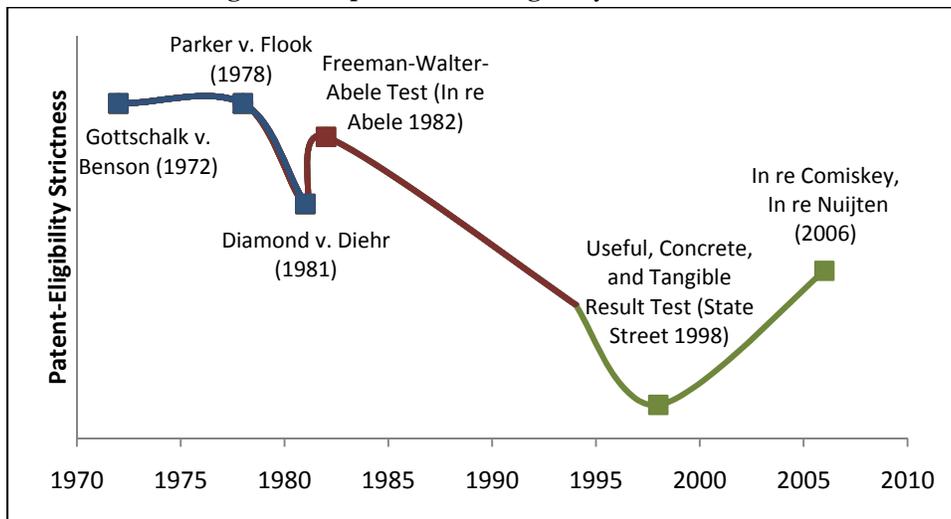
151. David J. Kappos *et al.*, *A Technological Contribution Requirement for Patentable Subject Matter: Supreme Court Precedent and Policy*, 6 NW. J. TECH. & INTELL. PROP. 152 (2008) (“The *Comiskey* rule is one of mere formality, for such drafting techniques qualify otherwise unpatentable methods as statutory subject matter, yet place few practical limitations upon the scope of the claims.”); see *In re Comiskey*, 499 F.3d 1365, 1380 (Fed. Cir. 2007) *opinion revised and superseded*, 554 F.3d 967 (Fed. Cir. 2009) (“While the mere use of the machine to collect data necessary for application of the mental process may not make the claim patentable subject matter, these claims in combining the use of machines with a mental process, claim patentable subject matter.”).

152. *Id.*

153. *Id.* (“Under the *Comiskey* rule, the patent drafter need merely claim an invention in terms of a ‘system’ or ‘machine’ for accomplishing a particular method.”).

154. See *Diamond v. Diehr*, 450 U.S. 175, 187 (1981) (finding an inventive application of a fundamental principle statutory because it was embodied in an otherwise patentable process).

Figure 3: Scope of Patent-Eligibility from 1972 to 2008



3. Machine-or-Transformation Test and Ensuing Cases

a) Machine-or-Transformation Test Overview

Continuing the trend from *Comiskey* and *Nuijten* to make patent-eligibility more stringent, the Federal Circuit in *In re Bilski* devised a “machine-or-transformation” test to solely govern “whether a claim to a process is patentable under § 101, or conversely, is drawn to unpatentable subject matter because it claims only a fundamental principle.”¹⁵⁵ The Federal Circuit established that “[a] claimed process is surely patent eligible under § 101 if (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.”¹⁵⁶

The Federal Circuit drew its test primarily from two Supreme Court decisions, *Gottschalk v. Benson*¹⁵⁷ and *Diamond v. Diebr*.¹⁵⁸ In *Benson*, the Supreme Court stated, “[a] transformation and reduction of an article ‘to a different state or thing’ is the clue to the patentability of a process claim that does not include particular machines.”¹⁵⁹ The Court in *Diebr* held that

155. *In re Bilski*, 545 F.3d 943, 952 (Fed. Cir. 2008), cert. granted, 129 S. Ct. 2735 (2009), and *aff’d but criticized sub nom. Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

156. *Id.* at 954.

157. 409 U.S. 63 (1972).

158. 450 U.S. 175 (1981).

159. *Bilski*, 545 F.3d at 954 (citing *Benson*, 409 U.S. at 70).

“use of mathematical formula in process ‘transforming or reducing an article to a different state or thing’ constitutes patent eligible subject matter.”¹⁶⁰

Based on the application of this new test, the Federal Circuit in *In re Bilski* determined that the Bilski claims were unpatentable because they failed to satisfy the machine or transformation prong.¹⁶¹ The patent at issue covered a method for hedging risks in commodities trading.¹⁶² The Federal Circuit held that the process at issue “[did] not transform any article to a different state or thing.”¹⁶³ As the applicants conceded the process was not tied to a specified machine, the patent claims met neither prong of the test.¹⁶⁴

b) Relative Strictness of the Machine-or-Transformation Test

The machine-or-transformation test is a more severe standard for patentability than the holding in *Comiskey*.¹⁶⁵ The majority opinion in *In re Bilski* recasted *Comiskey* under the light of the new machine-or-transformation test and, by doing so, illustrated the difference between the two opinions.¹⁶⁶ Chief Judge Michel, writing the majority opinion in *In re*

160. *Id.* (citing *Diehr*, 450 U.S. at 192).

161. *Id.* at 963–64.

162. *Id.* at 964.

Claim 1 of the Bilski patent reads:

A method for managing the consumption risk costs of a commodity sold be a commodity provided at a fixed price comprising the steps of:
 initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
 identifying market participants for said commodity having a counter-risk position to said consumers; and
 initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk positions of said series of consumer transactions.

Id.

163. *Id.*

164. *Id.*

165. See Matthew Moore, *In Re Bilski and the “Machine-or-Transformation” Test: Receding Boundaries for Patent eligible Subject Matter*, 2010 DUKE L. & TECH. REV. 5, 42 (2010) (analyzing cases prior and post *In re Bilski* to determine that the machine-or-transformation test significantly reduced the scope of § 101’s coverage); see also *Fort Props., Inc. v. Am. Master Lease, LLC*, 609 F. Supp. 2d 1052 (C.D. Cal. 2009) (reversing district court decision that claims were patent-eligible under the useful, concrete, tangible result test because claim did not pass the machine-or-transformation test).

166. *Bilski*, 545 F.3d at 961 (“Because [the *Comiskey*] claims failed the machine-or-transformation test, we held that they were drawn solely to a fundamental principle . . . and were thus not patent-eligible under § 101.”).

Bilski, stated that the holding in *Comiskey* implicitly utilized the machine-or-transformation test to determine the ineligibility of the *Comiskey* claim.¹⁶⁷ However, since the Federal Circuit in *Comiskey* did not explicitly state the machine-or-transformation test, the court still abided by the more lenient useful, concrete, and tangible result test.¹⁶⁸

It is difficult to compare the machine-or-transformation test to the Freeman-Walter-Abele test because the tests did not coincide in time.¹⁶⁹ The Federal Circuit overruled the Freeman-Walter-Abele test prior to the implementation of the machine-or-transformation test.¹⁷⁰ Therefore, no case compares the two tests directly.

Theoretically, the machine-or-transformation test is a more permissive test than Freeman-Walter-Abele test. Both tests begin similarly by analyzing if the claim contains nonstatutory subject matter.¹⁷¹ If so, both tests allow the claim to be patent eligible if the claim is tied to a physical structure.¹⁷² The machine-or-transformation test differs by also allowing a claim to be patent eligible if it transforms “a particular article into a different state or thing.”¹⁷³ Therefore, by creating another path to establish patent-eligibility for a claim containing a fundamental principle, the machine-or-transformation test appears to be more permissive than the Freeman-Walter-Abele test.

At the same time, the machine-or-transformation test is a more restrictive patent-eligibility test than the holding in *Diehr*. The Federal Circuit looked to the Supreme Court statement in *Diehr*—“[t]ransformation and reduction of an article ‘to a different state or thing is *the clue* to the patentability of a

167. *Id.* (observing that the applicants in *Comiskey* “conceded that [the *Comiskey*] claims do not require a machine, and [the *Comiskey*] claims evidently do not describe a process of manufacture or a process for the alteration of a composition of matter”).

168. *See id.* at 959 (stating that even though “a process tied to a particular machine, or transforming or reducing a particular article into a different state or thing, will generally produce a ‘concrete’ and ‘tangible’ result,” the useful, concrete, and tangible result test was still “inadequate”); *In re Comiskey*, 554 F.3d 967 (Fed. Cir. 2009).

169. *Compare* *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1374 (Fed. Cir. 1998) (rejecting the Freeman-Walter-Abele test in 1998), *with Bilski*, 545 F.3d at 954 (implementing the machine-or-transformation test as the sole test for patent eligibility in 2008).

170. *Id.*

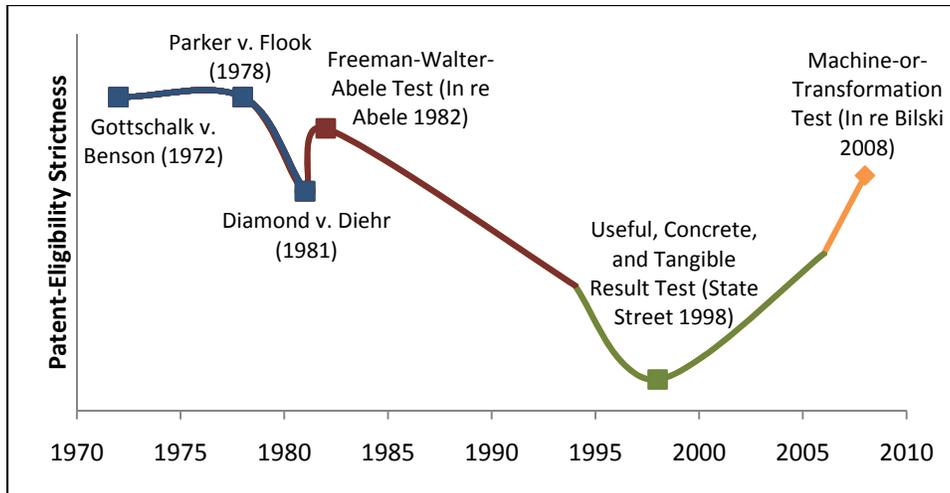
171. Moore, *supra* note 165, at 28 (“While the court [in *In re Bilski*] rejected the ‘Freeman-Walter-Abele’ test, which required that a mathematical algorithm be connected to physical elements or process steps, the ‘machine-or-transformation’ test, nonetheless, seems to require an algorithm to be grounded in some physical element, at least in most cases.”).

172. *Id.*

173. *Bilski*, 545 F.3d at 954.

process claim’ ”—to establish the machine-or-transformation test.¹⁷⁴ However, unlike the Supreme Court considering the test as a “clue” to patent-eligibility, the Federal Circuit relied exclusively on the machine-or-transformation test.¹⁷⁵

Figure 4: Scope of Patent-Eligibility from 1972 to 2008



G. SUPREME COURT PUTS THE BRAKES ON THE FEDERAL CIRCUIT’S PROCESS CLAIM PATENT-ELIGIBILITY EXPERIMENT

1. *Bilski v. Kappos Overview*

In *Bilski v. Kappos*, Justice Kennedy’s opinion, joined by Chief Justice Roberts, Justice Thomas, Justice Alito, and in-part by Justice Scalia, affirmed the Federal Circuit judgment.¹⁷⁶ The Supreme Court also held that the machine-or-transformation test was not the sole test for patent-eligibility, but rather “may be a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under § 101.”¹⁷⁷ Instead, the Court re-established their previous decisions in *Benson*, *Flook*, and *Diehr* as “the guideposts” for patent-eligibility for processes under § 101.¹⁷⁸

The Court also rejected the categorical exclusion of business method patents from eligibility, noting the definition of process in § 100(b) “may

174. *Id.* at 955 (citing *Diamond v. Diehr*, 450 U.S. 175, 184 (1981)).

175. *Id.* at 956.

176. 130 S. Ct. 3218 (2010).

177. *Id.* at 3227 (2010).

178. *Id.* at 3222 (“The Court need not define further what constitutes a patentable ‘process,’ beyond pointing to the definition of that term provided in § 100(b) and looking to the guideposts in *Benson*, *Flook*, and *Diehr*.”).

include at least some methods of doing business.”¹⁷⁹ Moreover, the Court found support for business method patents in the U.S. Patent Code, which acknowledged the possibility of business patents.¹⁸⁰ Further, the Court found that 35 U.S.C. § 273(b)(1) provides a defense to patent infringement for prior use of a “method of conducting or doing business.”¹⁸¹

Finally, the Court noted that it did not want to preclude the Federal Circuit from developing other limiting criteria, so long as it “further[s] the purposes of the Patent Act and [is] not inconsistent with its text.”¹⁸²

2. *Variability Within the Supreme Court Decision*

Commentators lamented over the generality of the Supreme Court decision.¹⁸³ Many found that the Supreme Court did not provide guidance to determine patent-eligibility for patents claiming a fundamental principle.¹⁸⁴ This generality set the stage for lower courts to establish a new phase of patent-eligibility strictness for the upcoming years.

Lower courts can continue to utilize the machine-or-transformation test to establish patent-eligibility. The lower courts could interpret the Supreme Court statement that the machine-or-transformation test “may be a useful and important clue” as affirmation by the Supreme Court of the validity of the machine-or-transformation test.

In addition, lower courts can interpret the Supreme Court decision as a strict patent-eligibility standard by emphasizing *Benson*, *Flook*, and *Diehr* as the sole guideposts for patent-eligibility. By doing so, the lower courts would essentially rewind and re-establish the patent-eligibility standard to the *Diehr* decision (circa 1982). Many scholars interpreted the Supreme Court’s decision as doing just that.¹⁸⁵

179. *Id.* at 3228.

180. *Id.* (citing 35 U.S.C. § 273(b)(1) (2006)).

181. *Id.*

182. *Id.* at 3231.

183. See, e.g., Douglas J. Levy, *U.S. Patent Attorneys Say ‘Bilski’ Ruling Didn’t Give Necessary Guidance*, Michigan Lawyer’s Weekly (Feb. 5, 2010, 10:04 PM), <http://www.allbusiness.com/legal/trial-procedure-decisions-rulings/14825834-1.html>.

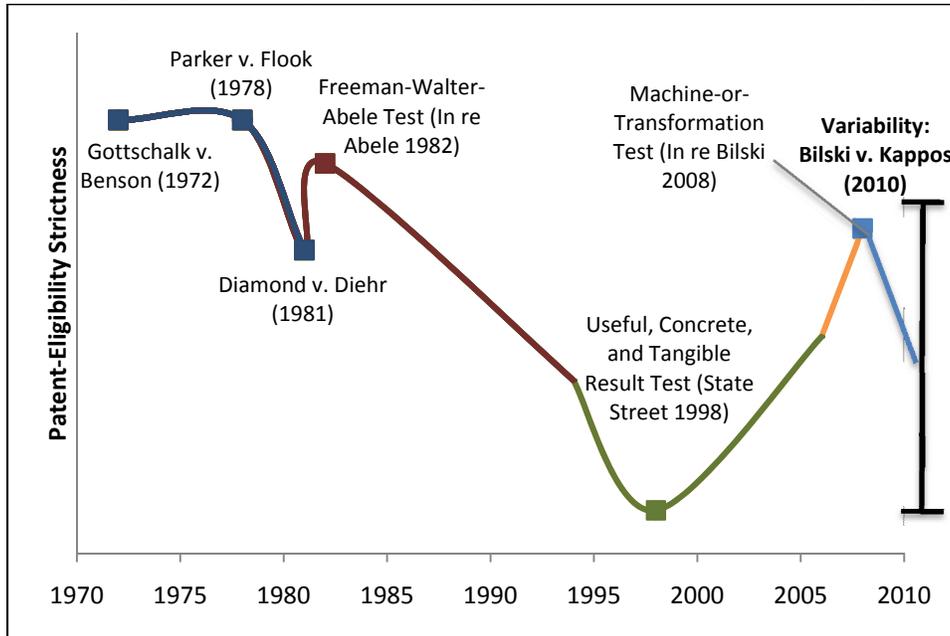
184. See Crouch, *supra* note 8 (“In general, the opinion offers no clarity or aid for those tasked with determining whether a particular innovation falls within Section 101. The opinion provides no new lines to be avoided. Rather, the outcome from the decision might be best stated as ‘business as usual.’”).

185. See, e.g., Shubha Ghosh, *Guest Post on Bilski: Throwing Back the Gauntlet*, PATENTLY-O, June 29, 2010, 2010 WLNR 13077294, available at <http://www.patentlyo.com/patent/2010/06/guest-post-on-bilski-throwing-back-the-gauntlet.html> (last visited Feb. 5, 2011).

Because the Supreme Court rejected the machine-or-transformation test as the sole test for patent-eligibility, lower courts can also interpret the Supreme Court decision to allow the development of more relaxed patent-eligibility standards than the machine-or-transformation test. The two lowest patent-eligibility thresholds established in *Bilski v. Kappos* were the overruling of the useful, concrete, and tangible result test,¹⁸⁶ and the finding of the Bilski claim as abstract.¹⁸⁷

Therefore, patent-eligibility strictness post-*Bilski v. Kappos* ranges from the useful, concrete, and tangible result test as a lower bound to the machine-or-transformation test as the upper bound.

Figure 5: Variability of Patent-Eligibility Strictness Post-*Bilski v. Kappos*



(“By setting the clock back to 1982, the Supreme Court is telling the Federal Circuit to try again in devising workable rules for patent law.”).

186. *Bilski*, 130 S. Ct. at 3259 (Stevens, J., concurring) (“[I]t would be a grave mistake to assume that anything with a ‘useful, concrete and tangible result,’ may be patented.”).

187. *Id.* at 3230 (“[A]ll members of the Court agree that the patent application at issue here falls outside of § 101 because it claims an abstract idea.”).

II. SIDELINE ANALYSIS FROM THE FIRST INNING OF POST-BILSKI

The Board of Patent Appeal and Interferences (BPAI) presided over thirty-six process patent-eligibility decisions since the *Bilski v. Kappos* ruling.¹⁸⁸ Moreover, the U.S. Patent and Trademark Office (PTO) released a memorandum discussing the changes to their patent examinations due to the *Bilski v. Kappos* decision.¹⁸⁹ This Part discusses trends evolving from the BPAI decisions, the PTO memorandum, and the most recent Federal Circuit decision, and compares these trends with past patent-eligibility landmarks.

A. PTO AND BPAI DECISIONS

An analysis of the most recent process patent-eligibility BPAI cases reveals a very interesting evolution of patent-eligibility post-*Bilski v. Kappos*. At present, there is no consistent test set forth by the BPAI, even with the PTO memorandum.¹⁹⁰ It may take several cases in the Federal Circuit to determine the true scope of patent-eligibility post-*Bilski v. Kappos*. However, there are several trends emerging from these initial forty-one cases.¹⁹¹

First, the BPAI patent-eligibility tests are technology-specific. For software-related patents, the BPAI implemented a software per se rejection.¹⁹² For patents that are not software-related, the BPAI utilized the

188. See *infra* Apps. IV.A & IV.B; BPAI Final Decisions Search, UNITED STATES PATENT AND TRADEMARK OFFICE, http://des.uspto.gov/Foia/DispatchBPAIServlet?Objtype=ser&SearchId=&SearchRng=decDt&txtInput_StartDate=06%2F28%2F2010&txtInput_EndDate=&docTextSearch=Bilski&page=60 (last visited Feb. 5, 2011). Note *Ex parte* Stein and *Ex parte* Hung are not patent-eligibility cases. These cases cite *Bilski v. Kappos* for other reasons.

189. Memorandum from Robert W. Babr, Acting Assoc. Comm'r for Patent Examination Pol'y, on Supreme Court Decision in *Bilski v. Kappos* to Patent Examining Corp. (June 28, 2010), available at http://ipwatchdog.com/blog/USPTO_bilski_memo_6-28-2010.PDF (last visited Dec. 24, 2010).

190. Compare *Ex parte* Elkins *et al.*, No. 2009-006190, 2010 WL 3017285 (B.P.A.I. July 30, 2010) (analogizing claim at issue with *Flook* to establish patent claims are not patentable), with *Ex parte* Moore *et al.*, No. 2009-005163, 2010 WL 3903327 (B.P.A.I. Sept. 28, 2010) (“The factors relevant in this case are the lack of an expressed recitation in the claims to a particular machine or transformation and that the claims are mere statements of a general concept.”).

191. See *infra* Apps. IV.A & IV.B. The overall number of cases results from a combination of cases in App. A and cases in App. B.

192. See *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 449 (2007) (“Abstract software code is an idea without physical embodiment.”); *Ex parte* Forman *et al.*, No. 2007-1546, 2007 WL 4480714 (B.P.A.I. Dec. 21, 2007) (“The claims are not drawn to a process (*cf.* instant claim 17). The claims do not appear to be drawn to a machine (e.g., a computer), but to software that may have functionality if embodied in a computer or a computer readable

previous machine-or-transformation test as the initial guidepost and as a sufficient condition to patent-eligibility.¹⁹³

B. TRANSFORMED BPAI SOFTWARE PER SE REJECTION SURFACING
FROM *BILSKI V. KAPPOS*

The BPAI started issuing software per se rejections in 2007, before *In re Bilski*.¹⁹⁴ The software per se rejection stemmed from an addition in the Manual of Patent Examining Procedure (MPEP) stating that “[d]ata structures not claimed as embodied in computer-readable media are descriptive material per se.”¹⁹⁵ The BPAI refers to these data structures as software per se.¹⁹⁶ The MPEP also spells out how to avoid writing a software per se claim: “a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory.”¹⁹⁷ In other words, to escape a software per se designation, a claim must “recite language that limits the product to executing the code on a computer readable medium that can perform the procedural steps.”¹⁹⁸

Currently, there is no standard for what constitutes a software per se rejection. For instance, the BPAI did not issue a software per se rejection for a claim consisting of software that encodes and decodes an XML-based document.¹⁹⁹ Instead of the per se rejection, in *Ex parte Heuer*, the BPAI rejected the claim using the machine-or-transformation test.²⁰⁰ However, the BPAI has yet to find a software claim patent eligible when the claim does not limit the code on a computer readable medium, regardless of whether the

medium.”); MPEP § 2106.01 (8th ed., Rev. 6, Sept. 2007) (“Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”).

193. *See infra* App. IV.B. Note that the BPAI deems any claim that passes the machine-or-transformation test as patent eligible.

194. *Ex parte* Siew-Hong Yang-Huffman, No. 2007-2130, 2007 WL 2899992 (B.P.A.I. Oct. 4, 2007) (rejecting a claim because of a software per se reason for the first time).

195. MPEP, *supra* note 192, § 2106.01.

196. *Id.* (“USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program’s functionality, as nonstatutory functional descriptive material.”).

197. *Id.*

198. *Ex parte* Kouznetsov, No. 2007-3470, 2008 WL 2622337 (B.P.A.I. June 30, 2008).

199. *Ex parte* Heuer, No. 2009-004590, 2010 WL 3072973 (B.P.A.I. Aug. 4, 2010).

200. *Id.*

BPAI deemed the claim software per se or rejected it using the machine-or-transformation test.²⁰¹

Before *Bilski v. Kappos*, the BPAI utilized the Federal Circuit holding in *In re Warmerdam* to establish the unpatentability of software per se claims.²⁰² The BPAI interpreted *In re Warmerdam* such that “[c]laims directed to data structures per se are nonstatutory.”²⁰³ Because the BPAI defined software without tangible limitations as data structures, the BPAI found all software claims not embodied in a computer-readable media as nonstatutory. However, with *In re Bilski* and *Bilski v. Kappos* establishing a new standard of patent-eligibility, the BPAI does not need to rely on *In re Warmerdam*.

Now, the software per se rejection contains a stronger doctrinal grounding from the MPEP, *AT&T v. Microsoft*, and *Bilski v. Kappos*. According to MPEP section 2106.01, the PTO considers a pure software claim—not embodied in computer-readable media—as software per se.²⁰⁴ In *Microsoft Corp. v. AT&T*, the Supreme Court explicitly declared that “[a]bstract software code is an idea without physical embodiment,” thereby making software per se claims abstract.²⁰⁵ Finally, in *Bilski v. Kappos*, the Court confirmed the unpatentability of abstract ideas.²⁰⁶ As a result, the BPAI continues to hold that all software per se claims are unpatentable.

The software per se rejection came about in the BPAI’s first post-*Bilski v. Kappos* patent-eligibility decision, *Ex parte Proudler*.²⁰⁷ In *Proudler*, the BPAI rejected a computer apparatus claim because the claim “[was] directed to software per se.”²⁰⁸ The BPAI looked to the specification and the claim, and noted “no true hardware structure is recited.”²⁰⁹ Moreover, the BPAI did not mention the machine-or-transformation test in its § 101 analysis.²¹⁰

The software per se rejection falls in line with the previous Freeman-Walter-Abele test.²¹¹ The BPAI indicated that the software claim must contain a “physical embodiment” or else the claim is abstract.²¹² This is

201. *See infra* Apps. IV.A & IV.B.

202. *Ex parte* Kriechbaum, No. 2009-001354, 2009 WL 3030322 (B.P.A.I. Sept. 21, 2009).

203. *Id.* at *3.

204. MPEP, *supra* note 192, § 2106.01.

205. 550 U.S. 437, 449 (2007).

206. 130 S. Ct. 3218, 3227 (2010).

207. No. 2009-006599, 2010 WL 2727840 (B.P.A.I. July 8, 2010).

208. *Id.*

209. *Id.*

210. *Id.*

211. *Id.*

212. *Id.* (quoting *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 449 (2007)).

similar to the machine prong of the machine-or-transformation test proposed by the Federal Circuit in *In re Bilski*: “A claimed process is surely patent eligible under § 101 if: (1) it is tied to a particular machine or apparatus”²¹³ This is also similar to the second step of the Freeman-Walter-Abele test: is the claim “applied in any manner to physical elements or process steps[?]”²¹⁴ As explained earlier, the machine prong of the machine-or-transformation test is similar to the Freeman-Walter-Abele test.²¹⁵ Consequently, the software per se rejection is a stricter test to patent-eligibility than the machine-or-transformation test. Unlike the machine-or-transformation test, a software claim must pass the transformation prong to be patent eligible.

C. MACHINE-OR-TRANSFORMATION IS STILL KING FOR BPAI PROCESS PATENT-ELIGIBILITY CONCERNING NON-SOFTWARE CLAIMS

Of the thirty-six cases appealed to the BPAI for patent-eligibility, twenty-four were non-software per se claims.²¹⁶ These cases varied from a method of analyzing an electric generator for use by a customer to a method of providing tax-related information pertinent to investment transactions.²¹⁷ The BPAI significantly or exclusively utilized the machine-or-transformation test to decide patent-eligibility in twenty-six of those decisions, and concluded that the remaining two cases were abstract because the claims attempted to cover mental concepts.²¹⁸

The BPAI’s analysis of the non-software claims is not consistent across cases.²¹⁹ However, the trend appears to utilize the machine-or-transformation

213. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008); cf. *Ex parte Britt*, No. 2009-006557, 2010 WL 2070567, at *4 (B.P.A.I. May 21, 2010) (deciding that an examiner does not have to use the machine-or-transformation test after finding the claims software per se because “software per se is non-statutory subject matter”).

214. *Bilski*, 545 F.3d at 958–59 (citing *In re Abele*, 684 F.2d 902, 905–07 (C.C.P.A. 1982)).

215. See *supra* Section I.F.3.b); Moore, *supra* note 165, at 28 (“While the court [in *In re Bilski*] rejected the ‘*Freeman-Walter-Abele*’ test, which required that a mathematical algorithm be connected to physical elements or process steps, the ‘machine-or-transformation’ test, nonetheless, seems to require an algorithm to be grounded in some physical element, at least in most cases.”).

216. See *infra* Apps. IV.A and IV.B.

217. *Ex parte Cherkas*, No. 2009-011287, 2010 WL 4219765 (B.P.A.I. Oct. 25, 2010); *Ex parte Elkins*, No. 2009-006190, 2010 WL 3017285 (B.P.A.I. July 30, 2010).

218. See *infra* App. IV.B.

219. Compare *Elkins*, 2010 WL 3017285 (analogizing claim at issue with Flook to establish patent claims are not patentable), with *Ex parte Moore*, No. 2009-005163, 2010 WL 3903327 (B.P.A.I. Sept. 28, 2010) (“The factors relevant in this case are the lack of an expressed recitation in the claims to a particular machine or transformation and that the claims are mere statements of a general concept.”).

test as the initial guidepost and as a sufficient condition to patent-eligibility.²²⁰ BPAI determined the patent-eligibility of 88 percent of process claim patent-eligibility cases by utilizing the machine-or-transformation test first.²²¹ Eleven of these cases scrutinized the patentability of the claim in question through the machine-or-transformation test without analyzing the claim under *Benson*, *Flook*, or *Diehr*.²²² In three cases, the BPAI did not reference the machine-or-transformation test.²²³ In the remaining ten cases, the BPAI analyzed the patentability of claim first by the machine-or-transformation test and then under the meaning of *Benson*, *Flook*, or *Diehr*.²²⁴ Currently, there is no case where the BPAI found an invention patentable under *Benson*, *Flook*, or *Diehr* despite failing the machine-or-transformation test.²²⁵

However, the BPAI analysis is consistent in that it follows the PTO memorandum regarding *Bilski v. Kappos*, which incorporates both the Federal Circuit's machine-or-transformation test and the abstract idea concept derived from the Supreme Court.²²⁶ This memorandum states that if a method passes the machine-or-transformation test, it is "likely" okay under § 101 absent a "clear indication" that it is directed to an abstract idea.²²⁷ However, if a method fails the machine-or-transformation test, it should be rejected under § 101 absent a "clear indication" that it is not directed to an abstract idea.²²⁸ As described above, the BPAI utilizes the machine-or-transformation test as a strong indicator of the patent-eligibility of process claims.²²⁹ The BPAI has not overturned a claim that passed the machine-or-transformation test.²³⁰ For example, in *Ex parte Ulf*, the BPAI decided a claim was patentable solely because "it pass[ed] muster under the 'machine' prong of the *Bilski* test."²³¹

The most telling example of the BPAI's mentality towards the machine-or-transformation test is *Ex parte Russo*.²³² The patent in *Russo* covers a

220. *See infra* App. IV.B.

221. *See infra* App. IV.B.

222. *See infra* App. IV.B.

223. *See infra* App. IV.B.

224. *See infra* App. IV.B.

225. *See infra* App. IV.B.

226. Memorandum from Bahr, *supra* note 189.

227. *Id.*

228. *Id.*

229. *See infra* App. IV.B.

230. *See infra* App. IV.B.

231. No. 2009-008071, 2010 WL 3611779 (B.P.A.I. Sept. 7, 2010).

232. No. 2009-001876, 2010 WL 3441058 (B.P.A.I. Aug. 30, 2010).

system for grouping a community of users within a directory structure.²³³ The examiner rejected the claims because it did not produce a useful, tangible, and concrete result.²³⁴ The BPAI noted that the Supreme Court superseded the useful, concrete, and tangible result in *Bilski v. Kappos*, thereby allowing the BPAI to start its patent-eligibility analysis anew.²³⁵ Because several of the claims were “not tied to a particular machine, nor [acting] to transform a material to a different state,” the BPAI ruled those method claims were non-statutory.²³⁶ For a separate claim in the same patent, the BPAI accepted the appellant’s argument that the claim was “drawn to a ‘machine readable storage,’ ” thereby making it patent eligible.²³⁷ Hence, the BPAI allowed the machine-or-transformation test to act as the exclusive test of patentability in *RUSO*.²³⁸

In the three non-software BPAI cases, the BPAI did not reference the machine-or-transformation test and instead decided the claims were unpatentable because the claims attempted to cover methods that could be accomplished by human activity alone.²³⁹ In *Ex parte Elkins*, the BPAI concluded that, after stripping away insignificant post-solution activity, the claim recited a “mathematical modeling functionality”—a concept that is a mental process.²⁴⁰ Similarly, the BPAI in *Ex parte Birle* rejected the claim at issue because the patent directed its claim towards converting money paid to a company for value in shares of stock—another mental process.²⁴¹ Finally, the BPAI in *Ex parte Bonstetter* declared that a method for identifying soft skills for a job was solely a “subjective mental interpretation.”²⁴²

D. THE FEDERAL CIRCUIT RELAXED THE PATENT-ELIGIBILITY STANDARD CLOSE TO ITS PREVIOUS USEFUL, CONCRETE, AND TANGIBLE RESULT TEST

The Federal Circuit issued its first post-*Bilski* method patent decision in *Research Corp. Tech., Inc. v. Microsoft Corp.*²⁴³ Research Corp. held several patents

233. *Id.*

234. *Id.*

235. *Id.*

236. *Id.*

237. *Id.*

238. *Id.*

239. *Ex parte Birle et al.*, No. 2009-010659, 2010 WL 4366518 (B.P.A.I. Nov. 1, 2010); *Ex parte Elkins*, No. 2009-006190, 2010 WL 3017285 (B.P.A.I. July 30, 2010).

240. 2010 WL 3017285.

241. 2010 WL 4366518.

242. No. 2009-009600, 2011 WL 285168 (B.P.A.I. Jan. 25, 2011).

243. 627 F.3d 859 (Fed. Cir. 2010).

covering digital image half-toning,²⁴⁴ which they asserted against Microsoft.²⁴⁵ In response, Microsoft contended that these patents were invalid for claiming unpatentable subject matter.²⁴⁶ The Federal Circuit reversed the lower court ruling that Research Corp.'s claim did not encompass statutory subject matter.²⁴⁷

In the decision, the Federal Circuit lowered the threshold for patent-eligibility. The Federal Circuit reviewed the Supreme Court's critical analysis in *Bilski v. Kappos* of the machine-or-transformation test overreaching past the statutory framework of § 101.²⁴⁸ Drawing upon this decision, the Federal Circuit reiterated that any "process, machine, manufacture, or composition of matter" is patentable subject matter under § 101 unless the patent claims "laws of nature, natural phenomena, or abstract ideas."²⁴⁹ Further, the Federal Circuit emphasized that the "disqualifying characteristic should exhibit itself *so manifestly* as to override the broad statutory categories of eligible subject matter."²⁵⁰

In particular, the Federal Circuit lowered the threshold for abstractness closer to its previous useful, concrete, and tangible result test. The court rejected Microsoft's argument that the claim merely covered an abstract idea. The Federal Circuit instead established that a patent with "specific applications or improvements" to the marketplace is likely to be patentable under § 101.²⁵¹ This primarily deviates from the previous useful, concrete, and tangible result test in that it is not a bright-line test, thus providing the

244. *Id.* at 862.

245. Digital image half-toning is a process of improving the representation of color pictures on computer screens and printouts.

246. *Research Corp. Techs.*, 627 F.3d at 866.

One of the claims at issue in *Research Corp Technologies* reads:

1. A method for the half-toning of gray scale images by utilizing a pixel-by-pixel comparison of the image against a blue noise mask in which the blue noise mask is comprised of a random nondeterministic, non-white noise single valued function which is designed to produce visually pleasing dot profiles when thresholded at any level of said gray scale images.

Id. at 865.

247. *Id.*

248. *Id.* at 868 (citing *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010)) ("[T]he Supreme Court recently emphasized this statutory framework and faulted this court's 'machine or transformation' test for eligibility as nonstatutory.").

249. *Id.* at 865.

250. *Id.* (emphasis added).

251. *Id.* at 868–69 ("The invention presents functional and palpable applications in the field of computer technology Indeed, this court notes that inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act.").

Federal Circuit and lower courts a buffer to handle exceptional cases. Consequently, the Federal Circuit determined that the Research Corp.'s patent was patent eligible under § 101 because the patent provided a tangible improvement in the technological field.²⁵²

However, the Federal Circuit emphasized that lowering the threshold for patent-eligibility under § 101 does not lower the threshold for patent-eligibility itself.²⁵³ The Federal Circuit noted that § 112²⁵⁴ provides “powerful tools” to “weed out” unpatentable claims.²⁵⁵ Patentability challenges like claiming fundamental principles would arise under § 112 even when the requirements of § 101 are met.²⁵⁶ For example, a patentee cannot define the claim limits for an abstract claim, thereby failing § 112.²⁵⁷

Using *Research Corp. Tech.* as a reference point, it appears the Federal Circuit will apply a more permissive test for patent-eligibility under § 101. However, this does not mean the courts will ultimately hold these claims patentable. It may be that the Federal Circuit will counter the relaxed § 101 standard with a tightening of other patent-eligibility requirements like § 112.

E. WHERE THIS NEW ANALYSIS LIES IN PATENT-ELIGIBILITY HISTORY

The Supreme Court lowered the patent-eligibility requirement from the Federal Circuit's test in *In re Bilski*. But the Court did not provide clear guidance for what is the new standard of patent-eligibility. This uncertainty caused divergent implementations among the Federal Circuit and the BPAI. The machine-or-transformation test is still the prevalent and sometimes exclusive test in BPAI decisions.²⁵⁸ Moreover, the machine-or-transformation test is treated in numerous cases as a sufficient condition of patent-eligibility, not an investigative clue.²⁵⁹ However, the Federal Circuit post-*Bilski v. Kappos*

252. *Id.*

253. *Research Corp.*, 627 F.3d at 869 (“[T]his court notes that an invention which is not so manifestly abstract as to override the statutory language of section 101 may nonetheless lack sufficient concrete disclosure to warrant a patent.”).

254. Written description requirement for patentability. 35 U.S.C. § 112 (2006).

255. *Research Corp.*, 627 F.3d at 869 (“In section 112, the Patent Act provides powerful tools to weed out claims that may present a vague or indefinite disclosure of the invention.”).

256. *Id.* (“[A] patent that presents a process sufficient to pass the coarse eligibility filter may nonetheless be invalid as indefinite . . .”).

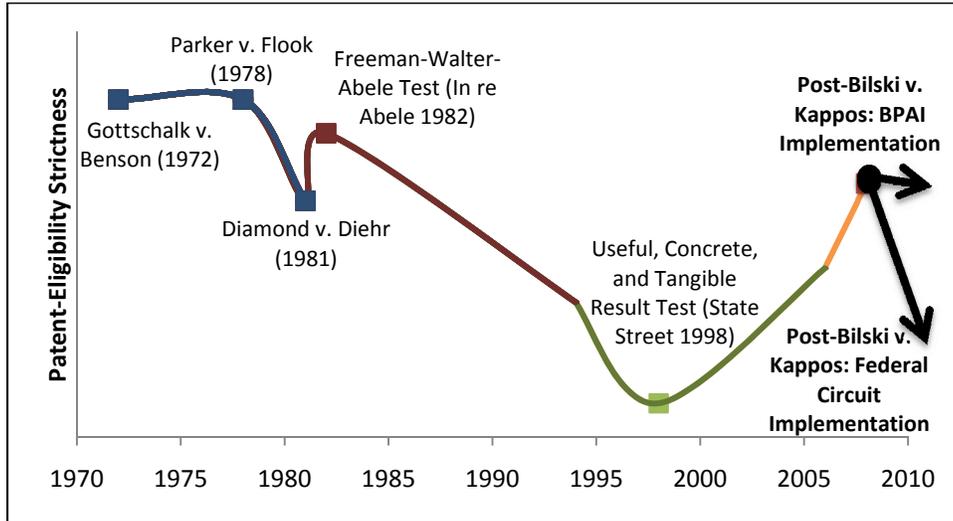
257. *See* *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1371 (Fed.Cir.2008) (“[I]f reasonable efforts at claim construction result in a definition that does not provide sufficient particularity and clarity to inform skilled artisans of the bounds of the claim, the claim is insolubly ambiguous and invalid for indefiniteness.”).

258. *Supra* Section II.C.

259. *Id.*

brought the patent-eligibility standard closer to its previous useful, concrete, and tangible result test.

Figure 6: Lower Court's Implementation of *Bilski v. Kappos* to Patent-Eligibility

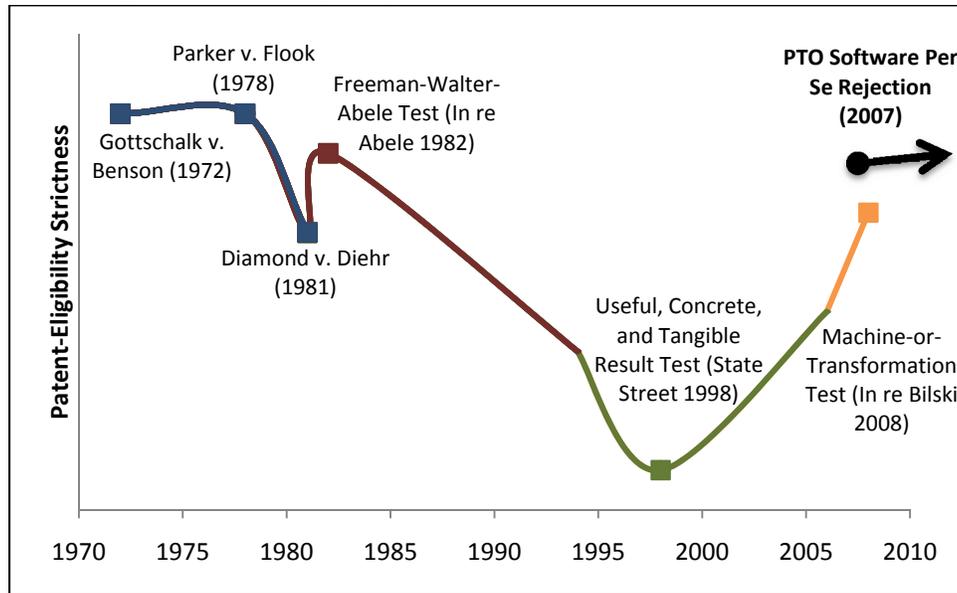


For software claims since 2007, the software-per-se rejection appears to be a reincarnation of the Freeman-Walter-Abele test.²⁶⁰ The BPAI indicated that the software claim must contain some type of physical embodiment or else the claim is abstract—similar to the second step of the Freeman-Walter-Abele test.²⁶¹

260. *Supra* Section II.B.

261. *In re Bilski*, 545 F.3d 943, 958–59 (Fed. Cir. 2008) (citing *In re Abele*, 684 F.2d 902, 905–07 (C.C.P.A. 1982)) (“(1) determining whether the claim recites an ‘algorithm within the meaning of *Benson*’, then (2) determining whether the algorithm is applied in any manner to physical elements or process steps.”); *Ex parte Proudler*, No. 2009-006599, 2010 WL 2727840 (B.P.A.I. July 8, 2010).

Figure 7: Patent-Eligibility Strictness of PTO's Software Per Se Rejection



III. THE NEXT INNING POST-*BILSKI*

Although the Supreme Court relegated the machine-or-transformation test to an investigative clue to patent-eligibility in *Bilski v. Kappos*, passing the machine-or-transformation test at the PTO-level resulted in a patent-eligibility home run for non-software claims in the first inning of post-*Bilski*. For software claims, the PTO pulled the home run fence much farther back. To avoid an instant strikeout, owners of software patents must contain some type of physical embodiment. At the Federal Circuit level, the court reduced the home run derby to its previous t-ball setup by relaxing the patent-eligibility threshold closer to its previous useful, concrete, and tangible result test.

However, this is only the first inning of the *Bilski* game. Subsequent innings will continue to establish the new boundaries of patent-eligibility. In particular, there is discussion of patent-reform legislation that would overhaul the business-method patent system.²⁶² Senator Charles Schumer proposed an amendment allowing companies accused of infringing a

262. U.S. Senate Panel Backs Patent Overhaul Bill, REUTERS, Feb. 3, 2011, available at <http://www.reuters.com/article/2011/02/03/patent-congress-idUKN0319492620110203?pageNumber=1>.

business method patent to request an expedited review of the validity of that patent before the PTO.²⁶³

Finally, even though the lack of guidance reflected in the *Bilski v. Kappos* decision may appear initially harmful to patent law and its progress, it is actually ideally suited for the situation. The machine-or-transformation test, like any bright-line test for patent-eligibility, faces the danger of establishing standards for an industry known for thriving on the boundaries. If inventors were not pushing boundaries, their inventions would not offer anything new. Instead, the test for patent-eligibility needs to develop and transform alongside innovations, transforming its contours with each new wave of advancements. To do otherwise would inhibit patent law's fundamental purpose, "to promote the Progress of Science and useful Arts."²⁶⁴

IV. APPENDIX

A. CLAIMS REGARDING SOFTWARE PER SE

Table A1: Post-*Bilski v. Kappos* BPAI Decisions Regarding Software Per Se²⁶⁵

Name	Decision Date	Appeal No.	Summary of Claim	BPAI Ruling
<i>Ex parte Proudler</i>	7/7/2010	2009-006599	"A method of controlling processing of data . . ."	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Birger</i>	7/12/2010	2009-006556	"A method for communicating between two endpoints connected to a network . . ."	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Fellenstein</i>	7/26/2010	2009-006595	"A method of identifying optimal times for an end user to contact a target user of a messaging system . . ."	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Choo</i>	7/27/2010	2009-006352	"A computer system for controlling access to certain files by processes"	Affirmed. Sustained § 101 rejection.

263. *Id.*

264. U.S. CONST. art. I, § 8, cl. 8.

265. This is a compiled list of all final BPAI software per se decisions that cited *Bilski v. Kappos*. This list is current as of Feb. 5, 2011.

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SIDELINE ANALYSIS OF *BILSKI*

55

Name	Decision Date	Appeal No.	Summary of Claim	BPAI Ruling
<i>Ex parte Johnson</i>	7/28/2010	2009-006718	“A method for authenticating a Web session”	Affirmed. Sustained § 101 rejection.
<i>Ex parte Ramanujam</i>	8/11/2010	2009-002483	“[A] system and method for processing apparatus and associated software and software sequences that perform mathematical operations.”	Affirmed. Sustained § 101 rejection.
<i>Ex parte Christian</i>	8/22/2010	2009-006589	“Systems and methods . . . for declarative client input security screening.”	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Fatula</i>	9/7/2010	2009-007432	“A method for autonomic management of system resources on a grid computing system”	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Dettinger</i>	9/23/2010	2009-006998	“A data processing system for retrieving data”	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte MacKenzie</i>	10/4/2010	2009-007332	A method “provid[ing] techniques for sharing the DSA signature function”	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Kropaczek</i>	10/12/2010	2009-006499	“A method of evaluating a proposed solution to a constraint problem”	Affirmed. Sustained § 101 rejection.
<i>Ex parte Martin</i>	11/14/2010	2009-004223	“A memory storing program instructions for causing a data processor”	Vacated PTO ruling. Entered new § 101 rejection of claim.
<i>Ex parte Zakrzewski</i>	11/15/2010	2009-005745	“A method for verifying accuracy of a component that is implemented from a model”	Affirmed. Sustained § 101 rejection.
<i>Ex parte Jain</i>	12/16/2010	2011-000827	“An interactive viewer to view interactively a multimedia program derived from a real-world environment”	Affirmed. Sustained § 101 rejection.

Name	Decision Date	Appeal No.	Summary of Claim	BPAI Ruling
<i>Ex parte Klein</i>	12/21/2010	2009-006727	“a method of efficiently and reliably name searching within an employee database”	Affirmed. Sustained § 101 rejection.
<i>Ex parte Vishnubhotla</i>	1/13/2011	2009-008510	“a method, system, and program product that integrates file system events into a database management system”	Affirmed. Sustained § 101 rejection.

B. NON-SOFTWARE PROCESS CLAIMS

Table A2: BPAI Decisions Regarding Non-Software Process Claims²⁶⁶

Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Caccavale</i> 7/22/10 2009-006026	“[A] method of assessing the performance of distributed processing units that involves collecting performance parameters from the units”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	Yes.
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diebr</i> ?	
<i>Ex parte Elkins</i> 7/29/10 2009-006190	“A method for modeling distributed generation for a customer”	Vacated PTO ruling. Entered new § 101 rejection of claim.	Machine-or-Transformation Test	
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	Yes.
			Used <i>Diamond v. Diebr</i> ?	Yes.

266. This is a compiled list of all final BPAI decisions involving non-software per se process claims that cited *Bilski v. Kappos*. This list is current as of Feb. 5, 2011.

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Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex Parte Heuer</i> 8/3/10 2009-004590	“A method for improved decoding of a binary representation of a[n] XML-based document”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	Yes.
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	
<i>Ex parte Estrada</i> 8/25/10 2009-012192	“A method for managing membership in a collaborative computing environment community”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	Yes.
			Used <i>Diamond v. Diehr?</i>	
<i>Ex parte Russo</i> 8/29/10 2009-001876	“[A] system and method supporting collaborative work by a community of users”	Affirmed-in-part. Sustained § 101 rejection. Reversed-in-part.	Machine-or-Transformation Test	Some claims passed. Some claims failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	

Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Ulf</i> 9/6/10 2009-008071	“[A] method and system for maximizing sales opportunities. . . .”	Affirmed-in- part. Some claims sustained § 101 rejection. Reversed-in- part. Some claims held patent eligible.	Machine-or- Transformation Test	Some claims passed. Some claims failed.
			<i>Used Gottschalk v. Benson?</i>	
			<i>Used Diamond v. Flook?</i>	
			<i>Used Diamond v. Diehr?</i>	
<i>Ex parte Comer</i> 9/15/10 2009-006782	“A fine-grain scalable video data apparatus for receiving encoded video macroblock data”	Reversed. Held patent- eligible.	Machine-or- Transformation Test	Passed.
			<i>Used Gottschalk v. Benson?</i>	
			<i>Used Diamond v. Flook?</i>	
			<i>Used Diamond v. Diehr?</i>	
<i>Ex parte Jung</i> 9/16/10 2009-008915	“Method for purchasing and authenticating an electronic ticket”	Reversed. Held patent- eligible.	Machine-or- Transformation Test	Passed.
			<i>Used Gottschalk v. Benson?</i>	
			<i>Used Diamond v. Flook?</i>	
			<i>Used Diamond v. Diehr?</i>	
<i>Ex parte Darrell</i> 9/19/10 2009-006757	“A method of presenting an image of a receipt to a consumer”	Reversed. Held patent- eligible.	Machine-or- Transformation Test	Passed.
			<i>Used Gottschalk v. Benson?</i>	
			<i>Used Diamond v. Flook?</i>	
			<i>Used Diamond v. Diehr?</i>	

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Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Hong</i> 9/20/10 2010-005214	“A method of filtering an image”	Affirmed. Sustained § 101 rejection.	Machine-or- Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Burkhardt</i> 9/21/10 2009-008220	“A computer- implemented method for creating rules for the administration of end- user license agreements”	Vacated PTO ruling. Entered new § 101 rejection of claim.	Machine-or- Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	Yes.
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Kelkar</i> 9/23/10 2009-004635	“[A] method for determining similarity between portions of gene expression profiles or genes”	Affirmed. Sustained § 101 rejection.	Machine-or- Transformation Test	Failed
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	Yes.
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Moore</i> 9/27/10 2009-005163	“A method for processing a life insurance facultative case summary submission over a network”	Vacated PTO ruling. Entered new § 101 rejection of claim.	Machine-or- Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	Yes.
			Used <i>Diamond v. Diebr?</i>	

Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Volcani</i> 10/17/10 2009-004790	“[I]nvention relates to determining the emotional impact of words upon a reader”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	Yes.
			Used <i>Diamond v. Flook</i> ?	Yes.
			Used <i>Diamond v. Diehr</i> ?	
<i>Ex parte Cherkas</i> 10/24/10 2009-011287	“A computer implemented method of determining the consequences of an investment transaction to a potential total future tax liability of a user”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	
<i>Ex parte Whitson</i> 10/26/10 2009-009599	“A method for ensuring airline safety while safeguarding personal passenger information”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	
<i>Ex parte Aklilu</i> 10/28/10 2009-007075	“[A] method for generating object classification models.”	Affirmed-in-part. Reversed-in-part.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	Yes.
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	

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Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Birle</i> 10/31/10 2009-010659	“A financial instrument issued by a stock company and held by a holder”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	
			Used <i>Gottschalk v. Benson</i> ?	Yes.
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	Yes.
<i>Ex parte Kohda</i> 11/21/10 2009-006262	“An online sales promotion method used in a system to purchase a product over a network”	Reversed. Held patent-eligible.	Machine-or-Transformation Test	Passed.
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	
<i>Ex parte Alden</i> 11/21/10 2010-001298	“A method of analyzing a sub-model of a full system model”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	
<i>Ex parte Graham</i> 11/21/10 2009-010005	“A computerized method for measuring a consumer’s perception of a commercial entity’s brand equity, logo, trademark, tradename, tag line, product name and the like”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson</i> ?	Yes.
			Used <i>Diamond v. Flook</i> ?	Yes.
			Used <i>Diamond v. Diehr</i> ?	

Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Ward</i> 12/5/10 2010-005500	“A method of playing a game”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Fliess</i> 12/9/10 2009-009726	“A method of presenting data relating to skills distribution in an enterprise”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	Yes.
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Kuno</i> 12/12/10 2009-006896	“A processor-based method of applying a policy”	Affirmed. Entered new grounds of § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Forman</i> 12/12/10 2009-013620	“A method of reporting the presentation of data”	Affirmed. Entered new grounds of § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diebr?</i>	
<i>Ex parte Youngil Ha</i> 12/13/10 2009-008031	“A method for frequency planning in a wireless cell network”	Reversed. Entered new grounds of § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diebr?</i>	Yes.

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Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex parte Foulger</i> 12/21/10 2009-007619	“A method of generating employment market statistics from a network”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	Yes.
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	
<i>Ex parte Monk</i> 12/30/10 2009-013250	“[S]ystems and methods of fraud management in relation to stored value cards”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	Yes.
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	
<i>Ex Parte Arnoldy</i> 1/10/11 2009-010008	“[A] program for passing on a person’s legacy to descendants”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	
<i>Ex Parte Bonstetter</i> 1/25/11 2009-009600	“A method for identifying competencies (soft skills) required for superior performance for a given job”	Affirmed. Sustained § 101 rejection.	Machine-or-Transformation Test	
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	
<i>Ex Parte Backman</i> 1/26/11 2010-000610	“[A] method of informing a potential customer of the merits of a new product”	Affirmed. Entered new grounds of § 101 rejection.	Machine-or-Transformation Test	Failed.
			Used <i>Gottschalk v. Benson?</i>	
			Used <i>Diamond v. Flook?</i>	
			Used <i>Diamond v. Diehr?</i>	

Name, Decision Date, & Appeal No.	Summary of Claim	BPAI Ruling		
<i>Ex Parte Ng-Thow-Hing</i> 2/1/11 2009-009095	"[A] method and apparatus for producing a subject specific skeleton"	Reversed. Held patent-eligible.	Machine-or-Transformation Test	Passed.
			Used <i>Gottschalk v. Benson</i> ?	
			Used <i>Diamond v. Flook</i> ?	
			Used <i>Diamond v. Diehr</i> ?	

C. COMPILATION OF PATENT-ELIGIBILITY DECISIONS

Table A3: Major Patent-Eligibility Decisions from 1972–2008

Case	Year	Attempted Process	Process Input	Process Output	Statutory?
<i>Gottschalk v. Benson</i> ²⁶⁷	1972	numerical conversion	binary-coded decimal numerals	pure binary numerals	No
<i>Parker v. Flook</i> ²⁶⁸	1978	updating alarm limits	process variables (operating conditions such as temperature, pressure, and flow rates)	an updated alarm limit	No
<i>Diamond v. Diehr</i> ²⁶⁹	1981	curing synthetic rubber	temperature	opening the molding press and removing the cured product	Yes
<i>Freeman-Walter-Abele Test (In re Abel)</i> ²⁷⁰ (Claim 5)	1982	displaying data	data points	displaying value as a gray scale	No
<i>Freeman-Walter-Abele Test (In re Abel)</i> ²⁷¹ (Claim 6)	1982	displaying CAT scan data	X-ray attenuation data	display for CAT scanner	Yes

267. 409 U.S. 63 (1972).

268. 437 U.S. 584 (1978).

269. 450 U.S. 175 (1981).

270. 684 F.2d 902 (C.C.P.A. 1982).

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Case	Year	Attempted Process	Process Input	Process Output	Statutory?
<i>In re Alappat</i> ²⁷²	1994	rasterizer for converting vector list data	vector list data	outputting illumination intensity data on a rasterizer	Yes
<i>In re Warmerdam</i> ²⁷³ (Claim 1)	1994	creating a hierarchy of bubbles	medial axis	generating a data structure	No
<i>In re Warmerdam</i> ²⁷⁴ (Claim 5)	1994	machine storing a hierarchy of bubbles	medial axis	a machine storing bubble hierarchy	Yes
Useful, Concrete, and Tangible Result Test (<i>State Street Bank and Trust Co. v. Signature Financial Group, Inc.</i> ²⁷⁵)	1998	system for managing a portfolio's financial service configuration	processing data	calculation results	Yes

271. *Id.*

272. 33 F.3d 1526 (Fed. Cir. 1994).

273. 33 F.3d 1354, 1355 (Fed. Cir. 1994).

274. *Id.*

275. 149 F.3d 1368, 1375 (Fed. Cir. 1998).

PRIORITIZATION: ADDRESSING THE PATENT APPLICATION BACKLOG AT THE UNITED STATES PATENT AND TRADEMARK OFFICE

Lily J. Ackerman[†]

The United States Patent and Trademark Office (USPTO) faces a backlog of over 700,000 patent applications that are examined in the order of their effective U.S. filing dates.¹ Currently, a patent examiner begins work on a backlogged application approximately two to three years after the filing date.² Total pendency averages around three to four years.³ Since USPTO Director David Kappos took his position in 2009, he has sought to address the backlog by implementing work sharing and acceleration programs with foreign patent offices⁴ and adopting new procedures to encourage applicants to abandon unimportant applications.⁵ Kappos also created an Internet website, the Data Visualization Center (“Patent Dashboard”), to increase transparency at the USPTO by making backlog statistics publicly available.⁶ In his newly formed public blog, he reported that the USPTO reduced the backlog from greater than 750,000 applications in 2009 to approximately 725,000 in 2010, with the ultimate goal of reducing the backlog to fewer than 700,000 applications by the end of 2010.⁷

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1. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Data Visualization Center, <http://www.uspto.gov/dashboards/patents/main.dashxml> (last visited Nov. 27, 2010).

2. *Id.*

3. *Id.*

4. David Kappos, *Reducing Pendency through Worksharing and Acceleration Programs*, DIRECTOR’S FORUM: DAVID KAPPOS’ PUBLIC BLOG (Oct. 1, 2010, 12:57 PM), <http://www.uspto.gov/blog/>.

5. *See, e.g.*, Expansion and Extension of the Patent Application Backlog Reduction Stimulus Plan, 75 Fed. Reg. 36,063, 36,063 (June 24, 2010) [hereinafter Patent Application Backlog Reduction Stimulus Plan].

6. U.S. Patent & Trademark Office, *supra* note 1.

7. David Kappos, *USPTO Year in Review—And a Look Forward*, DIRECTOR’S FORUM: DAVID KAPPOS’ PUBLIC BLOG (Sept. 20, 2010, 2:45 PM), <http://www.uspto.gov/blog/>. As of December 2010, the backlog was approximately 721,800 applications. U.S. Patent & Trademark Office, *supra* note 1.

The USPTO has adopted several administrative procedures to address the backlog issue,⁸ but none have yet succeeded. Consequently, in June 2010, Director Kappos announced a proposal designed to “provide applicants greater control over the speed with which their applications are examined and promote greater efficiency in the patent examination process.”⁹ The proposal would allow patent applicants to choose among three tracks—prioritized (Track I), traditional (Track II), and delayed (Track III)—for examination of new patent applications filed first in the United States.¹⁰ The only requirement for Track I prioritized examination is payment of an additional fee for a faster examination.¹¹ This way, the applicants will help the USPTO sort through the 700,000 backlogged applications to identify and examine the most time-sensitive applications first.¹²

This Note describes the current prioritization procedures at the USPTO and evaluates the Three-Track Proposal. Part I describes how the current backlog frustrates the goal of the patent system. Part II provides an overview of the past and current USPTO procedures for prioritizing applications. Part III describes the Three-Track Proposal in detail and proposes reforms to the proposal to better achieve the goal of the patent system described in Part I.

I. THE BACKLOG FRUSTRATES THE GOAL OF THE PATENT SYSTEM

The overarching goal of the patent system is to “promote the Progress of Science and useful Arts.”¹³ In order to effectuate that goal, the USPTO has established three objectives: (1) examining all of the patent applications prior to issuing patents, (2) issuing only high-quality, valid patents, and (3) treating all inventors and technologies equally.

8. See *infra* Part II for a discussion of current prioritization procedures available to applicants at the USPTO.

9. Press Release 10-24, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Proposes to Establish Three Patent Processing Tracks (June 3, 2010), http://www.uspto.gov/news/pr/2010/10_24.jsp.

10. Enhanced Examination Timing Control Initiative, Notice of Public Meeting, 75 Fed. Reg. 31,763, 31,764 (June 4, 2010) [hereinafter Enhanced Examination Timing Control].

11. *Id.* at 31,765.

12. David Kappos, *The Three-Track Proposal: Putting Applicants in Control of Examination Timing*, DIRECTOR’S FORUM: DAVID KAPPOS’ PUBLIC BLOG (June 15, 2010, 1:14 PM), <http://www.uspto.gov/blog/>.

13. U.S. CONST. art. I, § 8, cl. 8.

The backlog frustrates the promotion of progress in science and technology because the average patent application spends fifty percent of the time at the USPTO waiting in the backlog without any attention from a patent examiner. Applicants currently facing the two to three year long delay in examination may not be able to secure funding to bring a commercially viable product to market without the guarantee of patent monopoly.¹⁴ Rapid technological developments in a particular industry may render inventions covered in backlogged patent applications irrelevant.¹⁵ Furthermore, long examination times may also drive inventors to keep their inventions as trade secrets,¹⁶ preventing public disclosure of information that the next generation of inventors can build upon.

Although the USPTO examines every application in furtherance of its constitutional mandate, the USPTO could eliminate the backlog by registering each application as a patent without examining it. Professor Mark Lemley noted that the vast majority of patents are not litigated or licensed, and advocated reallocating USPTO resources spent on examination to validity determinations in court.¹⁷ This procedure exists in the US copyright system, where courts determine copyright validity of creative works when those works are litigated, instead of in an upfront examination process.¹⁸ Policing invalid patents through litigation was attempted and abandoned in the United States.¹⁹ Private industry produced an excessive number of invalid patents and the number of patent litigation disputes increased.²⁰ Complex patent litigation became too costly and error-prone to justify any cost-savings by forgoing examination.²¹ Congress responded by instituting patent

14. See, e.g., Gene Quinn, *Allowance Rate of 45.6% at USPTO for Fiscal 2010*, IPWATCHDOG (Oct. 14, 2010, 6:51 PM), <http://ipwatchdog.com/2010/10/14/allowance-rate-uspto-fiscal-2010/id=12794/>.

15. *Id.*

16. Conference Transcript, FICPI/AIPLA Colloquium, Session D: Interrelationship with Other Issues, at 6–7 (June 17–18, 2010), <http://www.ficpi.org/AIPLA-FICPI-Colloquium/TranscriptSessionD.pdf>.

17. See, e.g., Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1497 (2001) (suggesting that the patent office should spend less time examining patent applications because most patents are not litigated or licensed).

18. Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 594 (1999) (citing Edward C. Walterscheid, *The Winged Gudgeon—An Early Patent Controversy*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 533, 535–36 (1997)).

19. *Id.* at 594–96.

20. *Id.*

21. *Id.*

examination to reduce the high social cost of policing invalid patents.²² However, because the backlog prevents inventions from being developed, unknown social costs may offset any cost savings achieved by examining all patent applications.

A second objective in furtherance of the USPTO's constitutional mandate is to issue high-quality, valid patents that will incentivize innovation.²³ A low-quality, invalid patent hampers innovation if inventors avoid developing new inventions for fear of infringement liability or the inability to secure a license.²⁴ Presumably, the more time a patent examiner spends searching and analyzing the prior art during examination, the more likely he or she will issue a valid patent. However, public scrutiny of the backlog may put pressure on overworked examiners to examine an application quickly, potentially in less time than is ideally needed to produce a high quality patent.²⁵ To balance these competing forces, the USPTO needs examination procedures that speed up the examination process to address the backlog, while maintaining or improving overall patent quality. The developers of the current and proposed prioritization procedures discussed in this Note designed the procedures to put applications in a specific order and to reduce examination time. In addition to ordering applications and reducing examination time, prioritization procedures could also incorporate protocols designed to improve patent quality.

A third objective in furtherance of the USPTO's constitutional mandate is to treat all applicants and inventions equally, which could lead to resistance to the adoption of new prioritization procedures.²⁶ In spite of this "egalitarian streak,"²⁷ the USPTO has already implemented rules for accelerating applications if they happen to fall within a specific technology category. For example, the USPTO has afforded special examination status to applications pertaining to energy development and fighting terrorism,²⁸ two highly politicized technology areas. Moreover, the public would likely support examining applications for pharmaceuticals ahead of applications for

22. *Id.*

23. *Id.*

24. *See, e.g.,* Merges, *supra* note 18, at 592–93; Beth Simone Noveck, "Peer to Patent": *Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J. LAW & TEC 123, 130–32 (2006).

25. *But see* Quinn, *supra* note 14 (discussing the Kappos policy of giving examiners more time to examine patents as an indication that patent quality is the USPTO's first priority).

26. Merges, *supra* note 18, at 597.

27. *Id.*

28. *See infra* Part II.A.

inventions such as the crustless peanut butter and jelly sandwich,²⁹ the machine and method for drafting a patent,³⁰ and the method for swinging on a swing³¹—all of which have issued as patents. Furthermore, because different industries have different patent needs that fit their particular business strategies, any patent reform measure will likely result in “unequal” treatment. By way of illustration, the “Patent Term Adjustment” (PTA) procedure was adopted to add to the patent term to compensate for USPTO delays in processing the backlogged application.³² The PTA procedure is crucial to drug and biotech companies because strong patent protection is necessary to recoup the high cost of new drug research and development.³³ The longer the patent term, the longer the first drug-maker will be able to market the drug free from competing generic drug makers.³⁴ The PTA procedure is less beneficial for rapidly changing technologies, such as computer hardware and software, where patent term is not relied on for profit generation.³⁵ Because patent protection needs differ depending on the technology, patent reform measures have been proposed that would give different industries “multiple options” or “tiers” to choose from that would best address specific industry needs.³⁶ The Three-Track Proposal also provides different options for applicants to choose from depending on their specific needs for examination speed.

II. CURRENT PRIORITIZATION PROCEDURES AT THE USPTO

The USPTO has attempted to address the backlog by adopting various prioritization procedures to advance time-sensitive applications ahead of others. These procedures include the Petition to Make Special, Accelerated Examination, Green Technology Pilot Program, Patent Prosecution Highway Pilot Programs (PPH), and the Patent Application Backlog Reduction

29. U.S. Patent No. 6,004,596 (filed Dec. 8, 1997).

30. U.S. Patent No. 6,574,645 (filed Feb. 18, 2002).

31. U.S. Patent No. 6,368,227 (filed Nov. 17, 2000).

32. MPEP § 2710 (8th ed. Rev. 8, July 2010); *see also* 35 U.S.C. § 154 (2006).

33. Michael Meehan, *Increasing Certainty and Harnessing Private Information in the U.S. Patent System: A Proposal for Reform*, 2010 STAN. TECH. L. REV. 1, ¶ 5 (2010).

34. *Id.* ¶ 13.

35. *Id.*

36. Meehan, *supra* note 33, ¶ 26; *but see* Robert A. Armitage, *The Myth of Inherent and Inevitable “Industry Differences”: “Diversity” as Artifact in the Quest for Patent Reforms*, 13 MICH. TELECOMM. TECH. L. REV. 401, 402–05 (2007) (proposing that patent system reforms should be uniformly applied to all technology areas and not based on differing patenting needs or strategies across industries).

Stimulus Plan. Applicants may still use these procedures to prioritize their applications; however, the USPTO continues to investigate other alternatives, as discussed in Part III, *infra*.

A. PETITION TO MAKE SPECIAL

The “Petition to Make Special” procedure advances an application out of turn if the application falls within one of the eligible categories: (1) sufficient capital and facilities will be made available if a patent is granted, (2) the invention is being infringed, (3) the applicant is in poor health, (4) the applicant is sixty-five years of age or more, (5) the invention relates to environmental quality, (6) the invention relates to development of energy resources or more efficient conservation and utilization of energy resources, (7) the invention relates to recombinant DNA, (8) the invention relates to superconductivity, (8) the invention relates to HIV/AIDS or cancer, (9) the invention relates to countering terrorism, or (9) the invention relates to biotechnology and the applicant is a small entity.³⁷ Applicants must pay a small fee,³⁸ unless the basis for the petition is the applicant’s age or health or the invention will materially enhance the quality of the environment, contribute to the development or conservation of energy resources, or counter terrorism.³⁹

The Petition to Make Special procedure has had a minimal effect on the current backlog because narrow categories and procedural requirements prevent widespread use.⁴⁰ The narrow categories also promote inequality in the patent system by favoring certain inventions over others. To encourage more participation, the USPTO expanded the Petition to Make Special procedure to all applicants in a subsequent Accelerated Examination program.⁴¹ All Petitions to Make Special, except those based on the applicant’s health or age or the Patent Prosecution Highway (PPH) pilot program,⁴² that are filed on or after August 25, 2006 must also meet the requirements set forth for the Accelerated Examination program, discussed below.

37. MPEP, *supra* note 32, § 708.02; *see also* 37 C.F.R. § 1.102 (2010).

38. *See* 37 C.F.R. § 1.17(h) (2010); as of Nov. 2010, the fee is \$130.00. *Id.*

39. MPEP, *supra* note 32, § 708.02; *see also* 37 C.F.R. § 1.102 (2010).

40. *Inequitable Conduct Based on Petition to Make Special*, PATENTLYO BLOG (June 19, 2008, 3:00 PM), http://www.patentlyo.com/patent/accelerated_examination/ [hereinafter *Inequitable Conduct*].

41. Press Release 07-13, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Grants First Patent Under New Accelerated Review Option (Mar. 15, 2007), <http://www.uspto.gov/news/pr/2007/07-13.jsp> [hereinafter *Accelerated Review*].

42. *See infra* Part II.D.

B. ACCELERATED EXAMINATION

Beginning in August 2006, the USPTO began the Accelerated Examination program that, unlike the Petition to Make Special program, did not require applicants to fall within a specific category.⁴³ The applicant may be granted prioritized examination if he or she assists in the examination of the application and satisfies the following requirements: (1) the application must contain three or fewer independent claims and twenty or fewer total claims; (2) the claims must be directed to a single invention; (3) the applicant must be willing to have an interview with the examiner, including an interview prior to the first Office Action, to discuss prior art and any potential claim rejections or objections; (4) the applicant must provide a statement that a pre-examination search was conducted; and (5) the applicant must provide an Accelerated Examination Support Document (AESD) that details the closest prior art references and the location of each claim limitation within the cited references.⁴⁴ Like the Petition to Make Special procedure, payment of a small fee is required at the time of filing.⁴⁵

Although the program should decrease USPTO examination time, practitioners and applicants have been reluctant to conduct a prior art search and prepare an AESD requirement because the tasks are too time consuming and expensive for typical clients.⁴⁶ As a result, applicants prefer to wait out the backlog instead of doing the extra work to qualify for the prioritized status.⁴⁷ The procedure may also make the applicant vulnerable to narrow claim scope and inequitable conduct liability in subsequent litigation.⁴⁸

The goal of the program is to decrease examination time by achieving one of the following within a twelve-month period: (1) the mailing of a notice of allowance, (2) the mailing of a Final Office Action, (3) the filing of a Request for Continuing Examination (RCE), or (4) the abandonment of the application.⁴⁹ The program has successfully decreased the pendency of patent applications that qualify for the program. For example, a patent for a printer ink gauge, the first patent granted through the Accelerated Examination program, issued in six months.⁵⁰

43. Accelerated Review, *supra* note 41.

44. MPEP, *supra* note 32, § 708.02(a).

45. See 37 C.F.R. § 1.117(h) (2010); as of Nov. 2010, the fee is \$130.00. *Id.*

46. *Inequitable Conduct*, *supra* note 40.

47. *Id.*

48. *Id.*

49. MPEP, *supra* note 32, § 708.02(a).VIII.F.

50. Accelerated Review, *supra* note 41.

Nonetheless, as of August 2010, the number of Accelerated Examination petitions filed was approximately 4,150 and of these, about 2,500 petitions were granted, accounting for less than 0.5 percent of the total backlog.⁵¹

C. GREEN TECHNOLOGY PILOT PROGRAM

Similar to the Petition to Make Special, the Green Technology Pilot Program prioritizes applications that fall within specific categories, such as inventions based on environmental quality, energy conservation, development of renewable energy resources, and greenhouse gas emission reduction.⁵² In May 2010, the USPTO announced a revision to the pilot program that eliminated the narrow eligibility criteria for expedited processing under the original program.⁵³ The USPTO originally limited inventions in certain classifications in order to assist the USPTO in balancing the additional workload and allocating resources.⁵⁴ Because the USPTO balanced the workload with other mechanisms and denied applications that would have otherwise qualified for the program, the USPTO determined that the classification requirement was unnecessary.⁵⁵

According to a USPTO press release, of the more than 950 Green Technology Pilot Program requests filed, the USPTO approved only 342 (36 percent), primarily because many of the inventions were not in eligible classifications.⁵⁶ Six months later, after removing the eligibility requirement, the number of petitions grew to about 1,600 with the PTO approving approximately 51 percent of petitions and granting approximately 6 percent as issued patents.⁵⁷ The USPTO extended the program until the end of 2011 after reporting “great results.”⁵⁸ An examiner typically conducts the first

51. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Cumulative AE Petitions Status (Oct. 11, 2010), http://www.uspto.gov/patents/process/file/accelerated/ae_stat_charts11oct2010.pdf.

52. Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 75 Fed. Reg. 64,666, 64,666 (Dec. 8 2009) [hereinafter Pilot Program for Green Technologies].

53. See Press Release 10-21, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Expands Green Technology Pilot Program to More Inventions (May 21, 2010), http://www.uspto.gov/news/pr/2010/10_21.jsp.

54. Pilot Program for Green Technologies, *supra* note 52.

55. Elimination of Classification Requirement in the Green Technology Pilot Program, 75 Fed. Reg. 28,554 (May 21, 2010).

56. U.S. Patent & Trademark Office, *supra* note 53.

57. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Green Petition Report Summary (November 15, 2010), http://www.uspto.gov/patents/init_events/green_report_summary20101115.pdf.

58. Expansion and Extension of the Green Technology Pilot Program, 75 Fed. Reg. 69,049, 69,049–50 (November 10, 2010); see also Press Release 10-55, U.S. Patent &

action on an accelerated Green Technology application approximately fifty days after approval of the petition, a dramatic improvement over the current two-year backlog.⁵⁹

Although the program more efficiently examines Green Technology applications that qualify for the program, the total number of applications processed since the program began in 2010 account for less than 0.5 percent of the backlog.

D. PATENT PROSECUTION HIGHWAY PILOT PROGRAMS (PPH)

The USPTO and the Japanese Patent Office (JPO) adopted the first Patent Prosecution Highway Pilot Program in 2006, as a procedure to share duplicative work and reduce pendency and application backlog across patent offices.⁶⁰ Currently, the USPTO has PPH relationships with ten foreign patent offices: Japan, United Kingdom, Republic of Korea, Canada, Australia, the European Patent Office (EPO), Denmark, Germany, Singapore, and Finland.⁶¹ The PPH program allows an application filed in an Office of First Filing (OFF) to be advanced in the application queue in a corresponding Office of Second Filing (OSF), if the OFF examines the application and finds at least one patentable claim.⁶²

Since adoption of the PPH program, statistics indicate that PPH applications are examined more quickly and efficiently than non-PPH applications. For example, the USPTO commences examination of PPH applications within two to three months after the USPTO grants the PPH request.⁶³ In addition, the overall allowance rate of PPH applications (more than 90 percent) is about double the allowance rate for non-PPH applications (less than 50 percent).⁶⁴ Furthermore, PPH applicants spend less

Trademark Office, U.S. Dep't of Commerce, USPTO Extends Deadline to Participate in Green Technology Pilot Program by One Year (Nov. 10, 2010), http://www.uspto.gov/news/pr/2010/10_55.jsp.

59. U.S. Patent & Trademark Office, *supra* note 58.

60. *See, e.g.*, U.S. Patent & Trademark Office, U.S. Dep't of Commerce, Patent Prosecution Highway (PPH)—Fast Track Examination of Applications, http://www.uspto.gov/patents/init_events/pph/index.jsp (last visited Nov. 26, 2010); *see also* Notice Regarding the Elimination of the Fee for Petitions To Make Special Filed Under the Patent Prosecution Highway (PPH) Programs, 75 Fed. Reg. 29,312, 29,312 (May 25, 2010) [hereinafter Elimination of Fee for PPH Programs].

61. *See, e.g.*, Elimination of Fee for PPH Programs, *supra* note 60, at 29, 312–13.

62. *Id.*

63. U.S. Patent & Trademark Office, U.S. Dep't of Commerce, Patent Prosecution Highway Brochure (2010), http://www.uspto.gov/patents/init_events/pph/pph_brochure.pdf.

64. *Id.*

on prosecution because the average number of Office Actions per disposal of PPH applications is approximately 1.7, significantly less than 2.4 for non-PPH applications.⁶⁵ Although these statistics indicate that the PPH program can reduce prosecution time, the USPTO has issued only 2,300 patents on PPH applications since adoption of the program in 2006.⁶⁶ In order for the PPH program to reduce the backlog, the USPTO will need to increase participation in the program.

In addition to reducing the backlog, increasing PPH participation could improve patent quality. The USPTO has reported that increased participation in the PPH program “will support the USPTO’s goal to optimize both the quality and timeliness of patents.”⁶⁷ To encourage more PPH participation in 2010, the USPTO waived the fee for PPH participation⁶⁸ and expanded into other countries, including Austria,⁶⁹ Spain,⁷⁰ Russia,⁷¹ and Hungary.⁷² The USPTO also plans to better leverage the prior art searches and preliminary examinations conducted for international applications filed under the Patent Cooperation Treaty (PCT), which traditionally have not been reused by examiners at the U.S. national stage.⁷³ Although the USPTO reported shorter examination times for a PPH application over a non-PPH application, it has not yet provided patent quality statistics for PPH applications. A comparative study suggests that patent examination and patent quality in Europe and Japan may be higher than in the United States.⁷⁴ Therefore, if a large number

65. *See, e.g.*, Elimination of Fee for PPH Programs, *supra* note 60, at 29,313; U.S. Patent & Trademark Office, *supra* note 1.

66. Elimination of Fee for PPH Programs, *supra* note 60, at 29,313.

67. *Id.* at 29,312.

68. *See, e.g.*, Elimination of Fee for PPH Programs, *supra* note 60.

69. Press Release 10-45, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO Expands the Patent Prosecution Highway to Include Pilots with Austria, Spain, and Russia (Sept. 27, 2010), http://www.uspto.gov/news/pr/2010/10_45.jsp.

70. *Id.*

71. *Id.*; Press Release 10-37, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO and the Federal Service for Intellectual Property, Patents and Trademarks of the Russian Federation (ROSPATENT) to Begin Patent Prosecution Highway Pilot Program (Aug. 23, 2010), http://www.uspto.gov/news/pr/2010/10_37.jsp.

72. Press Release 10-28, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, USPTO and the Hungarian Patent Office to Pilot Patent Prosecution Highway (June 25, 2010), http://www.uspto.gov/news/pr/2010/10_28.jsp.

73. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, 2010–2015 Strategic Plan 15–16 (2010), http://www.uspto.gov/patents/init_events/brs_report_summary_20101115.pdf.

74. *See, e.g.*, Catherine Saez, *Comparative Analysis Shows US Patent Office Scores Poorly On Patent Quality*, INTELLECTUAL PROPERTY WATCH, (June 18, 2010 2:52 PM), <http://www.ip->

of PPH applications originate in Japan or Europe, then this could have a positive overall effect on the patent quality in the United States.

Nonetheless, PPH has not gained enough widespread use to decrease the backlog, as the number of applications that have qualified for the program account for less than 0.5 percent of backlogged applications.

E. PATENT APPLICATION BACKLOG REDUCTION STIMULUS PLAN

The Patent Application Backlog Reduction Stimulus Plan, introduced in 2009, allows a small entity applicant to advance one application ahead in the queue if the applicant expressly abandons another unexamined application.⁷⁵ To increase participation after the original announcement, the USPTO removed the small entity requirement and extended the program until December 31, 2010, or until 10,000 applications have been afforded special status under the program, whichever occurs first.⁷⁶ The expanded program requires that the applicant must file a statement that the applicant “has not and will not file a new application that claims the same invention in the expressly abandoned application.”⁷⁷ In November 2010, the USPTO extended the program for another year, until December 31, 2011, or until 10,000 petitions are granted.⁷⁸ The USPTO also made available the statistics for the program since its adoption in 2009.⁷⁹ A total of ninety-eight petitions have been granted after one year of the program.⁸⁰

Although some applicants have utilized the Patent Application Backlog Reduction Stimulus Plan, the applications processed through the program account for less than 0.02 percent of the total backlog.⁸¹

watch.org/weblog/2010/06/18/comparative-analysis-shows-us-patent-office-scores-poorly-on-patent-quality/.

75. *See, e.g.*, Patent Application Backlog Reduction Stimulus Plan, *supra* note 5.

76. *Id.*

77. *Id.*

78. Extension of the Patent Application Backlog Reduction Stimulus Plan, 75 Fed. Reg. 71,072 (Nov. 22, 2010).

79. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Project Exchange Report Summary (Nov. 15, 2010), http://www.uspto.gov/patents/init_events/brs_report_summary20101115.pdf.

80. *Id.*

81. *Id.*

F. SUMMARY OF DATA FROM CURRENT PRIORITIZATION PROCEDURES AT THE USPTO

The following Table 1 summarizes the number of applications processed through each of the current prioritization procedures discussed in Part II, *supra*, as a percentage of the approximately 700,000 backlogged applications.

Table 1: Number of Patent Applications Processed Through USPTO Prioritization Procedures

Prioritization Procedure	Year Adopted	Number of Applications Processed ⁸²	% of Backlogged Applications ⁸³
Petition to Make Special	1959	Data Unavailable	Data Unavailable
Accelerated Examination	2006	~2,500	< 0.5%
Green Technology Pilot Program	2009	~342	< 0.5%
Patent Prosecution Highway Pilot Program	2006	~2,500	<0.5%
Patent Application Backlog Reduction Stimulus Plan	2009	98	< 0.02%

III. USPTO THREE-TRACK PROPOSAL

The USPTO has generally reported shorter examination times for the five different prioritization procedures discussed in Part II, *supra*. However, as shown in Part II.F, *supra*, most of the current prioritization procedures have processed enough applications to decrease the backlog by only 1 percent. Therefore, the USPTO has continued to consider other alternatives, including the “Three-Track Proposal,” that will create three different examination speeds or “tracks” that an applicant can choose from: a “prioritized track” with fast examination (Track I), a “traditional track” with standard examination (Track II), and a “delayed track” with slow examination (Track III).⁸⁴ If an application is not prioritized in Track I or

82. Data for Accelerated Examination taken from U.S. Patent & Trademark Office, *supra* note 51. Data for Green Technology Pilot Program taken from U.S. Patent & Trademark Office, *supra* note 53. Data for Patent Prosecution Highway Pilot Program taken from Elimination of Fee for PPH Programs, *supra* note 60. Data for Patent Application Backlog Reduction Stimulus Plan taken from U.S. Patent & Trademark Office, *supra* note 79.

83. % of Backlogged Applications = (Number of Applications Processed)/(700,000 Backlogged Applications) x 100.

84. Enhanced Examination Timing Control, *supra* note 10, at 31,765–67.

delayed in Track III, it will be examined in the traditional Track II, unless the application is first filed in a foreign country.⁸⁵

Parts III.A–C of this Note discuss the mechanics of the Three-Track Proposal and highlight some differences between it and the current prioritization procedures. Part III.D describes criticisms patent practitioners, industry representatives, and inventor organizations have provided to Director Kappos, which will likely lead to some reforms in the procedure prior to adoption. Part III.E discusses the potential implementation of patent quality improvement protocols within the Three-Track Proposal. Finally, Part III.F describes metrics adopted by the USPTO to monitor the progress of the program.

A. THE THREE-TRACK PROPOSAL WILL REDUCE THE BACKLOG BY CHARGING A FEE FOR ADDITIONAL EXAMINATION RESOURCES AND ALLOWING APPLICANTS TO DELAY EXAMINATION FOR UP TO 30 MONTHS

In contrast to the other prioritization procedures discussed in Part II, *supra*, the Three-Track Proposal will set a “cost recovery fee” to ensure that Track I applications are examined faster without compromising pendency of Track II applications.⁸⁶ The USPTO plans to charge enough to provide additional USPTO resources “so that the aggregate pendency of non-prioritized applications would not increase due to work being done on the prioritized application.”⁸⁷ The fee would be used to hire and train more examiners as necessary to offset the time needed to examine Track I applications.⁸⁸ After the public comment period, the USPTO set the fee for Track I at \$4,000.⁸⁹

Instead of charging a “cost recovery fee,” the Green Technology Pilot Program, Accelerated Examination, and Patent Prosecution Highway Programs reduce examination time through other mechanisms, such as requiring telephonic interviews to resolve issues when more than one invention is claimed in an application (“Restriction” practice),⁹⁰ setting

85. *Id.*

86. *Id.* at 31,765.

87. *Id.*

88. *Id.*

89. Changes to Implement the Prioritized Examination Track (Track I) of the Enhanced Examination Timing Control Procedures, 76 Fed. Reg. 18,399, 18,400 (Apr. 4, 2011) [hereinafter Changes to Implement Track I].

90. See Pilot Program for Green Technologies, *supra* note 52.

shortened statutory periods for reply,⁹¹ conducting pre-examination interviews to discuss patentability issues,⁹² requiring that the applicant conduct a prior art search and prepare an AESD,⁹³ and sharing examination resources with other countries.⁹⁴ Some of these procedures are also incorporated into the Three-Track Proposal, but the more time-consuming prior art searches and AESD requirements were not included as a response to criticisms of the previous Accelerated Examination program.⁹⁵ The USPTO recommends the applicant should consider one or more of the following to maximize the benefit of Track I: (1) acquiring good knowledge of the prior art to be able to file a specification having claims from the broadest to the narrowest that the applicant believes he or she is entitled based on the prior art, (2) filing completely responsive replies to Office Actions within the shortened reply period, and (3) being prepared to conduct examiner interviews.⁹⁶ The proposal also seeks early publication of Track I applications and limits claims to four independent claims and thirty total claims.⁹⁷ The USPTO's goals for Track I applications are to issue a first Office Action within four months and a final disposition within twelve months.⁹⁸ Statistics measuring the progress to attaining those goals will be provided on the Data Visualization Center website.⁹⁹

B. DELAYING EXAMINATION FOR UP TO THIRTY MONTHS IN TRACK III
MAY TRIGGER A REDUCTION IN PATENT TERM ADJUSTMENT

Some applicants decide to file an application just before the statutory bar date, but before development or financing of a commercially viable invention.¹⁰⁰ The delayed Track III will provide these applicants with up to thirty months to decide when to enter the queue, which is similar to the timing of examination of PCT applications that enter the U.S. National Stage.¹⁰¹ These delayed applications will be published in the usual manner—

91. MPEP, *supra* note 32, § 708.02(a).III.

92. MPEP, *supra* note 32, § 708.02(a).I.G.

93. MPEP, *supra* note 32, § 708.02(a).I.H–I.

94. *See, e.g.*, Elimination of Fee for PPH Programs, *supra* note 60.

95. Enhanced Examination Timing Control, *supra* note 10, at 31,766; *see also supra* Part II.B.

96. Enhanced Examination Timing Control, *supra* note 10, at 31,766.

97. *Id.* at 31,765.

98. *Id.* at 31,766.

99. *Id.*

100. *Id.*

101. *Id.*

eighteen months after filing.¹⁰² For the Three-Track Proposal, the USPTO is considering whether to offset any positive PTA that accrues in excess of the “aggregate average period” of time examiners take to issue a first Office Action.¹⁰³ To illustrate, if the aggregate average period for examiners to issue an Office Action is twenty-five months, and the applicant requests examination after thirty months, then the applicant has “positively accrued” five months of PTA by delaying examination.¹⁰⁴ PTA was adopted to compensate applicants for loss in patent term attributable to USPTO delays that the applicant had no control over.¹⁰⁵ Under the Three-Track Proposal, the USPTO would deduct the five months of positive PTA that had accrued because the applicant, not the USPTO, caused the delay in examination of the application.¹⁰⁶

C. THE THREE-TRACK PROPOSAL WILL DELAY EXAMINATION OF APPLICATIONS FIRST FILED IN A FOREIGN COUNTRY UNTIL THE FIRST FOREIGN OFFICE ACTION AND REPLY BY THE APPLICANT IS RECEIVED BY THE USPTO

Roughly one-half of all the applications filed at the USPTO have foreign inventors and assignees.¹⁰⁷ The Three-Track Proposal would delay examination of these applications until the USPTO receives a copy of the foreign search report, the first foreign Office Action, and a reply to the first Office Action by the applicant, as if the foreign Office Action was made in the application filed with the USPTO.¹⁰⁸ The USPTO proposes that this procedure would avoid or reduce duplication of efforts by the foreign office of first filing and the USPTO, making the overall prosecution of these applications more efficient.¹⁰⁹ When the applicant submits the required documentation to the USPTO, the foreign application will enter the traditional track (Track II), or the applicant may request prioritized (Track I) or delayed examination (Track III).¹¹⁰ Finally, the USPTO is considering allowing applicants to request that the examiner obtain and consider a supplemental search report from a foreign patent office when preparing the

102. *Id.*

103. *Id.*

104. *Id.*

105. *See, e.g.,* MPEP, *supra* note 32; *see also* 35 U.S.C. § 154 (2006).

106. Enhanced Examination Timing Control, *supra* note 10, at 31,766.

107. *See, e.g.,* U.S. Patent & Trademark Office, *supra* note 73, at 14.

108. Enhanced Examination Timing Control, *supra* note 10, at 31,766.

109. U.S. Patent & Trademark Office, *supra* note 9.

110. Enhanced Examination Timing Control, *supra* note 10, at 31,766.

first Office Action.¹¹¹ However, the U.S. examiner will conduct a second search even if a supplemental search has been completed, so the USPTO would not benefit from any efficiency gains made by a supplemental search conducted at another office.¹¹² On the other hand, a supplemental search may help improve patent quality if more prior art is identified.

As for the Track III applications, the USPTO is considering whether to offset any PTA that may accrue until the applicant files the foreign search report, first foreign Office Action, and response to the foreign Office Action.¹¹³ Therefore, any delay by a foreign patent office in excess of the aggregate average time to issue a first Office Action in the United States would reduce any PTA accrued by the excess amount of time. The USPTO also noted that PTA issues could arise if the application first filed in a foreign country is abandoned or if the foreign patent office does not produce Office Actions on the merits.¹¹⁴ In these cases, it is the applicant's responsibility to notify the USPTO so the application can be treated as if the claim of priority to the foreign application had not been made and the application had been first filed in the United States.¹¹⁵ Failure to do so could trigger an offset in any PTA that had accrued.¹¹⁶

According to the USPTO, the proposal would decrease overall pendency in four ways: (1) additional resources in Track I will increase output, (2) use of search and examination completed in other foreign offices will improve examination efficiency, (3) Track III applicants may abandon their applications during the delay period, (4) foreign applications that receive an unfavorable first Office Action might ultimately abandon their U.S. applications.¹¹⁷

D. CRITICISMS OF THE THREE-TRACK PROPOSAL

Industry representatives, inventor organizations, and patent practitioners have responded to Director Kappos's call for feedback on the Three-Track Proposal. Comments on the Three-Track Proposal were submitted in writing and at a public meeting held in July 2010 at the USPTO headquarters.¹¹⁸ At the public meeting, participants generally supported the proposal but also

111. *Id.* at 31,767.

112. *Id.*

113. *Id.* at 31,766.

114. *Id.* at 31,766–67.

115. *Id.*

116. *Id.* at 31,766.

117. *See* U.S. Patent & Trademark Office, *supra* note 9.

118. *Id.*

voiced concerns.¹¹⁹ For example, Microsoft strongly supported the Three-Track Proposal because it allowed for prioritization and delayed costs through deferred examination.¹²⁰ On the other hand, Microsoft also expressed concerns that USPTO resources will be diverted to Track I, resulting in a slowdown in examination of Track II applications.¹²¹ Other organizations echoed Microsoft's concerns, and also expressed opinions regarding the aspects of the proposal that favor rich over poor applicants, the appropriate fees to charge for Track I examination, the consequences of delaying foreign applications, PTA issues, and maintaining patent quality within the three tracks.¹²²

One criticism of the proposal is that it will favor rich applicants, like large corporations, over poor applicants, like independent inventors. At the public hearing, the President of the United Inventors Association, Warren Tuttle, expressed his concern that independent inventors would perceive the proposal as favoring rich applicants because of the additional filing fee for expedited examination.¹²³ Alec Schibanoff, Executive Director of the non-profit trade organization, American Innovators for Patent Reform (AIPR), echoed this concern, stating, "Track I favors large companies to the detriment of small businesses."¹²⁴ Schibanoff's AIPR organization represents small businesses and universities, and his presentation analogized Track I with First and Business Class offered by airlines.¹²⁵ AIPR members are not offended that the USPTO is offering Track I to inventors that are willing to pay for it, provided that small and micro entities will get a discount and regular examination will not be slowed down in Track II.¹²⁶ Currently, the USPTO does not have statutory authority to reduce the fees, but stated that it would provide the discount if Congress enhances the office's authority to set fees in the future.¹²⁷ Even if most rich applicants put all of their

119. See Gene Quinn, *Lots of Support at Patent Office Three Track Public Meeting*, IPWATCHDOG (July 10, 2010 7:56 PM), <http://ipwatchdog.com/2010/07/21/patent-office-three-track/id=11716/>.

120. *Id.*

121. *Id.*

122. *Id.*

123. *Id.*

124. *Id.*

125. Alex Schibanoff, American Innovators for Patent Reform, *Leading the Fight for Meaningful Patent Reform 5* (July 20, 2010), http://www.jenner.com/files/tbl_s69NewsDocumentOrder/FileUpload500/8273/AIPR%20Comments%20on%203-Track%20Prosecution.pdf.

126. *Id.*

127. Enhanced Examination Timing Control, *supra* note 10, at 31,765.

applications in Track I and most poor applicants remain in Track II, the additional fees collected should, in theory, pay for any additional examiner resources needed to maintain the pendency of the Track II applications. Realistically, however, there will be a delay before the new examiners can be hired and trained with the additional Track I resources, which could result in a slowdown of Track II examination. But, if enough applicants chose the delayed Track III, this may offset any slowdown of Track II examination as the USPTO hires and brings new Track I examiners up to speed.

In contrast to AIPR's concern that Track I favors large over small businesses, Gene Quinn, a patent attorney and founder of the IPWatchdog blog, believes that Track I will benefit small businesses because early stage investors prefer to invest in companies with guaranteed patent protection.¹²⁸ Without a patent in hand, a small business may abandon an otherwise commercially viable invention if the application spends too much time in the backlog, harming both the small business and the public.¹²⁹ Quinn also noted that small businesses would have to have some "low levels of funding from investors" and not be on a "shoestring budget" in order to take advantage of Track I.¹³⁰

A second criticism of the proposal relates to the general fee structure as applied to all applicants, whether rich or poor. At the public hearing, a Microsoft representative voiced the concern that the fees for Track I will not be high enough to discourage overuse by any applicant, rich or poor, which could divert the majority of PTO resources to Track I and slow down ordinary examination in Track II.¹³¹ On the other hand, the Director of the American Intellectual Property Law Association (AIPLA), Todd Dickinson, expressed the opposite concern that the fees for Track I may be so high that it would seldom be used.¹³² The appropriateness of the \$4,000 fee for Track I applications will remain unknown until the USPTO analyzes statistics on program participation.¹³³ The current proposal does not prevent the USPTO from adjusting the fees to increase or decrease the number of applications in Track I as needed. In addition, as discussed above, applicants choosing Track III examination may offset any potential delays in Track II examination, provided that large numbers of applicants choose delayed examination.

128. Quinn, *supra* note 119.

129. *Id.*

130. *Id.*

131. *Id.*

132. *Id.*

133. Changes to Implement Track I, *supra* note 89.

A third criticism, expressed by the AIPLA and 3M at the public hearing, opposes the delayed examination of foreign-based applications. The rationale is that these applications would be disadvantaged and slowed, potentially resulting in retaliation against U.S. applications filed abroad.¹³⁴ However, retaliation may be unlikely in major jurisdictions because the USPTO reported that the Japanese and European Patent Offices have already adopted prosecution systems in which they give priority to applications that are first filed in their respective countries.¹³⁵ Another perhaps more pressing concern is that U.S. prosecution delays would be compounded by any prosecution delays in the foreign jurisdiction where the application is first filed.¹³⁶ This procedure also runs counter to the goals and incentives of the Patent Prosecution Highway Programs,¹³⁷ in which foreign applications having had some level of prosecution in their jurisdiction are advanced ahead in the USPTO queue, not delayed. In response to the overwhelmingly negative reaction to this part of the proposal, Director Kappos has indicated that there will be “a major change” in the proposal regarding these foreign-based applications.¹³⁸

A fourth criticism is that PTA offsets will discourage applicants from opting to delay Track III applications. At the public meeting, the Associate General Counsel for the Biotechnology Industry Organization (BIO), Hans Sauer, explained that BIO members develop, commercialize, and market their products over long periods of time.¹³⁹ Therefore, BIO companies own a small number of innovation patents and mainly use their patent portfolio to attract and obtain investment capital to sustain potentially ten years of business without profit.¹⁴⁰ Based on this business strategy, Track III should be attractive to BIO members, but BIO members, as well as biotechnology and pharmaceutical companies, rely on PTA¹⁴¹ to extend their patent term as long as possible. Because Track III potentially reduces the amount of PTA that accrues, BIO members could “always be” deterred from Track III.¹⁴²

134. Quinn, *supra* note 119.

135. Enhanced Examination Timing Control, *supra* note 10, at 31,764.

136. *Id.*

137. *See supra* Part II.D.

138. Tony Dutra, Speeches by PTO Director Kappos, Fed. Cir. Judge Gajarsa Highlight AIPLA Annual Meeting (Oct. 28, 2010), <http://news.bna.com/ptdm/> (follow “News Archive” hyperlink; then expand “10/28/2010” hyperlink; then expand “Lead Report” hyperlink; then follow “Conferences: . . .” hyperlink).

139. Quinn, *supra* note 119.

140. *Id.*

141. *See supra* Part I, for a discussion of Patent Term Adjustment.

142. *See* Quinn, *supra* note 119.

Furthermore, an applicant can choose to file their application using a different procedure that would delay the application, but would not subtract any PTA in the patent term calculation. For example, an applicant could choose to file the application using the PCT procedure for filing patent applications internationally.¹⁴³ The PCT procedure allows an applicant to first file the application in an international receiving office, and then subsequently file the same application in other PCT signatory nations within thirty months of the original filing.¹⁴⁴ Thus, instead of opting for Track III, a company could file a PCT application and subsequently file in the United States without the risk of incurring any PTA offsets and maintaining a similar timeline to prosecution as a Track III application.¹⁴⁵

One final concern is that examiners will be rushed when examining applications in Track I, resulting in more rejections, a less comprehensive search and examination, and lower patent quality.¹⁴⁶ Some Patent Bar members believe that overworked examiners reject accelerated applications rather than allow them to quickly remove work from their docket.¹⁴⁷ However, Director Kappos has reported his commitment to keeping patent quality high while reducing pendency.¹⁴⁸ During 2009–2010, the USPTO reduced the backlog by 10,000 applications despite the fact that the USPTO “affirmatively gave our examiners more time to examine each application as a clear signal that quality is our first priority.”¹⁴⁹ Fast examination does not necessarily imply that the resultant patent be of low quality. However, the current Three-Track Proposal does not provide much detail on how the USPTO plans to maintain high patent quality high while reducing the backlog.

E. INCORPORATING PATENT QUALITY IMPROVEMENTS WITHIN THE THREE-TRACK PROPOSAL

The Three-Track Proposal could be modified to incorporate procedures to ensure that patent quality at least stays the same, if not improves, as the

143. MPEP, *supra* note 32, ch. 1800.

144. *Id.*

145. *See* Quinn, *supra* note 119; *see also supra* Part III.B.

146. *Cf.* Quinn, *supra* note 119 (discussing the view that expedited examination causes examiners to rush and results in less thorough examination).

147. *Id.*

148. *See, e.g.*, U.S. Patent & Trademark Office, *supra* note 73, at 4; *see also* David Kappos, *Taking Steps to Improve Patent Quality*, DIRECTOR’S FORUM: DAVID KAPPOS’ PUBLIC BLOG (Oct. 19, 2010, 3:50 PM), <http://www.uspto.gov/blog/>.

149. David Kappos, *Reflections on the USPTO Dashboard*, DIRECTOR’S FORUM: DAVID KAPPOS’ PUBLIC BLOG (Oct. 13, 2010, 10:31 AM), <http://www.uspto.gov/blog/>.

program progresses. Improvements in patent quality would be especially important for Track I applications because applicants have indicated that these applications are particularly time sensitive.¹⁵⁰ The USPTO 2010–2015 Strategic Plan already includes institutionalizing “compact prosecution initiatives” to streamline the patent process as well as improve patent quality.¹⁵¹ These initiatives promote the practice of resolving patentability issues early in the examination process by encouraging examiners to conduct interviews and providing examiners with interview training.¹⁵²

Interview programs and other patent quality improvement procedures that the USPTO has piloted appear to decrease overall pendency.¹⁵³ For example, the USPTO introduced the Enhanced First Action Interview Pilot Program in 2008, where applicants reviewed a “Pre-Interview Communication” document that detailed the results of the examiner’s prior art search and subsequently conducted an interview with the examiner.¹⁵⁴ The USPTO extended the program twice after applicants experienced the following: (1) faster prosecution of the application, (2) better interaction between the applicant and the examiner, (3) ability to resolve patentability issues “one-on-one” with the examiner early in prosecution, and (4) earlier allowances.¹⁵⁵ The Petition to Make Special and Accelerated Examination procedures also encourage telephonic interviews with the examiner prior to the first Office Action.¹⁵⁶ Currently, the Three-Track Proposal also encourages but does not require applicants within Track I to conduct interviews with the examiner.¹⁵⁷ Given that the USPTO has had success incorporating oral communication with the examiner in traditional prosecution, the Three-Track Proposal should be modified to require all Track I applicants to conduct examiner interviews. The USPTO could also require interviews for Green Technology applications, for select technology centers where the First Action Interview Pilot program was found to be

150. Kappos, *supra* note 12.

151. U.S. Patent & Trademark Office, *supra* note 73, at 9–10.

152. *Id.*

153. *See, e.g.*, U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Enhanced First Action Interview Pilot Program, 1347 Off. Gaz. Pat. Off. 173 (Oct. 20, 2009).

154. *See, e.g.*, U.S. Patent & Trademark Office, *supra* note 73, at 11; U.S. Patent & Trademark Office, *supra* note 153.

155. U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Extension of the Enhanced First Action Interview Pilot Program, 1354 Off. Gaz. Pat. Off. 51 (May 4, 2010); U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Second Extension of the Enhanced First Action Interview Pilot Program, 1360 Off. Gaz. Pat. Off. 56 (Nov. 2, 2010).

156. MPEP, *supra* note 32, § 708.02, 708.02(a).

157. Enhanced Examination Timing Control, *supra* note 10, at 31,766.

successful, and for technologies where an improvement in patent quality is needed.

Historically, patent quality has been viewed as poor when the USPTO issues overly broad patents in technologies in the early stages of development.¹⁵⁸ The USPTO typically allows broad, low quality patents because patent examiners do not have access to the prior art in these technology areas, especially for software and business method inventions.¹⁵⁹ Assuming that many Track I applications will include early-stage inventions, the USPTO should incorporate patent quality improvement procedures within Track I for those technologies where examiners cannot easily access the prior art. Some technologies, such as the chemical arts, are relatively mature,¹⁶⁰ so patent quality improvement procedures may be less important for chemical Track I applications.

The current prior art search and examination process has not produced high quality software patents.¹⁶¹ After recognizing that the USPTO was not identifying pertinent prior art for software and business method patent applications, the USPTO adopted a Peer to Patent pilot program, beginning in 2007.¹⁶² The program allowed third parties to submit prior art during prosecution of the application via the Internet.¹⁶³ Companies such as General Electric, IBM, Microsoft, and Hewlett-Packard agreed to submit their applications for public examination.¹⁶⁴ The program registered over 2,700 peer reviews from over 140 jurisdictions, generating 600 sources of prior art relevant to 189 applications.¹⁶⁵ Of the USPTO examiners who participated in the program, 73 percent thought that the program would be “helpful” for

158. Merges, *supra* note 18, at 590.

159. *Id.*

160. See James Bessen and Michael J. Meurer, *What's Wrong with Software Patents?*, PATENTLYO BLOG (June 29, 2008 2:53 PM), <http://www.patentlyo.com/patent/2008/06/whats-wrong-wit.html>.

161. Merges, *supra* note 18, at 590 (citing Brenda Sandburg, *Patent Applications Flow Freely*, LEGAL TIMES, Feb. 22, 1999, at 12); see also Kenneth W. Dam, *Some Economic Considerations in the Intellectual Property Protection of Software*, 24 J. LEGAL STUD. 321, 369–71 (1995).

162. See, e.g., Noveck, *supra* note 24, at 131; see also U.S. Patent & Trademark Office, U.S. Dep't of Commerce, Peer Review Pilot Program—Original (CLOSED), http://www.uspto.gov/patents/init_events/fy07_peer_pilot.jsp (last visited Nov. 27, 2010) (noting that the original Peer Review Pilot Program closed and a new Peer Review Pilot Program will continue through fiscal year 2011).

163. Press Release 10-50, U.S. Patent & Trademark Office, U.S. Dep't of Commerce, USPTO Launches Second Peer To Patent Pilot in Collaboration with New York Law School (Oct. 19, 2010), http://www.uspto.gov/news/pr/2010/10_50.jsp.

164. Noveck, *supra* note 24, at 128.

165. U.S. Patent & Trademark Office, *supra* note 163.

examination if adopted in regular practice.¹⁶⁶ Although examiners actually used only 20 percent of the prior art references, the USPTO concluded after the two-year pilot that the public could provide valuable prior art to the examiner in an “organized online fashion.”¹⁶⁷ In October 2010, the USPTO began a second Peer to Patent pilot program that expanded the eligible technologies to include biotechnology, bioinformatics, telecommunications, and speech recognition inventions.¹⁶⁸ The new pilot program will allow submission of prior art for up to three months, increase the number of eligible applications from 400 to 1,000, and decrease the number of prior art sources forwarded to the examiner from ten to six sources.¹⁶⁹

Depending on the success of the expanded Peer to Patent program, the USPTO may consider adopting public examination for Track I applications. The USPTO could also use public examination for applications advanced out of turn that are also in the early stages of development, such as Green Technology applications. Unlike examiner telephonic interview programs, a public examination program has not gained widespread adoption in current examination practice, and may be more difficult to implement within the Three-Track Proposal. The number of applicants willing to enter such a program may also be too small to meaningfully reduce the backlog, and the USPTO has not disclosed whether or not the public examination program would decrease overall pendency of an application. Nevertheless, an improvement in patent quality, especially for Track I applications, is desirable even if a public examination program fails to reduce the backlog.

F. EVALUATIVE METRICS OF THE THREE-TRACK PROPOSAL

If the USPTO adopts the Three-Track Proposal, it will be monitored and evaluated for its effectiveness in reducing the backlog. A successful prioritization program will decrease the number of backlogged applications relative to the current programs while maintaining high patent quality. The USPTO already collects and publishes backlog statistical data on the Data Visualization Center on the USPTO website.¹⁷⁰ The website has received excellent reviews for USPTO efforts to provide transparency in the patenting

166. *Id.*

167. *Id.*; U.S. Patent & Trademark Office, U.S. Dep’t of Commerce, Peer Review Pilot FY2011, http://www.uspto.gov/patents/init_events/peerpriorartpilotindex.jsp (last visited Nov. 27, 2010).

168. U.S. Patent & Trademark Office, *supra* note 163.

169. *Id.*

170. U.S. Patent & Trademark Office, *supra* note 1.

process.¹⁷¹ On the site, pictorial representations of speedometers display backlog statistics, but users may also download and manipulate the raw data that was previously unavailable to the public.¹⁷² Two different pendency values, “traditional total pendency” and “traditional total pendency including RCEs,” are included on the Data Visualization Center.¹⁷³ The USPTO had previously only reported the “traditional total pendency” number, which did not accurately reflect the true average pendency because RCEs were counted as separate applications.¹⁷⁴ An RCE is a procedural tool applicants may use after the examiner has issued a final rejection to continue prosecution of the same application.¹⁷⁵ When corrected for RCEs, the average pendency of a backlogged application is reported on the Data Visualization Center as “traditional total pendency including RCEs,” which increases average pendency by approximately six months over the previous USPTO calculation.¹⁷⁶

Backlogged applications and pendency are numbers relatively easy to understand and digest. However, metrics that relate to patent quality are more difficult to evaluate and assess. The USPTO Data Visualization Center reports only one patent quality metric, a graph entitled “Patent Examination Quality.”¹⁷⁷ The graph displays two compliance rates that are determined by evaluation of randomly selected applications: (1) a final rejection and allowance compliance rate, and (2) an in-process compliance rate.¹⁷⁸ The final rejection and allowance compliance rate evaluates “the correctness of the examiner’s overall determination of the patentability of the claims, in the decision to finally reject claims or allow an application.”¹⁷⁹ The in-process compliance rate evaluates “the quality of examination early in prosecution.”¹⁸⁰ The numbers displayed in the graphs represented the percentage of reviewed applications in which no deficiency is found in the

171. See, e.g., *USPTO’s Data Visualization Center and Patent Dashboard*, PATENTLYO BLOG (Sept. 7, 2010 5:37 PM), <http://www.patentlyo.com/patent/2010/09/usptos-data-visualization-center-and-patent-dashboard.html>; see also Quinn, *supra* note 119.

172. *USPTO’s Data Visualization Center and Patent Dashboard*, *supra* note 171.

173. U.S. Patent & Trademark Office, *supra* note 1.

174. Gene Quinn, *Patent Office Unveils Patents Dashboard, A Visualization Tool*, IPWATCHDOG (Sept. 9, 2010, 13:25 EST), <http://ipwatchdog.com/2010/09/09/patents-dashboard-visualization-center/id=12421/>.

175. MPEP, *supra* note 32, § 706.07(h); see also 37 C.F.R. § 1.114 (2010).

176. Quinn, *supra* note 174.

177. U.S. Patent & Trademark Office, *supra* note 1.

178. *Id.*

179. *Id.*

180. *Id.*

examiner's analyses for the past twelve months, which averaged around 94–96 percent in 2009–2010.¹⁸¹ In October 2010, the USPTO announced new patent quality measurement procedures to give “a more comprehensive view of patent quality” because the previous two measures were found to be “insufficient.”¹⁸² New measures of quality include (1) use of best search practices in the first prior art search, (2) use of best examination practices when issuing the first Office Action, (3) trends in compact and efficient examination, (4) survey information from applicants and practitioners, and (5) survey information from examiners.¹⁸³ The USPTO plans to publish the patent quality data on the Data Visualization Center on the USPTO website.¹⁸⁴ If the Three-Track Proposal is adopted, the USPTO can monitor patent quality within each of the three tracks using these patent quality metrics. If one track produces higher quality patents than the others, resources may be shifted among the tracks to maintain and improve patent quality where necessary.

IV. CONCLUSION

The USPTO faces an enormous challenge when facing a backlog approaching one million applications. The USPTO has successfully reduced pendency in other prioritization programs, such as the Green Technology Pilot Program. However, few of these programs have reduced the backlog more than 1 percent, although some of the programs have only come into being within the last year. The current Three-Track Proposal provides a simple mechanism for applicants to get a fast examination provided they are willing and able to pay for it. But fast examination should not compromise patent quality, so the USPTO should consider requiring that Track I applications, and possibly all applications, undergo a more rigorous examination through patent quality improvement procedures. The Three-Track proposal could potentially reduce the backlog relative to the other programs currently in place at the USPTO, but it will need to entice enough applicants to enter Track I and Track III. Some modifications of the original proposal may need to be made to encourage applicant participation, but

181. *Id.*

182. Press Release 10-48, U.S. Patent & Trademark Office, U.S. Dep't of Commerce, USPTO Adopts New Patent Examination Quality Measurement Procedures (Oct. 7, 2010), http://www.uspto.gov/news/pr/2010/10_48.jsp.

183. U.S. Patent & Trademark Office, U.S. Dep't of Commerce, Adoption of Metrics for the Enhancement of Patent Quality Fiscal Year 2011, 1 (2010), http://www.uspto.gov/patents/init_events/qual_comp_metric.pdf.

184. *Id.*

Director Kappos has taken positive steps to keep the most relevant actors and the public involved in shaping the program to best benefit all applicants.¹⁸⁵

185. On Apr. 4, 2011, the USPTO announced that prioritized Track I applications would be accepted on or after May 4, 2011 while the office continues to review other portions of the Three-Track Proposal. *See* Changes to Implement Track I, *supra* note 89. On Apr. 22, 2011, Director Kappos announced that acceptance of Track I applications would be postponed due to budget cuts. David Kappos, *An Update on the USPTO's FY 2011 Budget*, DIRECTOR'S FORUM: DAVID KAPPOS' PUBLIC BLOG (Apr. 22, 2011, 09:08 AM), <http://www.uspto.gov/blog/>.

WHEN CONGRESS GIVES TWO HATS, WHICH DO YOU WEAR? CHOOSING BETWEEN DOMESTIC INDUSTRY PROTECTION AND IP ENFORCEMENT IN § 337 INVESTIGATIONS

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In the United States, patent owners who seek to exclude infringing imports can file suit in a federal district court to enjoin entry of those articles under Title 35 of the U.S. Code.¹ Alternatively, they may file a complaint with the U.S. International Trade Commission (“ITC” or “Commission”) in Washington, D.C. to initiate an investigation under § 337 of the Tariff Act of 1930.² This investigation may lead to an exclusion order which prevents infringing articles from entering the United States:

The Commission shall investigate any alleged violation of [§ 337] on complaint under oath or upon its initiative. . . . If the Commission determines . . . that there is a violation of this section, it shall direct that the articles concerned . . . be excluded from entry into the United States . . . unless, after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry.³

The ITC works under a different set of statutes and mandates than the federal courts, the most important among these being the mandate to protect domestic industry from “unfair trade practices” under the trade acts enacted and amended throughout the twentieth century.⁴ This parallel track for patent litigation offers ITC litigants various benefits, among them a speedy

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1. 35 U.S.C. § 283 (2006) (authorizing the federal courts to grant injunctions to prevent the violation of patent rights).

2. Smoot-Hawley Tariff Act, ch. 497, § 337, 46 Stat. 590, 703–04 (current version at 19 U.S.C. § 1337 (2006)).

3. § 1337(b)(1), (d)(1).

4. See discussion *infra* Section II.B.

hearing schedule and case resolution typically within eighteen months.⁵ However, the Commission's recent interpretations of § 337(a)(3)(C) likely expand the availability of ITC proceedings to complaining entities that lack the traditional characteristics of domestic industry that the ITC and its predecessors were designed to protect—and may still have to protect—under the public interest language built into the statute.⁶ Where modern respondents rather than complainants embody those traditional characteristics, issuing an exclusion order may harm the public welfare without an offsetting benefit to public knowledge and consumers generally.⁷ The ITC therefore faces a difficult choice which may result in unpredictable outcomes: protect intellectual property rights or protect the domestic industry?

Part I of this Note gives an overview of how the ITC obtained authority over intellectual property cases and explains why it is a significant modern forum for patent litigation. Part II traces the developments in ITC jurisprudence and federal legislation which have eased the traditional domestic industry burden on complainants. Part III explains that the eased burden causes a new problem because the ITC's blunt exclusion order remedy is available for non-practicing IP rights owners to assert against domestic producers, with a greater ensuing risk of harm to the public interest. Part IV synthesizes the domestic industry and exclusion order discussions to suggest fixes for the tension that the ITC faces in choosing whether to protect IP rights or domestic industry.

I. OVERVIEW OF THE ITC AND EVOLUTION OF § 337

The ITC is an agency with trade expertise that adjudicates patents as part of its intellectual property-based import investigations under § 337.⁸ The

5. U.S. INT'L TRADE COMM'N, PERFORMANCE AND ACCOUNTABILITY REPORT: FISCAL YEAR 2009, at 38 (2009), http://www.usitc.gov/press_room/documents/FinalPAR2009.pdf [hereinafter ITC, P&A REPORT]; see discussion *infra* Section I.D.

6. See, e.g., § 1337(d)(1) (directing the Commission to consider “the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers”); see also discussion *infra* Section III.B.

7. See discussion *infra* Section II.B.1; see also FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 52 (Mar. 2011), available at <http://www.ftc.gov/os/2011/03/110307patentreport.pdf> (“When a company commercializes technology that it invented independently and later faces a patent assertion, the resulting ex post license provides no direct benefit to consumers, however.”).

8. “Section 337” is commonly used to refer to the statute, which is codified at § 1337 of Title 19 of the U.S. Code.

Commission performs various functions under authority conferred by various trade and tariff legislation passed throughout the twentieth century. That legislation provided the agency with the authority to issue remedies against unfair methods or acts, such as patent infringement, in the importation of goods. For various reasons explored below, complainants have been increasingly turning to the ITC to enforce their domestic IP rights.

A. ITC STRATEGIC OPERATIONS, § 337 PROCEEDINGS, AND RELATION TO THE PATENT LAWS

The ITC is a U.S. government agency that traces its existence to the trade statutes of the late nineteenth century which Congress enacted to protect domestic industry from unfair trade practices abroad.⁹ It consists of a panel of six Commissioners appointed by the President of the United States who, in § 337 investigations, determine whether complainants are entitled to exclusionary relief under the trade laws.¹⁰ The Commission has evolved into an entity that handles five strategic operations within the federal government.¹¹ One of these is IP-based import investigations under § 337,¹² the main concern of this Note and of patent litigators. Beyond its § 337 authority, the ITC performs four other functions. The Commission conducts import injury investigations¹³ under Title VII of the Tariff Act of 1930¹⁴ that are not based on IP rights. Title VII investigations may conclude with issuance of an order authorizing antidumping duties or countervailing duties on products that either are sold at less than fair value in the United States or receive subsidies in violation of international trade pacts.¹⁵ Second, the ITC analyzes trade and competitiveness, probable economic effects, and emerging trade issues and documents the results in published reports primarily for the benefit of the legislative and executive branches of government.¹⁶ Third, the agency provides tariff and trade information services which include

9. For more detailed discussion of the trade statute enactment history, see discussion *infra* notes 39–43 and accompanying text.

10. 19 U.S.C. § 1330(a) (2006).

11. ITC, P&A REPORT, *supra* note 5, at 8.

12. *Id.* at 37.

13. *Id.* at 25.

14. The Trade Agreements Act of 1979 added Title VII to the Tariff Act of 1930. *See* Pub. L. No. 96-39, 93 Stat. 144, 150–201 (1979) (codified as amended in scattered sections of 19 U.S.C. but mainly at §§ 1671–1677 (2006)).

15. § 101, 93 Stat. at 151 (countervailing duties); *id.* at 162 (antidumping duties).

16. ITC, P&A REPORT, *supra* note 5, at 50.

producing and maintaining the Harmonized Tariff Schedule.¹⁷ Finally, the Commission supports trade policy by “supplying technical expertise and providing objective information on international trade issues.”¹⁸ This overview of the ITC’s strategic operations demonstrates the agency’s deep expertise in dealing with trade issues, an expertise that it applies to § 337 investigations.

Section 337 gives IP rights owners a forum other than the federal courts to assert their exclusive right to prevent infringing imports from entering the United States. These IP-based actions are formally called investigations. A relatively high percentage of § 337 investigations requires a full trial to resolve all necessary issues including validity, infringement, defenses, and the public interest.¹⁹ But the six Commissioners do not sit alone in conducting the investigations. Rather, a proceeding often begins somewhat informally when a party submits a draft complaint to the Office of Unfair Import Investigations (“OUII”) for procedural and substantive compliance.²⁰ The complaint must comply with the heightened pleading requirements set forth at 19 C.F.R. § 210.12, including pointing out or describing specific instances of unlawful importations, related litigation, the existence of a domestic industry, and identification of the infringed patent.²¹ The party then formally files the complaint and the Commissioners vote whether to initiate an investigation based on the allegations in the complaint.²² The Commission

17. *Id.* at 61. The Harmonized Tariff Schedule is a “hierarchical structure for describing all goods in trade for duty, quota, and statistical purposes.” U.S. Int’l Trade Comm’n, *About Harmonized Tariff Schedule*, http://usitc.gov/tariff_affairs/about_hts.htm (last visited Feb. 26, 2011).

18. ITC, P&A REPORT, *supra* note 5, at 70.

19. ITC cases settle only about forty-five or fifty percent of the time, with many of the remaining cases going to trial. Presentation, Lynn Levine, Office of Unfair Import Investigations, U.S. Int’l Trade Comm’n, *The ITC Comes to Silicon Valley: The ITC’s Growing Role in Patent Adjudication*, audio recording at 3:40 (May 18, 2010), <http://www.law.berkeley.edu/8597.htm> (lecture slides and audio recording available at conference site).

20. *Id.* at slide 13; Peter S. Menell et al., *Section 337 Patent Investigation Management Guide*, ch. 1 introduction & § 2.1.1 (Berkeley Center for Law & Technology, Paper No. 1603330, 2010), available at <http://ssrn.com/abstract=1603330>.

21. 19 C.F.R. § 210.12 (2010); see also Menell et al., *supra* note 20, § 2.1.1.

22. The voting sheets along with § 337 investigation filings and transcripts are available on the ITC’s online document retrieval system, EDIS, found at <http://edis.usitc.gov>. For the voting sheet in the *Coaxial Cable Connectors* litigation, see Action Jacket Approval Record, Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same (*Coaxial Cable Connectors*), Inv. No. 337-TA-650 (ITC May 19, 2008), EDIS Doc. No. 302522. See also Menell et al., *supra* note 20, § 2.1.4.1 (discussing Action Jacket voting procedure).

publishes a Federal Register notice communicating the result of the vote²³ and, if voting in the affirmative, specifying an administrative law judge (“ALJ”) who will control the fact-finding trial phase of the investigation.²⁴ The notice includes an invitation for interested party comments on the public interest (“Comments”).²⁵ The ALJ conducts proceedings similar to those of a district court but governed by the Administrative Procedure Act.²⁶ Besides the complainant and named respondent, OUII continues to actively participate in the trial-phase proceedings as a third party litigant representing the public interest.²⁷ The proceedings offer only limited opportunity for interlocutory review.²⁸ The ALJ issues an initial determination (“ID”), following which the parties may request review by the Commissioners.²⁹ Assisted by a separate organ of the ITC called the Office of the General Counsel, the Commissioners may choose to do nothing and allow the ID to become final.³⁰ Alternatively, they may review the ID and affirm, modify, set aside, or remand it in whole or in part.³¹ The Court of Appeals for the Federal Circuit may then review the ITC’s final determinations.³²

23. 19 C.F.R. § 210.3 (“An investigation is instituted upon publication of a notice in the FEDERAL REGISTER.”); *see* 19 U.S.C. § 1337(b)(1) (2006) (“the Commission shall publish notice thereof in the Federal Register”). For the Federal Register notice in the *Coaxial Cable Connectors* investigation, see Notice of Investigation, 73 Fed. Reg. 31145 (May 30, 2008).

24. 19 C.F.R. § 210.3 (“[A]n administrative law judge also may preside over stages of a related proceeding under this part.”); *see also* Menell et al., *supra* note 20, ch. 1 introduction & § 2.1.4.4.

25. 19 C.F.R. § 210.50(a)(4).

26. This and other key differences between federal court and ITC adjudications are discussed in more detail *infra* Section I.D.

27. U.S. INT’L TRADE COMM’N, YEAR IN REVIEW: FISCAL YEAR 2009, at 13–14 (2009), http://www.usitc.gov/publications/year_in_review/pub4167.pdf [hereinafter ITC, YEAR IN REVIEW]; Menell et al., *supra* note 20, § 1.3.2.4.

28. 19 C.F.R. § 210.24 (“Rulings by the administrative law judge on motions may not be appealed to the Commission prior to the administrative law judge’s issuance of an initial determination, except in the following [enumerated circumstances].”); *see also* Certain Hybrid Electric Vehicles and Components Thereof (*Hybrid Electric Vehicles*), Inv. No. 337-TA-688, ALJ Order No. 14 at 5 (ITC June 16, 2010), EDIS Doc. No. 427567 (finding that Toyota had not met “the heavy burden of meeting the criteria for interlocutory appeal”).

29. 19 C.F.R. § 210.43.

30. *Id.* § 210.42(h).

31. *Id.* § 210.45(c) (“On remand, the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the administrative law judge.”). *See generally* §§ 210.42–210.45 (governing the conduct of the Commission’s review of an initial determination).

32. 19 U.S.C. § 1337(c) (2006); 28 U.S.C. § 1295(a)(6) (2006). The Federal Circuit “reviews the Commission’s legal determinations de novo and the Commission’s factual findings for substantial evidence.” *Spansion, Inc. v. Int’l Trade Comm’n*, 629 F.3d 1331, 1343 (Fed. Cir. 2010).

Substantively, questions exist regarding whether and when the Patent Act binds the ITC, with Federal Circuit jurisprudence pointing in both directions.³³ Although issue determinations in the federal courts (e.g., of validity and infringement) may bind the ITC under issue preclusion,³⁴ the preclusive effect does not run in the reverse direction.³⁵ On the other hand, federal court determinations that an injunctive remedy is inappropriate under *eBay v. MercExchange*³⁶ do not bind the ITC,³⁷ which determines on its own whether to issue quasi-injunctive relief in the form of an exclusion order.³⁸ Therefore, there is a risk of inconsistent judgments between these parallel patent litigation tracks.

B. THE EVOLUTION OF § 337 AND MODERN INTELLECTUAL PROPERTY-BASED ITC INVESTIGATIONS

In the early days of the Tariff Commission, the ITC's predecessor agency, patent enforcement was merely a sideshow to its main mission of protecting American industry and labor³⁹ from "unfair trade practices."⁴⁰

33. Compare *Kinik Co. v. Int'l Trade Comm'n*, 362 F.3d 1359, 1363 (Fed. Cir. 2004) (affirming the ITC's finding that § 271(g) defenses pertaining to process patents do not apply under § 337), with *Amgen, Inc. v. Int'l Trade Comm'n*, 565 F.3d 846, 848 (Fed. Cir. 2009) (affirming that § 271(e) safe harbor provision applies to § 337 proceedings). For discussion of the ways in which the ITC does and does not match federal court practice, see Sapna Kumar, *The Other Patent Agency: Congressional Regulation of the ITC*, 61 FLA. L. REV. 529, 552 (2009).

34. In the 2010 *Hybrid Electric Vehicles* investigation, the question of whether *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), would preclude relitigation of the obviousness issue came before the Commission but the Commission found that Toyota had not met its burden of sufficiently proving a material intervening change in law to invoke the exception to issue preclusion. *Hybrid Electric Vehicles*, Inv. No. 337-TA-688, Commission Op. at 4 n.5 (ITC June 22, 2010), EDIS Doc. No. 427966.

35. Kumar, *supra* note 33, at 559.

36. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

37. *Spansion*, 629 F.3d at 1359 (holding that "*eBay* does not apply to Commission remedy determinations under Section 337"); see also *Certain Baseband Processor Chips and Chipsets, Transmitter and Receiver (Radio) Chips, Power Control Chips, and Products Containing Same, Including Cellular Telephone Handsets (Baseband Processor Chips)*, Inv. No. 337-TA-543, Commission Op. at 102 n.230 (ITC June 12, 2007), EDIS Doc. No. 276412, *rev'd in part sub nom. Kyocera Wireless Corp. v. U.S. Int'l Trade Comm'n*, 545 F.3d 1340 (Fed. Cir. 2008) (expressing Commission's opinion that *eBay* does not apply to ITC remedies).

38. 19 U.S.C. § 1337(d) (2006); see also discussion *infra* Section III.A.1.

39. The purpose stated in the acts passed to address tariff and trades concerns, from which the modern day ITC arises, reflects this mission. See, e.g., Act of 1909, ch. 6, 36 Stat. 11 ("An Act To . . . encourage the industries of the United States . . ."); Tariff Act of 1930, ch. 497, 46 Stat. 590 ("An Act . . . to encourage the industries of the United States [and] protect American labor . . ."); Trade Act of 1974, Pub. L. No. 93-618, § 2(4), 88 Stat. 1978, 1981 (1975) ("The Purposes of this Act are . . . to provide adequate procedures to safeguard

Congress created the Tariff Commission under the Revenue Act of 1916⁴¹ but did not prohibit “unfair methods and acts” until the enactment of § 316 of the Tariff Act of 1922.⁴² Eight years later, Congress enacted the Smoot-Hawley Tariff Act of 1930, which substantially kept the language of § 316 in a new § 337.⁴³

From then on, the scope and character of the Commission’s § 337 adjudication developed along two axes: first, the judicial and eventually statutory recognition that IP infringement constituted an “unfair method or act” under § 337; and second, whether and how closely the ITC followed

American industry and labor against unfair or injurious import competition, and to assist industries, firms, workers, and communities to adjust to changes in international trade flows . . .”).

40. Title III of the Trade Act of 1974 is named “Relief from Unfair Trade Practices” and updates the antidumping provisions of the Antidumping Act of 1921 as well as the countervailing duty provisions and § 337 language of the Tariff Act of 1930. 88 Stat. at 2041, 2043, 2049, 2053.

41. Tariff- and trade-centered agencies existed prior to this time, but the Tariff Commission was the first entity tasked with protection against “unfair methods and acts” such as patent infringement. *See* Act of 1882, ch. 145, 22 Stat. 64 (establishing a Tariff Commission); Act of 1909, 36 Stat. at 98 (establishing a board of general appraisers to consider tariffs); Act of 1912, ch. 350, 37 Stat. 360, 407 (consolidating existing agencies into the Bureau of Foreign and Domestic Commerce); Revenue Act of 1916, ch. 463, § 700, 39 Stat. 795, 795 (establishing the United States Tariff Commission); Tariff Act of 1922, ch. 356, § 316, 42 Stat. 858, 943 (declaring unlawful “unfair methods of competition and unfair acts in the importation of articles”); Tariff Act of 1930, 88 Stat. at 703 (replacing § 316 of the 1922 Act with § 337). The full text of § 316(a) from the Tariff Act of 1922 is set forth here:

SEC. 316. (a) That unfair methods of competition and unfair acts in the importation of articles into the United States, or in their sale by the owner, importer, consignee, or agent of either, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States, or to prevent the establishment of such an industry, or to restrain or monopolize trade and commerce in the United States, are hereby declared unlawful, and when found by the President to exist shall be dealt with, in addition to any other provisions of law, as hereinafter provided.

§ 316, 42 Stat. at 943.

For more information and discussion on the history of the ITC and § 337, see U.S. Nat’l Archives & Records Admin., *Records of the United States International Trade Commission [USITC]*, <http://www.archives.gov/research/guide-fed-records/groups/081.html> (last visited Feb. 26, 2011); Menell et al., *supra* note 20, § 1.2.1; Kumar, *supra* note 33, at 545–51; Richard G. Allison, Note, *Section 337 Proceedings Before the International Trade Commission: Antiquated Legislative Compromise or Model Forum for Patent Dispute Resolution?*, 5 N.Y.U. J.L. & BUS. 873, 874–78 (2009).

42. § 316, 42 Stat. at 943.

43. Tariff Act of 1930, 46 Stat. 590. The purpose of the act was “[t]o provide revenue, to regulate commerce with foreign countries, to encourage the industries of the United States, to protect American labor, and for other purposes.” *Id.*

federal court patent adjudication practice in § 337 cases. The Commission and federal courts affirmed that IP rights infringement constituted an “unfair method or act” within the purview of § 316 and subsequently § 337 well before Congress enacted the 1974 amendments explicitly recognizing this. The original complainant in *Frischer & Co. v. Bakelite Corp.*⁴⁴ faced injury from IP rights infringement and had successfully invoked § 316 in 1926⁴⁵ to exclude patent- and trademark-infringing products before the Tariff Commission.⁴⁶ The Commission accordingly recommended that the President of the United States exclude the products from entry.⁴⁷ The Court of Customs Appeals affirmed that importation of infringing goods constituted a § 316 violation.⁴⁸ Under the Tariff Act of 1922, after such a finding by the Tariff Commission, the President could impose a duty instead of issuing an exclusion order totaling 10% to 50% of the value of the imported article.⁴⁹ As to the exclusion order remedy, the Second Circuit recognized that it was a remedy for “extreme cases of unfair acts” rather than cases where the additional duty was sufficient.⁵⁰ But in 1974, Congress amended the 1930 Act to give the ITC final decision-making authority rather than the power merely to make a recommendation to the President.⁵¹ Congress did not, however, vest the newly-created ITC with the same power as the President to impose a duty; instead, the ITC could only issue different

44. *Frischer & Co. v. Bakelite Corp. (Frischer I)*, 39 F.2d 247 (C.C.P.A. 1930).

45. *See Frischer & Co. v. Elting (Frischer II)*, 60 F.2d 711, 712 (2d Cir. 1932).

46. *Id.*

47. Under the Tariff Act of 1922, the Tariff Commission could recommend that the President either apply the potent remedy of exclusion, or the less powerful remedy of applying a duty on top of the imported products, from ten percent up to fifty percent of the value of the imported articles. § 316(e), 42 Stat. 944. The courts evaluated this recommendation and the President’s action in light of what was necessary to achieve the ends of the Tariff Act, namely, to protect domestic industry. *See Frischer II*, 60 F.2d at 714. Such discretion in the choice of remedy ended with the passage of the Tariff Act of 1930, which removed the ten-to-fifty percent duty remedy and allowed the Tariff Commission to recommend that the President issue only an exclusion order. *Compare* Tariff Act of 1922, § 316(e), 42 Stat. at 944, *with* Tariff Act of 1930, § 337(e), 46 Stat. at 704.

48. *Frischer II*, 60 F.2d at 712.

49. § 316(e), 42 Stat. at 944; *see also Frischer II*, 60 F.2d at 712. The Tariff Commission “had only advisory responsibility and often took 2 or more years to make a recommendation to the President.” U.S. GOV’T ACCOUNTING OFFICE, GAO-NSAID-86-150, INTERNATIONAL TRADE: STRENGTHENING TRADE LAW PROTECTION OF INTELLECTUAL PROPERTY RIGHTS 14 (1986), <http://archive.gao.gov/d4t4/130844.pdf> [hereinafter GAO REPORT].

50. *Frischer II*, 60 F.2d at 712.

51. Colleen V. Chien, *Patently Protectionist? An Empirical Analysis of Patent Cases at the International Trade Commission*, 50 WM. & MARY L. REV. 63, 73 (2008).

types of exclusion orders.⁵² Although it is unclear why Congress transferred to the ITC the power to issue an exclusion order but not impose a duty, Congress enacted this change with full recognition of the fact that § 337 was being “most often applied to articles entering the United States in violation of claims under U.S. patents.”⁵³ Of course, the modern ITC’s jurisdiction under § 337 extends beyond patent disputes and continues to cover other types of intellectual property.⁵⁴

Once the courts and Congress recognized IP rights infringement to constitute an “unfair method or act,” the power of the Tariff Commission and the ITC to rule on necessary IP issues eventually encompassed determinations on validity, infringement, and available defenses. In the early days of § 316 and § 337 patent adjudication, the Tariff Commission had no jurisdiction to review the validity of patents, since patents were presumed valid unless a “court of competent jurisdiction” exercised its power to find otherwise.⁵⁵ This was an early disharmony between the power and function of the federal courts under Title 35 and the authority vested in the Tariff Commission by the trade acts. In 1969, however, the Supreme Court ruled that federal patent policy overrides state contract rules for issues of validity, holding that a licensee could challenge the validity of a licensed patent and thereby refuse to pay royalties upon such determination.⁵⁶ Congress seized upon this holding when it reported on the Trade Act of 1974, stating that the “ultimate issue of the fairness of competition . . . necessitate[s] that the Commission review the validity and enforceability of patents.”⁵⁷ The 1974 Trade Act required the ITC “to accept ‘all equitable defenses,’ which could

52. Trade Act of 1974, Pub. L. No. 93-618, § 341, 88 Stat. 1978, 2054 (1975) (amending § 337(d)).

53. S. REP. NO. 93-1298, at 34 (1974). Congress was aware that by 1974, most of the cases brought under § 337 were patent-related. *Id.*

54. For example, the case that prompted the 1988 rewrite of § 337 involved copyright infringement, not patent infringement. *See* Products with Gremlins Character Depictions (*Gremlins*), Inv. No. 337-TA-201, Commission Op., reprinted in USITC Pub. 1815 (Mar. 1986), EDIS Doc. No. 217587; *see also* Report of the Panel, *United States—Section 337 of the Tariff Act of 1930*, ¶ 5.3, L/6439 (Nov. 7, 1989), GATT B.I.S.D. (36th Supp.) at 345 (1989) (“Section 337 is not limited to patent disputes . . .”) [hereinafter Section 337 Panel Report].

55. S. REP. NO. 93-1298, at 196. Title 28 grants federal courts original and exclusive jurisdiction over civil actions “arising under any Act of Congress relating to patents.” 28 U.S.C. § 1338 (2006); *see also* GAO REPORT, *supra* note 49, at 14; Menell et al., *supra* note 20, § 11.5.5.

56. *Lear, Inc. v. Adkins*, 395 U.S. 653, 672–73 (1969).

57. S. REP. NO. 93-1298, at 196 (discussing *Lear v. Adkins* and stating that policy behind decision should also apply to ITC).

include patent misuse and invalidity,”⁵⁸ thus bringing ITC practice into better harmony with federal court adjudication under the Patent Act though never binding it fully to Title 35. Given these changes, a Government Accounting Office (“GAO”) report noted that the 1974 amendments gave the ITC such strong authority that one prominent attorney felt compelled to characterize the agency as “the best forum wherein to challenge widespread infringement of U.S. intellectual property rights.”⁵⁹

C. EXCLUSION ORDERS AND OTHER REMEDIES

The most important ITC remedy today is the exclusion order.⁶⁰ U.S. Customs and Border Protection enforces ITC exclusion orders at the border, a system meant to prevent infringing articles from entering the United States without further action by the complainant.⁶¹ Exclusion orders come in two varieties: limited and general.⁶² The default exclusion order is of limited scope (limited exclusion order, or “LEO”), and it applies only to those parties noticed as respondents to a particular complaint filed at the ITC.⁶³ The default scope of the order is limited because of public notice concerns regarding an exclusion order’s potential effect on unnamed parties.⁶⁴ Upon specific factual determinations relating to the types of products imported and scope of the potential harm, the ITC has the power to issue a general exclusion order (“GEO”).⁶⁵ The statute authorizes a GEO when “necessary to prevent circumvention of an exclusion order limited to products of named persons” or when “there is a pattern of violation of [§ 337] and it is difficult to identify the source of infringing products.”⁶⁶

58. GAO REPORT, *supra* note 49, at 14.

59. *Id.*

60. *See* Kumar, *supra* note 33, at 530.

61. *But see generally* Merritt R. Blakeslee, *Post-Litigation Enforcement of Remedial Orders Issued by the U.S. International Trade Commission in Section 337 Investigations*, 8 J. MARSHALL REV. INTEL. PROP. L. 248 (2009) (questioning whether exclusion order enforcement is, in fact, “automatic and self-implementing” and whether self-help is truly unnecessary).

62. 19 U.S.C. § 1337(d)(2) (2006).

63. *Id.*

64. *See* Menell et al., *supra* note 20, § 2.1.4.2.2 (citing *Certain Cast Steel Railway Wheels, Processes for Manufacturing or Relating to Same and Certain Products Containing Same*, Inv. No. 337-TA-655, Commission Op. at 5–6 (ITC Mar. 19, 2010), EDIS Doc. No. 420975 (rejecting complainant’s argument that it did not waive right to request general exclusion order by failing to request it at the outset of the investigation)).

65. § 1337(d)(2).

66. § 1337(d)(2)(A)–(B).

Congress added cease and desist orders to the ITC's remedy arsenal in 1974⁶⁷ before later adding consent orders⁶⁸ and the ability to enforce judgments through civil penalties in a federal district court.⁶⁹ The Commission may send cease and desist orders notifying recipients that they are prohibited from "engaging in the unfair methods or acts involved" unless the public interest dictates otherwise.⁷⁰ An exclusion order may follow a cease and desist order in the event it is revoked.⁷¹ A cease and desist order often issues when a respondent imports infringing software electronically, or when it has already built up a "commercially significant inventory" of infringing products that it might sell in the United States.⁷² The Commission also has the authority to issue a consent order when the parties in suit reach an agreement, such as a settlement agreement, without the Commission determining whether a § 337 violation occurred.⁷³ Finally, the ITC has the authority to bring civil actions to force violating parties to pay civil penalties in the federal district courts if a party violates one of its orders.⁷⁴

D. MODERN PATENT LITIGATION FORUM

Throughout the twentieth and into the twenty-first century, the number of patent investigations conducted at the ITC has grown considerably,⁷⁵ both as an absolute number and as a percentage of all U.S. patent litigations. The ITC currently "conducts more full patent adjudications on an annual basis than any district court in the nation."⁷⁶ The number of § 337 investigations

67. Trade Act of 1974, Pub. L. No. 93-618, § 341, 88 Stat. 1978, 2055 (1975) (creating § 337(f), giving the Commission the power to issue cease and desist orders).

68. Omnibus Trade and Competitiveness Act, Pub. L. No. 100-418, § 1342(a)(2), 102 Stat. 1107, 1213 (1988) (codified at 19 U.S.C. § 1337(c)).

69. See § 1337(f).

70. § 1337(f)(1).

71. *Id.*

72. Presentation, Mark Davis, Weil, Gotshal & Manges LLP, The ITC's Growing Role in Patent Adjudication: The View from the Bar, at slide 7 (May 18, 2010), <http://www.law.berkeley.edu/8597.htm> (lecture slides and audio recording available at conference site).

73. § 1337(c).

74. § 1337(f)(2).

75. Kumar, *supra* note 33, at 530. See Davis, *supra* note 72, audio recording at 20:10 (citing a "definite increase in the popularity of Section 337 and its importance as a tool in patent enforcement").

76. Peter S. Menell, *The International Trade Commission's Section 337 Authority*, 2010 PATENTLY-O PATENT L.J. 79, 79. Thirty-one § 337 investigations were instituted in calendar year 2009. U.S. Int'l Trade Comm'n, *Number of Section 337 Investigations Instituted by Calendar Year* (2010), http://www.usitc.gov/intellectual_property/documents/cy_337_institutions.pdf [hereinafter ITC, *Number of § 337 Investigations*]. Another USITC source

instituted from 2005 to 2009 averaged thirty-four per year,⁷⁷ and in 2009 the Commission rendered a final decision regarding the existence of a violation in sixteen investigations.⁷⁸ These sixteen full adjudications represent about one in seven patent trials taking place in the United States.⁷⁹ Explaining these increases requires a look at both the extrinsic and intrinsic factors that contribute to use of the ITC as a patent litigation forum.

1. *Extrinsic Factors*

Economic changes and federal court jurisprudence are two extrinsic factors that have led to increased ITC use. First, globalization of manufacturing and supply chains means that more patent owners have the ability to sustain a complaint before the ITC since a greater number of potentially infringing products or components are imported.⁸⁰ Second,

reports thirty-six IP-based investigations and ancillary proceedings in FY 2009. ITC, P&A REPORT, *supra* note 5, at 37. By comparison, the total number of U.S. district court patent litigations filed for the calendar year ending June 2009 was 2,744. PricewaterhouseCoopers, *2010 Patent Litigation Study: The Continued Evolution of Patent Damages Law*, at 6 (Sept. 2010), <http://www.pwc.com/us/en/forensic-services/publications/assets/2010-patent-litigation-study.pdf>.

77. ITC, *Number of § 337 Investigations*, *supra* note 76.

78. This is up from twelve full investigations completed in each of 2005, 2006, and 2007 and does not count, e.g., investigations which terminated upon settlement. ITC, P&A REPORT, *supra* note 5, at 40. Prior to 1977, the ITC instituted no more than nine investigations under § 337 in any calendar year. Those investigations increased steadily from 1977 to 1983, peaking at forty-three new investigations, before declining and hovering around thirteen until the new millennium, when the average number of new investigations per year has been just over 28. ITC, *Number of § 337 Investigations*, *supra* note 76. As of May 14, 2010, there were seventy-six § 337 matters active at the ITC, showing a steady increase from only twenty-five in 2000. Levine, *supra* note 19, at slide 3. This number includes “ancillary” matters under § 337, which comprise not only patent litigations but also, e.g., enforcement, advisory proceedings, and modifications. ITC, P&A REPORT, *supra* note 5, at 38; Levine, *supra* note 19, audio recording at 2:00.

The ITC’s record of completing investigations is impressive. Despite a higher number of investigations in 2009 (fifty) and with only three ALJs serving during that year, the ITC managed to complete sixteen investigations in 2009, up from twelve completed each year from 2005–2008 and fifteen completed in 2009. ITC, P&A REPORT, *supra* note 5, at 40.

79. The ninety-four U.S. district courts conduct about 100 patent trials per year; in 2009, sixteen to nineteen patent investigations were adjudicated at the ITC (sixteen were completed, and nineteen took place). Levine, *supra* note 19, audio recording at 4:50 & slide 4; ITC, P&A REPORT, *supra* note 5, at 40.

80. Thomas A. Broughan, *Modernizing § 337’s Domestic Industry Requirement for the Global Economy*, 19 FED. CIR. B.J. 41, 52 (2009); *see also* Presentation, UN Statistics Div., Manufacturing Statistics: Maintaining Comparability in a Changing World, at slide 11 (Nov. 2007), <http://unstats.un.org/unsd/industry/meetings/eclac2007/eclac07-5.PPS>; Section 337 Panel Report, *supra* note 54, ¶ 5.4 (explaining that “in patent infringement cases,

because the recent Supreme Court decision in *eBay v. MercExchange* limited the availability of injunctive relief in federal court patent infringement suits,⁸¹ especially when non-practicing entities (“NPEs”)⁸² assert the patents, parties hoping to obtain quasi-injunctive relief have turned to the ITC for an exclusion order against the infringing products.⁸³ Third, with the passage of the Omnibus Trade and Competitiveness Act of 1988⁸⁴ and the recent *Coaxial Cable Connectors* decision,⁸⁵ both Congress and the Commission have eased the domestic industry requirements for bringing an ITC complaint.⁸⁶

2. *Intrinsic Factors*

An ITC investigation offers a number of intrinsic features that make the ITC a more attractive forum than federal courts for complainants, respondents, and the public. Foremost among these features is speed.⁸⁷ The Trade Act of 1974 mandated that the agency complete its § 337 investigations “at the earliest practicable time, but not later than one year (eighteen months in more complicated cases) after the date of publication of notice of such investigation.”⁸⁸ This mandate produced ITC patent litigations

proceedings before the USITC under Section 337 are only applicable to imported products alleged to infringe a United States patent”).

81. *See* *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (holding that the principles of equity “apply with equal force to disputes arising under the Patent Act”).

82. Sometimes these entities are referred to as non-practicing innovators (“NPIs”) or patent assertion entities (“PAEs”). *See* *Tessera Br. at 2, Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC Jan. 13, 2010), EDIS Doc. No. 417390; FTC, *supra* note 7, at 60. In the district courts, the number of cases brought by NPEs has generally grown since 2001. *Current Research: Litigations Over Time*, PATENTFREEDOM (Jan. 1, 2011), <https://www.patentfreedom.com/research-lot.html>. As for the ITC, an indirect method for determining trends in NPE activity is looking at the number of investigations initiated which are based on the licensing activities to which § 337(a)(3)(C) refers. Data suggest that as a percentage of total ITC complaints, those based on licensing activities are growing. *See* Presentation, Robert Fram & Ashley Miller, Non-Practicing Entities at the International Trade Commission, at slide 7 (2011 Silicon Valley Innovation & Law Conference, Jan. 12, 2011) (on file with author).

83. *See* *Davis*, *supra* note 72, at slide 6.

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

85. *See generally* *Coaxial Cable Connectors*, Inv. No. 337-TA-650, Commission Op. (ITC Apr. 14, 2010), EDIS Doc. No. 422832 (holding that if litigation expenditures can be linked to the licensing of a particular patent at issue, then they may constitute sufficient activity to meet the “licensing” prong of § 337(a)(3)(C)).

86. *See* discussion *infra* Part II.

87. *Kumar*, *supra* note 33, at 530; *Levine*, *supra* note 19, at slide 9.

88. Trade Act of 1974, Pub. L. No. 93-618, § 341, 88 Stat. 1978, 2053 (1975) (amending § 337(b)); *see also* GAO REPORT, *supra* note 49, at 14.

that lasted an average of 13.5 months prior to 1994 amendments to the statute which removed the strict timeframe.⁸⁹ Despite the flexibility in the modern language, the Commission remains under statutory mandate to choose a target investigation completion date within forty-five days after the investigation is initiated⁹⁰ and manages to complete investigations relatively quickly. Whereas the average district court patent litigation takes over three years to go to trial,⁹¹ the ITC in 2009 completed its full investigations in an average of 17.9 months.⁹² Moreover, anticipated improvements and expansions suggest this already condensed timeframe will shrink further.⁹³

Beyond the availability of “fast-track” patent litigation at the ITC, the Commission offers several enforcement measures and procedural features that attract litigants. The ITC offers the potent exclusion order remedy, which differs from federal court injunctions in a key regard: exclusion orders are enforced by the federal government through Customs and Border Protection rather than by the plaintiff through a federal court suit.⁹⁴

89. ITC, P&A REPORT, *supra* note 5, at 38. The statutory mandate to quickly complete investigations resulted in a World Trade Organization challenge where the trade body ruled that the strict timeline was unfair to foreign respondents. Section 337 Panel Report, *supra* note 54, ¶¶ 6.1, 6.3. As a result, Congress amended § 337 following the Uruguay Round of trade negotiations in 1994 and enacted the “earliest practicable time” language now in force. Uruguay Round Agreements Act, Pub. L. No. 103-465, § 321, 108 Stat. 4809, 4943 (amending § 337(1)(B)).

90. 19 U.S.C. § 1337(b)(1) (2006).

91. Davis, *supra* note 72, at slide 5.

92. ITC, P&A REPORT, *supra* note 5, at 40. *Coaxial Cable Connectors* was set to last fifteen months and *Hybrid Electric Vehicles* was scheduled to end thirteen months after the investigation was initiated. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, ALJ Order No. 2 at 1 (ITC May 30, 2008), EDIS Doc. No. 301801; *Hybrid Electric Vehicles*, Inv. No. 337-TA-688, ALJ Order No. 3 at 1 (ITC Nov. 9, 2009), EDIS Doc. No. 414177. Perhaps the global concerns that led to the 1994 amendments were justified: the domestic complaining party Paice wanted a ten-month timeline, whereas the foreign party Toyota wanted a target date set for fifteen months after initiation. OUII Staff suggested a target completion time of thirteen months, which the ALJ eventually adopted. *Hybrid Electric Vehicles*, ALJ Order No. 3, at 1.

93. The 1994 relaxation of the statutory timeline probably does not fully explain the lengthening of ITC litigations. Other potential factors include (1) the limited number of ALJs—only three ALJs were available to hear cases in 2008; (2) the difficulty in finding replacement ALJs; (3) the enormous number of § 337 complaints; and (4) the lack of available courtroom space, forcing the ALJs to borrow room from the District Court for the District of Columbia. Each of these factors led to longer investigation times. ITC, P&A REPORT, *supra* note 5, at 41–42. However, the ITC expects this increase to end once (1) a backlog of cases is cleared out, (2) more ALJs are hired, (3) new courtrooms are completed, and (4) complainants take full advantage of a new voluntary mediation program. *Id.*

94. For a source discussing the mechanics of ITC exclusion order enforcement, see Blakeslee, *supra* note 61.

Furthermore, the ITC follows the Administrative Procedure Act,⁹⁵ which commentators suggest is less “cumbersome” than judicial rules.⁹⁶ The ITC also places fewer limits on discovery which increases pressure to settle,⁹⁷ but settlement negotiations nevertheless remain impeded because attorneys face quicker trial preparation deadlines at the ITC.⁹⁸ Litigants before the ITC also obtain summary determination less frequently than they obtain summary judgment in the district courts, leaving complainants with a better chance to obtain quasi-injunctive relief once they go through trial.⁹⁹ Finally, the ITC employs specialized ALJs who hear patent cases exclusively, arguably leading to more consistent determinations¹⁰⁰ and ultimately less chance of reversal on appeal.¹⁰¹

II. DOMESTIC INDUSTRY PROTECTION AND TENSION WITH INTELLECTUAL PROPERTY RIGHTS ENFORCEMENT

From 1922 to 1988, the basic task of the Tariff Commission and later the ITC was to protect domestic industry from unfair trade practices under the theory that such practices undercut and hurt an “efficiently and economically operated” domestic industry.¹⁰² In fact, complainants could not obtain ITC relief without proving that a domestic industry actually existed, and precedent required them to demonstrate activity such as investment in plant and equipment or employment of labor and capital to prove domestic industry.¹⁰³ However, in 1988 Congress amended § 337 to expand the types of

95. ITC, YEAR IN REVIEW, *supra* note 27, at 14.

96. 132 Cong. Rec. 7119 (1986) (statement of Rep. Robert Kastenmeier). For the Administrative Procedure Act, see 5 U.S.C. §§ 500–596 (2006).

97. Davis, *supra* note 71, at slides 4, 9.

98. *Id.* at slide 5.

99. *Id.* at slide 8.

100. *Cf.* KEVIN G. RIVETTE & DAVID KLINE, REMBRANDTS IN THE ATTIC: UNLOCKING THE HIDDEN VALUE OF PATENTS 43 (2000) (noting that the creation of the Court of Appeals for the Federal Circuit and its specialized panel of judges hearing patent cases “brought a much-needed uniformity to patent doctrine and led to greater consistency in lower district court trial rulings”); *see also* Menell, *supra* note 76, at 84 (describing the ITC ALJ as a specialized decision-maker presiding exclusively over intellectual property investigations).

101. For a characteristic-by-characteristic comparison of district court proceedings and ITC patent investigations, see Menell, *supra* note 76, at 85–87.

102. Tariff Act of 1922, ch. 356, § 316(a), 42 Stat. 858, 943; 19 U.S.C. § 1337(a) (1982) (amended 1988).

103. *See* sources cited *infra* notes 106–09 and accompanying text.

exploitative activities which would prove that domestic industry exists.¹⁰⁴ The amended statute included activities common to IP-owning entities that do not necessarily involve investment in capital and labor, namely engineering, research and development, and licensing.¹⁰⁵ In so doing, Congress cleared the path for entities exhibiting the redefined “weak” domestic industry characteristics to assert their patent rights against entities with the traditional “strong” characteristics. These changes have placed the modern, IP-enforcing ITC in difficult tension with its traditional mandate to protect domestic industry from harm because the nature of the parties has changed.

A. EASING THE COMPLAINANT’S DOMESTIC INDUSTRY BURDEN IN 1988 AND 2010

1. *Before 1988: Traditional “Strong” Domestic Industry Characteristics Required*

Prior to 1988, § 337 required that the traditional features of domestic industry be present before the ITC could initiate an investigation.¹⁰⁶ Specifically, a violation of § 337 could only be found if the unfair acts had “the effect or tendency to substantially injure or destroy an industry, efficiently and economically operated, in the United States.”¹⁰⁷ Congress stated that in order for a domestic industry to exist, a “patent must be *exploited by production* in the United States . . . [and] where unfair methods and acts have resulted in conceivable losses of sales, a tendency to substantially injure such industry has been established.”¹⁰⁸ ITC and Federal Circuit precedent confirmed that domestic industry could only be found where the complainant engaged in activity that involved “either manufacture or production or servicing of the patented item”¹⁰⁹

104. Omnibus Trade and Competitiveness Act, Pub. L. No. 100-418, § 1342, 102 Stat. 1107, 1212 (1988) (amending § 337 to include licensing as a means of “substantial investment in [an IP right’s] exploitation”).

105. 19 U.S.C. § 1337(a)(3)(C) (2006).

106. See *Gremlins*, Inv. No. 337-TA-201, Commission Op. at 5, *reprinted in* USITC Pub. 1815 (Mar. 1986), EDIS Doc. No. 217587 (“[T]he Commission has consistently defined the industry in section 337 cases to be the domestic production of the products covered by the intellectual property rights in question.”) (citing H.R. REP. NO. 93-571, at 78 (1973)).

107. *Gremlins*, Commission Op., at 3.

108. H.R. REP. NO. 93-571, at 76 (emphasis added).

109. *Gremlins*, Commission Op. at 5–6 (quoting *Schaper Mfg. Co. v. U.S. Int’l Trade Comm’n*, 717 F.2d 1371, 1371 (Fed. Cir. 1983)).

A § 337 complainant has to meet the two prongs of the domestic industry requirement: a technical prong and an economic prong.¹¹⁰ As the ALJ noted in *Coaxial Cable Connectors*, “[t]he technical prong is in place to ensure that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right.”¹¹¹ The ITC analyzes infringement under the same standard used to prove infringement in the federal courts.¹¹² Having met this first requirement, the ITC then addresses the second part of the domestic industry test, the economic prong. Here, the Commission looks for evidence of actual domestic exploitation of the IP right.¹¹³ Traditionally, a complainant satisfied the economic prong by showing evidence of domestic labor and capital related to exploiting the IP right.¹¹⁴

The § 337 legal scheme with its strict domestic industry requirements failed to obtain a satisfactory result in the eyes of Congress in the *Gremlins* case.¹¹⁵ There, Warner Brothers filed a copyright-based § 337 complaint against unlicensed entities who imported articles depicting characters from its movie “Gremlins.”¹¹⁶ Warner Brothers had an entire division dedicated to the licensing program, and it had successfully licensed its copyrights to domestic producers of similar articles.¹¹⁷ Nevertheless, the ITC determined that Warner Brothers had not met the domestic industry requirement due to lack of domestic production of the products covered by the IP rights¹¹⁸ and the danger of allowing all importer activities to satisfy that requirement.¹¹⁹ The Commission determined that no violation of § 337 had occurred.¹²⁰

110. Certain Ammonium Octamolybdate Isomers, Inv. No. 337-TA-477, Commission Op. at 55 (ITC Jan. 5, 2004), EDIS Doc. No. 198379.

111. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, ALJ Initial Determination at 110 (ITC Oct. 13, 2009), EDIS Doc. No. 413846; *see also* OUII Brief at 20, *Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC Jan. 13, 2010), EDIS Doc. No. 417926.

112. *Coaxial Cable Connectors*, ALJ Initial Determination, at 103.

113. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, Commission Op. at 38 (ITC Apr. 14, 2010), EDIS Doc. No. 422832 (noting that the economic prong “requires certain activities,” whereas the technical prong “requires that these activities relate to the intellectual property being protected”).

114. *See* text accompanying *supra* notes 106–09.

115. 132 Cong. Rec. 7119 (1986) (remarks of Rep. Robert Kastenmeier describing the *Gremlins* result as “unfortunate”).

116. *Gremlins*, Inv. No. 337-TA-201, Commission Op. at 1, 14–15, *reprinted in* USITC Pub. 1815 (Mar. 1986), EDIS Doc. No. 217587.

117. *Id.* at 9.

118. *Id.* at 5.

119. *Id.* at 10.

120. *Id.* at 22.

There was substantial disappointment with the ITC's conclusion in *Gremlins*. Representative Robert Kastenmeier, for instance, sought to “avoid unfortunate results which have occurred in some recent cases, such as *Gremlins*” through amendments to § 337(a).¹²¹ Congress heard testimony regarding why the domestic industry requirement should be reworked, specifically so that licensing activities would be sufficient to meet the domestic industry requirement. Senator Frank Lautenberg explained why § 337 should be amended to allow licensing activity to prove domestic industry:

There is a startup biotech firm in my State. Its product is its patents. It hasn't reached the stage to manufacture. It doesn't have the money. But it will reach that point, by licensing its patents to others. Should we deny that firm the right to exclude the works of pirates? Our legislation would say no. A party could get relief if it has made significant investment in R&D, engineering, or licensing.¹²²

Thus, although *Gremlins* centered on copyright licensing and infringement, Congress quickly concerned itself with the survival of firms and industries relying on strong patent rights protection and the ability to exclude infringing imports.

2. 1988 Amendments: Exploitation Redefined and Expanded

To fix the *Gremlins* problem, Congress enacted the following amendment relating to domestic industry to § 337 in the 1988 Omnibus Trade and Competitiveness Act:

[A]n industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—

- (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*.¹²³

The language amends § 337 in two substantial ways. First, Congress eliminated the “efficiently and economically operating industry” requirement

121. 132 Cong. Rec. 7119 (1986) (statement of Rep. Robert Kastenmeier).

122. 133 Cong. Rec. 2904 (1987) (statement of Sen. Frank R. Lautenberg); *id.* at 19945 (same).

123. 19 U.S.C. § 1337(a)(3) (2006) (emphasis added).

for domestic industry.¹²⁴ Second, it modified the economic prong of a domestic industry showing by allowing complainants to meet the requirement by proving “substantial investment in . . . exploitation” of a patent, copyright, trademark, mask work, or design by such activity as “engineering, research and development, or licensing.”¹²⁵ This amendment opened the ITC exclusion order remedy to both traditional entities that invest in plant and equipment or employ labor and capital in the United States,¹²⁶ and to entities that show little or no traditional investment but that can show expenditures arising from efforts to exploit an IP right through activities which include licensing.¹²⁷

Analysis of the amended language addressed the possible effects on domestic industry but only in the context of complainants that exhibited traditional industry characteristics. The GAO, for instance, contemplated as a worst case scenario “a potential situation where a foreign firm uses section 337 to stop a U.S. firm from importing infringing products destined for use in domestic assembly operations, thus possibly decreasing production and employment in the United States.”¹²⁸ The GAO concluded that the risk of this happening was fairly “exchange[d]”¹²⁹ for other benefits, namely that (1) information about the invention would be publicly disclosed, and (2) the product embodying a patented innovation would be made available to consumers.¹³⁰

Absent from both the Congressional discussions as well as third party analysis was consideration of the situation where the IP rights owner neither made products embodying a patented innovation nor could prove ongoing licensing activities tied to particular patents. Congress and the GAO seemed comfortable allowing foreign corporations to benefit from the exclusion

124. H.R. REP. NO. 100-40, at 154–55 (1987).

125. § 1337(a)(3)(C).

126. § 1337(a)(3)(A), (B).

127. § 1337(a)(3)(C); see discussion of *Coaxial Cable Connectors*, *infra* Section II.A.3; see also OUII Brief, *Coaxial Cable Connectors*, *supra* note 111, at 20.

128. GAO REPORT, *supra* note 49, at 35.

129. *Id.*

130. *Id.* Contrast this with the FTC’s recent conclusion that [w]hen a company commercializes technology that it invented independently and later faces a patent assertion [such as by a NPE], the resulting ex post license provides no direct benefit to consumers Moreover, the failure to transfer the technology ex ante and the corresponding duplication of inventive effort by the infringer and patentee can reflect a social loss and “inefficient commercialization.”

FTC, *supra* note 7, at 52–53.

order due to an “exchange” of benefits.¹³¹ Given, however, the power of the ITC exclusion order, it is less clear what the exchange is when a NPE holding a patent threatens to disrupt an otherwise operating industry established within the United States that depends on the importation of products or components found to infringe a NPE’s patent.¹³² Congress did not provide the ITC with any guidelines for balancing the policy considerations behind IP protection against the public interest implicated by the ITC’s purpose of protecting domestic injury from harm.

The legislative history does, however, provide some clear guidelines regarding what does or does not satisfy the revised § 337’s domestic industry requirements. This provides the Commission with reference principles from which it can discern some rudimentary threshold between IP rights enforcement and the public interest in protecting domestic industry. The first such reference principle is that Congress clearly did not intend for an ITC remedy to issue merely when an IP owner’s rights are infringed.¹³³ Rather, there must be some minimum domestic exploitation of those rights, which constitutes a domestic industry requirement that has “no analog in the Patent Act.”¹³⁴ Before the 1988 amendments, servicing products met the domestic industry requirement, even if the articles being serviced were not manufactured within the United States.¹³⁵ After the 1988 amendments, the statute provides examples of acceptable exploitation: “engineering, research and development, or licensing.”¹³⁶ The second clear reference principle is that Congress did not intend for § 337 to reach some types of domestic industry activities that may seem exploitative and which indeed go beyond mere IP ownership. Specifically, Congress stated that “marketing and sales in the United States alone are not sufficient to meet the domestic industry test.”¹³⁷ Beyond these two clear signals from Congress on the nature of acceptable exploitation, the ITC has also expressed that “there is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic

131. *Id.*

132. The Federal Trade Commission has recently noted that for the most part, NPEs purchase patents and then extract licensing fees from operating companies that already use the technology. FTC, *supra* note 7, at 60.

133. H.R. REP. NO. 100-40, at 157 (1987).

134. OUII Brief, *Coaxial Cable Connectors*, *supra* note 111, at 26.

135. *Schaper Mfg. v. U.S. Int’l Trade Comm’n*, 717 F.2d 1371, 1372 (Fed. Cir. 1983).

136. 19 U.S.C. § 1337(a)(3)(C) (2006).

137. H.R. REP. NO. 100-40, at 157.

industry under the ‘substantial investment’ requirement of [§ 337(a)(3)(C)].”¹³⁸

Despite these reference principles, the ITC faces the difficult task of deciding the breadth of § 337 protection for activities that fall outside the traditional domestic industry characteristics which go beyond mere IP ownership. Deciding when IP rights exploitation goes sufficiently far beyond non-covered activity such as marketing and sales to trigger § 337 protection remains a cutting edge issue, and it is one which the ITC addressed in the 2010 investigation *Coaxial Cable Connectors*.¹³⁹

3. 2010: Coaxial Cable Connectors

The crucial question facing the ITC in *Coaxial Cable Connectors* was whether litigation expenditures are sufficient to meet the domestic industry requirement of a § 337 complaint.¹⁴⁰ Previously, the Commission declined to review an ALJ’s holding that “[i]t is inconsistent with the purpose of Section 337 to allow legal fees, standing alone, to establish the economic prong of the domestic industry requirement.”¹⁴¹ *Coaxial Cable Connectors* furnished the Commission with an opportunity to further interpret the relationship between litigation expenditures and domestic industry in § 337(a)(3)(C).

In *Coaxial Cable Connectors*, the ITC initiated an investigation upon a complaint filed by PPC, an entity based out of East Syracuse, New York. PPC held patents on “drop” coaxial cable connectors—components used in telecommunications, satellite, and cable television industries.¹⁴² It had engaged in litigation based on PPC’s ’539 patent with an undisclosed entity¹⁴³ to which PPC eventually licensed the patent.¹⁴⁴ However, although the actual

138. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, ALJ Initial Determination at 25 (ITC Oct. 13, 2009) (quoting *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Commission Op. at 25, *reprinted in* USITC Pub. 4120 (Dec. 2009), EDIS Doc. No. 415996).

139. *Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC 2010).

140. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, Commission Op. at 43 (ITC Apr. 14, 2010), EDIS Doc. No. 422832.

141. *Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, ALJ Order No. 22 at 17–18 (ITC May 15, 2006), EDIS Doc. No. 250816. For discussion of more recent affirmation of this rule, see OUII Brief, *Coaxial Cable Connectors*, *supra* note 111, at 33.

142. *Coaxial Cable Connectors*, Commission Op. at 6.

143. The identity of the counterparty with which PPC eventually entered into a licensing arrangement is confidential and was redacted from public versions of the briefs and the Commission opinion. *See, e.g., id.* at 53.

144. *Id.*

litigation was clearly based on the '539 patent, the license failed to reference the patent.¹⁴⁵

The Commission recognized that it faced an important issue of statutory interpretation to determine whether litigation expenditures could meet § 337's domestic industry requirements.¹⁴⁶ To help in this task, the agency issued a request for comments regarding various aspects of the domestic industry requirement in the context of a NPE complainant, including whether and what kind of litigation activity or legal costs could establish domestic industry.¹⁴⁷ The views from interested parties were "at sharp variance with one another."¹⁴⁸ Cisco, Google, and Verizon wrote that because § 337 "is a trade statute focused on protecting domestic productive industries, not mere legal rights," litigation fees should not count at all towards that requirement.¹⁴⁹ A submission by other technology companies argued that the Commission should adopt a standard which requires investments probative of exploitation.¹⁵⁰ Arguing for the other side, Tessera focused on the IP rights enforcement mandate set by Congress, stating that Congress had tasked the ITC with "protecting the intellectual property rights of American innovators."¹⁵¹ Each side thus invoked one of the ITC's mandates: the technology companies argued that the agency should stick to its trade roots, while Tessera pushed the Commission to be an IP enforcement forum.

The Commission concluded that "litigation activities (including patent infringement lawsuits) may satisfy [domestic industry] requirements if a complainant can prove that these activities are related to licensing and pertain to the patent at issue, and can document the associated costs."¹⁵² Generally, stated the Commission, "[t]he mere fact . . . that a license is executed does not mean that a complainant can necessarily capture all prior expenditures to establish a substantial investment in the exploitation of the patent."¹⁵³ In order to find the threshold type of activity which satisfied the requirements

145. *Id.* at 54.

146. *Id.* at 41.

147. Notice of Commission at 3–4, *Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC Dec. 14, 2009), EDIS Doc. No. 416028.

148. *Coaxial Cable Connectors*, Commission Op. at 46.

149. Cisco, Google & Verizon Brief at 8, *Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC Jan. 13, 2010), EDIS Doc. No. 417411.

150. Samsung et al. Reply Submission [Corrected] at 8, *Coaxial Cable Connectors*, Inv. No. 337-TA-650 (ITC Jan. 29, 2010), EDIS Doc. No. 418301.

151. Tessera Brief, *Coaxial Cable Connectors*, *supra* note 82, at 5.

152. *Coaxial Cable Connectors*, Commission Op. at 44.

153. *Id.* at 50–51.

of § 337, the Commission searched for a “common thread” unifying Congress’s underlying concerns in ensuring that universities, start-ups, or movie studios with copyrighted characters could meet the domestic industry requirement of § 337.¹⁵⁴ This common thread, concluded the Commission, consisted in activities of a type “that serve to encourage practical applications of the invention or bring the patented technology to the market,” or that otherwise “foster propagation or use of the underlying intellectual property, be it a copyright image or a patented invention.”¹⁵⁵

As to PPC, the Commission found that although it was clear that the litigation related to the ’539 patent (meeting the technical prong), the ensuing license was not clearly linked to the ’539 patent and therefore the record evidence was insufficient to hold that PPC had met the domestic industry requirements.¹⁵⁶ The Commission requested further factual development on remand to determine whether PPC could “show that each asserted litigation activity [was] related to licensing” and to the ’539 patent.¹⁵⁷ Ultimately, PPC was unable to make this showing and it failed to obtain an exclusion order.¹⁵⁸

The reaction to *Coaxial Cable Connectors* was strong and was typified by headlines such as: “ITC Rolls Out the Welcome Mat for ‘Trolls.’”¹⁵⁹ Such reactions embody a clear concern that the ITC would open its exclusion order remedy for use by entities that own but do not practice their patents or even develop, innovate, or actively license them. This would bring the domestic industry requirement too close to “mere ownership,” against the intent of the 1988 amendments.¹⁶⁰

An important question remains, however: what happened to the consideration of traditional domestic industry characteristics in § 337?

B. DISJOINED “DOMESTIC INDUSTRY” AND TENSION BETWEEN THE TRADE AND IP MANDATES

The upshot of the enactment of the 1988 amendments and *Coaxial Cable Connectors* is that the term “domestic industry” now refers to two concepts

154. *Id.* at 49.

155. *Id.*

156. *Id.* at 52–53.

157. *Id.* at 54.

158. *Coaxial Cable Connectors*, Inv. No. 337-TA-650, ALJ Remand Initial Determination at 25 (ITC May 27, 2010), EDIS Doc. No. 427462.

159. Andrew Longstreth, *Patent Litigation Weekly: ITC Rolls Out the Welcome Mat for ‘Trolls,’* CORPORATE COUNSEL (May 17, 2010), <http://www.law.com/jsp/cc/PubArticleFriendlyCC.jsp?id=1202458253242>.

160. S. REP. NO. 100-71, at 130 (1987).

rather than one: traditional or “strong” domestic industry which refers to employment of labor and capital or investment in plant and equipment; and redefined or “weak” domestic industry which includes post-1988 exploitative activities including licensing. Understanding why this is so and why it creates a modern tension at the ITC requires a closer look at how domestic industry characteristics relate to both traditional and modern litigants before the Commission.

1. *IP Rights and Domestic Industry Characteristics Are Split Among ITC Parties*

Essentially by definition, the parties to a § 337 investigation collectively exhibit two characteristics: ownership of IP rights and embodiment of domestic industry characteristics. The complainant is always the IP rights owner; otherwise, there can be no § 337 violation. But answering whether the complainant or respondent embodies domestic industry characteristics is more complicated, and the modern answer can easily be that both parties do. This is the main source of the tension between the ITC’s two tasks in § 337 investigations: IP enforcement and domestic industry protection.

In a traditional § 337 investigation, both the IP rights and domestic industry characteristics reside with the complainant. This is most clearly the case in ITC actions brought under § 337(a)(3)(A) or (B) where a complainant establishes domestic industry by showing “significant investment in plant and equipment” or “significant employment of labor or capital.”¹⁶¹ These lines retain the traditional “strong” domestic industry characteristics which characterized permissible § 337 complainants prior to the 1988 amendments. In this scenario, the ITC may enforce IP rights without being concerned about harm to the domestic industry because both interests reside within the same entity and both are therefore protected by an exclusion order. The Commission is able to wear both its IP rights enforcement and domestic industry protection hats comfortably and without apparent conflict.

But business models have evolved beyond these traditional notions.¹⁶² The modern complainant may have specialized to the point where even appropriation of knowledge no longer necessarily coexists with traditional

161. 19 U.S.C. § 1337(a)(3)(A), (B) (2006).

162. FTC, *supra* note 7, at 62–63 (noting that as many as seventeen “[n]ew business models, some of which are increasingly sophisticated and complex, have emerged over the past ten years to capitalize on” a secondary market for patents involving the activities of patent assertion entities).

exploitation in the form of manufacturing, marketing, and selling.¹⁶³ One such business model is the NPE that holds IP rights but does not practice them in the traditional sense through manufacturing, marketing, and selling of products. Instead, a NPE may “purchase patents, and then sell or license them as assets whose values are based on the amount of licensing fees that can be extracted from operating companies already using and marketing the technology, or they facilitate others who make the assertions.”¹⁶⁴ It may have come to own the IP through acquisition or by purchasing the IP rights to augment its IP portfolio.¹⁶⁵ Thus, a NPE complainant holding IP rights may not always exhibit the “strong” domestic industry characteristics that the ITC traditionally protected. The modern respondent, on the other hand, is more than a simple importer and reseller of goods. Rather, given globalization and technological complexity, as observed in the semiconductor or automotive fields, a single end product might be covered by hundreds of patents, each relating to a component of the final product.¹⁶⁶ Importation of products into the United States, downstream domestic manufacturing and assembly of those products, and eventual domestic marketing and sales of the final product all involve significant investment in domestic labor and capital—the traditional characteristics of domestic industry that the ITC was created to protect from unfair trade practices.¹⁶⁷

These new, modern complainants and respondents are now able to oppose each other in an ITC litigation brought under § 337(a)(3)(C). Since a complainant in this scenario has no reason to file a complaint unless a respondent is manufacturing, marketing, or selling accused articles, it naturally follows that significant amounts of labor, capital, and other investments which make those activities possible reside with the respondent. Thus, § 337(a)(3)(C) naturally sets the stage for an inevitable conflict where

163. See Tesser Brief, *Coaxial Cable Connectors*, *supra* note 82, at 23 (citing to ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (1776) in support of the proposition that “a fundamental concept of economics” is that specialization and the division of labor increase efficiency).

164. FTC, *supra* note 7, at 60.

165. *Id.*

166. See, e.g., Steve Jobs, Apple Inc., *MWSF Steve Jobs Keynote Introducing Apple iPhone*, at 6:20, GOOGLE VIDEOS (Jan. 9, 2007), <http://video.google.com/videoplay?docid=7945084053124129040> (noting that Apple Inc. filed over two hundred patents on the iPhone); see also FTC, *supra* note 7, at 55 (“[M]anufacturers face an additional challenge in trying to identify and clear patent rights due to the large number of patents that cover most IT products. They maintained that an enormous number of potentially relevant, overlapping patents make identifying the applicable rights prior to product launch prohibitively costly.”).

167. See discussion and sources cited *supra* notes 39–42.

the ITC finds itself mandated to enforce IP rights in a context where such enforcement might protect a complainant's modern, redefined domestic industry activities but at the expense of the potential devastation of a respondent's entire business based upon traditional "strong" domestic industry characteristics.¹⁶⁸

2. *Inevitable Breaking Point*

Despite these fundamental changes in the law and modern economic and trade realities, Congress has not given the ITC the benefit of public debate and guidance regarding how it expects the agency to fulfill its obligations under both mandates. In particular, the ITC is basically left to its own devices to decide which body of policy considerations trumps the other and under what circumstances. Were the ITC a marginal player offering only weak remedies in the grand scheme of U.S. patent litigation, this shift and resulting tension might constitute a mere annoyance. But, as discussed above, the ITC is not only an active player in U.S. patent litigation but is an increasingly popular litigation forum due to recent federal court jurisprudence¹⁶⁹ and the growing use of the ITC by NPEs.¹⁷⁰ Moreover, the remedies available at the ITC are quite potent: complete exclusion from entry into the United States of infringing articles, either by manufacturer through a LEO, or by product through a GEO. This tension leads the ITC to an inevitable breaking point where it must struggle to reconcile its duties to enforce IP rights but without ignoring the fact that the very reason it received § 337 authority was to protect the domestic industry from unfair trade practices.¹⁷¹ Formerly intertwined, these interests have diverged in a way that makes future clash and conflict inevitable in the absence of fundamental changes and Congressional guidance.

168. Nor is the complainant necessarily of U.S. citizenship. For example, in fiscal year 2009, the ITC instituted investigations where the complainant was exclusively a foreign entity. Four investigations were in response to complaints by solely a Korean company, one involved solely a German company, and one involved solely a Japanese company. See ITC, YEAR IN REVIEW, *supra* note 27, at 47 tbl.II. See also Kumar, *supra* note 33, at 532 ("Congress crippled the ITC's ability to shield domestic companies by allowing foreign companies with few U.S. ties to litigate there . . .").

169. E.g., *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

170. E.g., *Coaxial Cable Connectors*, Inv. No. 337-TA-650, Commission Op. at 54 (ITC Apr. 14, 2010), EDIS Doc. No. 422832 (holding that litigation activities and costs may be related to licensing in satisfaction of § 337's domestic industry requirement).

171. See discussion and sources cited *supra* notes 39–42 and accompanying text.

III. EXCLUSION ORDERS ARE TOO BLUNT FOR TODAY'S WORLD

The mere fact that NPEs that hold IP rights may have easier access to the ITC should not in itself be a cause for concern. One reason for this is that IP ownership is not intended to be a nullity: IP-based exclusion rights should be enforced, and the district courts do this regularly under the Patent Act and other IP enforcement schemes.

However, for two important reasons, the ITC does not blindly and automatically enforce IP rights. The first reason is that the ITC is primarily a creature of the trade laws.¹⁷² It was originally designed to protect domestic industry by excluding articles from entry that used methods such as IP rights infringement to compete unfairly against domestic articles. The ITC was not designed to simply apply the Patent Act without considering the existence of domestic industry. The second reason, examined in this Part, is that the ITC's main remedy is the exclusion order when it finds a valid and infringed patent with no applicable defenses. The problem is that, unlike the federal courts, the ITC does not have leeway to craft finely-tuned equitable remedies, which is further complicated by the fact that the ITC may consider public interest factors in deciding whether to issue an exclusion order. But absent policy guidance from Congress, it is difficult to predict when the Commission will act to protect IP rights or when it might invoke its public interest discretion to prevent devastating harm to domestic industry.

A. EXCLUSION ORDERS AND PERMANENT INJUNCTIONS ARE FUNCTIONALLY AND CONTEXTUALLY DISTINCT

The Tariff Commission and the courts recognized early on that under certain circumstances, exclusion of unfairly competing articles at the border was a superior remedy to an injunction in the import and trade context. The Court of Customs and Patent Appeals in 1930 explained that domestic patentees faced “practically insurmountable” difficulties in preventing the sale of infringing merchandise after it had already been distributed domestically.¹⁷³ The major reason was that such enforcement required multiple suits against individual sellers, making it too cumbersome to pursue in decentralized markets.¹⁷⁴ Eighty years later, the ITC heard similar arguments in a case involving very modern technology that touched on important political, economic, and environmental issues.

172. See discussion *supra* Part II.

173. *Frischer I*, 39 F.2d 247, 260 (C.C.P.A. 1930).

174. *Id.* at 269–70.

1. *Functional Differences: Hybrid Electric Vehicles*

*Hybrid Electric Vehicles*¹⁷⁵ came before the Commission in 2009 after the complainant, Paice, failed to win a permanent injunction against Toyota in the federal courts despite having proved patent validity and infringement.¹⁷⁶ The main reason behind its failure at the remedial stage was that the district court applied¹⁷⁷ *eBay v. MercExchange*, the 2006 Supreme Court decision that eliminated an automatic injunction grant for aggrieved patentees.¹⁷⁸ The *eBay* Court ruled that patentee plaintiffs, like non-patentee plaintiffs, must satisfy a four-factor test to get a permanent injunction. 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.¹⁷⁹

The district court in the earlier litigation *Paice v. Toyota* ruled that Paice had not met its burden under *eBay*, and it instead granted ongoing royalties, a ruling affirmed by the Federal Circuit.¹⁸⁰ Within five months of the conclusion of the federal court litigation,¹⁸¹ Paice filed a § 337 complaint at the ITC on September 3, 2009,¹⁸² requesting a LEO to prevent Toyota or entities acting on its behalf from importing infringing products.¹⁸³

The essential problem facing the Commission in *Hybrid Electric Vehicles* was that both parties tried to preclusively assert issues they had “won” in the federal courts. Paice won on the issues of patent validity and infringement,

175. *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC 2010).

176. See *Paice LLC v. Toyota Motor Corp. (Paice I)*, No. 2:04-CV-211, 2006 WL 2385139, at *1 (E.D. Tex. Aug. 16, 2006).

177. *Id.* at *1–2.

178. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 394 (2006).

179. *Id.* at 391.

180. *Paice I*, 2006 WL 23851398, at *5 (reasonable royalty), *aff'd in relevant part by Paice LLC v. Toyota Motor Corp. (Paice II)*, 504 F.3d 1293 (Fed. Cir. 2007).

181. *Paice LLP v. Toyota Motor Corp. (Paice III)*, 609 F. Supp. 2d 620 (E.D. Tex. 2009) (terminating the litigation on April 17, 2009).

182. Complaint, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC Sept. 3, 2009), EDIS Doc. No. 409884. Per ITC practice, the § 337 investigation took the name of the product, *Hybrid Electric Vehicles*, rather than the names of the parties, *Paice v. Toyota*. See 19 C.F.R. § 210.4 (2010) (directing parties to submit captions containing “title of the investigation or related proceeding”).

183. Complaint, *Hybrid Electric Vehicles*, *supra* note 182, ¶ 8.

but it failed to receive the injunctive remedy.¹⁸⁴ It probably hoped to assert those adjudicated issues at the ITC without having to relitigate them, given that normally they are sufficient to obtain an exclusion order. For its part, Toyota managed to avoid a federal court injunction based on the *eBay* factors¹⁸⁵ and, given substantial similarity of the issues and quasi-injunctive ITC relief, probably hoped to use this win to prevent Paice from obtaining an exclusion order. The question then was whether an exclusion order was similar enough to a permanent injunction for claim preclusion to operate against Paice.¹⁸⁶

Toyota asserted that Paice had already been able “to seek a certain remedy or form of relief in [the earlier *Paice* litigation]”¹⁸⁷ because the LEO and cease and desist order are no different “in scope and effect than the preliminary injunction” sought in the federal court action.¹⁸⁸ Toyota argued that if claim preclusion did not attach in the context of LEO relief, then the practical result is that the different remedy or relief exception would always apply in an ITC follow-on litigation and thereby “swallow” the general rule of claim preclusion.¹⁸⁹ Toyota argued that the unique enforcement mechanism of halting infringing goods at the border was a “purely formal distinction,” insufficient to prevent operation of claim preclusion in the abstract.¹⁹⁰ It alternatively claimed that because the record revealed its supply chain logistics to be “well documented and easily identified,” an injunction would have been just as easy to enforce as an exclusion order.¹⁹¹

The Commission itself did not have a chance to review the ruling,¹⁹² so the ALJ’s ruling rejecting Toyota’s arguments in favor of Paice’s

184. *See generally Hybrid Electric Vehicles*, Inv. No. 337-TA-688, Commission Op. (ITC Apr. 2, 2010), EDIS Doc. No. 422099 (evaluating parties’ arguments regarding claim and issue preclusion).

185. *Paice I*, 2006 WL 2385139, at *1.

186. *Hybrid Electric Vehicles*, Inv. No. 337-TA-688, ALJ Order No. 12 at 9 (ITC May 21, 2010), EDIS Doc. No. 428008.

187. *See* Restatement (Second) of Judgments § 26(1)(c) (describing one possible exception to operation of claim preclusion); *see also Hybrid Electric Vehicles*, Apr. 2, 2010 Commission Op., at 8.

188. Toyota Renewed Motion for Summary Determination at 10–11, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC Apr. 12, 2010), EDIS Doc. No. 422745.

189. Toyota Renewed Motion, *Hybrid Electric Vehicles*, *supra* note 188, at 12.

190. *Id.* at 13.

191. *Id.* at 14.

192. When Toyota moved for interlocutory review of this order, the ALJ denied that motion (and thereby prevented a Commission ruling on this issue), citing Toyota’s failure to show that interlocutory review would “materially advance the ultimate completion of the investigation,” suggesting the continuing weight of § 337’s mandate to complete

counterarguments stands as precedent. Paice argued that the preclusion should not operate against it because the ITC “uniquely prevents importation by non-parties.”¹⁹³ While an injunction covers only domestic activity by Toyota, an exclusion order would prevent importation of “all infringing products that are ‘manufactured abroad by or on behalf of, or are imported by or on behalf of,’ Toyota.”¹⁹⁴ As to enforcement, Paice submitted that “[w]hile an LEO would indiscriminately thwart any attempts by Toyota to import using a third party, a district court injunction would require Paice to provide ‘notice’ in the form of service as a prerequisite to enforcement against those same third parties,”¹⁹⁵ which would also require “active monitoring steps.”¹⁹⁶ These differences made enforcement of an injunction considerably more expensive.¹⁹⁷ Finally, Paice argued and the ALJ agreed that an injunction is a “reactive” remedy enforced if the infringing activity continues, whereas a LEO provides a “proactive” remedy by halting importation altogether.¹⁹⁸ Having adopted most of Paice’s arguments, the ALJ added that “importation is treated differently than domestic activity”¹⁹⁹ and that Commission precedent recognized that the analysis preceding issuance of an injunction differs from that preceding an exclusion order.²⁰⁰ Though the ALJ did not reach the argument, OUII Staff argued in their opposition that, contrary to Toyota’s assertion, claim preclusion may sometimes apply at an ITC proceeding even if the remedies are considered legally different.²⁰¹ For instance, where a district court has ruled a patent not

investigations at the “earliest practicable time.” *Hybrid Electric Vehicles*, Inv. No. 337-TA-688, ALJ Order No. 14 at 4 (ITC June 16, 2010), EDIS Doc. No. 427567.

193. Paice Opposition at 19, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC Apr. 19, 2010), EDIS Doc. No. 423418.

194. *Id.* at 20.

195. *Id.*

196. *Id.*

197. *Id.*

198. *Id.* at 20–21. *But see* Blakeslee, *supra* note 61 (discussing why the exclusion order remedy is not as “automatic” or even as effective as one might otherwise think due to systemic limitations in a complex import system).

199. *Hybrid Electric Vehicles*, Inv. No. 337-TA-688, ALJ Order No. 12 at 10–11 (ITC May 21, 2010), EDIS Doc. No. 428008.

200. *Baseband Processor Chips*, Inv. No. 337-TA-543, Commission Op. at 102 n.230 (ITC June 12, 2007), EDIS Doc. No. 276412.

201. OUII Response to Renewed Motion at 9, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC Apr. 19, 2010), EDIS Doc. No. 423393. The Staff in turn refer to a 1983 Federal Circuit opinion on this point, *Young Eng’rs Inc. v. U.S. Int’l Trade Comm’n*, 721 F.2d 1305, 1307–08 (Fed. Cir. 1983).

infringed, an ITC respondent can probably assert claim preclusion against that plaintiff despite the difference in remedies.²⁰²

Both Paice and OUII Staff seemed to paint the exclusion order as a remedy superior to a permanent injunction essentially because it externalizes the complainant's costs of enforcement, shifting those costs and efforts to the U.S. government.²⁰³ But given that the ITC's patent litigation jurisdiction is immune from *eBay* analysis,²⁰⁴ once validity and infringement are proved, an exclusion order issues automatically unless a consideration of the public interest militates otherwise.²⁰⁵ Therefore, the position of both Paice and the Staff somewhat illogically implies that a superior quasi-injunctive remedy should be made more easily available to more complainants with a weaker claim to domestic industry harm.

Over the course of the summer of 2010, prominent elected public officials including U.S. Senators and Representatives and State Governors chose to submit Comments to the Commissioners under Rule 210.50,²⁰⁶ requesting that they not issue an exclusion order since Paice had already failed to obtain injunctive relief in the federal courts.²⁰⁷ Thus they stood in opposition to the Commission's legal view that the remedies were sufficiently different to allow Paice's claim to continue.

2. *Contextual Difference: Equitable Spectrum Versus All-or-Nothing ITC Remedy*

A second key distinction between the exclusion order and the permanent injunction is that the former exists in a binary system, whereas the latter stands at the endpoint of a remedial spectrum. Thus even though a federal court may deny a request for permanent injunctive relief following *eBay*, the plaintiff probably will still receive a less powerful remedy, such as the compulsory ongoing royalty that issued in *Paice v. Toyota*.²⁰⁸ But courts tend to

202. April 19, 2010 OUII Response, *Hybrid Electric Vehicles*, *supra* note 201, at 9.

203. See April 19, 2010 Paice Opposition, *Hybrid Electric Vehicles*, *supra* note 193, at 19–22; April 19, 2010 OUII Response, *Hybrid Electric Vehicles*, *supra* note 201, at 10–11.

204. *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1359 (Fed. Cir. 2010).

205. 19 U.S.C. § 1337(d)(2) (2006).

206. 19 C.F.R. § 210.50 (2010).

207. See, e.g., Letter from Rep. W. Todd Akin to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC June 28, 2010), EDIS Doc. No. 428688; Letter from Sen. Mitch McConnell to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC June 30, 2010), EDIS Doc. No. 428832; Letter from Rep. Lamar Smith to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC July 2, 2010), EDIS Doc. No. 428870.

208. *Paice III*, 609 F. Supp. 2d 620, 622 (E.D. Tex. 2009).

calculate such damages based on hypothetical arms-length transactions between the parties which are supposed to reflect the true economic value of the license for a litigated patent.²⁰⁹ What is noteworthy about the royalty calculation in *Paice v. Toyota* is that both courts neglected to consider in their calculations the theoretical economic value to Paice of the continuing availability of an ITC exclusion order against the accused products.²¹⁰ Instead, the district court focused on other factors which it saw appropriate to a final calculation of the value of a license between the two parties: fully litigated patents whose validity and actual infringement had been proved,²¹¹ voluntary and willful continuing infringement,²¹² higher oil and gas prices and resulting market share increase,²¹³ and increased demand for Toyota's vehicles.²¹⁴

By contrast, the ITC's available remedy scheme lacks the spectrum of equitable remedies and relief available in a federal district court.²¹⁵ The exclusion order is a blunt remedy tool compared to the spectrum of equitable remedies available in the federal courts. At the ITC, either the complainant wins the desired exclusion order, or the respondent likely walks away with little more than a sizeable invoice for legal fees. The reasonable question to ask is whether it is logical to maintain such a black-and-white system in a world colored by globalization, complex IP asset portfolios and related business strategies, and manufactured articles comprising multiple components gathered from dozens of countries and covered by numerous patents.²¹⁶ Should multinationals producing sophisticated technology be held hostage by a single non-practicing IP rights holder? The federal courts under *eBay* would likely say certainly not, but the ITC is practically bound by statute to say yes.

209. *Id.* at 624 (citing and quoting *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1362 (2008) (“Once a judgment of validity and infringement has been entered . . . the calculus is markedly different because different economic factors are involved.”)).

210. *See Paice I*, No. 2:04-CV-211, 2006 WL 2385139 (E.D. Tex. Aug. 16, 2006); *Paice II*, 504 F.3d 1293 (Fed. Cir. 2007).

211. *Id.* at 626.

212. *Id.* at 628.

213. *Id.*

214. *Id.* at 629.

215. For example, the federal district court in the *Paice* litigation eventually awarded Paice an ongoing royalty of \$98 per vehicle. *Id.* at 630.

216. *See FTC*, *supra* note 7, at 55.

B. THE ITC'S PUBLIC INTEREST DISCRETION DOES NOT RESOLVE THE TENSION AND IDENTITY CRISIS

Perhaps the situation described above is not so bleak. Section 337 directs the Commission to forego an exclusion order where, “after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry.”²¹⁷ This language gives the ITC discretion to consider the public interest and forego an exclusion order even where the Commission finds that a valid patent has been infringed. In 1974, Congress felt that “the public interest must be paramount in the administration of [§ 337],”²¹⁸ thus putting public interest—a broad category of considerations that may include domestic industry characteristics—in the position of final obstacle in the march towards an ITC exclusion order. Public interest considerations at first glance appear to be a desirable statutory “safety valve” that functions like a domestic industry defense to patent infringement at the ITC. However, closer inspection reveals that reliance on such a defense to allay the detrimental effects of an exclusion order probably exacerbates rather than alleviates the frustration of IP and trade policy.

1. *Public Interest Compared: Federal Courts and the ITC*

Since the two related cases were substantially litigated in both the federal courts and at the ITC, *Paice* and *Hybrid Electric Vehicles* offer an opportunity to study how the public interest influences adjudication in the two forums. *eBay* requires federal courts to consider the “balance of hardships” and the public interest before issuing a permanent injunction.²¹⁹ On the balance of hardships, the district court cited an interruption to Toyota’s domestic business as well as the related businesses of dealers and suppliers.²²⁰ The court was concerned about stifling investment in research and product line development for bringing automobiles to market.²²¹ As to the public interest *eBay* factor, the district court discussed only American dependence on foreign

217. 19 U.S.C. § 1337(d)(1) (2006) (exclusion orders); *see also* § 1337(e)(1) (exclusion of articles except under bond), (f)(1) (cease and desist orders), and (g)(1)(E) (orders issued in case of respondent default).

218. S. REP. NO. 93-1298, at 193 (1974).

219. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

220. *Paice I*, No. 2:04-CV-211, 2006 WL 2385139, at *6 (E.D. Tex. Aug. 16, 2006).

221. *Id.*

oil and decided that this factor weighed in neither party's favor.²²² The district court's balance of hardships analysis, however, only indirectly touches on the traditional markers of domestic industry, and considerations of plant and equipment investment or labor and capital employment did not enter at all into its exceedingly short discussion of the public interest.²²³

Contrast this with the loud and influential voices directing the ITC's attention to important public interest considerations in *Hybrid Electric Vehicles* and exhorting the Commission to deny Paice an exclusion order. The Comments filed in response to the Commission's investigation initiation notice²²⁴ mention a host of problems with the quasi-injunctive remedy. To be sure, there is some overlap with the district court in concerns mentioned—for instance, that of an injunctive remedy stifling investment in research and product line development for bringing automobiles to market²²⁵—but many other concerns are uniquely discussed in the Comments to the Commission. Several of them invoked the ITC's purpose of protecting domestic industry from unfair competition,²²⁶ saying specifically that the agency was “not created to protect an entity like Paice that neither manufactures products nor licenses technologies to car manufacturers.”²²⁷ The Comments also summarized the various concerns that their elected official authors had on behalf of their constituents and the U.S. domestic industry in hybrid cars. For instance, some were concerned about stifling innovation and technological expansion.²²⁸ Others mentioned putting Toyota's 200,000 U.S. workers and the welfare of their families at risk²²⁹ and pointed to specific manufacturing facilities such as a 9,400-employee plant in Georgetown, Kentucky producing Camry hybrids.²³⁰ Not only would dealership employees be affected, but municipal sales tax revenue would also greatly decrease, according to the

222. *Id.*

223. *See id.*

224. *See* 19 C.F.R. § 210.50 (2010).

225. *E.g.*, Letter from Gov. Haley Barbour to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC July 14, 2010), EDIS Doc. No. 429572.

226. *See, e.g.*, Akin Letter, *supra* note 207; Letter from Sen. Christopher S. Bond to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC July 7, 2010), EDIS Doc. No. 429011; Letter from Rep. Mike Ross to Hon. Deanna Tanner Okun, *Hybrid Electric Vehicles*, Inv. No. 337-TA-688 (ITC July 15, 2010), EDIS Doc. No. 429890.

227. Akin Letter, *supra* note 207.

228. *E.g., id.*

229. *Id.*; *see also, e.g.*, Smith Letter, *supra* note 207 (“[t]housands of American workers and their families would pay an immediate price” resulting in a “deleterious effect on the business of Toyota sales teams across the United States”).

230. Akin Letter, *supra* note 207; McConnell Letter, *supra* note 207.

Comments.²³¹ They further addressed reduced consumer choice and higher prices for the hybrid vehicles, with many consumers being priced out of the hybrid market.²³² Consequently, fewer fuel-efficient cars would be used, causing harm to the environment and possibly stifling the development of green technology generally.²³³ Several Comments remarked that all of this would come to pass during a severe economic downturn.²³⁴ For these reasons, the elected officials urged the Commission to deny an exclusion order against Toyota.

This comparison of public interest treatment in the federal courts and the ITC leads to several observations. First, the difference in the depth of public interest consideration between the two forums can sometimes be striking, as seen above. A possible explanation is that the multiple *eBay* factors and the range of equitable remedies available in the federal courts create less urgency for public intervention than at the ITC, where respondents face an exclusion order. Second, while the authors of the Comments clearly articulated their desired result, less clear was how the legislators and other elected officials would have advised the ITC to balance the value of protecting IP against protecting domestic industry.

2. *A Domestic Industry Defense to Patent Infringement*

Had *Hybrid Electric Vehicles* not settled, the ITC could have satisfied the Comments authors by invoking its public interest discretion and declining to issue an order excluding the infringing engine components. Modern ITC actions are more amenable to this possibility because of the changing nature of ITC litigants described in Section II.B. Whereas before 1988 the complainant always had “strong” domestic industry characteristics to protect, today’s ITC action just as likely features a complainant that embodies only the redefined “weak” characteristics. However, the traditional characteristics of labor and capital employment and plant and equipment investment did not simply disappear. Rather, in § 337(a)(3)(C) investigations, they reappear as a final trump card that a modern respondent may play after exhausting all other challenges and defenses in its strategic arsenal.

231. *E.g.*, Barbour Letter, *supra* note 225.

232. *E.g.*, *id.*

233. *E.g.*, *id.*

234. *E.g.*, McConnell Letter, *supra* note 207.

The public interest discretion enables this final trump card. Notably invoked in the 1984 *Burn Beds* case,²³⁵ the discretion language opens the possibility for modern respondents to claim that Congress intended for “public health and welfare” to include consideration of the seriously harmful effects of issuing an exclusion order where an established domestic industry faces serious harm or elimination. Therefore, the modern § 337 respondent can argue domestic industry as a defense against the exclusion order remedy, even where its activities otherwise infringe valid U.S. patents. In this way, the statute itself provides one way for the ITC to steer clear of harming domestic industry while appearing to fulfill its mandate to enforce IP rights.

Furthermore, members of Congress and other public leaders have given their imprimatur to the domestic industry defense, at least impliedly, through their correspondence with the Commission at a critical stage in the *Hybrid Electric Vehicles* investigation.²³⁶ However, mere agreement is unsatisfactory where the complex policy issues of IP and trade collide in a way that affects hundreds of thousands of jobs and many dollars of GDP in high-profile cutting edge industries of national importance.

3. *The Problems of Relying on the Domestic Industry Defense*

In theory, the mandate to consider the public interest may indeed soften the general injurious effect on respondents of granting exclusion orders. But in reality, allowing respondents to prevail frequently on a domestic industry defense in modern times would create three big problems: (1) it nevertheless still harms a domestic industry; (2) it opens the possibility of letting willful infringers off the hook; and (3) it may incentivize secret, extrajudicial deal making by leveraging the power of scarce judicial resources.

First, any determination in a suit based on § 337(a)(3)(C) necessarily hurts some domestic industry interests because both complainant and respondent will exhibit protectable characteristics. In the event of a violation, the Commission will, by default, issue an exclusion order unless it is convinced by a strong showing that the public interest would be harmed. There is no aggregation of balanced factors as in the federal courts; rather, “public health and welfare” presents a real hurdle to respondents and industries that wish to avoid harm from an exclusion order. Indeed, the ITC has invoked its public interest discretion in only three investigations, all of them prior to the 1988

235. Certain Fluidized Supporting Apparatus and Components Thereof (*Burn Beds*), Inv. Nos. 337-TA-182/188, Commission Op., reprinted in USITC Pub. 1667 (Oct. 1984), EDIS Doc. No. 235424 (focusing on the “public health” aspect of the public interest).

236. See sources cited *supra* notes 225–33 and accompanying text.

amendments.²³⁷ By contrast, courts considering an injunction after *eBay* see whether the scales tip in favor of either party on each factor, so a mere 51% showing on three factors could be enough to stop issuance of an injunction. Moreover, the federal courts are probably less timid about denying injunctions because they have other remedies available.

Second, the failure to issue an exclusion order means that the accused and affirmed infringer gets off scot free. Intellectual property rights then lose their power before the ITC in such instances, and the only other option for the rights holder is to bring duplicative litigation in the federal district courts to enforce rights that the ITC declined to enforce based on the public interest. Therefore, not only does this inevitably draw out the matter and continue to destabilize investment in affected industries, but the current legal environment cheapens the value of innovation and patent rights by subjecting them to a risky and unpredictable public interest gamble before the ITC.

Third, the possibility of obtaining an exclusion order heightens the incentive for parties to reach a private settlement but only after using public resources to litigate the issue before the federal courts as well as the Commission. *Hybrid Electric Vehicles* is an example of such a settlement.²³⁸ The federal courts, an expensive litigation forum, had already given the parties an opportunity to settle in *Paice I*.²³⁹ After the parties failed to settle,²⁴⁰ the court expended more resources including an appellate proceeding²⁴¹ to calculate appropriate back and ongoing royalties. But as the ITC hearing date approached following almost six years of litigation,²⁴² the parties reached a private settlement, untouched by public scrutiny.²⁴³ The entire *Paice v. Toyota* saga raises two sets of important questions. The first set deals with the

237. *Certain Foam Masking Tape*, Inv. No. 337-TA-528, Commission Op. at 11 n.7, reprinted in USITC Pub. 3968 (Dec. 2007). The three investigations were *Certain Automatic Crankpin Grinders*, Inv. No. 337-TA-60, USITC Pub. 1022 (1979); *Certain Inclined Field Acceleration Tubes*, Inv. No. 337-TA-67, USITC Pub. 1119 (1980); and *Burn Beds*, Inv. Nos. 337-TA-182/188, USITC Pub. 1667 (Oct. 1984).

238. See Eric Lane, *From Preclusion to Conclusion: Paice and Toyota Settle Hybrid Vehicle Patent Suits*, GREEN PATENT BLOG (Aug. 18, 2010), <http://greenpatentblog.com/2010/08/18/from-preclusion-to-conclusion-paice-and-toyota-settle-hybrid-vehicle-patent-suits/>.

239. *Paice III*, 609 F. Supp. 2d 620, 623 (E.D. Tex. 2009).

240. *Id.*

241. In this case, *Paice II*, 504 F.3d 1293 (Fed. Cir. 2007).

242. See Joann Muller, *Toyota Settles Hybrid Patent Case*, FORBES.COM (Jul. 19, 2010), <http://www.forbes.com/2010/07/19/toyota-prius-paice-severinsky-business-autos-hybrid.html>.

243. See *id.*; Lane, *supra* note 238.

obligations to the public of parties who leverage expensive judicial resources to potentially extract a lucrative, private settlement. Is this an appropriate system to maintain? How is fairness reviewed, not only for corporate litigants but for thousands of employees and billions of dollars of investment and market share? The second set relates to unsettled questions of law. The *Hybrid Electric Vehicles* settlement robbed society of the opportunity to learn how the ITC would balance considerations of IP rights and domestic industry protection, which would have increased certainty in future proceedings. At what point would it have applied its expertise in determining injury to domestic industry²⁴⁴ and invoke its public interest discretion?

Against the backdrop of little or no guidance from Congress, the unpredictability of the outcome of a public interest analysis continues to mean that no party can accurately assess the risks involved in building industries incorporating potentially infringing technologies or investing in the development of an IP asset portfolio, which could deter innovation.²⁴⁵ Clearly, maintaining the status quo and placing trust in the ITC's public interest discretion leaves ITC counterparties and the stakeholders that depend on them subject to uncertain and potentially arbitrary outcomes—risks that harm industries and devalue intellectual property rights.

IV. ENDING THE HARMFUL ZERO-SUM GAME BY CLARIFYING THE ITC'S OBJECTIVES AND LINKING ITS DETERMINATIONS TO NON-INJUNCTIVE REMEDIES

Patents form part of the American IP scheme to “promote the Progress of Science and the useful Arts”²⁴⁶ by striking a careful balance between an inventor and the public to incentivize innovation through a limited monopoly grant.²⁴⁷ The various tariff and trade commissions were originally

244. GAO REPORT, *supra* note 49, at 33.

245. *Cf.* FTC, *supra* note 7, at 53 (noting that a company facing patent assertion by a patent asserting entity for independently developed technology may increase the manufacturing company's costs and risk and thereby deter innovation).

246. U.S. CONST. art. I, § 8, cl. 8.

247. Menell et al., *supra* note 20, at I-2 to I-4; *see* ROBERT P. MERGES, PETER S. MENELL & MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 14–15 (5th ed. 2010); *id.* at 775 (offering the example of utility patent protection as balancing the “larger policies of federal intellectual property law” against “the short-run hampering of free competition with the longer-term benefits of innovation”); *see also* *White v. Samsung Elecs. Am., Inc.*, 989 F.2d 1512 (9th Cir. 1993) (Kozinski, J., dissenting) (stating that “intellectual property law is full of careful balances between what's set aside for the owner and what's left in the public domain for the rest of us”).

meant to protect domestic industry from harm.²⁴⁸ The ITC lies somewhere between the two bodies of law, but current law and available legislative resources render the ITC unable to satisfy critics on either side of the debate. Some will bemoan the Commission's independent style of IP rights enforcement,²⁴⁹ while others will be unsatisfied when an ITC-issued exclusion order cuts domestic employment of labor and capital and reduces investment in plant and equipment.²⁵⁰ Still others will criticize a parallel patent litigation forum as a waste of judicial resources.²⁵¹

Ultimately, any proposal to change the ITC as it grows in prominence as an alternative forum for patent litigation should take into account several basic considerations. First, any reform must recognize the benefits of the Commission as a fast and efficient forum that offers a potent exclusion order following investigations conducted by judges who exclusively adjudicate patent disputes. Second, reformers should be mindful that the policy considerations embodied in any of the various IP disciplines are complex and have important effects for innovation and creativity. Third, given its five strategic operations, reformers must recognize that the ITC remains primarily a trade-oriented government agency with an expertise in analyzing foreign and domestic industries. Fourth, the policy choices available where IP and trade law intersect and collide will likely reflect delicate and complicated compromises.

Recognizing this, Congress should consider connecting the ITC to the federal court system in ways that continue to promote efficiency and consistent judgments. Although granting the ITC additional remedies may be a tempting solution to the problem of all-or-nothing exclusion orders, the reality is that the requirements of damages proceedings would bog down the ITC at a time when it faces more and higher stakes patent litigations. Instead, Congress might contemplate a sort of working relationship between the ITC and the district courts, allowing each entity to take advantage of its respective expertise. For example, an ITC investigation might quickly resolve a dispute and either grant or deny an exclusion order, thereby concentrating its efforts on the emergency border remedy. In the event of a denial, but where validity and infringement are shown, the ITC could refer damages hearings to a

248. *See supra* Section I.B.

249. *See, e.g.,* Chien, *supra* note 51, at 68–69; Kumar, *supra* note 33, at 533.

250. *See* sources cited *supra* notes 229–30 and accompanying text (citing Comments sent to the Commission in the *Hybrid Electric Vehicles* investigation that concerned domestic employee welfare).

251. *See* Chien, *supra* note 51, at 72.

district court. The district court might give a degree of deference to the ITC determinations on the patents, and it would receive detailed industry information from the ITC record of the case.²⁵² This solution would retain the ITC's speed and expertise, and the ITC would not risk becoming simply another district court in the federal system. Rather, with a clarified relationship to the Patent Act and the district courts, including access to a broader range of remedies through referral to the district courts, ITC patent litigation would become more predictable, efficient, and attractive to parties looking for speedy resolution of quickly-changing and high stakes issues.

Besides considering structural reform, the legislature should openly debate the pros and cons of a trade body being a major patent litigation forum, and how that trade body should balance its historical expertise in protecting domestic industry against the relatively newer mandate of enforcing IP rights. To say that the Commission should take into account "the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers" is not enough to guide it through murky IP policy issues and domestic industry questions. Nor would it be enough to bind the ITC to a "lite" version of the *eBay* factors: Congress has already said it does not want the ITC to consider traditional irreparable harm,²⁵³ and the public health and welfare analysis at the ITC may already be more sophisticated than can be expected in the district courts, which do not specialize in trade or even IP cases for the most part. However, Congress must provide the ITC with guidance in applying these considerations against the strong policies behind enforcing IP rights. Such guidance alone would be helpful in the binary remedy and parallel litigation system in place today. But to improve the situation further, it would be most helpful for Congress to engage in this debate while simultaneously considering the earlier recommendation of follow-on district court proceedings after an ITC determination denying an exclusion order on public health and welfare grounds.

252. Such an arrangement might be similar to what already exists in the context of stayed district court proceedings under 28 U.S.C. § 1659(b) (2006), which allows parties to the federal action to use the ITC investigation record in that action. *See also* Menell et al., *supra* note 20, § 11.5.1.

253. H.R. REP. NO. 100-40, at 154 (1987).

V. CONCLUSION

The ITC has a number of advantages over traditional patent litigation forums, including fast-paced litigation and predictable investigation schedules, judges who specialize in patent law, and availability of a potent and superior remedy against the importation and sale of infringing articles. But even though the ITC may today be a very active patent litigation forum, it remains cognizant of its roots in protecting domestic industry from unfair competition. It has evolved mechanisms through which it continues to protect the traditional interests of domestic industry even when such protection is adverse to the enforcement of intellectual property rights, such as a domestic industry defense based on the public interest discretion. Congress and other public leaders appear to support such developments, but without structural changes and Congressional guidance the ITC is unable to fully satisfy the needs of its dual trade and IP mandates. This has created a growing tension in a world characterized by globalization, complexity, and heightened access for complainants that lack traditional domestic industry characteristics.

The solution lies not in the polar recommendations of binding the ITC fully to the Patent Act, or removing § 337 authority over IP-based complaints altogether. Rather, the best solution would preserve both the ITC's unique position of protecting domestic industry from harm and its advantages to litigants and society as a patent litigation forum. Congress might, for example, give the federal courts follow-on jurisdiction in cases where the ITC declines to issue an exclusion order but where another type of equitable remedy is required to ensure fairness to all parties. Even in the absence of such an arrangement, Congress must engage in public debate about the appropriate balance of considerations when IP policy and domestic industry protection compete for attention in a world characterized by technology and globalization.

COOPERATIVE INFRINGEMENT: I GET BY (INFRINGEMENT LAWS) WITH A LITTLE HELP FROM MY FRIENDS

Reza Dokhanchy[†]

A party should not be able to avoid infringement by merely bringing in a co-conspirator. Yet under current Federal Circuit law, when two or more parties perform acts that if performed by one party would constitute infringement of patented claims, the parties are likely to avoid any liability.¹ They escape liability simply by dividing up the tasks. The Federal Circuit has held that when two or more parties cooperate and their combined acts would constitute infringement, there is no “joint infringement” unless the patent holder can “prove that one party exercised ‘control or direction’ over the entire process such that all steps of the process can be attributed to the controlling party, i.e., the ‘mastermind.’”² A recent decision explains that this requirement can be satisfied two ways: (1) by a principal-agent relationship, or (2) by a contractual obligation by one party to perform the steps not performed by the other.³ For example, under the current rule, two parties whose software programs together read on a patented claim can avoid infringement by jointly selling their programs to a third party as part of a package deal.⁴

The source of the current “control or direction” rule is *BMC Res., Inc. v. Paymentech, L.P.*,⁵ which was decided on facts where the parties’ relationship was very distant. In setting the new standard and denying infringement, the court acknowledged that the “control or direction” standard it established would allow even parties with a much closer relationship to avoid infringing

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1. *See* *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1380 (Fed. Cir. 2010).

2. *Id.* (quoting *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329 (Fed. Cir. 2008)).

3. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, No. 2009-1372, 2010 WL 5151337, *6–7 (Fed. Cir. Dec. 20, 2010).

4. This is the scenario in *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, No. 2:06 CV 381, 2009 WL 943273, at *4 (E.D. Tex. Apr. 3, 2009). *See* discussion *infra* Section II.B.

5. 498 F.3d 1373 (Fed. Cir. 2007).

by entering an “arms-length agreement.”⁶ The court noted that the problem was solvable by proper claim drafting.⁷ This Note argues that proper claim drafting cannot solve the problem of firms cooperating to evade infringement claims. Furthermore, the Federal Circuit’s current interpretation of the “control or direction” standard is unsupported by precedent and sets too high a standard for what level of cooperation constitutes joint infringement.

This Note presents three possible ways in which the Federal Circuit might address cooperative infringement. “Solution One” suggests lowering the standard to the pre-*BMC* approach taken by district courts, which encompasses arms-length agreements. Any time parties cooperate to perform the steps that constitute infringement, a joint infringement cause of action should be available.⁸

The problems with the “control or direction” standard worsen when there is evidence that the parties knew of the patent and intentionally avoided it by dividing up the claimed elements. Yet since joint infringement is a subset of direct infringement, which is a strict liability doctrine, intent is not a consideration. Thus any standard must apply equally whether or not the parties intentionally avoided a patent; to some, this supports a higher joint infringement standard. Typically, the indirect liability theories of inducement and contributory infringement (which hold one party responsible for the acts of another) cover infringement situations involving multiple parties in which there is some element of intent. This historical tendency supports addressing cooperative infringement under indirect liability doctrine rather than under joint infringement.⁹ The indirect liability doctrines, however, fail to capture the cooperative infringement scenario because they require that one of the parties practice all elements of the patented claim (i.e. they require an “underlying act” of direct infringement).¹⁰ “Solution Two” proposes eliminating this requirement.¹¹

If courts implement neither Solution One nor Two, a patent holder would be remediless against arms-length dividers of the claims. “Solution

6. *Id.* at 1381.

7. *Id.*

8. See discussion *infra* Section III.A.

9. *BMC*, 498 F.3d at 1380 (“Where a defendant participates in infringement but does not directly infringe the patent, the law provides remedies under principles of indirect infringement.”)

10. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

11. See discussion *infra* Section III.B.

Three” would leave intact the current joint and indirect infringement doctrines and create a new doctrine that would require intent without requiring a single underlying infringer.¹²

Considerations of equity and fair play should lead courts to a rule under which a party cannot avoid liability merely by finding a co-conspirator. Part I of this Note explains the tort-based origins of multi-party infringement and details the case law leading up to the *BMC* decision. Part II explains the *BMC* decisions and its flaws. Part III proposes three solutions to the cooperative infringement problem.

I. HISTORICAL DEVELOPMENT OF INDIRECT LIABILITY AND JOINT INFRINGEMENT

Since the first patent act, both Congress and the courts have tried to respond to the problem of the “unscrupulous copyist”¹³—one whose actions, although not technically infringement, warrant deterrence. While the overall trend for claim validity has been to require patentees to more narrowly define their claims, the necessary counterpart has been Congress and the courts’ action to create broader infringement doctrines as situations arise that warrant deterrence. These doctrines include indirect liability and joint infringement.

A. OVERVIEW OF TRENDS IN CLAIMING REQUIREMENTS AND INFRINGEMENT LAWS

Until the Patent Act of 1836, claims were not required.¹⁴ Patentees were permitted to define their inventions broadly, so there was little need for broad infringement doctrines.¹⁵ Thus the early infringement rules were simple and narrow.¹⁶ When Congress added the claim requirement in 1836, effectively narrowing the scope of the “invention” without a counterbalance increasing the scope of what constituted infringement, it became much easier to avoid literal infringement.¹⁷

The concern that some might unfairly dodge infringement has repeatedly led courts to expand infringement laws. Courts’ creation of theories of

12. See discussion *infra* Section III.C.

13. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950).

14. 5 R. CARL MOY, WALKER ON PATENTS § 15:4 (4th ed. 2010).

15. *Id.*

16. See Patent Act of 1836, § 5 (“Every such patent shall . . . grant to the applicant . . . the full and exclusive right and liberty of making, using, and vending to others to be used.”) (codified as amended at 35 U.S.C. § 271 (2006)).

17. See MOY, *supra* note 14, at § 15:4.

indirect infringement,¹⁸ joint infringement,¹⁹ and the doctrine of equivalents (which expands infringing acts to include those that are close, although not identical, to what is claimed)²⁰ exemplify this effort. Congress has also played a role in expanding infringement laws where they were too narrowly interpreted.²¹ The current patent infringement statute, 35 U.S.C. § 271, reflects the trend toward broader infringement laws, stating in relevant part:

(a) 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.

(b) *Whoever* actively induces infringement of a patent shall be liable as an infringer.

(c) *Whoever* offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination, or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.²²

Of particular importance to the cooperative infringement scenario is that the statute does not define “whoever,” which has led to controversy over when liability can exist and to whom it can extend. Even for the strict-liability offense of direct infringement under § 271(a), “whoever” is not limited to a single entity.²³ This statutory leeway provides a sufficient basis

18. *See infra* Section I.B.1.

19. *See infra* Section I.B.2.

20. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607–08 (1950) (explaining that the doctrine of equivalents “evolved . . . [t]o temper unsparing logic and prevent an infringer from stealing the benefit of the invention”).

21. *E.g.*, 35 U.S.C. § 271(f), which was enacted in response to *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972). In *Deepsouth*, the Supreme Court held that it was not infringement to sell a patented machine in parts for combination abroad. *Id.* at 532. Congress responded by enacting § 271(f), which explicitly created liability for such acts. 35 U.S.C. § 271(f) (2006).

22. 35 U.S.C. § 271 (2006) (emphasis added).

23. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007) (discussing joint infringement and holding that “a party cannot avoid infringement, however, simply by contracting out steps of a patented process to another entity”).

for courts to fashion fair solutions that limit effective infringement by “unscrupulous copyists.”²⁴

Ensuring a balance between claim scope and infringement remains important, as the Federal Circuit has recently pushed inventors to further define the bounds of their inventions.²⁵ An inventor should not lose out to people who are able, precisely *due* to the inventor’s clear explanation of his contribution, to dodge infringement. Such a result would only promote ambiguity in describing and claiming inventions, undermining one of the main goals of the patent system—the spread of knowledge.

B. EVOLUTION OF THE PATENT INFRINGEMENT CASE LAW IN MULTI-ACTOR SCENARIOS: TORT-BASED REASONING

The origins of patent infringement are in tort law, and the origins of liability in multi-actor scenarios are in the field of joint torts.²⁶ In multi-actor settings, the tort analogy is particularly important because its flexibility allows courts to reach equitable solutions in complex situations. In those

24. See discussion of Solution One *infra* Section III.A, and Solution Two *infra* Section III.B.

25. Ariad Pharmaceuticals, Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1344 (Fed. Cir. 2010) (holding that claims are invalid if they do not have explicit written description support in the specification, even if the specification enables the claim).

26. Thomsons Houston Elec. Co. v. Ohio Brass Co., 80 F. 712, 721–22 (6th Cir. 1897) (“An infringement of a patent is a tort analogous to trespass or trespass on the case [A]ll who take part in a trespass, either by actual participation therein or by aiding and abetting it, have been held to be jointly and severally liable for the injury inflicted. There must be some concert of action When that is present, however, the joint liability of both the principal and the accomplice has been invariably enforced.”); see also Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 500 (“[A] contributory infringer is a species of joint-tortfeasor, who is held liable because he has contributed with another to the causing of a single harm to the plaintiff.”); Leesona Corp. v. Cotwool Mfg. Corp., 201 F. Supp. 472, 474 (W.D. S. Car. 1962) (“Infringement, direct or contributory, is a tort, an invasion of a right of the patentee. Those who participate in the commission of the tort, who aid in bringing about the invasion, or who commit acts without which the tort would not have occurred are infringers.”) (citations omitted); Stearns v. Tinker & Rasor, 252 F.2d 589, 601 (9th Cir. 1957) (“Contributory infringement is akin to the tort doctrine of joint tortfeasors.”); MOY, *supra* note 14, at § 15:14 (“[L]iability for indirect patent infringement is based on the concept of joint tortfeasance.”); Peter S. Menell, *Unwinding Sony*, 95 CALIF. L. REV. 941 (2007) (discussing the common tort origins of patent law and copyright law and tracing tort law’s influence on indirect infringement doctrines); Edwin Thomas, *The Law of Contributory Infringement*, 21 J. Pat. Off. Soc’y 811, 811–12 (1939) (“The essence of contributory infringement lies in concerting with others in an unlawful invasion of the patentee’s rights.”); Giles Rich, *Infringement under Section 271 of the Patent Act of 1952*, 21 GEO. WASH. L. REV. 521, 525 (1953) (“Contributory infringement is an expression of the old common-law doctrine of joint tortfeasors.”).

complicated scenarios, tort law's flexibility has been instrumental in molding indirect liability rules (where the tort basis for modifying the doctrines has been explicitly stated by courts) and the more recently developed doctrine of joint infringement, a type of direct liability (where the tort rationale has not been as clearly stated). In developing both doctrines, courts appear motivated by pragmatic considerations more than formality, borrowing tort law's flexibility. This Section analyzes tort law's influence on indirect liability and then its influence on joint infringement, tracing that doctrine's development leading up to the *BMC* court's establishment of the "control or direction" standard.

1. *Development of Indirect Liability: The Focus on Concerted Action*

As shown by the seminal case of *Wallace v. Holmes*, the origin of indirect liability is in joint tort law.²⁷ The emphasis of indirect liability has always been addressing the gaming of the strict direct infringement rules. There are two types of indirect infringement, inducement and contributory infringement, and both require an underlying act of direct infringement.²⁸

Inducement liability, codified at 35 U.S.C. § 271(b), has two main elements: (1) encouragement of activities that are later found to constitute infringement, and (2) intent that the activities occur.²⁹ The existence of a third element, knowledge of the existence of a patent, is currently under review by the Supreme Court.³⁰ A simple example of inducement is where the defendant advertises his ability to supply components of a patented invention and also supplies instructions on how to achieve an embodiment of that invention. However, as one scholar observes, there are "unlimited" ways to commit inducement: "[t]he architects of a structure may be responsible, or a firm of engineers, or the vendor of a kit sold with instructions, or of a machine that can operate only to perform a patented process."³¹ Besides the requirement that an infringer take active steps to encourage the infringement, "the term is as broad as the range of actions by

27. *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871). See discussion *infra* this Section.

28. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

29. MOY, *supra* note 14, at § 15:15.

30. See *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360 (Fed. Cir. 2010), *cert. granted*, *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 458 (U.S. Oct. 12, 2010) (No. 10-6).

31. Giles S. Rich, *Address of Giles S. Rich*, Nov. 6, 1952, reprinted in 75 *Journal of the Patent Office and Trademark Society* 3 (Special Issue 1993).

which one in fact causes, or urges, or encourage[s], or aids another to infringe a patent.”³²

Contributory infringement, codified at 35 U.S.C. § 271(c), generally requires several elements: that the infringer (1) sells, offers to sell, or imports a component (2) constituting a material part of the invention while (3) knowing it to be especially made for use in infringing a patent, where (4) the component is not a staple article or commodity of commerce suitable for substantial noninfringing uses, and that (5) notice of the patent in suit and (6) notice that the defendant’s activities are infringing (e.g. a cease and desist letter) are given to a defendant.³³

These indirect infringement doctrines originated in concern over the concerted actions of multiple parties. The solutions draw on tort law’s flexibility to help plaintiffs that would have otherwise been remediless. The earliest cases of indirect infringement fall under what is now known as contributory infringement. *Wallace v. Holmes* is regarded as the first example of indirect liability.³⁴ *Wallace* concerned a patent to an improved oil lamp in which the burner had spring clamps to hold the chimney in place.³⁵ The defendant only sold the burner part of the invention, while the customers were expected to combine the burner with a standard chimney, which would create the patented invention.³⁶ Under the standard rule requiring that the alleged infringer practice each element, the defendants would have escaped liability and only the customers would have been liable. However, the court found that result unreasonable:

[T]he complainants would be driven to the task of searching out the individual purchasers for use who actually place the chimney on the burner and use it—a consequence which . . . would make the complainants helpless and remediless.

If, in actual concert with a third party . . . [defendant] consented to manufacture the burner, and such other party to make the chimney, and, in such concert, they actually make and sell the burner, and he the chimney . . . each intended to be used, and actually sold to be used, with the other, it cannot be doubtful, that they must be deemed to be joint infringers of the complainants’ patent . . . [A]ll

32. *Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 411 (5th Cir. 1963).

33. MOY, *supra* note 14, at § 15:21.

34. *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871).

35. *Id.* at 75.

36. *Id.* at 78–80.

are tort-feasors, engaged in a common purpose to infringe the patent.³⁷

Because it would be difficult and not cost-effective for the plaintiffs to sue the directly infringing customers, the court held the manufacturers liable for their customers' acts.³⁸ The court's concern was that the activities of two parties, the defendant and its customers, were the actual causes of harm to the plaintiff and that the defendant should not be able to escape liability by gaming the strict system of direct infringement.³⁹ The court's concern with cooperation is reflected in its finding that the offer for sale and purchase were in essence a "prearrangement"⁴⁰ to infringe, accomplished by dividing up the steps so that the customer would complete the assembly of the invention by purchasing the chimney from another source and using it in conjunction with the part sold by the defendant. When there is an *actual* agreement to divide the steps, as in the arms-length infringement scenario that is the subject of this Note, the logic used in *Wallace* is particularly applicable.

Other courts immediately adopted *Wallace* as a way to solve multi-actor problems.⁴¹ *Wallace* has stood the test of time and has been cited by the

37. *Id.* at 80 (emphasis added). Note that although the court calls the defendants "joint infringers," the common wording in today's terminology would be "contributory infringers." The idea of joint infringement as understood today is different. *See* discussion *infra* Section I.B.2.

38. *Id.*

39. *See id.*

40. *Id.*

41. *See, e.g.,* Thomson-Houston Elec. Co. v. Ohio Brass Co., 80 F. 712, 721 (6th Cir. 1897) ("[In situations like in *Wallace*] the joint liability of both the principal and the accomplice has been invariably enforced. If this healthful rule is not to apply to trespass upon patent property, then, indeed, the protection which is promised by the constitution and laws of the United States to inventors is a poor sham."); *Strobridge v. Lindsey*, 6 Fed. 510, 512 (C.C.W.D. Pa. 1881); *Schneider v. Poutney*, 21 Fed 399, 403 (C.C.D.N.J. 1884); *Barnes v. Straus*, 2 Fed. Cas. 876, 878-79 (C.C.S.D.N.Y. 1872); *Renwick v. Pond*, 20 Fed. Cas. 536, 541 (C.C.S.D.N.Y. 1872). Courts also adopted limits similar to those currently in place in order to prevent overreach of the doctrine; these limits reflect courts' concern with (1) requiring intent to contribute to infringement, and (2) prohibiting patent misuse. *See, e.g.,* *Millner v. Schofield*, 17 F. Cas. 392, 392-93 (C.C.W.D. Va. 1881) (holding that it must be shown that the parts sold were useless in any other machine); *Saxe v. Hammond*, 21 F. Cas. 593, 594-95 (C.C.D. Mass. 1875) (holding that intent is required in the *Wallace* scenario, and distinguishing the case from *Wallace* because it lacked proof or "certain inference" of intent by the defendants that their product be combined in an infringing manner); *Keystone Bridge Co v. Phoenix Iron Co.*, 14 F. Cas. 449, 450 (C.C.E.D. Pa. 1872), *aff'd sub nom.* *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 24 L. Ed. 344 (1877) (requiring that the parts not be useful in other devices, in the absence of a specific intent to aid an outright infringer).

Supreme Court, which shared the *Wallace* court's concerns with business realities.⁴² Importantly, in *Wallace*, as in all contributory infringement cases, the occurrence of harm to the patentee is necessarily dependent on a single underlying act that constitutes direct infringement: if the user does not combine the parts in an infringing manner, no harm is incurred by the patentee. As this Note will explain, when the scenario is different, i.e. when harm to the patentee can occur without an underlying direct infringement, courts should not adhere to rigid rules and instead should consider the motivations underlying cases such as *Wallace*.⁴³

2. *Development of Joint Infringement Doctrine*

Joint infringement is a form of direct infringement, but it is an exception to the general rule that under § 271(a) direct infringement requires that a single party must practice each element of a claim.⁴⁴ Like indirect infringement, the purpose of the doctrine is to capture those who otherwise avoid direct infringement by performing less than all elements of a claim and involving a third party. However, joint infringement is different from indirect infringement in a number of ways: (1) indirect infringement requires an underlying direct infringement;⁴⁵ (2) joint infringement is a strict liability offense and thus contains no intent element;⁴⁶ and (3) a joint infringer must perform at least some of the patented elements himself, unlike an inducer.⁴⁷

The rationale for joint infringement is not always clearly articulated, but generally courts focus on the unfairness of allowing a party to escape direct liability by simply having another party perform some of the patented elements.⁴⁸ Just as in indirect liability, tort-like thinking underlies courts'

42. *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 188 (1980) (noting that the protection given in *Wallace* "is of particular importance in situations . . . where enforcement against direct infringers would be difficult[] and where the technicalities of patent law make it relatively easy to profit from another's invention without risking a charge of direct infringement").

43. *See infra* Section III.B.

44. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007).

45. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

46. *See BMC*, 498 F.3d at 1381.

47. There is no case finding joint infringement where a party completed none of the steps, which makes sense because that is the classic example of a pure inducer.

48. *Id.* at 1381 ("[a] party cannot avoid infringement, however, simply by contracting out steps of a patented process to another entity.") But note *BMC's* support for this rule is *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980), *aff'd*, 667 F.2d 1232 (5th Cir. 1982) ("[i]nfringement of a patented process or method cannot be avoided by having another perform one step of the process or method."), which does not require a

decisions employing joint liability, which are overwhelmingly concerned with fairness and proscribing gaming of the system.

Before the Federal Circuit's decision in *BMC*, two lines of reasoning were used by courts in finding joint infringement, both rooted in fairness concerns: (1) joint infringement based on agency,⁴⁹ and (2) joint infringement based on a cooperation or a "some connection" theory.⁵⁰ However, the "agency" rationale has been poorly articulated and poorly reasoned. Leading up to *BMC*, the "some connection" theory was dominant.⁵¹ Nevertheless, *BMC* eventually adopted the "control or direction" standard,⁵² which has strong undercurrents of agency. Then *Muniauction* and *Golden Hour* essentially raised the bar by adopting a pure agency standard.⁵³ The recent decision in *Akamai* tempers the agency requirement, but does not go far enough toward prohibiting cooperative infringement.⁵⁴

The earliest case commonly cited when discussing joint infringement is *Crowell v. Baker Oil Tools, Inc.*,⁵⁵ which held that "[i]t is obvious that one may infringe a patent if he employ an agent for that purpose or have the offending articles manufactured for him by an independent contractor."⁵⁶ On its face, the *Crowell* rule would seem to support either an agency or a cooperation rationale. The distinguishing characteristic of an independent contractor, as opposed to an agent, is that the former is not subject to the

contractually enforceable obligation. This distinction becomes important in the discussion of the *Akamai* case. See discussion *infra* Section II.B.

49. See *Cross Medical Prods. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1311 (Fed. Cir. 2005); *Mobil Oil Corp. v. W. R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973).

50. See *Applied Interact v. Vermont Teddy Bear Co.*, No. No. 04 Civ.8713 HB, 2005 WL 2133416, at *5–6 (S.D.N.Y. Sept. 6, 2005); *Cordis Corp. v. Medtronic AVE Inc.*, 194 F. Supp. 2d 323, 349 (D. Del. 2002); *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999); *E.I. DuPont De Nemours & Co. v. Monsanto Co.*, 903 F. Supp. 680, 735 (D. Del. 1995); *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980); *Metal Film Co. v. Metlon Corp.*, 316 F. Supp. 96, 110–11 (S.D.N.Y. 1970).

51. See discussion *infra* this Section.

52. *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

53. See *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1380 (Fed. Cir. 2010); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1329–30 (Fed. Cir. 2008).

54. See *Akamai Techs., Inc. v. Limelight Networks, Inc.*, No. 2009-1372, 2010 WL 5151337, at *6–7 (Fed. Cir. Dec. 20, 2010).

55. 143 F.2d 1003 (9th Cir. 1944).

56. *Id.* at 1004. *But see* Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 259 (2005) (noting it was not actually a joint infringement case at all, rather a case of direct infringement by a contractor at the defendant's direction, where defendant did not participate).

control of the one by whom he is hired, unlike the latter. Thus, an independent contractor is more like a business partner—one with whom someone cooperates.

The agency rationale first clearly appeared in *Mobil Oil Corp. v. W. R. Grace & Co.*, where the court found infringement.⁵⁷ However, what the court called agency in this case is not true agency; it would fail the Federal Circuit's modern "control or direction" standard for lack of agency and lack of a contractually enforceable agreement. The asserted claim recited a method for preparation of a hydrocarbon conversion catalyst, consisting of a series of steps ending in a heating step.⁵⁸ The defendant manufactured and sold catalysts that were designed for customers to complete the last claimed step in their ordinary use of the catalysts.⁵⁹ Because no single entity directly infringed, recovery under the traditional direct infringement doctrine, as well as indirect infringement, was impossible. The court refused to let the defendants escape liability, however, holding that the "defendant, in effect, made each of its customers its agent in completing the infringing step, knowing full well that the infringement step would in fact be promptly and fully completed by [their] customers."⁶⁰

However, the relationship in *W.R. Grace* was not actually one of agency because the defendant did not control its customers in such a way that they could not perform their steps as they wished, which would typically be needed to enforce tort liability on principals.⁶¹ Moreover, while the defendants knew their customers would complete the last step, they did not direct them to do so. Thus, this case represents an expansive definition of agency to the point where it bears no relationship to traditional agency.⁶² In fact, *W.R. Grace* supports a broad infringement standard. The court's focus was purely on knowledge and intent that the infringing activities occur, a

57. *Mobil Oil Corp. v. W. R. Grace & Co.*, 367 F. Supp. 207, 253 (D. Conn. 1973).

58. U.S. Patent No. 3,140,249, col. 23, ll. 45–57; U.S. Patent No. 3,436,357, col. 21, ll. 60–70.

59. *W.R. Grace*, 367 F. Supp. at 253.

60. *Id.*

61. See RESTATEMENT (SECOND) OF AGENCY § 119 (1958) ("A master is subject to liability for the torts of his servants committed while acting in the scope of their employment."); *Id.* at § 220 ("A servant is a person employed to perform services in the affairs of another and who with respect to the physical conduct in the performance of the services is subject to the other's control or right to control."). Note that "servant" and "agent" are synonymous in this context.

62. See Long Truong, *After BMC Resources, Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, 103 NW. U. L. REV. 1897, 1909 (2009) (agreeing that *W.R. Grace* was not a situation of true agency).

much more intuitive rationale that reflects the tort-based logic underlying indirect infringement. The court's effort to find liability despite a lack of control *or* direction shows that those elements are not essential to a common sense rule.

*Cross Medical Prods. v. Medtronic Sofamor Danek, Inc.*⁶³ is the first indication from the Federal Circuit that multi-actor direct infringement requires a showing of agency. It is also the case that most strongly supports the *BMC* standard. The patent at issue claimed a medical device “operatively joined” to bone.⁶⁴ The manufacturer created the device but did not attach it to bone; rather, doctors used the device, attaching it to bone.⁶⁵ The court held that the manufacturer was not liable for direct infringement.⁶⁶ The court addresses the issue of agency by (1) first noting that direction was present in *Shields v. Halliburton*⁶⁷ (even though the *Shields* court only mentions “assistance” by the third party, not direction by anyone), and (2) then simply stating that because the doctors were not agents of Medtronic, Medtronic was not liable as a direct infringer.⁶⁸ The court did not clarify why the alleged finding of direction in *Shields* would necessitate a finding of agency, which typically requires control far beyond direction.⁶⁹ Importantly, the court held that the doctors could be direct infringers and the manufacturer could be liable for inducement, so the plaintiffs were not entirely remediless.⁷⁰

Besides agency, the main line of reasoning for joint infringement is based on cooperation, or the existence of “some connection” between the allegedly infringing parties.⁷¹ In *Metal Film Co. v. Metlon Corp.*,⁷² Metlon infringed a method for producing filamentary metalized threads where outside suppliers performed the first step, a conventional vacuum metalizing step.⁷³ The relationship is better described as an independent contractor relationship,

63. 424 F.3d 1293 (Fed. Cir. 2005).

64. *Id.* at 1299.

65. *Id.* at 1310–11.

66. *Id.*

67. See discussion *infra* this Section.

68. *Cross Medical Prods. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1311 (Fed. Cir. 2005).

69. See RESTATEMENT (SECOND) OF AGENCY § 220 (1958) (“A servant is a person employed to perform services in the affairs of another and who with respect to the physical conduct in the performance of the services is subject to the other’s control or right to control.”). Note that “servant” and “agent” are synonymous in this context.

70. *Cross Medical*, 424 F.3d at 1311–14.

71. See cases cited *supra* note 50.

72. 316 F. Supp. 96, 110–11 (S.D.N.Y. 1970).

73. *Id.* at 110 n.12 (citing *Crowell* for the proposition that the fact that defendant had the step done by a contractor does not mitigate their infringement of the overall process).

rather than an agency relationship, because the metalizing step was conventional and routine, instead of an activity requiring direction, customization, or control.⁷⁴

The cooperation rationale was strongly stated in *Shields v. Halliburton Co.*, where an infringing grouting process was carried out by Halliburton while building off-shore oil rigs with the assistance of employees of two other companies.⁷⁵ The parties, all on site, performed different steps of the invention.⁷⁶ For example, in one instance, Halliburton employees pumped grout while the other companies' employees controlled and maintained air pressure, as required by the claimed method.⁷⁷ The court did not mention direction or control, rather only that the "actual grouting operation was conducted by Halliburton which was assisted by [the other companies,] Brown and Root."⁷⁸ The court held that all three companies were jointly liable because "[w]hen infringement results from the participation and combined action of several parties, they are all joint infringers and jointly liable for patent infringement."⁷⁹ Stated another way, "[i]nfringement of a patented process or method cannot be avoided by having another perform one step of the process or method."⁸⁰

The court in *E.I. DuPont De Nemours & Co. v. Monsanto Co.* also found joint infringement on facts similar to *Metlon*.⁸¹ All claims were to methods, most involving a three-step process.⁸² Monsanto, the supplier, completed the first step and sent the result to CaMac, who completed the last two steps and sold the result.⁸³ The court held CaMac liable as a joint infringer.⁸⁴ Although Monsanto was not held liable as joint infringer, it was held liable for inducing CaMac's direct infringement based on communications between the companies and Monsanto's indemnification of CaMac in case they were found to have infringed the DuPont patent.⁸⁵

74. *See id.*

75. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980).

76. *Id.* at 1388.

77. *Id.*

78. *Id.*

79. *Id.* at 1389.

80. *Id.*

81. 903 F. Supp. 680, 735 (D. Del. 1995).

82. *Id.* at 720.

83. *Id.* at 733–35.

84. *Id.* at 735.

85. *Id.* at 736–37.

A slightly different standard, called the “some connection” standard, grew out of *Shields, Metlon, and DuPont*.⁸⁶ In *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, the court rejected the plaintiff’s joint infringement theory, noting that the other district courts that found joint infringement required “some connection” between the parties. The court further noted that *Dupont, Shields, and Metlon* “each demonstrate that the entities found to directly infringe patented processes worked in concert with other entities to complete the process of infringement.”⁸⁷

The court in *Applied Interact v. Vermont Teddy Bear Co.* also accepted the “some connection” standard.⁸⁸ The court held that the owners of a website infringed a claim to a method of enlisting responses to broadcast program.⁸⁹ The court identified a sufficient connection between defendants and their customers to create liability when defendants instructed the customers to “click . . . to print [a] coupon” for a free tour of their facility.⁹⁰

The court in *Cordis Corp. v. Medtronic AVE Inc.* also relied upon the “some connection” standard.⁹¹ The claim at issue was a method for implanting a balloon expandable stent prosthesis within a passageway of an artery.⁹² The court found a close enough connection between the defendant manufacturer and third-party doctors to establish liability where the manufacturer informed doctors about their stent, recruited doctors to participate in clinical trials, and solicited their feedback.⁹³ The court went so far as to reject the defendant’s argument that the parties must have “worked in concert” or “worked jointly.”⁹⁴ It held that “some connection” between the parties performing the different steps was sufficient to find liability.⁹⁵

The court in *Hill v. Amazon, Inc.*⁹⁶ echoed the *Cordis* court’s rule, holding that “a showing of ‘agency’ or ‘working in concert’ is not necessarily

86. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999).

87. *Faroudja*, 1999 U.S. Dist. LEXIS 22987, at *6.

88. *Applied Interact v. Vermont Teddy Bear Co.*, No. 04 Civ.8173 HB, 2005 WL 2133416, at *5–6 (S.D.N.Y. Sept. 6, 2005).

89. *Id.*

90. *Id.*

91. 194 F. Supp. 2d 323, 349 (D. Del. 2002), *rev’d on other grounds*, *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352 (Fed. Cir. 2003).

92. *Id.* at 329.

93. *Id.* at 349–50.

94. *Id.* at 349 n.19.

95. *Id.* at 349.

96. No. Civ.A.2:02-CV-186, 2006 WL 151911 (E.D. Tex. Jan. 19, 2006).

required” when “some connection” is established.⁹⁷ The claim was to a method requiring a main computer and a remote computer.⁹⁸ Defendants argued that they performed the steps on the main computer and customers did the steps on the remote computer, so they could not directly infringe.⁹⁹ The court disagreed.¹⁰⁰ In finding “some connection,” the court focused on evidence that (1) defendant controlled its users’ use of its website because defendant designed the site, and (2) defendant advised its customers to update their browsers and modify their settings.¹⁰¹

Finally, in *On Demand Machine Corp. v. Ingame Indus.*, the Federal Circuit appeared to endorse a variant of the “some connection” standard, taking language from *Shields*.¹⁰² The court discerned no flaw in the following jury instruction as a statement of law:

Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. *Where the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.*¹⁰³

This was the joint infringement landscape leading up to *BMC*—some decisions requiring agency and some requiring cooperation or “some connection,” with a statement by the Federal Circuit in *On Demand* indicating that “participation and combined action” was the correct standard. As explored in Section II.A, *infra*, the *BMC* court explicitly held that the “participation and combined action” standard was dicta in *On Demand* and set a much higher “control or direct” standard for joint infringement.

97. *Id.* at *2.

98. *Id.* at *1.

99. *Id.* at *2.

100. *Id.*

101. *Id.* at *2–3.

102. *On Demand Machine Corp. v. Ingame Indus.*, 442 F.3d 1331 (Fed. Cir. 2006).

103. *Id.* at 1345 (emphasis added).

II. LIMITATIONS OF THE HIGH STANDARD FOR JOINT INFRINGEMENT SET BY *BMC*, *MUNIAUCTION*, *GOLDEN HOUR*, AND *AKAMAI*

In *BMC*, the Federal Circuit resolved the uncertainty created by the district courts' conflicting standards for joint infringement, setting the "control or direction" standard.¹⁰⁴ However, in setting the new standard, the court did not adequately address the concerns of the prior district court opinions regarding the arms-length infringement scenario. It acknowledged that its rule does not capture such a scenario, but refused to expand the rule to capture it for three reasons: (1) availability of indirect infringement to capture it, (2) fear of subverting indirect infringement, and (3) availability of the solution of "proper claim drafting" for the arms-length infringement scenario.¹⁰⁵ However, indirect liability fails, the fear is unfounded, and the solution is ineffective. The numerous holes in the logic of *BMC* have been exacerbated by subsequent Federal Circuit decisions interpreting its "control or direction" standard.

A. WEAKNESSES OF *BMC*'S "CONTROL OR DIRECTION" STANDARD FOR JOINT INFRINGEMENT

BMC was the Federal Circuit's first attempt to directly and fully address the correct standard for joint infringement. The claim at issue in *BMC* concerned an automated bill pay system.¹⁰⁶ The method involved a caller placing a call to a payee, comprising steps of prompting the caller to make an entry, responding to an entry, and accessing a remote payment network, among other things.¹⁰⁷ The claims explicitly required at least two entities to perform the method: the main operator and the user.¹⁰⁸ At issue was whether the main operator could be held liable without performing all the steps of the method.¹⁰⁹ The court held that the main operator could be liable, but only if it controlled or directed the completion of all the other steps.¹¹⁰

In *BMC*, the Federal Circuit disregarded its earlier comment on the jury instruction in *On Demand* as dicta¹¹¹ and rejected its prior approval of the "some connection" reasoning and standard from cases such as *Shields* and

104. *BMC Res. v. Paymentech*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

105. *Id.*

106. *Id.* at 1375–76.

107. *Id.* at 1375–77.

108. *Id.*

109. *Id.* at 1378.

110. *Id.* at 1380–81.

111. *Id.* at 1379–80.

Faroudja.¹¹² Further, the Federal Circuit affirmed the district court holding that “control or direction” was the correct standard.¹¹³ The court cited four sources for its holding: (1) *Fromson v. Advance Offset Plate, Inc.*,¹¹⁴ (2) *Cross Medical Prods. v. Medtronic Sofamor Danek, Inc.*,¹¹⁵ (3) the *BMC* district court opinion (the only source that used the words “control or direction”),¹¹⁶ and (4) *Mobil Oil Corp. v. Filtrrol Corp.*¹¹⁷

The court’s reasoning reflects fear about the overreach of the doctrine of joint infringement due to its strict liability nature. The court explicitly acknowledged “that the standard requiring control or direction for a finding of joint infringement may in some circumstances allow parties to enter into arms-length agreements to avoid infringement.”¹¹⁸ Nonetheless, the court held that “this concern does not outweigh concerns over expanding the rules governing direct infringement . . . [such as] subver[sion of] the statutory scheme for indirect infringement.”¹¹⁹ This Note argues that the court too simply disregarded previous cases and their fairness concerns. As explored in this Section, *infra*, the Federal Circuit offered a solution—rewriting the claims—that might fix some aspects of the *BMC* scenario, but does not prevent all cooperative infringement.

Fromson does not appear to permit joint infringement at all. *Fromson* concerned a claim to a coated metal plate used in lithography and a process for making the plate.¹²⁰ One of the steps was to apply a diazo coating to the plate. Without discussion of any precedent or rationale, the court simply held in a single sentence that “[b]ecause the claims include the application of a diazo coating or other light sensitive layer and because [defendant’s] customers, not [defendant], applied the diazo coating, [defendant] cannot be liable for direct infringement with respect to those plates.”¹²¹ The court did

112. *Id.* at 1381.

113. *Id.*

114. *Id.* at 1380 (citing *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1568 (Fed. Cir. 1983)).

115. *Id.* (citing *Cross Medical Prods. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1311 (Fed. Cir. 2005)).

116. *Id.* (citing *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289 (N.D. Tex. Feb. 9, 2006)).

117. *Id.* (citing *Mobil Oil Corp. v. Filtrrol Corp.*, 501 F.2d 282, 291–92 (9th Cir. 1974) (expressing doubt over the possibility of joint infringement liability)).

118. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

119. *Id.*

120. *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1566–67 (Fed. Cir. 1983).

121. *Id.* at 1568.

not mention agency, control or direction, or any other rationale.¹²² This case stands in opposition to *W.R. Grace* (and to some extent, *Metlon*), but the court reached its conclusion without discussion of *W.R. Grace* or its rationale. Importantly, the patent holder was not remediless because the court held that the defendant manufacturer could be liable for contributory infringement since its customers directly infringed by completing the apparatus.¹²³

The second case cited for support of the *BMC* holding, *Cross Medical*, seems to indicate that agency is required,¹²⁴ but does so without discussion or adequate support. As noted in Section I.B.2, *supra*, the only case that the *Cross Medical* court cited for the requirement of “direction” is *Shields*. However, a close reading of *Shields* reveals that the court only required *assistance* between the parties engaged in the infringement, and did not mention agency.¹²⁵ Again, because *Fromson* and *Cross Medical* concerned apparatus claims, the ultimate user directly infringed by completing the device, allowing the manufacturer to be held indirectly liable. As discussed in Section III.A, *infra*, holders of method patents are disadvantaged because the underlying act requirement of indirect infringement often cannot be met, where it generally is for an apparatus claim.

While the Federal Circuit in *BMC* did not consider any of the district court cases mentioned in Section I.B.2, *supra*, the *BMC* district court opinion did.¹²⁶ The *BMC* district court opinion was cited by the Federal Circuit for the proposition that “[c]ourts faced with a divided infringement theory have also generally refused to find liability where one party did not control or direct each step of the patented process,” and is thus the basis for the standard.¹²⁷ The *BMC* district court collected the earlier cases, focusing on *Cordis*,¹²⁸ *Vermont Teddy Bear*,¹²⁹ and *Marley Mouldings Ltd. v. Mikron Indus., Inc.*,¹³⁰ and concluded that “control or direction” was present in each of those cases and required for joint infringement.¹³¹ However, these cases, which

122. *Id.*

123. *Id.*

124. *See* discussion *supra* Section I.B.2.

125. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1388–89 (W.D. La. 1980).

126. *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289, at *4–6 (N.D. Tex. Feb. 9, 2006).

127. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007)

128. *See* discussion *supra* Section I.B.2.

129. *See id.*

130. No. 02C 2855, 2003 U.S. Dist. LEXIS 7211, at *7–8 (N.D. Ill. Apr. 29, 2003), *rev'd on other grounds*, 417 F.3d 1356 (Fed. Cir. 2005) (finding infringement under the “some connection” standard where defendant instructed a third party how to complete its steps).

131. *BMC Res., Inc. v. Paymentech, L.P.*, 2006 WL 306289, at *6 (N.D. Tex. 2006).

establish the legal precedent for *BMC*'s adoption of the "control or direction" standard, would fail the "control or direction" test for joint infringement as currently interpreted. For example, the defendants in *Vermont Teddy Bear* merely instructed their customers to print a coupon.¹³² As explained in Section II.B., *infra*, decisions following *BMC* make it clear that this amount of instruction would be insufficient—in fact, that any amount of instruction is probably insufficient. The Federal Circuit has not stayed true to the philosophical underpinnings of the control or direction test.

The Federal Circuit made a number of problematic arguments for why the joint infringement standard should be so high. First, the court stated that when ordinary direct infringement by a single party is lacking, the usual remedy is indirect infringement.¹³³ This argument seems to ignore the reality that cooperative infringement scenarios often lack a single underlying direct infringer (which is required for indirect infringement), especially when a method claim is at issue, making indirect infringement impossible.

Second, the court opined that a low joint infringement standard would undercut the indirect infringement doctrine by essentially eliminating cases brought under it.¹³⁴ Yet even if cooperation or "some connection" was the joint infringement standard, there would still be many scenarios involving inducement and contributory infringement where no concerted action between the parties existed, or where one party purely induced or contributed without performing any of the patented elements. Therefore, despite the court's concern, the canonical examples of indirect infringement, such as distant inducement by one party of another, would only be actionable under indirect infringement, not joint infringement.

Third, the court disregarded concerns over the arms-length agreement problem by stating that "a patentee can usually structure a claim to capture infringement by a single party"¹³⁵—essentially arguing that proper claim drafting can prevent parties from using cooperative arrangements to escape infringement liability. However, while restructuring the claim would make it *possible* for it to be practiced by a single party (unlike in *BMC* where it was impossible because two parties were explicitly mentioned in the claim language), it in no way guarantees that two parties will not divide its steps to

132. *Applied Interact v. Vermont Teddy Bear Co.*, No. 04 Civ.8173 HB, 2005 WL 2133416, at *5–6 (S.D.N.Y. Sept. 6, 2005).

133. *BMC*, 498 F.3d at 1380 ("Where a defendant participates in infringement but does not directly infringe the patent, the law provides remedies under principles of indirect infringement.").

134. *Id.* at 1381.

135. *Id.* (citing Lemley, *supra* note 56, at 272–75).

avoid infringement. For example, the steps of a method for refining iron ore may be divided between two parties, avoiding infringement, even if the claims only contemplate one party doing all the refining steps.

Fourth, the Federal Circuit made vague and unfounded references to “vicarious liability.”¹³⁶ In arguing that vicarious liability eliminates the potential loophole left by ordinary direct infringement, the court noted that “the law imposes vicarious liability on a party for the acts of another in circumstances showing that the liable party controlled the conduct of the acting party.”¹³⁷ This conclusory statement simply attempts to assert a “control” standard for multi-actor conduct. Simple conclusions based on liability in general is not helpful to such a unique and developed field as patent law.¹³⁸ In summary, *BMC* provides an inadequate explanation of why joint infringement should be limited to scenarios of control or direction.

B. FURTHER ISSUES IN POST-*BMC* FEDERAL CIRCUIT AND DISTRICT COURT CASES

Following *BMC*, the Federal Circuit’s subsequent decisions concerning the standard for joint infringement have exacerbated the problems with *BMC*’s logic. Until *Akamai*, these cases had been raising the bar from its already high starting point, essentially interpreting “control or direction” to only mean “control.” *Akamai* lowered the bar by adding an alternative prong, contractually enforceable obligations, but this does not go far enough.

In *Muniauction*, the Federal Circuit affirmed *BMC* and slightly raised the joint infringement standard, holding that control over user access to a patented system and direction on how to use it is insufficient for “control or direction.”¹³⁹ The claim at issue concerned a computer system that allowed, on a central server, municipal bond issuers to initiate and monitor bond

136. *Id.* at 1379.

137. *Id.* (citing *Engle v. Dinehart*, 213 F.3d 639 (5th Cir. 2000) (unpublished decision)).

138. However, even if vicarious liability is the linchpin of all multi-actor infringement, as *BMC* holds, neither control nor agency is always required for a finding of vicarious liability. In fact, *Engle* acknowledges that “ostensible” agency, a legal fiction, can create tort liability: “Nevertheless, an employer or principal may act so as to be subjected to liability because of the conduct of a *person who is not its agent*, or who, although an agent, has acted outside the scope of his or her authority. Under the doctrine of ostensible agency, the employer or principal may be held liable under circumstances in which his own conduct should equitably prevent him from denying the existence of an agency.” *Engle*, 213 F.3d 639 at *9 (emphasis added). In addition, principals may be held vicariously liable for the acts of non-agent independent contractors in certain situations. *Majestic Realty Associates, Inc. v. Toti Contracting Co.*, 30 N.J. 425 (1959) (holding a corporation liable for the demolition work of its independent contractor because it was “inherently dangerous”).

139. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1330 (Fed. Cir. 2008).

auctions, and bidders to submit and monitor bids.¹⁴⁰ The claim required combined actions of a bidder and a computer system.¹⁴¹ The court held that an alleged infringer who “controls access to its system and *instructs* bidders on its use” is *not* liable for joint infringement.¹⁴² In denying infringement, the court cited *BMC* and held that one party must exhibit such direction or control that each step must be attributable to him—the “mastermind.”¹⁴³ The question, according to the court, was whether control was present to such a degree that the defendant himself “can be said to have performed every step of the asserted claims.”¹⁴⁴ The court’s interpretation of the standard reflects a trend away from “direction” and toward an exclusive control or agency standard. The court explicitly rejected the district court’s jury instruction, which focused on whether there was “one party teaching, instructing, or facilitating the other party’s participation.”¹⁴⁵

In *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, the Federal Circuit first faced a situation in which two sophisticated parties entered into a “strategic partnership” to sell software that infringed computerized method and apparatus claims,¹⁴⁶ exemplifying the arms-length agreement for cooperative infringement the *BMC* court acknowledged and accepted as a possibility.¹⁴⁷ Prior to their strategic partnership, emsCharts sold software that performed some of the steps, and Softtech sold software that performed the others.¹⁴⁸ The two entered into a contractual relationship that permitted emsCharts to distribute Softtech’s software, which it did, in combination with its own, in an infringing manner.¹⁴⁹ The parties also jointly submitted a bid for a university contract that proposed use of their software programs together,¹⁵⁰ which if done by a single party would have violated § 271’s prohibition on

140. *Id.* at 1322–23.

141. *Id.* at 1328–29 (“at least the inputting step of claim 1 is completed by the bidder, whereas at least a majority of the remaining steps are performed by the auctioneer’s system.”).

142. *Id.* at 1330 (emphasis added).

143. *Id.* at 1329.

144. *Id.*

145. *Id.* at 1329.

146. *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, 614 F.3d 1367, 1369–70 (Fed. Cir. 2010).

147. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

148. *Id.* at 1371.

149. *Id.* The court mentioned in dictum that this would have been enough for direct infringement by emsCharts alone, but the parties had agreed to submit only joint infringement claims to the jury. *Id.* at 1381.

150. *Golden Hour Data Sys., Inc. v. emsCharts, Inc.*, No. 2:06 CV 381, 2009 WL 943273, at *3–4 (E.D. Tex. Apr. 3, 2009).

offers to sell. However, because neither party controlled the other or directed the other to participate in the bidding—rather they merely both *agreed* to participate—the district court held infringement impossible.¹⁵¹ Thus, the district court granted the defendants’ JMOL motion after a jury verdict for the plaintiffs.¹⁵² The district court explicitly held that “[m]aking information available to the other party, promoting the other party, *instructing* the other party, or facilitating or arranging for the other party’s involvement in the alleged infringement is not sufficient to find control or direction.”¹⁵³ The Federal Circuit affirmed without much discussion.¹⁵⁴ Judge Newman, the author of the *On Demand* opinion, dissented, arguing that the control or direction standard was incorrect as a matter of law.¹⁵⁵ This case represents the first time the Federal Circuit applied the “control or direction” standard to a claim that did not explicitly require more than one party to perform the invention at issue.

After *Muniauction* and *Golden Hour*, it appeared that little remained of the direction prong of “control or direction.” Recently, the Federal Circuit confirmed that direction alone is insufficient for “control or direction”—agency is required.¹⁵⁶ In *Akamai Techs., Inc. v. Limelight Networks, Inc.*, plaintiff Akamai’s patents claimed a method of delivering web content that involved copying a web page onto a new network different from the content provider’s (i.e. customer’s) network, tagging some of the embedded objects on the page so that they are served from the new network, and, responsive to a request, serving the tagged embedded objects from the new network.¹⁵⁷ Pursuant to a form contract, Limelight’s customers were to tag the objects they wished to be served by Limelight, who gave detailed instructions on how to do the tagging.¹⁵⁸ Akamai argued that Limelight’s detailed instructions to its customers “present[ed] the ultimate in direction,” and should therefore be sufficient to fulfill the control or direction standard under *BMC*.¹⁵⁹ The

151. *Id.* at *4 (stating that “emsCharts did not *direct* Softtech [to] submit the bid,” but that rather “[t]he two companies discussed and *agreed* to submit the bid”) (emphasis in original).

152. *Golden Hour*, 614 F.3d 1367.

153. *Id.* (citing *Emtel, Inc. v. Lipidlabs, Inc.*, 583 F. Supp. 2d 811, 839 (S.D. Tex. 2008)) (emphasis added).

154. *Golden Hour*, 614 F.3d at 1381.

155. *Id.* at 1382–83.

156. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, No. 2009-1372, 2010 WL 5151337 (Fed. Cir. Dec. 20, 2010).

157. *Id.* at *7.

158. *Id.* at *11.

159. *Id.* at *15.

court responded that “the words in the *BMC Resources* test must be read in the context of traditional agency law” and, quoting the Restatement, noted that “[a]n essential element of agency is the principal’s right to control the agent’s actions.”¹⁶⁰ The court then held that the situation was no different than that in *Muniauction* with respect to whether agency was established: direction alone was insufficient without control, and so agency was lacking.¹⁶¹

But the court’s analysis did not end there. In an interesting turn of events, the *Akamai* panel, which included Chief Judge Rader who authored *BMC*, added an alternative prong to agency in the *BMC* test.¹⁶² Without overturning any of its prior decisions, the court held that a contractual obligation alone is sufficient to attribute one party’s actions to another and thus establish joint infringement.¹⁶³ The holding is groundbreaking because until *Akamai*, most district courts interpreted the *BMC* rule to mean a contractual agreement alone was insufficient to show control or direction.¹⁶⁴

160. *Id.* (quoting RESTATEMENT (THIRD) OF AGENCY § 1.01 cmt. f. (2006)).

161. *Id.* at 15–16.

162. *Id.* at 14.

163. *Id.* The court’s seemingly clear rule, however, is muddled by its analysis under the facts of the case. First, the court cited *BMC*’s rule that “mere arms-length cooperation will not give rise to direct infringement by any party.” *Id.* at *16–17. This would seem to run directly counter to the notion that contractual agreements can give rise to joint infringement liability. In addition, the court repeatedly mentioned that the agency prong, of which control is the “essential element,” is different from the contract prong. But then in finding the contract prong unsatisfied, the court explained that “none of [the contract terms] establishes either Limelight’s control over its customers or its customers’ consent to Limelight’s control.” *Id.* at *17. The contract prong actually failed because Limelight’s customers’ promises were illusory. They never promised to perform the tagging step; rather, the customers merely acknowledged that they would have to do so if they were to take advantage of Limelight’s hosting service. This lack of contractual ability to force its customers to perform the tagging step must be what the court meant regarding the customer’s non-consent to Limelight’s control, but given the context, the court should have been clearer that it was not a reference to the “control or direction” prong.

164. *See, e.g., Emtel, Inc. v. Lipidlabs, Inc.*, 583 F. Supp. 2d 811 (S.D. Tex. 2008) (holding that under a patent for a method of teleconferenced medical care in which one party set up the teleconferencing network and dealt with clients, and doctors provided diagnoses, a contract between the first party and the doctors was insufficient to show control or direction if the doctors were allowed to make the diagnoses using their own medical expertise, even though the contracts stipulated *when* the doctors should be available for consultation); *Gammino v. Celco Partnership*, 527 F. Supp. 2d 395 (E.D. Pa. 2007) (holding that a pay telephone operator who contracted to have a third party provide call-blocking services did not infringe a claim to a “process and apparatus” for call-blocking because he did not control, or even know, *how* the party performed the steps). *But cf. Travel Sentry, Inc. v. Tropp*, 736 F.Supp.2d 623, 633 (E.D.N.Y. Sept. 10, 2010) (holding that although there was an agreement whereby one party would provide the other with certain tools, and the

However, the Federal Circuit did not go far enough in resolving *BMC*'s problems—the agreement should not be required to be contractually enforceable.

The *Akamai* contract prong originates in *BMC*'s language that “[a] party cannot avoid infringement, however, simply by contracting out steps of a patented process to another entity.”¹⁶⁵ *BMC*'s support for this, however, is *Shields*, which states that “[i]nfringement of a patented process or method cannot be avoided by having another perform one step of the process or method.”¹⁶⁶ Thus *Shields* did not require that the party be able to enforce the obligation under contract, only that the original party “[had] another perform” the steps.¹⁶⁷ Similarly, *Vermont Teddy Bear*, *Cordis*, *W.R. Grace*, and *Hill* found joint infringement without a contractually enforceable obligation.¹⁶⁸ The court most likely required the agreement to be contractually enforceable because allowing a mere agreement to suffice would be inconsistent with its other holding in *Akamai*—that direction alone is insufficient—as any unenforceable agreement could be called mere direction. Yet this only shows that both holdings are wrong, and that, as explained in Section III.A, *infra*, neither agency nor an enforceable obligation should be required for joint infringement.

In conclusion, the current interpretation of the *BMC* test is far removed from the cases *used* to establish the *BMC* standard, *Vermont Teddy Bear*, *Marley Mouldings*, and *Cordis Corp.*, and earlier cases such as *Shields* and *W.R. Grace*. If these cases were reexamined, they would likely fail to meet the current joint infringement standard that they are purported to establish because, under their facts, there was no agency relationship or contractual obligation to practice the patented elements.¹⁶⁹ When combined with a fresh examination of what the standard should be, *infra* Section III.A, this logical inconsistency

latter would use them subject to some conditions, lack of an enforceable obligation meant “control or direction” was lacking).

165. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007).

166. *Shields v. Halliburton Co.*, 493 F. Supp. 1376, 1389 (W.D. La. 1980), *aff'd*, 667 F.2d 1232 (5th Cir. 1982).

167. *Id.*

168. See discussion *supra* Section I.B.2. In *Vermont Teddy Bear*, the defendants simply instructed the users to print a coupon. In *W.R. Grace*, the defendants supplied a product knowing that customers would use it in a certain way. In *Hill*, defendants instructed users how to use the website.

169. See discussion *supra* Section I.B.2 and Section II.A.

warrants overturning *BMC*, even as loosened in *Akamai*, and returning to a previous standard.¹⁷⁰

III. PROPOSED SOLUTIONS FOR FIXING THE FEDERAL CIRCUIT'S JOINT INFRINGEMENT STANDARD

The cooperative infringement scenario slips through the cracks of the currently available infringement doctrines. Joint infringement fails to address such agreements because there is no direction or control, and inducement fails because there is no underlying direct infringement. There are three solutions, described *infra*. Section III.A discusses what is probably the least disruptive solution, lowering the joint infringement standard. Section III.B proposes dealing with the issue under indirect infringement, which requires eliminating the underlying direct infringement requirement. Section III.C proposes creating an entirely new infringement doctrine.

A. SOLUTION ONE: LOWER THE JOINT INFRINGEMENT STANDARD

Any time parties cooperate to perform the steps that constitute infringement, a joint infringement cause of action should be available. Courts following *BMC*, which have developed the “control or direction” standard into one where agency and contractual obligations are the only means of proving a case of joint infringement,¹⁷¹ have exacerbated its problems. Common sense, not rigid rules, should guide infringement doctrines, especially when people might narrowly avoid them in an unfair way: if someone were to take out an ad in the paper describing a patented invention and soliciting offers to participate in arms-length infringement with him, why should the patent holder be remediless?

170. Yet there may be some hope for the *On Demand* formulation in the view of the courts. In a recent case, a jury found joint infringement between U.S. Bank and ViewPoint and U.S. Bank and The Clearing House. *Datatransury Corp. v. Wells Fargo & Co.* NO. 2:06-CV-72 DF, slip. op. (E.D. Tex. March 12, 2010). The plaintiff argued that the situation was unlike any previously presented because ViewPoint and The Clearing House were created by banks specifically for the purpose of infringing the patents. *Id.* at *3. The plaintiff asserted, not agency-based liability, nor even “some connection” liability, but two-way liability based on a “jointly participating co-venturer” theory, i.e. that they were “more a single actor than two.” *Id.* at 3, 5–6. The court agreed with the plaintiff that summary judgment should be denied because the facts of the case might be outside the *BMC* and *Muniauction* realms, “and might justify a finding of joint and several liability, as apparently contemplated in *On Demand*.” *Id.* at 5. However, the court’s meaning was not completely clear because the court then emphasized that plaintiff alleged that the two corporations were “entangled” to a degree far *exceeding* mere direction and control. *Id.*

171. See discussion *supra* Section II.B.

The Federal Circuit's current agency-or-contract standard, laid out in *Akamai*,¹⁷² strikes the wrong balance. Agency requires that a party control *how* another does the steps that the principal does not perform himself. Yet often the key to an invention lies simply in the combination of certain unpatentable elements. In those cases, it does not matter *how* the invention is done. For example, if a claim is to a method of refining iron ore, where the real innovation is that no one had previously combined certain well-known processes back-to-back, the key is the combination. If two parties agree to split up the processes, each doing part, why should infringement require so much "control or direction" that the one party "cannot perform the work as he chooses"?¹⁷³ Cooperation should suffice. Agency should not be required. In addition, contractual enforceability of an agreement should not be required when it is clear that the parties intend the result. Instead, an informal agreement to perform the steps that together constitute infringement should suffice.

Agency should not be the standard for at least two reasons. First, agency law is a poor fit for joint liability because of the goals of the doctrines. Both are similarly concerned with giving some remedy to injured parties and preventing attempts at gaming the system to avoid liability. However, the doctrines diverge at a critical juncture in that their typical applications, and thus their limiting concerns, are entirely different.

Agency law and vicarious tort liability in the master-servant context is primarily concerned with holding a "master," who has some control over the general actions of a "servant," liable for the servant's torts performed *independently* of the master's control in that specific instance.¹⁷⁴ The canonical example is a truck driver hitting a pedestrian. Thus, although agency gives remedy for unintended torts, there arises a concern in agency that a principal might be liable for acts he has absolutely no power to prevent. This leads to two important limits on agency: only holding the principal liable for the torts (1) of an actor under his control, (2) that occurred while the latter was acting in the scope of his employment.¹⁷⁵

On the other hand, the scenario of cooperative infringement assumes that both parties have some pre-harm intent—they intend the acts to be

172. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, No. 2009-1372, 2010 WL 5151337 (Fed. Cir. Dec. 20, 2010).

173. *BMC Res., Inc. v. Paymentech, L.P.*, No. 3-03-CV-1927-M, 2006 WL 306289, at *4 (N.D. Tex. Feb. 9, 2006) (quoting *Emtel, Inc. v. Lipidlabs, Inc.*, 583 F. Supp. 2d 811, 840 (S.D. Tex. 2008))

174. RESTATEMENT (SECOND) OF AGENCY § 219 cmt. a (1958).

175. *Id.* § 219(1).

conducted by the other. Parties do not accidentally agree to perform steps that constitute infringement (not knowing of a patent is irrelevant to the concept of direct infringement, which is a strict liability offense). Thus, the cooperative infringement scenario lacks the countervailing concern of holding parties responsible for acts they have no power to prevent because a cooperative infringer agreed to the acts. Similarly, a cooperative infringement standard should lack the limits on liability that are reflected in agency doctrine.¹⁷⁶

Second, the high burden of agency as a standard for cooperative infringement treats method claims more strictly than apparatus claims. Owners of patents claiming apparatuses have a much better chance than owners of method claims of obtaining some form of remedy in a cooperative infringement scenario because someone will ultimately build or sell the apparatus.¹⁷⁷ For example, an apparatus claim as in *Cross Medical* and *Fromson*, the two cases relied upon by the Federal Circuit in *BMC*,¹⁷⁸ will be directly infringed by the ultimate user; the results in those cases are therefore not as worrisome given the likelihood of redress in the form of indirect infringement by those with deep pockets (manufacturers). However, when the claim is to a pure process, ordinary direct infringement is unlikely because there is no object to assemble at the end. Under such circumstances, indirect

176. Agency can also be shown by ratification. RESTATEMENT (THIRD) OF AGENCY, §§ 4.01, 4.02 (2006). This might support requiring agency, as ratification would allow a means to show agency when a party intends the acts of another party (technically, approves of past acts by that party) instead of requiring control. However, it does not appear that this theory has ever been argued under a joint infringement claim, and in general, courts discussing joint infringement use the term “agency” to mean control.

177. A counterpoint to this concern, and thus this Note in general, may be that it is easy to rewrite method claims as apparatus claims, especially in the software and internet fields because one can simply claim a computer that performs the steps of the method. Then, as the argument might proceed, it would be simple to catch the end users on “use of an infringing apparatus” and find those that run the system liable as inducers or contributory infringers. *See* *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005). There are two problems with that solution. First, courts are split on whether users who access a system, e.g., a website, and thus cause software to be run on the server side are “using” an infringing apparatus. *Compare* *EpicRealm Licensing LLC v. Autoflex Leasing Inc.*, 492 F. Supp. 2d 608 (E.D. Tex. 2007) (no “use”) *and* *Phoenix Solutions, Inc. v. The DirecTV Group, Inc.*, No. 08-984, 2009 U.S. Dist. LEXIS 114977 (C.D. Cal. Nov. 23, 2009) (no “use”) *with* *Renhol Inc. v. Don Best Sports*, 548 F. Supp. 2d 356, 358 (E.D. Tex. 2008) (“use” found, but requiring control and beneficial use, essentially agency) *and* *Nuance Communications Inc. v. Tellme Networks Inc.*, No. 06-105-SLR, 2010 U.S. LEXIS 39388 (D. Del. Apr. 10, 2010) (“use” found). Second, it is not always possible to rewrite method claims as apparatus claims.

178. *BMC Res. v. Paymentech*, 498 F.3d 1373, 1380 (Fed. Cir. 2007).

infringement is also unlikely because it requires an underlying direct infringement.¹⁷⁹ Thus, some valid claims to processes requiring more than one party simply cannot be infringed as a matter of law in the ordinary course of business, scenarios that often lack agency or contractual obligations between willing associates.

This imbalance may explain why the courts in *Metlon*, *W.R. Grace*, *Shields*, *DuPont*, *Vermont Teddy Bear*, and *Hill*, which all involved method claims,¹⁸⁰ used a lower standard than the courts in *Cross Medical* and *Fromson*, which involved apparatus claims. Notably, the Federal Circuit in *BMC*, *Muniauction*, and *Akamai*, which involved only method claims, did not discuss those decisions.¹⁸¹ Moving forward, there will likely be many inventors succeeding in patenting pure process claims, as the Supreme Court recently confirmed that the definition of “process” within 35 U.S.C. § 101 is quite broad, even covering business methods and software.¹⁸²

Beyond the fact that agency law does not fit cleanly in patent law and treats process claims unfairly, *BMC*'s solution to the arms-length infringement problem does not fix the deficiencies with agency. *BMC* brushed aside the serious problem of arms-length cooperation with the simple statement that the problem can be solved by “proper claim drafting.”¹⁸³ As noted in Section II.A, *supra*, that solution does not actually solve the problem of cooperative infringement.

The concept of joint inventorship also supports broad infringement rules in multi-party situations, as opposed to a narrow agency-or-contract standard. In patent law, any party that materially contributes to an invention enjoys the benefits of joint inventorship.¹⁸⁴ Fairness principles suggest the logical counterpoint that any party that materially contributes to infringement should suffer the consequences of joint infringement.

The best standard brings together the two *Akamai* prongs by broadening both of them. First, it would lower the relationship prong to something less than agency, to include parties that have “some connection” as articulated in

179. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004)

180. See discussion *supra* Section I.B.2.

181. See discussion *supra* Sections II.A–II.B. *Golden Hour*, which concerned both method and apparatus claims, did not discuss them either. See *id.*

182. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

183. *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007) (citing *Lemley*, *supra* note 56, at 272–75).

184. *MOY*, *supra* note 14, at § 10:19 (4th ed. 2010).

Faroudja.¹⁸⁵ Second, under the contract prong, it would lessen the need for actual contractual enforceability of an obligation, to include the *On Demand* standard of any “participation and combined action.” The prongs would thus merge into one requirement, making *true cooperation or participation* sufficient to show joint infringement. Of course, this is subject to a judge’s interpretation of whether cooperation or participation occurred. Knowledge of the patent would be irrelevant, keeping it a strict liability offense (and different from conspiracy, covered under Solution Three¹⁸⁶).

Under Solution One, *BMC*, *Muniauction*, *Golden Hour*, and *Akamai* would all be reversed. For example, in *Muniauction*, the relationship between those that set up the computer system and the bidders would be sufficient to indicate cooperation, regardless of a lack of direct communication between the users and the people operating the website. Although in the cases of *BMC* and *Muniauction* that would mean finding potentially unsophisticated individual end-users liable for infringement, that need not worry courts. End users are often found liable in indirect infringement cases without troublesome consequences. Individuals are not worth suing, and corporations and other sophisticated entities, such as Limelight’s customers in *Akamai*, can get indemnification if they desire.

B. SOLUTION TWO: ELIMINATE THE UNDERLYING ACT REQUIREMENT OF INDIRECT LIABILITY

If courts are hesitant to adopt Solution One, an alternative for solving the cooperative infringement problem is to eliminate the requirement of an underlying act of direct infringement from the doctrine of indirect liability. Courts could then consider cooperative infringement as a type of mutual inducement, which is the essence of an arms-length business agreement. The *BMC* court itself opined that indirect liability was the typical remedy when there is participation but not direct infringement by either party,¹⁸⁷ this solution makes sense especially when there is intent, i.e. knowledge of the patent. Yet it cannot be a viable remedy for cooperative infringement situations without eliminating the underlying act requirement. In this context requiring an underlying act does not make sense: if one can be liable for

185. *Faroudja Labs., Inc. v. Dwin Elecs., Inc.*, No. 97-20010 SW, 1999 WL 111788, at *5 (N.D. Cal. Feb. 24, 1999).

186. See discussion *infra* Section III.C.

187. *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1380 (Fed. Cir. 2007) (“Where a defendant participates in infringement but does not directly infringe the patent, the law provides remedies under principles of indirect infringement.”).

inducing another to infringe, why should one be able to avoid liability by stepping in and doing a few of the patented steps oneself?

Sections 271(b) and (c) of the Patent Act contain no explicit requirement that a single party directly infringe, but courts have inferred that requirement.¹⁸⁸ There is no clear answer as to why courts established this underlying act condition. The best reason that emerges from the case law is that it simply made sense in the situations before the court because harm to the patentee so obviously hinged on the existence of an underlying act of direct infringement. Yet, however well-established, a judicially-created rule should not be beyond manipulation based on the circumstances of a given case.

The contributory infringement situation presents the most obvious need for an underlying act.¹⁸⁹ If the contributing infringer sells a part to be combined with others in an infringing manner, but no one combines it in that way, no harm has been done to the patentee.

Similarly, in inducement cases establishing the rule, it is obvious that requiring an underlying infringing act was fair. The underlying act requirement in inducement cases originates from a 1966 case from the Central District of California, *Aluminum Extrusion Co. v. Soule Steel Co.*¹⁹⁰ In *Aluminum Extrusion*, the court held that there was no direct infringement, and thus no inducement, when the alleged acts occurred before issuance of the patent.¹⁹¹ There, again, the requirement of underlying direct infringement was entirely fair because the harm hinged on its existence. Similarly, in the two most often cited recent cases for the underlying act requirement in inducement, *Met-Coil Sys. Corp. v. Korners Unlimited, Inc.* and *Joy Technologies, Inc. v. Flakt, Inc.*, the requirement was fair.¹⁹²

188. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed. Cir. 2004).

189. *See, e.g., Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 341 (1961) (holding that “if the purchaser and user could not be amerced as an infringer certainly one who sold to him cannot be amerced for contributing to a non-existent infringement”) (quoting *Mercoird Corp. v. Mid-Continent Investment Co.*, 1944, 320 U.S. 661, 674 (Roberts, J., dissenting)).

190. *Aluminum Extrusion Co. v. Soule Steel Co.*, 260 F. Supp. 221 (C.D.Cal., 1966).

191. *Id.*

192. *See Met-Coil Sys. Corp. v. Korners Unlimited, Inc.*, 803 F.2d 684 (Fed. Cir. 1986); *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d 770 (Fed. Cir. 1993). In *Met-Coil*, the court held that inducement was impossible by acts occurring after a patent was exhausted. *Met-Coil*, 803 F.2d at 687. *Joy* concerned the sale of a machine that would take such a long time to build that it could not be used until after the patent expired. *Joy*, 6 F.3d at 772. The question was whether the sale induced infringement of a patented method. *Id.* The court cited many cases

In both the contributory infringement and inducement cases where liability was denied due to lack of an underlying direct infringement, the requirement was fair; it would not have made sense to allow a remedy because there was no harm to the patentee. However, it is not a universal truth that harm only occurs if one party practices each element. By eliminating the underlying act requirement in the special case of cooperative infringement, yet maintaining it otherwise, courts can reach a fair solution without violating the statutory language. The exception would be triggered when there was “some connection” between two parties and infringement could be found based on combined actions. Cases like *Met Coil*, *Joy*, and *Aluminum Extrusion* would come out the same way, and not fall under the Solution Two exception, because the parties’ combined actions would not have constituted infringement.

C. SOLUTION THREE: IMPORT A TORT DOCTRINE

If courts are unwilling to modify those doctrines with either Solution One or Two, a new doctrine is needed to provide liability for cooperative infringement. At the same time, the doctrine must not undermine the decisions not to adopt Solution One or Two. By requiring (1) intent, (2) completion of at least some elements by each party, and (3) a certain level of relationship between the parties, the new formulation would not undermine the doctrines of joint and indirect infringement. Given the tort-based origins of all multi-actor infringement, discussed in Section I.B, *supra*, one option is to directly import a tort doctrine into patent law.

1. Which doctrine?

Within general tort law, the doctrines of civil conspiracy, contributing tortfeasors, and concerted action, which overlap heavily, seem most analogous to conspiratorial joint infringement. The Restatement (Second) of Torts covers the latter two topics in sections 875, 876, and 879,¹⁹³ which overlap with the common law doctrine of civil conspiracy.¹⁹⁴

holding that indirect infringement required underlying direct infringement, which all trace back to *Met Coil*, and held that either type of indirect liability was impossible because there was no patentee (the patentee had no right to sales of the device, only to performance of the process during his patent term). *Id.* at 776.

193. RESTATEMENT (SECOND) OF TORTS § 875 (1958) (“Each of two or more persons whose tortious conduct is a legal cause of a single and indivisible harm to the injured party is subject to liability to the injured party for the entire harm.”); *Id.* at § 876 (“For harm resulting to a third person from the tortious conduct of another, one is subject to liability . . . if he (a) does a tortious act in concert with the other or pursuant to a common design with him.”) (emphasis added); *Id.* at § 879 (“If the tortious conduct of each of two or more persons is a legal cause

These doctrines would seem to provide a perfect analogy to cooperative infringement. However, whether these doctrines require an underlying tortious act is controversial.¹⁹⁵ If they do, the doctrines might not support a conspiratorial joint infringement rule that does not require an underlying act of joint infringement.

2. *Non-Requirement of Underlying Direct Infringement*

Even if the majority approach would require an underlying act of direct infringement to be required by analogy to tort law, the particularities of the problem here require a different conclusion. Tort law is sufficiently flexible to handle the deviation. For example, there are toxic tort scenarios where market share liability has sometimes been imposed when it is unknown which company of many produced the particular pill that harmed the plaintiff.¹⁹⁶ The rationale is a re-defining of the harm caused as a creation of

of harm that cannot be apportioned, each is subject to liability for the entire harm, irrespective of whether their conduct is concurring or consecutive.”).

194. See Truong, *supra* note 62, at 1909 (explaining that the essential elements of civil conspiracy are (1) two or more persons, (2) an unlawful objective, (3) a meeting of the minds regarding the objective or course of action, (4) commission of an unlawful act in furtherance of the agreement, and (5) injury resulting from the conspiracy).

195. A leading treatise on tort law seems to imply that historically it was not required: “The original meaning of ‘joint tort’ was that of vicarious liability for concerted action. All persons who acted in concert to commit a trespass, in pursuance of a common design, were held liable for the entire result.” W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS § 46 (5th ed. 1984). A minority of jurisdictions do not require a single underlying tortious act. See *Maleki v. Fine-Lando Clinic Chartered, S.C.*, 469 N.W.2d 629, 637 (Wis. 1991) (rejecting “the rule that, for a cause of action for conspiracy to lie, there must be an underlying conduct which would in itself be actionable”); *LaMotte v. Punch Line of Columbia*, 370 S.E.2d 711, 713 (S.C. 1988) (holding that what were otherwise lawful acts could become actionable in a conspiracy when the “object was to ruin or damage the business of another”) (citing *Charles v. Tex. Co.*, 18 S.E.2d 719, 724 (S.C. 1942)). But the majority view is that it needs an underlying single tort. See *Mass. Laborers’ Health and Welfare Fund v. Philip Morris, Inc.*, 62 F.Supp.2d 236, 245 (D. Mass. 1999) (There can be no “joint liability for a tort unless there has been a tort, so the ‘concerted action’ version [under § 876] depends on proof of underlying tortious conduct for which liability can be assigned.”); *Hebron Public School Dist. No. 13 of Morton County, State of N.D. v. U.S. Gypsum*, 690 F. Supp. 866, 871 (D.N.D. 1988) (“A civil conspiracy is not an independent tort, but instead is . . . a method by which multiple tortfeasors can be linked to a common underlying tort.”); *In re Asbestos Litigation*, 509 A.2d 1116 (Del. Super. Ct. 1986), judgment aff’d, 525 A.2d 146 (Del. 1987) (“The gravamen of an action in civil conspiracy is not the conspiracy itself but the underlying wrong which would be actionable without the conspiracy.”).

196. Market share liability demands damages contribution from market participants based on proportional presence in the market. See, e.g., *Hymowitz v. Eli Lilly & Co.*, 73 N.Y.2d 487, 502 (1989).

risk; a defendant must pay according to the risk he caused.¹⁹⁷ There are numerous other examples of situations in which tort law has adjusted to allow remedies to avoid unfairness in situations that would have barred recovery under previous, formalistic rules. The doctrine of *res ipsa loquitur* is one.¹⁹⁸ As a leading commentator notes, “[i]n so broad a field, where so many different types of individual interests are involved, and they may be invaded by so many kinds of conduct, it is not easy to find any single guiding principle which determines when such compensation is to be paid At its core, tort law seeks to impose liability on conduct that is ‘socially unreasonable.’”¹⁹⁹

Like indirect liability, it makes sense for the concerted action and civil conspiracy tort doctrines to require an underlying act, if they do, because in most cases harm hinges on the existence of a single tortious action. Examples include one person hitting a pedestrian with a car (where the court then holds liable the person who was racing with him), or one person in a robbery who actually lifted the TV and carried it out (where the lookout would be liable). Without the single act of harm, it would not make sense to hold the secondary party liable in those cases.

By contrast, in the cooperative infringement scenario, an underlying act does not exist, by definition, so an underlying act should not be required. More importantly, instead of worrying about technicalities of whether a particular actor’s actions were “tortious” within the meaning of the patent system, courts can redefine what the “tort” is. A tort is simply a breach of a duty, however defined, that is owed to the allegedly injured party. Although the Restatement sections 876 and 879 may require each defendant’s act to be tortious,²⁰⁰ that does not mean that each act has to constitute direct infringement.

3. *The New Doctrine’s Formulation: Catching Intentional Cooperative Infringers*

The main concern relating to joint infringement is that too many unknowing parties will be held liable for a strict liability crime. This fear is assuaged by an intent or knowledge requirement. The main concern relating to indirect liability, as stated in *BMC*, is that there will be no need for the doctrine if arms-length infringers are held liable. This fear is assuaged by the

197. *See id.*

198. RESTATEMENT (SECOND) OF TORTS § 328D (1965).

199. KEETON, *supra* note 195, § 46, at 6.

200. *See supra* note 195.

fact that claims can still be brought under indirect liability theories in the traditional scenarios those doctrines sought to cover, namely the distant inducer under 271(b) and the manufacturer who relies on his customers to complete the infringement under 271(c). By requiring a relationship higher than that in the typical inducement or contributory scenario, i.e. higher than distant producer-distant consumer, and requiring that each party practice at least some of the elements of the claim, the formulation can avoid encroaching on the other doctrines.

A new tort-based standard for cooperative infringement might have the following elements: (1) any agreement or mutual understanding, not requiring enforceability, to coordinate activities; (2) intent by both parties to avoid liability, requiring actual knowledge of the patent or constructive knowledge based on a high risk of infringement;²⁰¹ and (3) actual completion of all claimed elements by the parties to the agreement, where each party performed at least some of the steps. An alternative is to create a sliding scale finding infringement in cases of (1) high control and low intent or knowledge (essentially the current joint infringement standard), and (2) low control (e.g. each party does half of the steps without being controlled) and high intent or knowledge. A similar idea has some support in the academic community in relation to inducement.²⁰²

IV. CONCLUSION

The cooperative infringement problem is enhanced in the Internet Age. This era's increased ease of communication makes quick arms-length agreements easier and more likely than ever. Moreover, business method and software claims are prime targets for such agreements because their elements are easily separable. In particular, the emergence of cloud computing makes it easier than ever to separate repeated server-end tasks into two quickly-created entities or pseudo-corporations. Such cooperative infringement will be best addressed by one of three methods: (1) lowering the standard for joint infringement, (2) eliminating the underlying direct infringement requirement within indirect infringement, or (3) creating a new infringement

201. See *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360 (Fed. Cir. 2010), *cert. granted*, 131 S. Ct. 458 (U.S. 2010).

202. See, e.g., Mark A. Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225, 226 (2005) (arguing that, in inducement, as to the combined factors of the actual acts and the intent of the inducer, we should think “of inducement as a sliding scale inquiry in which a more specific intent to infringe is required to find liability if the defendant’s conduct is otherwise less egregious”). The “less egregious” analog in the current scenario would be where there is less control exercised or fewer steps done by a party.

doctrine. Because courts have historically considered the problem (or at least ones like it) one of joint infringement, not inducement, Solution One is the most conservative approach. Solution Two might actually prove best as it could be implemented as a very narrow exception, used in circumstances where it makes sense and probably has few adverse consequences. Solution Three is the cleanest because it can be drawn from scratch to be as narrow as desired, but would require an act of Congress. Whichever approach courts and legislators pursue, a party should not be able to avoid infringement liability by bringing in a co-conspirator.

THE ROAD TO TRANSPARENCY: ABOLISHING BLACK-BOX VERDICTS ON PATENT OBVIOUSNESS

Indraneel Ghosh[†]

The criteria of novelty, utility, and nonobviousness are considered the gatekeepers of the modern patent system.¹ The novelty requirement is defined strictly such that only “a *single* prior art reference which discloses *each and every element* of the claimed invention” can defeat novelty.² The utility requirement is satisfied quite easily in most cases³ outside of the chemical and bio-technology fields.⁴ The nonobviousness criterion, on the other hand, can be more complicated for two reasons. First, nonobviousness attempts to measure technical accomplishment or non-triviality—a more abstract inquiry than either novelty or utility.⁵ Second, when the nonobviousness of a patented invention is challenged in the context of patent litigation, lay persons (juries or judges) are called upon to measure the level of technical accomplishment even though they are usually unfamiliar with the technology involved.⁶

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1. *See, e.g.*, *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150–51 (1989) (noting that the patent system embodies a bargain encouraging the creation and disclosure of “new, useful, and nonobvious” advances in technology in return for a limited monopoly).

2. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715 (Fed. Cir. 1984) (emphases added).

3. ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS*, 612 (4th ed. 2007) (discussing the lax utility requirement [hereinafter MERGES, PATENT]).

4. *Id.* at 222 (discussing the utility requirement in the chemical and bio-technology fields).

5. *Id.* at 612 (discussing the nonobviousness requirement).

6. *See id.* at 683 (discussing the “non-specialist” bias of juries or judges who are not skilled in the art); *see also Parke-Davis & Co. v. H. K. Mulford Co.*, 189 F. 95, 115 (S.D.N.Y. 1911). In *Parke-Davis*, a novelty and patentable-subject-matter case involving a chemical patent, Judge Learned Hand stated,

I cannot stop without calling attention to the extraordinary condition of the law which makes it possible for a man without any knowledge of even the rudiments of chemistry to pass upon such questions as these. The inordinate expense of time is the least of the resulting evils, for only a trained chemist is really capable of passing upon such facts

So, it might not be surprising that litigants care about the format of jury verdicts on patent obviousness; the format affects the amount of information disclosed regarding the factual findings underlying the verdict. As is the case for other legal matters, there are three basic formats for jury verdicts on patent obviousness. A *general verdict* is one in which the jury finds in favor of one party or the other, as opposed to resolving specific fact questions.⁷ When the jury renders a general verdict, it not only determines the facts of a case but also applies the controlling law to those facts.⁸ General verdicts are also referred to as “black box” verdicts because the jury is asked to resolve the ultimate issue (e.g., a yes or no answer on obviousness) without disclosing its subordinate factual findings.⁹ When the jury renders a *special verdict*, it only finds the facts and leaves the court to apply the controlling law to those facts.¹⁰ *Special interrogatories* are a hybrid verdict where the jury answers specific factual questions and also renders a general verdict.¹¹

In a recent case, *Wyers v. Master Lock Co.*, the Federal Circuit reviewed a jury’s “black-box” verdict on patent obviousness.¹² The case involved mechanical patents for hitch-pin locks used in automobile trailers, and the jury had found the claims were nonobvious.¹³ The Federal Circuit reversed the jury’s nonobviousness verdict for all the claims in question, holding that it was a matter of common sense to combine the asserted prior-art references. It also held that a person having ordinary skill in the art would have had a reasonable expectation of success in doing so.¹⁴

Judge Linn concurred in the conclusion reached and in the reasoning expressed in the majority opinion, but wrote separately to highlight the problems posed by general verdicts on patent obviousness.¹⁵ Patent obviousness is a mixed question of law and fact, in which a court reviewing an obviousness verdict first reviews the jury’s underlying factual determinations for clear error but then reviews de novo the ultimate “legal

Id.

7. BLACK’S LAW DICTIONARY 754, 1696 (9th ed. 2009).

8. Mark S. Brodin, *Accuracy, Efficiency, and Accountability in the Litigation Process – The Case for the Fact Verdict*, 59 U. CIN. L. REV. 15, 20 (1990).

9. Kimberly A. Moore, *Juries, Patent Cases & A Lack of Transparency*, 39 HOUS. L. REV. 779, 785–86 (2002) [hereinafter Moore, *Juries*].

10. FED R. CIV. P. 49(a); BLACK’S, *supra* note 7, at 1697.

11. *See* FED R. CIV. P. 49(b); Moore, *Juries*, *supra* note 9, at 783 n.20.

12. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1247 (Fed. Cir. 2010) (Linn, J., concurring) (noting that the case involved a general verdict on obviousness).

13. *Id.* at 1233.

14. *Id.* at 1243, 1245.

15. *Id.* at 1247.

determination” of obviousness.¹⁶ Judge Linn wrote that there is no way to determine the jury’s specific factual findings from a general verdict, and in reviewing such a black-box verdict, the court “is left to infer whether substantial evidence existed from which the jury could have made the factual findings necessary to support the verdict.”¹⁷ He noted that the Federal Circuit had repeatedly encouraged trial courts to provide juries with special interrogatories on obviousness in order to facilitate review and to “reveal more clearly the jury’s underlying factual findings.”¹⁸ However, Judge Linn also noted that the Federal Circuit had not adopted a “hard and fast rule” regarding special interrogatories on obviousness, leaving the form of the jury verdict to the “sound discretion of the trial court.”¹⁹

Although the Federal Circuit’s deference to trial courts may be understandable on many other issues, this Note argues that such deference for “black box” verdicts on obviousness might be ill-advised. Congress created the Federal Circuit as an exclusive appellate court for patent cases in order to promote uniformity that would “strengthen the United States patent system in such a way as to foster technological growth and industrial innovation.”²⁰ In addition to the problems highlighted by Judge Linn, the non-uniform format of jury verdicts on the issue of patent obviousness defeats the Congressional purpose of “uniformity” across courts and creates further incentives for forum-shopping.²¹

The importance of this issue may be inferred from the fact that five Federal Circuit opinions, written by five different judges over a period of twenty-six years, have recommended either special interrogatories or special verdicts on obviousness.²² If one counts the judges who joined in these

16. *Id.* at 1247.

17. *Id.* at 1248.

18. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1248 (Fed. Cir. 2010) (Linn, J., concurring).

19. *Id.*

20. *Markman v. Westview Instruments Inc.*, 517 U.S. 370, 390 (1996) (quoting H. R. Rep. No. 97-312, at 20 (1981)).

21. *See infra* Section IV.B.

22. *See Wyers*, 616 F.3d at 1248 (Linn, J., concurring) (recommending special interrogatories on obviousness); *Agrizap, Inc. v. Woodstream Corp.*, 520 F.3d 1337, 1343 n.3 (Fed. Cir. 2008) (Moore, J.) (joined by Bryson, J., Wolle, J.) (recommending special interrogatories on obviousness); *Richardson-Vicks, Inc. v. Upjohn Co.*, 122 F.3d 1476, 1484–85 (Fed. Cir. 1997) (Plager, J.) (joined by Archer, J., Michel, J.) (recommending special verdicts on obviousness); *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984) (Markey, J.) (joined by Baldwin, J., Kashiwa, J., Bennett, J.) (recommending special interrogatories on obviousness); *Structural Rubber Prods. Co. v. Park Rubber Co.*,

opinions, fourteen different Federal Circuit judges have expressed such concern regarding the opaque nature of “black-box” verdicts on obviousness.²³ The Supreme Court’s *KSR v. Teleflex* opinion also directs that the analysis underlying an obviousness verdict “should be made explicit” to facilitate review.²⁴

This Note first outlines the basic law on patent obviousness and the Seventh Amendment right to jury trials as it relates to obviousness. Second, the Note argues that the Federal Circuit has the legal authority to mandate special interrogatories on patent obviousness. Third, the Note discusses the risk posed by four extralegal factors that might influence jury verdicts on obviousness. Fourth, the Note reviews the arguments for and against mandating special interrogatories. Finally, the Note suggests measures that may enhance jurors’ understanding of patented technology and thereby minimize problems involving conflicting responses to special interrogatory questions.

I. LEGAL BACKGROUND

This section begins by briefly explaining the law on patent obviousness. It then discusses the Seventh Amendment right to jury trials as it relates to the issue of patent obviousness.

A. THE BASICS OF PATENT OBVIOUSNESS

A patent is invalid for obviousness “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which” it pertains.²⁵ The ultimate judgment of obviousness is a legal determination, but it is based on underlying findings of fact.²⁶ The underlying factual inquiries include (1) determining the scope and content of the prior art, (2) comparing the prior art to the claims at issue, and (3) assessing the level of ordinary skill in the art.²⁷ 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

749 F.2d 707, 720 (Fed. Cir. 1984) (Nies, J.) (joined by Davis, J., Smith, J.) (recommending that trial courts request specific answers from the jury on factual issues such as obviousness).

23. See cases referenced *supra* note 22.

24. *KSR Int'l. Co. v. Teleflex Co.*, 550 U.S. 398, 417–18 (2007).

25. 35 U.S.C. § 103(a) (2006).

26. *KSR*, 550 U.S. at 427; see also *In re Kubin*, 561 F.3d 1351, 1355 (Fed. Cir. 2009).

27. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

patented.”²⁸ The Supreme Court has also noted the need “to guard against slipping into hindsight”²⁹ and “to resist the temptation to read into the prior art the teachings of the invention in issue.”³⁰

In determining the “scope and content of the prior art,” the fact-finder must focus on whether the purported prior art is from the “same field of endeavor” or “reasonably pertinent to the particular problem” addressed by the patent.³¹ In *KSR v. Teleflex*, the Supreme Court stressed the role of “common sense” in determining whether a patented invention was obvious at the time it was made, and held that the “legal determination” of obviousness may be resolved through summary judgment in appropriate circumstances.³²

28. *Id.* at 17–18. *See also* FED. CIR. MODEL PATENT JURY INSTRUCTIONS 60-61 (2009) (setting forth a detailed list of secondary factors on obviousness), *available at* <http://memberconnections.com/olc/filelib/LVFC/cpages/9005/Library/purchase%20items/Jury%20Instructions%20November%202009.pdf>. The Model Patent Jury Instructions set forth by the Federal Circuit Bar Association mention the following secondary considerations on obviousness:

- a. Whether the invention was commercially successful as a result of the merits of the claimed invention (rather than the result of design needs or market-pressure advertising or similar activities);
- b. Whether the invention satisfied a long-felt need;
- c. Whether others had tried and failed to make the invention;
- d. Whether others invented the invention at roughly the same time;
- e. Whether others copied the invention;
- f. Whether there were changes or related technologies or market needs contemporaneous with the invention;
- g. Whether the invention achieved unexpected results;
- h. Whether others in the field praised the invention;
- i. Whether persons having ordinary skill in the art of the invention expressed surprise or disbelief regarding the invention;
- j. Whether others sought or obtained rights to the patent from the patent holder; and
- k. Whether the inventor proceeded contrary to accepted wisdom in the field.

Id.

29. *Graham*, 383 U.S. at 36 (quoting *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (6th Cir. 1964)).

30. *Id.*

31. *In re Clay*, 966 F.2d 656, 658–59 (Fed. Cir. 1992).

32. *KSR*, 550 U.S. at 421, 427.

B. THE SEVENTH AMENDMENT AND THE RIGHT TO A JURY TRIAL ON THE ISSUE OF PATENT OBVIOUSNESS

The Seventh Amendment to the Constitution provides that “[i]n suits at common law where the value in controversy exceeds twenty dollars, the right to trial by jury shall be preserved”³³ The Supreme Court has held that the right thus preserved is the “right which existed under English common law when the Amendment was adopted.”³⁴ This “historical test” has two parts. The first part requires a court to determine whether it is dealing with a cause of action that “either was tried at law at the time of the founding or is at least analogous to one that was.”³⁵ For subsidiary issues occurring within a jury trial, where historical practice “provides no clear answer,” a court must ask “whether the jury must shoulder this responsibility as necessary to preserve the substance of the common law right of trial by jury.”³⁶ The second part of the “historical test” requires the court to inquire whether the remedy sought is legal or equitable in nature. An action for money damages is generally considered “legal” relief, and thus it is usually (but not always) covered by the right of trial by jury.³⁷

The Federal Circuit has held that submission of a question of law, such as patent obviousness, to a jury is proper when accompanied by appropriate instructions.³⁸ To determine obviousness, many courts use this procedure.³⁹ However, in *KSR*, the Supreme Court noted that patent obviousness was ultimately “a legal determination” and held that summary judgment on obviousness might be appropriate when “the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute.”⁴⁰ The Court also held that a conclusory affidavit from an expert does not necessarily indicate the existence of a dispute over an issue of material fact, and should not foreclose summary judgment on obviousness.⁴¹ Since a grant of summary judgment prevents the jury from deciding the question of obviousness, the Court’s *KSR* opinion indicates a

33. U.S. CONST., amend. VII.

34. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 376 (1996) (quoting *Baltimore & Carolina Line, Inc. v. Redman*, 295 U.S. 654, 657 (1935)).

35. *Id.*

36. *Id.* at 377.

37. *Chauffeurs v. Terry*, 494 U.S. 558, 564, 570 (1990).

38. *White v. Jeffrey Mining Mach. Co.*, 723 F.2d 1553, 1558 (Fed. Cir. 1983).

39. PETER S. MENELL, LYNN H. PASAHOW, JAMES POOLEY, & MATTHEW D. POWERS, *PATENT CASE MANAGEMENT JUDICIAL GUIDE* 8-31 (2009).

40. *KSR Int'l. Co. v. Teleflex Co.*, 550 U.S. 398, 427 (2007).

41. *Id.* at 426–27.

willingness to take the issue away from the jury in appropriate cases. This is a departure from the Federal Circuit's pre-existing practice on obviousness, and it might carry some implications for the jury's remaining role on the issue of obviousness.⁴²

II. THE FEDERAL CIRCUIT HAS THE AUTHORITY TO MANDATE SPECIAL INTERROGATORIES ON PATENT OBVIOUSNESS

The Federal Circuit's authority to mandate special interrogatories on obviousness derives from several factors. First, the Federal Rules of Civil Procedure permit courts to use special interrogatories that involve "submit[ting] to the jury forms for a general verdict, together with written questions on one or more issues of fact that the jury must decide."⁴³ In the context of another area of patent law (the doctrine of equivalents), the Supreme Court wrote that in cases that reach the jury, special verdicts or interrogatories on each claim element could facilitate "review, uniformity, and possibly post[-]verdict judgments as a matter of law."⁴⁴ The Supreme Court expressly left it to the Federal Circuit to determine how to "implement procedural improvements to promote certainty, consistency, and reviewability to this area of the law."⁴⁵

In *Panduit Corp. v. All States Plastic Mfg. Co.*, the Federal Circuit ruled that it would "review procedural matters, that are not unique to *patent issues*, under the law of the particular regional circuit court where appeals from the district court would normally lie."⁴⁶ Although the exact definition of "patent issues" could be a legitimate subject of debate, at least one commentator has opined that the Federal Circuit's choice of law rule in *Panduit*, in conjunction with FED. R. CIV. P. 49(a) and the Supreme Court's *Warner-Jenkinson* opinion, provides sufficient authority for the Federal Circuit to mandate the form of special interrogatories for patent obviousness.⁴⁷ The Supreme Court's *KSR v.*

42. MERGES, PATENT, *supra* note 3, at 684 (noting that *KSR* indicates that pre-existing practice on summary judgment on obviousness must change and pondering how much authority is left for the jury on obviousness).

43. FED. R. CIV. P. 49(b)(1).

44. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 n.8 (1997).

45. *Id.*

46. *Panduit Corp. v. All States Plastic Mfg. Co.*, 744 F.2d 1564, 1574–75 (Fed. Cir. 1984) (emphasis added).

47. *See Moore, Juries, supra* note 9, at 796–97.

Teleflex opinion also directs that the analysis underlying an obviousness verdict “should be made explicit” to facilitate review.⁴⁸

Admittedly, under *Panduit*, the Federal Circuit could adopt a tacit mandate by holding that it is an abuse of discretion every time a district court failed to use a special verdict or interrogatories for obviousness.⁴⁹ However, only the Seventh Circuit explicitly required the use of detailed special verdicts for obviousness (when it used to handle patent cases); the other circuits did not. As such, the *Panduit* approach would create confusion and give parties incentive to forum shop if they believed that the Federal Circuit would follow the regional circuit’s rule on this issue.⁵⁰ Instead, the better approach may be for the Federal Circuit to explicitly mandate special interrogatories on obviousness based on its “authority to dictate matters of procedure that are ‘unique to’ patent law.”⁵¹

III. EXTRALEGAL FACTORS THAT INFLUENCE JURY VERDICTS ON OBVIOUSNESS

This section discusses four extralegal factors that could influence jury verdicts on obviousness. The presence of these factors supports the use of special interrogatories that could shed light on the reasoning underlying these verdicts.

First, a juror might not adequately understand the technology underlying an invention, which could exacerbate the difficulty of measuring the level of technical accomplishment embodied in the invention.⁵² Second, research in psychology suggests that people engage in logical shortcuts (heuristic reasoning) when they lack the time or ability to make more careful and systematic decisions.⁵³ This factor might affect a jury’s decision process in a trial environment where it is bombarded with unfamiliar and complex technical information. Third, statistical studies indicate that jurors might harbor a bias in favor of individual inventors even where the patents in question are owned by corporate entities.⁵⁴ Fourth, in the context of obviousness, courts and commentators have worried about the role of

48. *KSR Int’l. Co. v. Teleflex Co.*, 550 U.S. 398, 418 (2007).

49. Moore, *Juries*, *supra* note 9, at 797–98.

50. *Id.*

51. *Id.* at 798–99.

52. MERGES, PATENT, *supra* note 3, at 612 (describing the nonobviousness requirement as a measure of “technical accomplishment”); *see also* Section III.A.

53. *See infra* Section III.B.

54. *See infra* Section III.C.

“hindsight bias” which might tempt jurors to erroneously project the teachings of the invention into the prior art.⁵⁵

A. JURORS MAY NOT UNDERSTAND THE TECHNOLOGY INVOLVED IN PATENT CASES

Determining patent obviousness is akin to measuring the level of “technical accomplishment” embodied in the invention.⁵⁶ It requires many judgment calls that are closely intertwined with the technology underlying the patent: the scope and content of the prior art, the level of skill in the art, and the differences between the prior art and the claims at issue.⁵⁷ If jurors do not adequately comprehend the basic technology underlying the patented claims and the asserted prior-art references, their ability to render a fair verdict on this issue may be seriously compromised, and this might undermine the Fifth Amendment’s due process guarantees.⁵⁸ One judge who has tried patent cases marveled at their factual complexity and expressed serious reservations about trying such cases to juries.⁵⁹ In the words of prominent patent litigator Donald Dunner, “Give jurors a complicated biotechnology case or one involving lasers or computers and their eyes glaze over.”⁶⁰ Psychological research also indicates that jurors may have difficulty making sense of complicated scientific evidence.⁶¹

Some commentators think that courts exacerbate this problem by excusing better educated potential jurors from serving in patent cases because such trials can last quite long.⁶² Many circuit courts have endorsed the practice of excusing “practicing physicians, dentists, [and] lawyers” from

55. See *infra* Section III.D.

56. MERGES, PATENT, *supra* note 3, at 612 (discussing the nonobviousness requirement).

57. See *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

58. Elizabeth A. Faulkner, *Using the Special Verdict to Manage Complex Cases and Avoid Compromise Verdicts*, 21 ARIZ. ST. L.J. 297, 300 (1989) (arguing that the Fifth Amendment’s due process guarantees could be undermined if a jury does not understand complicated issues involved in the case).

59. Kimberly A. Moore, *Jury Demands: Who’s Asking?*, 17 BERKELEY TECH. L.J. 847, 848 n.2 (2002) [hereinafter Moore, *Demands*].

60. *Id.* at 848 n.1. Some patent litigators have observed that they have to break down complex patent cases into a “good guy versus bad guy” story for juries, while others have felt that jury decisions were based on emotion instead of the facts or law. *Id.* at 848 n.3.

61. Edith Greene, *Psychological Issues in Civil Trials*, in JURY PSYCHOLOGY: SOCIAL ASPECTS OF TRIAL PROCESSES, 183, 193–94 (Joel D. Lieberman & Daniel A. Krauss eds. 2009) (describing psychological research involving mock juries in toxic tort cases).

62. Moore, *Demands*, *supra* note 59, at 848 n.2; see also MENELL, *supra* note 39, at 8-17 (noting the difficulty of finding jurors who are able to commit the time and attention demanded by long patent trials).

jury service upon a request if the district court finds that such service “would entail undue hardship or extreme inconvenience.”⁶³ Thus, it may be fair to infer that highly educated people are underrepresented on patent juries.⁶⁴ Because jurors with more extensive education may be more adept at learning and applying new principles to complicated subjects, some have suggested that the underrepresentation of college-educated people on juries could impair juries’ ability to handle complex patent cases.⁶⁵

Understandably, many commentators have proposed impaneling more educated juries in complex cases such as those involving technically complicated patents.⁶⁶ Whether or not one subscribes to the aforementioned stereotypes regarding patent jurors, this proposal is unlikely to be an adequate solution for several reasons. First, the constitutionality of such “special juries” is hardly a foregone conclusion.⁶⁷ While the Supreme Court has ruled that the Sixth Amendment requires that juries in criminal trials must be chosen from a “fair cross section” of the community,⁶⁸ the Court has yet to render a corresponding ruling with respect to the Seventh Amendment right to a jury trial in civil cases.⁶⁹ Therefore, it remains uncertain whether the “fair cross section” requirement applies to civil cases or whether requiring education qualifications as a pre-requisite to jury service would violate that requirement.

Second, blanket educational requirements for jury service may exclude many people who lack a formal education, but nevertheless possess the knowledge or aptitude necessary to make informed decisions about the technology involved in a given case.⁷⁰ On the other hand, blanket educational requirements may keep jurors with formal education, but lack the knowledge

63. *United States v. Van Scoy*, 654 F.2d 257, 262, 262 n.7 (3d Cir. 1981); *see also* *United States v. Goodlow*, 597 F.2d 159, 161 (9th Cir. 1979).

64. Gregory D. Leibold, *In Juries We Do Not Trust: Appellate Review of Patent-Infringement Litigation*, 67 U. COLO. L. REV. 623, 649 (1996).

65. *Id.*; *see also* Moore, *Demands*, *supra* note 59, at 848 n.1 (describing patent litigators’ complaints regarding the educational level of many jurors and the jurors’ lack of comprehension).

66. *See, e.g.*, Michael A. Fisher, *Going for the Blue Ribbon: The Legality of Expert Juries in Patent Litigation*, 2 COLUM. SCI. & TECH. L. REV. 2 (2001); Leibold, *supra* note 64, at 623; Joseph C. Wilkinson Jr., Frank D. Zielenski, and George M. Curtis, III, *A Bicentennial Transition: Modern Alternatives to Seventh Amendment Jury Trial in Complex Cases*, 37 U. KAN. L. REV. 61, 62 (1988).

67. *Developments In The Law: The Civil Jury: V. The Jury’s Capacity to Decide Complex Civil Cases*, 110 HARV. L. REV. 1489, 1493–94 (1997); *see also* Fisher, *supra* note 66, at 14–15.

68. *Taylor v. Louisiana*, 419 U.S. 522, 529–30 (1975).

69. Leibold, *supra* note 64, at 651–52.

70. *Id.* at 649.

or aptitude needed.⁷¹ Third, although some have proposed using jury panels comprising people who are “experts” in the subject matter at hand,⁷² there is a risk that the more specialized the decision-maker, the more willing she might be to use her own views rather than the facts on the record.⁷³

Chief Judge Rader of the Federal Circuit has shared some empirical evidence on this issue, and his experience does not inspire confidence in the efficacy of impaneling highly-educated (“blue ribbon” or “blue panel” juries). Chief Judge Rader has often presided over many jury trials by designation.⁷⁴ In one such patent trial, Chief Judge Rader made an extra effort to select a “blue panel” jury, where every juror was a college graduate except for one person, who was a college senior studying the specific subject of the patent involved in that case.⁷⁵ While discussing the pros and cons of using “special juries,” Judge Rader specifically noted that in his experience of serving as a trial judge, this was the only case where he had to reverse a jury’s decision.⁷⁶

In summary, the issue of jurors’ lack of comprehension regarding the basics of patented technology might be one that defies simple solutions such as impaneling “blue ribbon” juries.

B. HEURISTIC REASONING COULD SHORT-CIRCUIT THE JURY’S DECISION PROCESS

In addition to not understanding the technology involved in a patent case, jurors could also have trouble comprehending the complex technical information presented in patent cases. This might expose the jury’s reasoning process to a logical fallacy familiar to psychologists.

Psychology suggests that decision makers use two basic modes of information processing.⁷⁷ When decision makers are adequately motivated, and have sufficient time and information, they carefully and systematically consider the evidence or information available.⁷⁸ However, when these

71. *Id.*

72. Fisher, *supra* note 66, at 42; Franklin Stryer, *The Educated Jury: A Proposal For Complex Litigation*, 47 DEPAUL L. REV. 49, 50 (1997).

73. The Federalist Society for Law & Public Policy, 2008 National Lawyers Convention: Proceedings, *Patent: Panel Discussion: Specialized courts: Lesson from the Federal Circuit*, 8 CHI.-KENT J. INTELL. PROP. 317, 334 (2009).

74. *Id.*

75. *Id.*

76. *Id.*

77. Jennifer Groscup & Jennifer Tallon, *Theoretical Models Of Jury Decision-Making*, in JURY PSYCHOLOGY: SOCIAL ASPECTS OF TRIAL PROCESSES 41, 53 (Joel D. Lieberman and Daniel A. Krauss eds. 2009).

78. *Id.*

conditions are not present, people often resort to less-effortful decision making techniques, primarily “heuristics,” that enable people to make rapid decisions in complex situations.⁷⁹ Psychology research indicates that the use of heuristics tends to rise when jurors are presented with complicated testimony.⁸⁰ Thus, in patent cases involving complex technology that is unfamiliar to a typical juror, it is likely that jurors will frequently take refuge in such heuristic reasoning.

For instance, when jurors have difficulty understanding complicated evidence, they tend to rely more heavily on the perceived credibility (including credentials) of the testifying expert as opposed to the substance of the testimony.⁸¹ Another example is the “representativeness heuristic,” which is a “shortcut used to estimate the probability that a new stimulus is similar to or resembles a category of stimulus with which the perceiver is already familiar.”⁸² In such a situation, the juror may rely on information that appears representative regardless of its actual predictive value.⁸³ In the context of patent obviousness, a skilled litigator might use this to her advantage by inducing the jury to rely on superficial distinctions or similarities between the patented invention and prior art. Attorneys might also exploit this phenomenon by glossing over crucial gaps or inconsistencies in their reasoning or evidence, while hoping that the jury would not notice these lacunae. Because heuristic reasoning is a subconscious process, jurors might feel overly confident in the accuracy of their decision and perceive little need to reexamine such reasoning.

C. JURIES TEND TO FAVOR INDIVIDUAL INVENTORS

Another extralegal factor influencing jury verdicts on obviousness is juries’ bias in favor of individual inventors. Although almost 90% of patents are owned by corporations,⁸⁴ jurors’ bias in favor of individual inventors (as distinguished from corporate owners) could make them more reluctant to find patents “obvious” in light of the prior art. This may be due in part to jurors feeling that a finding of obviousness would be equivalent to denigrating the inventor’s work.

79. *Id.* at 53–56.

80. *Id.* at 54.

81. *Id.*

82. Groscup, *supra* note 77, at 55.

83. *Id.*

84. Richard S. Gruner, *Corporate Patents: Optimizing Organizational Responses to Innovation Opportunities and Invention Discoveries*, 10 MARQ. INTELL. PROP. L. REV. 1, 6–7 (2006).

In a 2007 article, Judge Moore of the Federal Circuit examined all patent trials from 1990 to 2003 and found that patentees won 64.8% of cases in jury trials but only 52.1% in bench trials.⁸⁵ After accounting for other factors, Judge Moore found that the patentee was more likely to win a jury trial if: (1) the patentee was the plaintiff; (2) the infringer was foreign; and (3) the patentee was an individual.⁸⁶ Significantly, having fewer inventors on the patent increased the patentee's likelihood of winning, even when the patentee was a corporation.⁸⁷

A few observations can help explain these statistics. The most salient factor is probably popular culture's imagination of the individual inventor as the hero of the patent world—"an eccentric individual who has a brilliant insight, obtains a patent and proceeds to fame and fortune by making and selling the patented invention."⁸⁸ When most Americans think of inventors, they think of people like "Samuel Morse with his great white beard and his chest covered with medals," ticking off the message "What Hath God Wrought" on his telegraph key.⁸⁹ They imagine "Eli Whitney grinding away at his cotton gin," and they see "Edison standing stiffly by [his] incandescent bulb," oblivious to the crowd of admirers around him.⁹⁰ Therefore, it should come as no surprise that in nearly all patent litigation, the inventor will be "the first person to testify" and explain the invention and its importance and "how she came up with the idea that eluded others."⁹¹ Even when a corporation is the patent owner, the inventor's testimony puts a sympathetic and admirable human face on the corporate entity even though the inventor will not collect any of the damage awards.⁹² The jury feels that if it finds for the patentee, it is validating the inventor's efforts.⁹³ Conversely, there is no comparable human figure closely or personally linked with a corporate infringer.⁹⁴ This "iconization" of the individual inventor could also explain why juries are not as favorably disposed towards patents with multiple

85. The Honorable Kimberly A. Moore, *Populism and Patents*, 82 N.Y.U.L. REV. 69, 76, 107 (2007) [hereinafter Moore, *Populism*].

86. *Id.* at 103.

87. *Id.* at 107–08.

88. MERGES, PATENT, *supra* note 3, at 1141.

89. Moore, *Populism*, *supra* note 85, at 105–06.

90. *Id.* at 106.

91. *Id.* at 107.

92. *Id.* Given the proliferation of corporate scandals and the pervasive skepticism regarding corporate morality, it is plausible that the average juror might also harbor some level of anti-corporate prejudice. *Id.* at 76–77.

93. *Id.* at 107.

94. Moore, *Populism*, *supra* note 85, at 107.

inventors.⁹⁵ The idea of teams of people working together on a solution is not as appealing as the image of the solitary inventor “toiling away at a problem.”⁹⁶

Of course, this popular image does not always correspond with modern reality. Research and development today is dominated by collaborative teams of researchers working for large corporations to which they assign away their patent rights.⁹⁷ Additionally, even though corporate defendants might view some individual patent *owners* as rent-seeking “trolls,”⁹⁸ that is a relatively new phenomenon and has yet to color the typical juror’s perceptions regarding inventions developed by individual *inventors*.⁹⁹ Therefore, jurors may hesitate to find a patent “obvious” because they might think that such a finding would be tantamount to devaluing the inventor’s work.

D. “HINDSIGHT BIAS” MAY PLAY A ROLE IN DETERMINING PATENT OBVIOUSNESS

When a jury examines the issue of patent obviousness, it must compare the patented invention (the “claims at issue”) to the prior art that existed before the date of invention.¹⁰⁰ This process is vulnerable to the logical fallacy of “hindsight bias,” which may unfairly prejudice the patentee. “Hindsight bias refers to the process whereby once the outcome of a particular event is known, individuals are prone to overestimate the likelihood that the outcome would have occurred, to better remember events consistent with that outcome, and to judge less likely the feasibility of alternative outcomes.”¹⁰¹

Since the jury will already know that the patented invention was made, the Supreme Court in *Graham* cautioned against “slipping into hindsight”

95. *Id.*

96. *Id.*

97. Robert P. Merges, *One Hundred Years of Solicitude: 1900-2000*, 88 CALIF. L. REV. 2187, 2216 (2000); see also MERGES, PATENT, *supra* note 3, at 1141 (4th ed. 2007).

98. Moore, *Populism*, *supra* note 85, at 111; see also *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring) (writing about firms who primarily use patents for collecting licensing fees and not as a basis for providing goods and services); Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583, 1613–14 (2009) (arguing that patent trolls threaten the integrity of the patent system).

99. Moore, *Populism*, *supra* note 85, at 111.

100. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

101. Joel D. Lieberman, Jamie Arndt, & Matthew Vess, *Inadmissible Evidence and Pretrial Publicity: The Effects (And Ineffectiveness) of Admonitions To Disregard*, in JURY PSYCHOLOGY: SOCIAL ASPECTS OF TRIAL PROCESSES, 67, 81 (Joel D. Lieberman and Daniel A. Krauss eds. 2009).

when deciding on the question of obviousness. It emphasized the need to “resist the temptation to read into the prior art the teachings of the invention at issue.”¹⁰² One experimental study using mock-jurors suggests that “hindsight bias” may be a real problem in patent obviousness cases.¹⁰³ Moreover, analogous situations from other legal fields indicate that judicial admonitions to guard against “hindsight bias” are frequently ineffective.¹⁰⁴ Paradoxically, such instructions might “backfire” and induce the jury to pay *greater* attention to the evidence that they are asked to disregard or consider only for a limited purpose.¹⁰⁵

However, the situation regarding this kind of hindsight bias might not be as dire as such studies would suggest. First, jurors tend to hold the work of individual inventors in high regard, and at least for inventions developed by individual inventors, such considerations might counteract the risk of “hindsight bias” to some extent.¹⁰⁶ Second, there might be a possibility that jurors are subject to a counter-balancing “non-specialist” bias such that they may consider a technological problem more difficult than it would be to a person of skill in the art.¹⁰⁷ Finally, in *KSR*, the Supreme Court held that the Federal Circuit had taken an excessively rigid approach to guarding against “hindsight bias” in patent obviousness cases.¹⁰⁸ The Court disfavored the use

102. *Graham*, 383 U.S. at 36.

103. Gregory N. Mandel, *Patently Non-Obvious: Empirical Demonstration that the Hindsight Bias Renders Patent Decisions Irrational*, 67 OHIO ST. L.J. 1391, 1406–10 (2006) (documenting experimental results which showed that mock-jurors were more likely to find an invention obvious if they already knew the invention had been developed); see also MERGES, PATENT, *supra* note 3, at 683 (noting that this research indicates that hindsight bias may be a real problem).

104. Mandel, *supra* note 103, at 1411–12 (2006) (describing a study on hindsight bias in tort law); see also Lieberman, *supra* note 101, at 80 (contending that judicial instructions to disregard—or limit the use of evidence are frequently unsuccessful).

105. See Lieberman, *supra* note 101, at 79–80 (describing the “backfire effect” for inadmissible or limited use evidence).

106. See *supra* Section III.C (describing statistical evidence tending to show jurors’ respect for individual inventors).

107. MERGES, PATENT, *supra* note 3, at 683 (noting the possibility of “non-specialist” bias among jurors); see also *supra* Section III.A (noting that jurors might have some difficulty understanding complex technology in patent cases).

108. *KSR Int’l. Co. v. Teleflex Co.*, 550 U.S. 398, 421 (2007). While discussing the rigid application of the Federal Circuit’s TSM (teaching, suggestion or motivation) test, the Court wrote,

The Court of Appeals finally, drew the wrong conclusion from the risk of courts and patent examiners falling prey to hindsight bias. A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham* (warning against a “temptation to read into the prior art the teachings of

of “[r]igid preventative rules that deny fact-finders recourse to common sense” when guarding against hindsight bias.¹⁰⁹ The Court also seemed to imply that an excessively pro-patent obviousness analysis can reflect its own form of hindsight bias if it tends to disregard the teachings of other prior art that might tend to prove obviousness.¹¹⁰

IV. THE PROS AND CONS OF MANDATING SPECIAL INTERROGATORIES ON OBVIOUSNESS

This section first discusses the advantages of using special interrogatories on obviousness and then proceeds to evaluate some perceived drawbacks of this procedural device.

A. THE CASE FOR SPECIAL INTERROGATORIES

There are numerous arguments that favor mandating special interrogatories on obviousness. First and foremost, in its unanimous *KSR* opinion, the Supreme Court wrote that the “analysis [underlying a ruling on obviousness] should be made explicit” in order to “facilitate review.”¹¹¹ In so holding, the Court effectively divided obviousness cases into two categories.

the invention in issue” and instructing courts to “guard against slipping into use of hindsight”). Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.

Id. (internal citations omitted).

109. *Id.*

110. *See id.* at 426 (asserting that ignoring the teaching of some prior art could reflect the “very hindsight bias” that is to be avoided); *see also* MERGES, PATENT, *supra* note 3, at 683 (noting the Court’s concern that an excessively pro-patent obviousness analysis can reflect its own form of hindsight bias).

111. *KSR Int’l. Co. v. Teleflex Co.*, 550 U.S. 398, 418 (2007). The Court wrote that:

Following these principles might be more difficult in other cases than it is here because the claimed subject matter may involve more than the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement. Often, it will be necessary for a *court* to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *To facilitate review, this analysis should be made explicit.* As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 417–18 (emphases added) (internal citations omitted).

The first category includes relatively simple cases where summary judgment on obviousness would be appropriate—i.e., the question would not reach the jury since there would be no genuine dispute over an issue of material fact.¹¹² The second category includes cases where “following [the principles articulated by the Court in *KSR*] might be more difficult” because they involve the evaluation of many intertwined issues such as “the interrelated teaching of multiple patents” etc.¹¹³ It is plausible that these relatively complicated cases are more likely to reach the jury since they will probably involve genuine disputes over issues of material fact,¹¹⁴ and yet the Supreme Court recommends “explicit” analysis (to be conducted by the *court*) for this “more difficult” category of obviousness cases.¹¹⁵

A jury’s “black-box” general verdict on obviousness contains no analysis, however.¹¹⁶ The most plausible readings of *KSR* would require “explicit” analysis on the issue of obviousness even when the question is decided by a jury, especially when the cases are the types of complicated cases that are likely to survive summary judgment.¹¹⁷ In such a case, the trial court could make its legal analysis “explicit” by using special interrogatories tailored to that case. The jury would still be charged with answering these questions, and these answers to individual questions would shed light on the jury’s factual findings and its application of law. If the court accepted the jury’s findings and verdict, the questions and the jury’s answers on the special interrogatory form could constitute the “explicit” analysis recommended by the Supreme Court. If the trial court overturned the jury’s findings, it could include the requisite explicit analysis in its opinion.

112. *Id.* at 426–27 (holding that summary judgment on obviousness is appropriate in some cases where there is no genuine dispute over an issue of material fact); *see also supra* section I.B (discussing *KSR* within the context of the Seventh Amendment right to a jury trial).

113. *Id.* at 417–18 (noting that following the principles articulated in *KSR* might be more complicated in some cases).

114. *KSR* seems to leave open the possibility that some obviousness cases will still reach the jury since it endorses summary judgment on obviousness only in “appropriate” cases. *See id.* at 426–27. Presumably, if the Court recommended taking the question away from the jury in *all* cases, as it did with respect to the “claim construction” issue in *Markman v. Westview*, the Court would have explicitly said so. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388 (1996).

115. *See id.* at 417–18 (writing that the analysis should be made explicit to facilitate review).

116. MERGES, PATENT, *supra* note 3, at 684 (discussing *KSR* and noting that juries do not conduct legal analysis and thus, they cannot write legal opinions that makes their analysis “explicit”).

117. *See supra* note 111.

Second, the answers to the specific interrogatory would provide transparency regarding the jury's factual findings, which is especially important for reviewability on a mixed question of law and fact such as patent obviousness. This applies with equal force to post-trial motions such as JNOV or new trial as well as appeals.¹¹⁸ During appeal, the Federal Circuit reviews the ultimate issue of obviousness *de novo* because it is a legal question, but it reviews the jury's underlying findings of fact for clear error.¹¹⁹ However, the form of a general verdict sheds no light on the jury's findings; the reviewing court is left to infer whether substantial evidence existed from which the jury could have made the factual findings necessary to support the verdict.¹²⁰ By contrast, a special interrogatory enables the appeals court to pinpoint the source of any error in the jury's verdict. For instance, in one obviousness case, the jury's response on the special verdict form indicated that the jury did not consider that a particular patent was "relevant prior art" even though the patentee's own expert had *admitted* that it was.¹²¹ The court was thus alerted to this material flaw in the jury's verdict, which affected the obviousness holding in that case.¹²²

Third, requiring the jury to answer the specific *Graham* questions, secondary considerations,¹²³ and subsidiary issues could help focus the jury's mind and induce it to rely less on the extralegal factors discussed in Part III.¹²⁴ The special interrogatories can counter such influences and focus jury deliberations on a detailed consideration of the actual evidence that is relevant to each question in the interrogatory.¹²⁵ Thus, special interrogatories hold out the promise of enhancing the fairness and quality of the jury's verdict.

118. The Honorable Paul R. Michel and Dr. Michelle Rhyu, *Improving Patent Jury Trials*, 6 FED. CIR. B.J. 89, 95 n.21 (1996).

119. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1248 (Fed. Cir. 2010) (Linn J., concurring).

120. *Id.*; Brodin, *supra* note 8, at 66.

121. *Asyst Techs., Inc. v. Emtrak, Inc.*, 544 F.3d 1310, 1313 (Fed. Cir. 2008).

122. *Id.*

123. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The *Graham* factors include (1) determining the scope and content of the prior art, (2) comparing the prior art to the claims at issue, and (3) assessing the level of ordinary skill in the art. *Id.* 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. *Id.*

124. *See supra* Part III (describing extralegal influences on jury verdicts); *see also* Brodin, *supra* note 8, at 63–64.

125. Brodin, *supra* note 8, at 64–65.

Fourth, since patent cases often involve complex technology and jargon that are likely to be unfamiliar to most jurors, jurors might find it difficult to comprehend the basic technology underlying a patent.¹²⁶ Forcing the jury to break the problem down into its constituent parts may make the task seem less daunting and possibly avoid the temptation of engaging in “heuristic reasoning.”¹²⁷ Of course, providing a special interrogatory form and instructions may not be sufficient to ensure that the jurors adequately comprehend the technology and additional suggestions are discussed *infra*.¹²⁸

Fifth, it is recognized that jury deliberations may sometimes result in a “compromise” verdict where individual jury members disagree about many issues pertinent to the verdict but agree on a compromise to “split the difference”—e.g., finding the claim non-obvious but awarding lower damages as a compromise.¹²⁹ A general verdict can mask deep divisions within the jury and maintain an illusory appearance of agreement.¹³⁰ For instance, if a verdict of non-obviousness could result from a finding that *either* Fact A, or Fact B, or Fact C is true, a general verdict may be entered in favor of the patentee even if only four jurors found Fact A, four other jurors found Fact B, and the remaining jurors found Fact C.¹³¹ Such an outcome seems particularly inappropriate because patent obviousness is ultimately “a legal determination.”

Sixth, in the context of patent obviousness, not all “secondary considerations” are created equal.¹³² For instance, commentators consider “commercial success” to be the weakest of all secondary considerations.¹³³ Thus, knowing the subsidiary findings underlying the jury’s verdict would enable the reviewer to determine whether some secondary considerations were accorded undue importance vis-à-vis other factors. This might also lead to the development of case law clarifying the relative importance and impact of the different species of secondary considerations.

Seventh, special interrogatories accompanying a general verdict are less controversial than special verdicts because the procedure allows a jury to

126. *See supra* Section III.A.

127. *See supra* Section III.B.

128. *See infra* Part V.

129. Brodin, *supra* note 8, at 43.

130. *Id.* at 66.

131. *Id.*

132. John F. Duffy, *Nonobviousness—The Shape of Things to Come: A Timing Approach to Patentability*, 12 LEWIS & CLARK L. REV. 343, 372 (2008).

133. *Id.*

retain its traditional role enshrined in the Seventh Amendment.¹³⁴ However, the Supreme Court has not shied away from circumscribing the role of the jury in certain areas of patent law. In *Markman*, a unanimous Court assigned the task of patent claim construction to the judge and not the jury, primarily because “[t]he construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis.”¹³⁵ In *KSR*, the Court wrote that, in appropriate cases, district courts may grant summary judgment on patent obviousness, thus preventing the issue from reaching the jury, because “[t]he ultimate judgment on obviousness is a legal determination.”¹³⁶ Because it does not take away from the jury’s role, mandating special interrogatories on patent obviousness should not raise significant Seventh Amendment concerns.

Finally, the Supreme Court has cautioned against the intrusion of impermissible “hindsight bias” when determining the obviousness of an invention.¹³⁷ Although this might be a nuanced issue due to competing considerations,¹³⁸ the special interrogatory may serve as an additional check against such hindsight bias because it focuses on the questions of “scope and content of the prior art” and the “level of skill in the art” at the time of invention.

B. SCRUTINIZING ARGUMENTS AGAINST MANDATING SPECIAL INTERROGATORIES

Although there are some arguments against mandating special interrogatories on obviousness, they are susceptible to stronger counterarguments. The first argument against special interrogatories is that the Federal Circuit has traditionally deferred to the “sound discretion” of trial courts in deciding the form of obviousness verdicts.¹³⁹ However, this practice results in situations where some district courts use special interrogatories (or special verdicts) on obviousness while others do not.¹⁴⁰ Such a situation

134. *See supra* Section I.B (discussing the right to a jury trial on the issue of patent obviousness).

135. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388 (1996).

136. *KSR Int'l. Co. v. Teleflex Co.*, 550 U.S. 398, 426–27 (2007).

137. *Id.* at 421.

138. *See supra* Section III.D (discussing the role of “hindsight bias” in patent obviousness vis-à-vis “non-specialist” bias and “pro-inventor” bias).

139. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1248 (Fed. Cir. 2010) (Linn J., concurring).

140. *Compare* *Wyers v. Master Lock Co.*, No. 06-cv-00619-LTB, 2009 U.S. Dist. Lexis 43029, at *4 (D. Colo. May 8, 2009) (noting that the jury rendered a “general verdict” on obviousness), *rev'd*, 616 F.3d 1231 (Fed. Cir. 2010), *with* *Asyst Techs., Inc. v. Emtrak, Inc.*,

would provide incentive for forum-shopping in obviousness cases: patentees will prefer jurisdictions using the general verdict so that they can quickly move past the issue of invalidity while defendants will prefer jurisdictions with special interrogatories or verdicts so that they can have several opportunities to educate the jury on the defense of obviousness.¹⁴¹ Moreover, due to the perception that jurors have a pro-inventor bias,¹⁴² individual patentees would likely prefer to minimize scrutiny of the bases underlying jury verdicts and thus jurisdictions that utilize general verdicts on obviousness.

Second, some might also argue that such a mandate forces trial courts to devote too many resources on obviousness at the expense of other issues. The parties might dispute the framing of numerous questions on special interrogatories and any accompanying instructions. However, this argument underestimates the ability of courts to crystallize the disputed issues by imposing time and page limits on counsel. For instance, some courts limit the number of summary judgment motions that parties can bring during the life of a case or even the total number of pages of briefing that may be filed.¹⁴³ This can induce the parties to identify their best arguments, and it can significantly reduce the burden on the court.¹⁴⁴ A trial court's inherent power to control cases includes broad authority to impose reasonable time limits during trial, which can force the parties to evaluate what is and is not important to their case.¹⁴⁵

Third, some commentators argue that a general verdict permits the jury to "inject community values" into legal judgments.¹⁴⁶ For instance, juries mitigated harsh aspects of the old contributory negligence doctrine, which absolutely prevented a damage award if any contributory negligence by the

No. C 98-20451 JF (HRL), 2007 U.S. Dist. Lexis 59100 at *30 n.6 (N.D. Cal. Aug 3, 2007) (noting a jury's response to questions on the "special verdict" form on obviousness), *aff'd*, 544 F.3d 1310 (Fed. Cir. 2008).

141. See Moore, *Juries*, *supra* note 9, at 786–89 (describing the preferences of the patentees and alleged infringers).

142. See *supra* Section III.C.

143. MENELL, *supra* note 39, at 6-10 (discussing page limits and limits on number of summary judgment motions).

144. *Id.*

145. *Id.* at 8–10 (discussing time limits during trial).

146. Elizabeth G. Thornburg, *The Power and The Process: Instructions and the Civil Jury*, 66 *FORDHAM L. REV.* 1837, 1858 (1998) (describing the jury's role in injecting community values into the legal process).

plaintiff was proved.¹⁴⁷ Some juries implicitly refused to apply that doctrine and invented an ad-hoc comparative negligence regime.¹⁴⁸ However, there does not appear to be any serious argument that patent obviousness is a comparably harsh or unfair law, and the need for such jury nullification is less apparent. Also, since an obviousness case that reaches the jury will feature genuine disputes as to material fact on which reasonable minds may differ, there will probably remain considerable room for the jury to apply community values not only with respect to the specific questions posed by the special interrogatory but also to the ultimate verdict on obviousness. It is likely that most judges will be reluctant to overturn a jury verdict that seems reasonable, even if they disagree with it.

Fourth, some commentators have argued that special interrogatories focus on the need for requisite “unanimity” on each question—for instance, in tort law, juries would need to agree on the specific theory of liability (e.g. defective product design, negligence, breach of warranty) instead of reaching general agreement on liability.¹⁴⁹ This objection may be inapposite for patent obviousness where the three *Graham* inquiries and secondary considerations are interrelated components of the ultimate legal question of obviousness. For instance, if the jurors cannot agree on whether a key reference is part of the prior art, it might be unfair to gloss over this difference of opinion when reaching a verdict on obviousness.

Fifth, another concern is that the narrowness and numerousness of questions on the special interrogatory form might make it more difficult for the jury to know which party will benefit from particular answers, i.e. the impact of each answer on “who wins.”¹⁵⁰ This concern might be addressed to some extent by focusing on clarity when drafting special interrogatories. Moreover, regardless of the form of the jury verdict, jurors who do not understand the impact of subsidiary questions might be unable to render a rational or fair verdict. Additional measures might be needed to address juror doubts or confusion.¹⁵¹

147. *Id.* (describing how juries dealt with contributory negligence); *see also* Galbraith v. Thompson, 239 P.2d 468, 471 (Cal. Ct. App. 1952) (describing the implication of finding any contributory negligence).

148. Thornburg, *supra* note 146, at 1858 (describing how juries dealt with contributory negligence).

149. *Id.* at 1891.

150. *Id.* at 1853 (describing the risk that jurors might not understand the impact of particular answers to special verdict questions).

151. *See infra* Part V.

Finally, some commentators argue that special interrogatories might increase the risk of inconsistent answers on various questions.¹⁵² However, this argument conflates the symptom with the underlying disease, since the special interrogatory seeks to solve the problem that “a general verdict may conceal wildly contradictory findings.”¹⁵³ The Federal Rules provide that when the answers of the special interrogatory are consistent with each other but inconsistent with the general verdict, the court may enter judgment based on the consistent answers, direct the jury to reconsider its answers and verdict, or order a new trial.¹⁵⁴ If the answers are inconsistent with each other and at least one answer is inconsistent with the general verdict, the court may either ask the jury to reconsider or order a new trial.¹⁵⁵ When inconsistent verdicts arise, judicial resources would doubtlessly need to be expended to address the issue. However, this expenditure of resources may very well be justified because the basic goal of the judicial system is to ensure a fair and rational verdict. Also, it might be more productive to view an inconsistent verdict as an opportunity to improve the justice system. An inconsistent verdict might reveal the source of juror misunderstanding that led to the verdict and thereby enable the justice system to use that lesson to improve juror education in future cases, especially those involving similar technology.

V. SUGGESTIONS FOR IMPROVING JURY DELIBERATIONS ON OBVIOUSNESS

Since rendering a verdict on obviousness requires the jury to assess the differences between the prior art and the claims at issue, the jury will usually need to acquire a basic understanding of the technology involved in the case. This Part suggests steps that a court can take to promote the jury’s comprehension of the invention, prior-art references, and asserted combinations of prior-art references. These measures should lead to better decisions and fewer inconsistent responses to the special interrogatory questions. (This Part incorporates certain suggestions from the “Patent Case Management Judicial Guide” developed by Prof. Peter Menell and his fellow authors.)

First, because the information provided in a patent case can be difficult to understand and recall, the court can provide “binders” or other written

152. Thornburg, *supra* note 146, at 1851.

153. Brodin, *supra* note 8, at 80.

154. FED. R. CIV. P. 49(b)(3).

155. FED. R. CIV. P. 49(b)(4).

information for the individual jurors to carry with them to the jury room.¹⁵⁶ The binder can contain relatively “non-partisan items” such as the jury instructions, photographs (e.g., of witnesses) to aid memory, copies of the patents, a glossary of terms, and other items agreed upon by the parties.¹⁵⁷

Second, the court can encourage jurors to take notes by “providing notepads and pencils.”¹⁵⁸ Given the duration and complexity of most patent trials, having notes to review will help jurors comprehend and recall the testimony.¹⁵⁹ “Juror notes are confidential” and should be subject to appropriate safeguards.¹⁶⁰ Third, to enhance the jury’s “attentiveness and comprehension” during complicated trial testimony, the jury could be allowed to submit written questions to the court.¹⁶¹ The court could hear from counsel before deciding whether to ask, reject, or modify the question.¹⁶² Since numerous questions can slow down trial proceedings, the court could mention that “questions should be reserved for extraordinary circumstances.”¹⁶³

Finally, after taking some precautions, the court could permit counsel to make “interim statements” to the jury to help explain the significance of the evidence and testimony presented.¹⁶⁴ “Interim attorney statements can serve as sign posts for the jury, explaining the purpose of testimony and how the evidence fits into a party’s overall case.”¹⁶⁵ This may be especially helpful to jurors if voluminous expert testimony can be subdivided into individual infringement and invalidity issues.¹⁶⁶

VI. CONCLUSION

The Federal Circuit should mandate that juries use special interrogatories on the complex issue of patent obviousness and abolish the use of “black box” general verdicts on this issue. Several considerations suggest the need for such reform. First, obviousness requires the jury to assess the level of technical accomplishment embodied in the invention. The complexity and

156. MENELL, *supra* note 39, at 8-20 (discussing juror binders).

157. *Id.*

158. *Id.* at 8-20 to -21 (discussing juror notetaking).

159. *Id.*

160. *Id.* at 8-21.

161. *Id.* (discussing juror questions).

162. *Id.*

163. *Id.*

164. *Id.*

165. *Id.* at 8-22.

166. *Id.*

volume of evidence presented might tend to inhibit a jury's comprehension, and the extent of the jury's comprehension of the technology may impact the fairness and rationality of the jury's verdict.¹⁶⁷ A black box verdict on obviousness does not indicate the jury's factual findings and thus could mask errors introduced by lack of comprehension or other extraneous factors.¹⁶⁸

This is problematic because the general verdict may very well compromise reviewability. In *KSR*, the Supreme Court wrote that the analysis underlying a verdict on the "legal determination" of obviousness "should be made explicit" to facilitate review.¹⁶⁹ Mandating special interrogatories may not only enhance transparency with respect to the jury's factual findings but may also improve the jury's deliberation process on this complex issue. By forcing jurors to break down the complex problem into more manageable portions, special interrogatories might make the problem seem less daunting and enable jurors to focus on relevant factors underlying obviousness, thereby improving the quality and fairness of verdicts.

167. *See supra* Part V.

168. *See supra* Part III (extraneous factors that could influence jury verdicts).

169. *KSR Int'l. Co. v. Teleflex Co.*, 550 U.S. 398, 417–18 (2007).

CARDIAC PACEMAKERS V. ST. JUDE MEDICAL: THE FEDERAL CIRCUIT HAS RE-OPENED THE DEEPSOUTH LOOPHOLE FOR METHOD CLAIMS

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In *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*,¹ the Federal Circuit ruled en banc that 35 U.S.C. § 271(f)² categorically does not apply to method claims.³ The court rejected the contention that the “components” of a patented method can refer to the physical structures used in carrying out the method and instead defined the components of a method claim as “the steps that comprise the method.”⁴ Because infringement under § 271(f) requires that the invention components be “supplied” from the United States in order

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1. *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. en banc)*, 576 F.3d 1348 (Fed. Cir. 2009) (en banc). This en banc ruling reversed the previous panel and district court rulings. See *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. Panel)*, 303 F. App'x 884 (Fed. Cir. 2008) (holding that § 271(f) applies to method claims); *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. Damages Decision)*, 418 F. Supp. 2d 1021 (S.D. Ind. 2006) (same).

2. 35 U.S.C. § 271(f) (2006) (emphasis added to indicate key terms that will be analyzed throughout this Note)

(1) Whoever without authority *supplies* or causes to be supplied in or from the United States all or a portion of the *components* of a *patented invention*, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

(2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

3. *Cardiac Paces. en banc*, 576 F.3d at 1365 (explaining that the legislative history of § 271(f) and its context within the rest of the statute indicate that this section does not apply to method patents).

4. *Id.* at 1363.

for infringement to occur, the Federal Circuit concluded that this section cannot apply to method claims because “[s]upplying an intangible step is . . . a physical impossibility.”⁵ Although *Cardiac Pacemakers* comports with the presumption against extraterritorial application of U.S. law and eliminates uncertainty in regard to the infringement of patented processes abroad, it is flawed because it re-opens a loophole previously closed by Congress.⁶

Part I of this Note provides a brief historical background on the enactment of § 271(f) as well as a summary of the myriad judicial interpretations of this statutory text. Part II documents the relevant portions of the case history of *Cardiac Pacemakers*, details the Federal Circuit’s en banc holding, and explores Judge Newman’s dissent. Finally, Part III analyzes § 271(f) using three different theories of statutory interpretation, discusses conflicting policy implications, and offers an improved and clarified version of the statute. This Note concludes that the Federal Circuit has misinterpreted the statutory language of § 271(f), and has therefore erred in categorically excluding method claims from being covered by this provision.

I. BACKGROUND AND HISTORICAL DEVELOPMENT OF 35 U.S.C. § 271(F)

A. THE ENACTMENT OF 35 U.S.C. § 271(F) WAS INTENDED TO PLUG AN INFRINGEMENT LOOPHOLE

In the 1972 case *Deepsouth Packing Co. v. Laitram Corp.*, the accused infringer sold and shipped a patented shrimp deveining machine abroad in parts. Assembling the machine from these parts took less than one hour to complete.⁷ The Supreme Court held that such an act did not constitute infringement,⁸ because there is no infringement “where the final assembly

5. *Id.* at 1364.

6. *See* *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 528 (1972) (holding that foreign assembly of the components of a mechanical invention does not constitute patent infringement); *see also infra* Section I.A. The holding in this case re-introduces a loophole for method claims.

7. *Id.* at 524. The accused infringer acknowledged that this conduct was motivated by a desire to avoid patent infringement, rendering it necessary that “two parts . . . must not be assembled in the United States, but assembled after the machine arrives in [a foreign location].” *Id.* at 523 n.5 (quoting a letter written to a customer of Deepsouth by the company’s president).

8. *Id.* at 528 (relying on *Mercoid v. Mid-Continent Inv. Co.*, 320 U.S. 661, 676 (1944)).

and sale [of a patented invention] is abroad.”⁹ The Court noted that ruling otherwise would “require a clear and certain signal from Congress.”¹⁰

Congress promptly responded to this explicit invitation to protect patent holders from those looking to avoid patent liability.¹¹ On October 1, 1973, within a few months of the *Deepsouth* ruling, Congress proposed legislation that would find whoever makes and sells “components of a patented machine, manufacture, or composition of matter” with the intention to combine them abroad liable as an infringer.¹² Subsequent bills and the eventual codified statute replaced this list of categories of inventions with the broader term “patented invention.”¹³

B. THE EVOLUTION OF 35 U.S.C. § 271(F)

Section 271(f) has been implicated in a variety of cases and has given rise to a multitude of interpretations. Some courts have tried to limit § 271(f)’s applicability only to cases involving physical components assembled outside the United States. In *Standard Havens Products, Inc. v. Gencor Industries, Inc.*, the Federal Circuit declined to “find the provisions of 35 U.S.C. § 271(f) implicated” by the sale of a machine that did not require foreign assembly, but performed a patented asphalt-making process outside the United States.¹⁴ Several years later, in *Enpat, Inc. v. Microsoft Corp.*, a district court concluded that a software-related method patent was outside the reach of § 271(f) because such claims do not have “components,” as a software patent describes steps to complete a task rather than the patented combination of components that comprise a finished product.¹⁵ A district court in New Jersey held in *Synaptic Pharmaceutical Corp. v. MDS Panlabs, Inc.* that § 271(f) did not apply to method patents involving the use of biological testing assays.¹⁶

On the other hand, at least one court has held a more expansive view of § 271(f). In *W.R. Grace & Co.-Conn. v. Intercat, Inc.*, a Delaware district court extended § 271(f) to chemical composition claims because “[n]owhere in the

9. S. REP. NO. 98-663, at 2–3 (1984), as reprinted in 1984 U.S.C.C.A.N. 5827 [hereinafter *Report on the Patent Law Amendments of 1984*].

10. *Deepsouth*, 406 U.S. at 531.

11. S. REP. NO. 94-642, at 39 (1976) [hereinafter *1976 Report on Patent Law Revision*].

12. *Id.* This language closely follows that of 35 U.S.C. § 271(c) (imposing liability for the copying or selling of “a component of a patented machine, manufacture, combination or composition, or a material or apparatus”); see also *infra* Sections III.A and III.C.

13. S. REP. NO. 98-663, at 30 (codified at 35 U.S.C. § 271(f)); see *supra* text accompanying note 2.

14. 953 F.2d 1360, 1374 (Fed. Cir. 1991).

15. 6 F. Supp. 2d 537, 539 (E.D. Va. 1998).

16. 265 F. Supp. 2d 452, 464 (D.N.J. 2002) (relying on *Enpat*, 6 F. Supp. 2d at 539; *Standard Havens*, 953 F.2d at 1374).

statute or its legislative history is there a limitation to components of machines and other structural combinations.”¹⁷ Although *W.R. Grace* did not directly address the applicability of § 271(f) to method claims, it demonstrated that the statute can encompass inventions beyond the type of mechanical invention that spurred its enactment.¹⁸

Directing its attention to another ambiguity within the statutory language, the Federal Circuit later addressed the meaning of § 271(f)’s use of “supply” in *Pellegrini v. Analog Devices, Inc.*¹⁹ The court examined whether § 271(f) applies when components are designed within the United States, but the manufacturing instructions are subsequently transmitted to a foreign location in order for the manufacture to occur outside the United States.²⁰ In *Pellegrini*, the defendant designed integrated circuit chips domestically, but had the chips manufactured outside the United States based on these designs.²¹ The court held that “supplying” under § 271(f) must involve the “physical supply of components, not simply . . . the supply of instructions or corporate oversight.”²² Extraterritorial manufacture is not covered by U.S. patent law when mere instructions are “supplied” from the United States. The court held that the inventor in *Pellegrini* must rely on foreign patent protection.²³

This holding, however, did not explicitly address the question of whether such “components” must be tangible. Whether *Pellegrini* implicitly imposed such a tangibility requirement is a difficult question. In 2005, in *Eolas Techs. Inc. v. Microsoft Corp.*, the Federal Circuit held that there was no such requirement. The court, relying on the lack of such limitations in the statutory language, concluded that “every form of invention eligible for patenting [and] . . . every component of every form of invention deserves the protection of section 271(f).”²⁴ *Eolas* involved the question of whether software code on a “golden master disk” is a “component” of a computer software invention.²⁵ Because such an invention would not work without the software code, and would therefore fail the utility requirement of 35 U.S.C.

17. 60 F. Supp. 2d 316, 320–21 (D. Del. 1999).

18. 1976 Report on Patent Law Revision, *supra* note 11, at 39.

19. 375 F.3d 1113, (Fed. Cir. 2004).

20. *Id.* at 1115.

21. *Id.* at 1115 & n.1.

22. *Id.* at 1118.

23. *See id.* at 1117–19 (explaining that *Pellegrini* decided not to seek foreign patent protection and was bound by the consequences of that decision).

24. 399 F.3d 1325, 1339 (Fed. Cir. 2005).

25. *Id.* A “golden master disk” is a disk containing software code from which additional copies of software products are made abroad for sale abroad. *Id.* at 1331. *Eolas* involved the popular web browser Internet Explorer. *Id.* at 1328. Because the software is in a tangible form on a disk, the claims at issue in *Eolas* were product claims. *Id.* at 1330–31.

§ 101, the court determined that the code was “not only a component, [but] it is probably the key part of this patented invention.”²⁶ The court also noted the difficulty of distinguishing between process and product claims for computer technologies, and more broadly stated that it could not “construct a principled reason for treating process inventions different[ly] than structural products.”²⁷ Therefore, the *Eolas* court held that *Pellegrini* did not impose a tangibility requirement on the components of a patented invention.²⁸

On nearly identical facts as *Eolas*, in *AT&T Corp. v. Microsoft Corp.* (*AT&T I*), the Federal Circuit affirmed that software on a golden master disk is a component of an invention, holding that exportation of a single copy of a golden master disk and subsequent copying abroad amounted to infringement of the relevant product claims under § 271(f) because, considering the nature of the technology, “the act of copying is subsumed in the act of ‘supplying.’”²⁹

But the Supreme Court overruled this Federal Circuit holding.³⁰ In *Microsoft Corp. v. AT&T Corp.* (*AT&T II*), the Court found it critical that the exported copies were not the actual copies installed for use in a computer abroad, but rather copies made from the masters.³¹ Even though this extra copying step is easy and common practice when dealing with software, this step was key to rendering the invention usable and “supplied”—before being copied onto the medium from which it will be installed, the software code is “intangible, uncombinable information,”³² like a blueprint or instructions.³³ In addition, the Court emphasized that its position was supported by the

26. *Id.* at 1339.

27. *Id.*

28. *Id.* at 1340–41.

29. *AT&T Corp. v. Microsoft Corp.* (*AT&T I*), 414 F.3d 1366, 1370–71 (Fed. Cir. 2005). *AT&T I* involved AT&T’s patented speech software included in the Windows operating system.

30. *Microsoft Corp. v. AT&T Corp.* (*AT&T II*), 550 U.S. 437 (2005).

31. *Id.* at 449–52 (explaining that a golden master disk is like a set of instructions or blueprint for the program, and thus that “a copy of Windows, not Windows in the abstract, qualifies as a ‘component’ under § 271(f)”; see also *AT&T I*, 414 F.3d at 1372 (Rader, J., dissenting) (“This court should accord proper respect to the clear language of the statute and to foreign patent regimes by limiting the application of § 271(f) to components literally ‘shipped from the United States.’” (quoting *Pellegrini*, 375 F.3d at 1117)).

32. *AT&T II*, 550 U.S. at 451 & n.12.

33. See *Pellegrini*, 375 F.3d at 1118 (finding that liability for providing instructions detailing how to build chipsets that would otherwise infringe upon a U.S. patent cannot be imposed if the manufacturing occurs in a foreign country).

presumption against the extraterritorial application of U.S. law.³⁴ Therefore, “[a]ny doubt that Microsoft’s conduct falls outside § 271(f)’s compass would be resolved by the presumption against extraterritoriality”³⁵ However, the *AT&T II* Court, in dicta, declined to “address whether [anything] . . . intangible can *ever* be a component under § 271(f). If an intangible method or process . . . qualifies as a ‘patented invention’ under § 271(f) . . . , the combinable components of [such a process] invention might be intangible as well.”³⁶ Although dicta, this statement illustrates the Supreme Court’s sentiments about § 271(f)’s applicability to method patents.

In *NTP, Inc. v. Research in Motion, Ltd.*, the Federal Circuit dealt with Research in Motion’s (RIM) method claims for an e-mail architecture in which the user’s e-mail system is incorporated into a wireless system (such as that used by BlackBerry) for seamless, automatic receipt of messages on both the user’s computer and handheld device.³⁷ In the accused activity, when new mail was detected, it was routed through the BlackBerry “Relay,” a part of RIM’s wireless network located in Canada.³⁸ The Federal Circuit rejected NTP’s argument that RIM infringed its patented method under § 271(f) by inducing the formation of the patented system through the supply of handhelds within the United States.³⁹ Relying on *Standard Havens*, the court explained that, contrary to NTP’s argument, by supplying products used in performing a patented process to U.S. customers, RIM did not supply any steps of a patented invention for combination outside the United States, and therefore did not infringe NTP’s method claims under § 271(f) as a matter of law.⁴⁰ Also notable, the *NTP* court commented that “it is difficult to conceive of how one might supply or cause to be supplied all or a substantial portion of the steps of a patented method in the sense contemplated by the phrase ‘components of a patented invention’ in section 271(f).”⁴¹

34. *AT&T II*, 550 U.S. at 454–55. The presumption against the extraterritorial application of law is based on the premise that U.S. law only applies within the United States, and the corresponding foreign law should be applied outside the borders of the United States. *Id.*

35. *Id.* at 454.

36. *Id.* at 452 n.13.

37. *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1289–90 (Fed. Cir. 2005).

38. *Id.* at 1290.

39. *Id.* at 1321.

40. *Id.* at 1322–23.

41. *Id.* at 1322.

C. THE FEDERAL CIRCUIT HELD IN *UNION CARBIDE* THAT § 271(F) CAN BE APPLIED TO METHOD CLAIMS, DESPITE THE DICTA IN *NTP*

A month after *NTP*, the Federal Circuit explicitly imposed liability under § 271(f) on an infringer of a method claim in *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*⁴² The court held that the export to foreign affiliates of a catalyst necessary in performing a patented method (in this case, a chemical reaction) could constitute infringement under § 271(f), as the catalyst itself may be a “component” of the invention.⁴³ The fact that the statute contains the broad and inclusive phrase “patented invention,” instead of more specific terms contained in earlier versions,⁴⁴ indicated that “the statute makes no distinction between patentable method/process inventions and other forms of patentable inventions.”⁴⁵

The Federal Circuit distinguished the facts at bar from those in *NTP* because the case involved the supply of a catalyst used to perform the steps of the patented method to foreign customers, but *NTP* involved a method claim for which there was the mere supply of the handheld devices within the United States.⁴⁶ Another distinguishing factor between *NTP* and *Union Carbide* (as well as *Cardiac Pacemakers*) is that RIM’s service did not involve the foreign supply of any physical materials, and the method itself was initiated from within the United States. Nevertheless, the *Union Carbide* court failed to directly address the dicta in *NTP* indicating that supplying the steps of a method patent may be difficult.⁴⁷

The *Union Carbide* court stated that shipment of such a catalyst presented an even more compelling reason to apply § 271(f) than the software code at

42. *See* *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1380 (Fed. Cir. 2005) (holding that “because § 271(f) governs method/process inventions, Shell’s exportation of catalysts may result in liability under § 271(f)”).

43. *See id.* at 1380–81 (remanding upon a finding that the district court abused its discretion in the calculation of damages because it did not apply § 271(f) to the method claim). *But see* *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 434 F.3d 1357, 1358 (Fed. Cir. 2006) (Lourie, J., dissenting from the denial for rehearing en banc) (“A component of a process is a step in the process; it is not the physical material to be used in the process.”).

44. *See infra* Section III.B (discussing the relevance of a change in proposed statutory language in regard to intentionalist statutory interpretation).

45. *Union Carbide*, 425 F.3d at 1379 (relying on *Eolas Techs. v. Microsoft Corp.*, 399 F.3d 1325, 1338–39 (Fed. Cir. 2005)). *Compare* 1976 Report on Patent Law Revision, *supra* note 11, at 39 (explicitly listing the statutory categories of invention), *with* Report on the Patent Law Amendments of 1984, *supra* note 9, at 30 (1984) (employing the broad, codified language of “patent invention”).

46. *Union Carbide*, 425 F.3d at 1380.

47. *See* *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1322 (Fed. Cir. 2005).

issue in *Eolas* and *AT&T I*—the catalyst was a physical material employed in a patented process that was supplied directly to and used by foreign associates, as opposed to the exported software code that was copied abroad before it could be used.⁴⁸ But this comparison in support of the holding in *Union Carbide* is arguably no longer supported by precedent because in *AT&T II*, the Supreme Court reversed *AT&T I* partially on the basis of the presumption against the extraterritorial application of U.S. patent law.⁴⁹ Regardless, *NTP* may have come out differently if the handhelds themselves had been supplied to customers in Canada or another foreign location.

D. APPLICATION OF § 271(F) SUBSEQUENT TO *UNION CARBIDE*
DIFFERED BEFORE AND AFTER THE SUPREME COURT RULING ON
THE GOLDEN MASTER DISKS

AT&T II, the Supreme Court decision that the export and copying abroad of master disks did not constitute infringement under § 271(f), represented a turning point in the interpretation of § 271(f). But even after this Supreme Court ruling, lower courts remained unclear in how to apply this provision consistently.

1. *Before AT&T II, § 271(f)'s Application Was Not Always
Straightforward*

During the interim between the holding in *Union Carbide*⁵⁰ and the holding in *Cardiac Pacemakers*,⁵¹ several district courts interpreted and applied this statute. In *Innogenetics, N.V. v. Abbott Laboratories*, the court applied *Union Carbide* in a straightforward manner. The court explained that *Union Carbide* “emphasized that § 271(f) makes no distinction between method claims and other forms of patentable inventions,” and held that the defendant was prohibited from selling components of Hepatitis C diagnostics to customers outside of the United States for use in practicing a patented method.⁵² On the other hand, in *Spreadsheet Automation Corp. v. Microsoft Corp.*,⁵³ when the defendant argued that § 271(f) did not provide damages for the infringement

48. *Union Carbide*, 425 F.3d at 1379 (“This case, however, presents an even stronger basis [than *AT&T* and *NTP*] for applying § 271(f) because Shell supplies all of its catalysts from the United States directly to foreign affiliates.”).

49. *AT&T II*, 550 U.S. 437, 442 (2005) (noting that Congress has discretion to determine whether the interpretation of § 271(f) should be altered).

50. *See infra* Section I.C.

51. *See infra* Section II.C.

52. No. 05-C-0575-C, 2007 U.S. Dist. LEXIS 3148, at *7–8 (E.D. Wis. Jan. 12, 2007) (relying on *Union Carbide*, 425 F.3d at 1379–80), *vacated*, 512 F.3d 1363 (Fed. Cir. 2008) (on grounds other than 35 U.S.C. § 271(f)).

53. 587 F. Supp. 2d 794 (E.D. Tex. 2007).

of method claims, even upon consideration of the seemingly clear holding in *Union Carbide*, the Eastern District of Texas avoided the issue at that stage of the litigation and instead decided to leave it for post-trial motions.⁵⁴

2. *After AT&T II, Courts Attempted to Reconcile the Supreme Court Holding with Union Carbide*

In *Informatica Corp. v. Business Objects Data Integration, Inc.*, the defendant supplied a master disk from San Jose to a third party contractor in Ireland for duplication and sale abroad.⁵⁵ *Informatica* argued that *AT&T II* did not affect the holding in *Union Carbide*, and the court explained that

[a]lthough *Union Carbide* stands for the general principle that section 271(f) can apply to method claims as well as apparatus claims when the components are supplied to foreign users in a particular manner, it is distinguishable from [*AT&T II*], as well as the present case, where the infringer supplied software on a master disk to a foreign, third-party contractor who then duplicated the disk to distribute copies.⁵⁶

Regardless of this distinction, the other similarities of the fact pattern to the Microsoft golden master situation led the *Informatica* court to the same overall result as the Supreme Court in *AT&T II*: copying abroad from a master disk supplied from within the United States did not constitute infringement of the computer implemented method claims at issue under § 271(f).

In a case decided in the interim between *Cardiac Pacemakers Panel*⁵⁷ and the en banc rehearing, another district court tried to reconcile the holdings in *AT&T II* and *Union Carbide*. In *Ormco Corp. v. Align Technology, Inc.*, the Central District of California explicitly “decline[d] to read [*AT&T II*] dicta as

54. See 587 F. Supp. 2d at 803.

55. 489 F. Supp. 2d 1075, 1079 (N.D. Cal. 2007). *Business Objects Data Integration* also supplied its software in other manners, but these were not relevant to the section 271(f) analysis.

56. *Id.* at 1082 (relying on *Union Carbide*, 425 F.3d at 1380).

57. *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. Panel)*, 303 F. App'x 884, 893 (Fed. Cir. 2008) (holding that § 271(f) applies to method claims). But after *Ormco Corp. v. Align Tech. Inc.*, 609 F. Supp. 2d 1057 (C.D. Cal. 2009), the Federal Circuit overruled this panel decision. See *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. en banc)*, 576 F.3d 1348, 1364 (Fed. Cir. 2009) (en banc) (holding that method claims are categorically excluded from § 271's coverage).

overruling *Union Carbide's* clear holding” that § 271(f) can apply to both method and product claims.⁵⁸

II. CASE HISTORY

After summarizing the history of § 271(f) and the difficulties the court faced when interpreting it, we have arrived at *Cardiac Pacemakers*. Section II.A will first briefly examine the procedural history of the case before the *Cardiac Pacemakers* Federal Circuit panel decision. Then, Section II.B will discuss this panel decision, which held that § 271(f) is applicable to method claims. Finally, Section II.C will address the reversal of the panel decision by the en banc Federal Circuit and also examine the dissent’s view on the applicability of this statutory section to process claims.

A. CASE HISTORY PRIOR TO THE *CARDIAC PACEMAKERS* PANEL DECISION⁵⁹

The patent at issue in *Cardiac Pacemakers* concerned implantable cardioverter defibrillators (ICDs)—small medical devices that can detect and correct potentially fatal abnormalities in heart rhythms.⁶⁰ The only disputed claim was a method claim directed to a “method of heart stimulation” employing an ICD and “comprising: (a) determining a heart condition, . . . (b) selecting at least one mode of operation, . . . [and] (c) executing said at least one mode of operation . . . to treat said determined heart condition.”⁶¹

In November 1996, Cardiac brought an infringement action against St. Jude alleging the infringement of several of its patents. After trial, the jury found the patents not infringed.⁶² The Federal Circuit reversed the jury’s noninfringement finding, but only on claim construction grounds, and not on § 271(f) grounds.⁶³ On remand, the district court held that Cardiac’s potential damages included those under § 271(f) for the sale of allegedly

58. *Ormco*, 609 F. Supp. 2d at 1069. The court cited to the unpublished *Cardiac Pacemakers Panel* decision, which “stands for the proposition that § 271(f) *can* be applied to method claims, a proposition not foreclosed by *NTP*.” *Id.* at 1070.

59. This case comes accompanied by a long and complex procedural history, which includes matters such as invalidity and inequitable conduct; therefore, only portions of the history relevant to the § 271(f) issue will be recounted in detail in this Note.

60. U.S. Patent No. 4,407,288 (filed Mar. 16, 1981) (the ’288 patent).

61. *Cardiac Pacemakers en banc*, 576 F.3d at 1352 (quoting the ’288 patent).

62. *Id.* (citing *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Pacemakers Damages Decision)*, No. IP-96-1718-C, 2002 U.S. Dist. LEXIS 14767, at *7 (S.D. Ind. July 5, 2002)).

63. *Id.* at 1353 (citing *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Pacemakers 2004 Opinion)*, 381 F.3d 1371, 1378–80 (Fed. Cir. 2004)).

infringing devices supplied from within the United States to foreign locations.⁶⁴ The Federal Circuit denied a subsequent writ of mandamus filed by Cardiac regarding whether to allow St. Jude to assert several affirmative defenses, and again remanded the case to the district court.⁶⁵

On this remand, the district court granted Cardiac's motion for summary judgment on the basis of infringement but ruled in favor of St. Jude on its motion for summary judgment with regard to anticipation.⁶⁶ Cardiac timely appealed, and St. Jude filed a cross-appeal, arguing that the district court erred in ruling that Cardiac could recover for infringement under § 271(f) on the basis of foreign sales of the patented item.⁶⁷

B. THE FEDERAL CIRCUIT PANEL RULED THAT § 271(F) IS APPLICABLE TO METHOD CLAIMS.

On appeal, the Federal Circuit panel affirmed the district court's holding that § 271(f) encompasses method claims. Relying on *Union Carbide*, the panel held that § 271(f) applied to method claims and that St. Jude could be liable for infringement under this provision based on the shipment of ICDs to foreign locations.⁶⁸ Agreeing with the district court,⁶⁹ the panel concluded that *AT&T II* left open the question of whether § 271(f) could be applied to method claims and declined to overrule *Union Carbide*.⁷⁰ The Federal Circuit granted St. Jude's subsequently filed motion for rehearing en banc.⁷¹

C. THE FEDERAL CIRCUIT, EN BANC, HELD THAT METHOD CLAIMS CANNOT BE INFRINGED UNDER § 271(F).

In reversing the panel decision, the en banc Federal Circuit employed canons of statutory construction in conjunction with an analysis of the history surrounding the enactment of § 271(f) to explain that the manner in which a method claim is infringed renders infringement under § 271(f) impossible for method claims.⁷² Based on the ordinary meaning of the term

64. *Id.* at 1354 (citing *Cardiac Pacemakers Damages Decision*, 418 F. Supp. 2d at 1042–44).

65. *Id.* at 1355 (citing *In re Cardiac Pacemakers, Inc. (Cardiac Pacemakers 2006 Writ Order)*, 183 F. App'x 967, 967 (Fed. Cir. 2006)).

66. *Id.* at 1355 (citing *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Invalidity Decision)*, 483 F. Supp. 2d 734, 745 (S.D. Ind. 2007)).

67. *Id.* at 1358.

68. *Id.* at 1359 (citing *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. Panel)*, 303 F. App'x 884, 884 (Fed. Cir. 2008)).

69. *Cardiac Pacemakers Damages Decision*, 418 F. Supp. 2d at 1021, 1044.

70. *Cardiac Pacemakers Panel*, 303 F. App'x at 893.

71. *Cardiac Pacemakers en banc*, 576 F.3d at 1359; *see also* *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, No. 07-1296, 2009 U.S. LEXIS 4379 (Mar. 6, 2009).

72. *See Cardiac Pacemakers en banc*, 576 F.3d at 1362–67.

“component,” the court recognized that there is a “distinction between a claim to a product, device, or apparatus, all of which are *tangible* items, and a claim to a process, which consists of a series of acts or steps.”⁷³ Therefore, the court defined a “component” of a claim to a tangible object as a tangible part of that object. But a “component” of a claim to a method is a step in that method.⁷⁴

Cardiac tried to rely on the Supreme Court’s holding in *Quanta Computer, Inc. v. LG Electronics, Inc.*⁷⁵ to show that there is no logical distinction between method and apparatus claims.⁷⁶ The *Quanta* Court held that “[a]pparatus and method claims ‘may approach each other so nearly that it will be difficult to distinguish the process from the function of the apparatus.’”⁷⁷ Cardiac reasoned that distinguishing between product and process claims under § 271(f)—especially a categorical exclusion of method claims—is contrary to this precedent. However, the en banc Federal Circuit majority asserted that other precedents, such as *NTP*, draw a clear distinction between method and apparatus claims in the context of patent infringement, and emphasized that *Quanta Computer* instead involved patent exhaustion.⁷⁸ The *Cardiac* court emphasized this distinction when it held that “the steps that comprise the method” were the “components” of the claim.⁷⁹

Furthermore, the court clarified that the steps of a method are self-defining, and cannot be “the physical components used in the performance of [the steps of] the method.”⁸⁰ The court looked to other parts of § 271 to find a definition of “component” and stated that such a definition with regard to a method claim was necessary for the term to be properly viewed in its “place in the overall statutory scheme,” as the contributory infringement statute clearly distinguishes a component of a patented machine from a

73. *Id.* at 1362 (quoting *In re Kollar*, 286 F.3d 1326, 1332 (Fed. Cir. 2002) (emphasis added)).

74. *Cardiac Pacemakers en banc*, 576 F.3d at 1362.

75. 553 U.S. 617 (2008).

76. *Cardiac Pacemakers en banc*, 576 F.3d at 1363–64.

77. *Quanta Computer*, 553 U.S. at 629 (2008). *Quanta* focused on the distinction between claims types in the specific context of patent exhaustion.

78. *Cardiac Pacemakers en banc*, 576 F.3d at 1362. *See also* *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1318 (Fed. Cir. 2005) (explaining that “a patent for a method or process is not infringed unless all steps or stages of the claimed process are utilized” (quoting *Roberts Dairy Co. v. United States*, 530 F.2d 1342, 1354 (1976) (internal quotations omitted))).

79. *Cardiac Pacemakers en banc*, 576 F.3d at 1363.

80. *See id.*

machine used in practicing a patented process.⁸¹ The court concluded that method patents have components that meet the definitional requirement of § 271(f): the steps of the method itself.

In order for § 271(f) to be invoked, the court noted that these components must be “supplied,” in this case to a foreign location.⁸² The court reasoned that under the ordinary meaning of supply, supplying must constitute the “transfer of a physical object,” thereby rendering it “physical[ly] impossib[le]” to supply the intangible steps of a method claim.⁸³ The court concluded: “[s]ection 271(f) does not forbid the supplying of products that are *the result of* steps of the patented method; rather it forbids the supply of the components themselves.”⁸⁴ Based on these interpretations of § 271(f), the en banc Federal Circuit overruled *Union Carbide* and held that § 271(f) cannot be applied to method claims.

Judge Newman dissented and argued that *Union Carbide* should have remained good law because § 271(f) does indeed apply to method patents. Judge Newman criticized the majority holding as being “contrary to the text of the statute, ignor[ing] the legislative history, . . . without support in precedent, and defeat[ing] the statutory purpose.”⁸⁵ The dissent noted that other subsections of 271 are directed towards all patented inventions and thus to all statutory subject matter, including § 271(c), on which the majority relies for the opposite proposition.⁸⁶ Because § 271(c) explicitly includes both method and apparatus claims as types of claims for which contributory infringement is possible, the dissent argued for a broad reading of “patented invention” in the interpretation of § 271(f) that includes both types of claims—an interpretation consistent with both the text of the statute and the legislative intent.⁸⁷

The majority indicated that Congress enacted § 271(f) to close a loophole regarding the foreign activities encountered in the *Deepsouth* case, and any

81. *Id.* at 1363–64 (quoting *Davis v. Mich. Dept. of Treasury*, 489 U.S. 803, 809 (1989)). See 35 U.S.C. § 271(c) (2006), *infra* note 2, and accompanying text. On the other hand, this Note argues that this interpretation is flawed because it goes against both the plain language of the statute and the associated legislative intent. See *infra* Part III. Under the proper interpretation, “components” should be interpreted more broadly.

82. *Cardiac Pacemakers en banc*, 576 F.3d at 1364.

83. *Id.*

84. *Id.*

85. *Id.* at 1366 (Newman, J., dissenting).

86. See *infra* Section III.B.2.

87. See *Cardiac Pacemakers en banc*, 576 F.3d at 1367 (Newman, J., dissenting) (explaining that “[w]hen a specific statutory class is intended it is explicitly stated . . . , [but] [t]he text of § 271(f) states no such limitation, and presents no ambiguity in its use of ‘patented invention’”).

repair of the apparently inherent loophole with regard to method claims in § 271(f) should also be left to Congress.⁸⁸ The dissent, on the other hand, disagreed that a loophole for method claims exists in § 271(f), and argued that, through its interpretation that § 271(f) does not apply to method claims, the majority had itself created a loophole that enables infringing activities outside the United States.⁸⁹

III. ANALYSIS

This Part employs three different approaches to statutory interpretation—textualism, intentionalism, and purposivism—to arrive at a construction that is consistent with the array of evidence available and that would effectively close the loophole created by *Cardiac Pacemakers*. In addition, this Part considers policy concerns and proposes new statutory language to address this method claim loophole. All three methods of statutory interpretation as well as policy point to the conclusion that § 271(f) should be interpreted as a category-neutral provision.

A. TEXTUALIST APPROACHES TO INTERPRETING § 271(F)

A textualist approach always begins with the statutory language itself.⁹⁰ During the past few decades, the judicial system has embraced textualism, with Justice Scalia being a known and vocal proponent.⁹¹ Proponents of textualism posit that because “legislators and judges are part of a common social and linguistic community, with shared conventions for communication,”⁹² the ordinary meaning of terms, which is the “objectified intent” expressed by the statutory language, is the key to uncovering the proper interpretation of the statute.⁹³ This “objectified intent” is what a reasonable person would understand from the text of the law itself. Modern textualists acknowledge that the plain meaning of the statute should not be

88. *Id.* at 1364.

89. *See id.* at 1369 (Newman, J., dissenting) (arguing that “the court today . . . holds that despite its consistent usage throughout the Patent Act, ‘patented invention’ in § 271(f) was intended to have a unique meaning, applicable only to this subsection, to exclude all processes from ‘patented invention’”).

90. WILLIAM N. ESKRIDGE ET AL., *LEGISLATION AND STATUTORY INTERPRETATION* 235–36 (2d ed. 2006) (explaining that “the new textualism holds that the only object of statutory interpretation is to determine the meaning of the text and that the only legitimate sources for this inquiry are text-based or -linked sources”); *see also* John F. Manning, *Textualism and the Equity of the Statute*, 101 COLUM. L. REV. 1, 3–4 (2001) (explaining that “‘textualists’ . . . give precedence to semantic context”).

91. *See, e.g.*, Manning, *supra* note 90, at 20–21.

92. *Id.* at 16.

93. *Id.*

followed blindly when there would be an absurd result, and they would consult extrinsic sources in order to clarify such ambiguities. But textualists will refuse to evaluate the legislative intent or overall purpose of the statute to improve upon the interpretation of unambiguous text.⁹⁴

1. *Dictionaries Can Aid in Determining the Ordinary Meaning of Statutory Language*

Courts often use dictionaries from the period in which the statute was enacted to interpret the statutory language. The *Cardiac Pacemakers* majority referred to an ordinary language dictionary⁹⁵ published three years before enactment of § 271 to define “component” as “‘a constituent part,’ ‘element,’ or ‘ingredient,’” and “supply” as “‘provid[ing] that which is required,’ or ‘to furnish with . . . supplies, provisions, or equipment.’”⁹⁶ The Supreme Court in *AT&T II* employed the same definition of “component.”⁹⁷

Dictionary shopping to find a desirable definition can present a problem of reliability.⁹⁸ Because the meaning of a term in common usage can be different in a legal or more specifically patent law context, deciding which dictionary to rely on can be problematic. For example, the term “element” in the process patent context refers to the steps of a process or method, but this is clearly not the ordinary, lay meaning of “element.” Thus, applying any dictionary definition of “component” in this context may be inherently flawed because such application fails to take into account the special meaning afforded to such terms of art. Furthermore, based on the principle of statutory construction relating to the consistent interpretation of similar terminology within a statute,⁹⁹ the court’s definitions of “component” and “supply” gave § 271(f) a meaning inconsistent with other § 271 provisions by excluding process claims from its interpretation of the phrase “patented inventions.”¹⁰⁰

94. *Id.* at 17; see also Arthur W. Murphy, *Old Maxims Never Die: The “Plain-Meaning Rule” and Statutory Interpretation in the “Modern” Federal Courts*, 75 COLUM. L. REV. 1299 (1975).

95. *Cardiac Pacemakers en banc*, 576 F.3d at 1363–64.

96. *Id.* (quoting WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE 466, 2297 (1981)).

97. *AT&T II*, 550 U.S. 437, 449 n.11 (2005).

98. See ESKRIDGE, *supra* note 90, at 240–41 (noting that Scalia’s textualist approach may “leave[] the court with more discretion,” and evidences this by giving examples of the variance in dictionary definitions within the same source and the ability for courts to choose among such definitions).

99. See *infra* Section III.A.2.

100. *Cardiac Pacemakers en banc*, 576 F.3d at 1372–73 (Newman, J., dissenting).

2. *Incorporation of Statutory Language from Other Sections of a Statute Implies That This Language Should Be Given Consistent Meaning*

Where Congress adopts a new law incorporating sections of a prior statutory provision, Congress normally can be presumed to have known the interpretation given to the language in its prior usage, at least insofar as it affects the new statute.¹⁰¹ Consistent interpretation of similar and borrowed language aids in properly serving the notice function of the statute.

a) Comparing § 271(a) and (b) Indicates That § 271(f)(1) Should Apply to All Statutory Categories of Patentable Subject Matter

In § 271(f), Congress incorporated statutory language from the same section of the U.S. Code, namely from 35 U.S.C. §§ 271(a)–(c).¹⁰² “[A]ctively induc[ing] infringement of a patent” is prohibited by § 271(b),¹⁰³ and § 271(f)(1) similarly prohibits the supply of “all or a substantial portion of the components of a patented invention” in a “manner as to *actively induce* the combination of such components outside of the United States.”¹⁰⁴ In addition to language borrowed from § 271(b), § 271(f) also contains the phrase “patented invention” that parallels the language of § 271(a). Section 271(a) defines an infringer as “whoever without authority makes, uses, offers to sell, or sells any *patented invention*, within the United States”¹⁰⁵ As both §§ 271(a) and (b) broadly apply to all statutory categories of patentable subject matter, the exclusion of method claims from the grasp of § 271(f)(1) is illogical and does not have a tie to the statutory language. While § 271(f)(1) is arguably narrower than § 271(b), as § 271(f)(1) refers to “actively induc[ing] the combination of . . . components”¹⁰⁶ and § 271(b) broadly implicates all “active[] induc[ement],”¹⁰⁷ expanding this limitation is unwarranted because it is otherwise unsupported.

The majority did not discuss the relation of § 271(b) to § 271(f)(1), but instead relied on a comparison of the language of § 271(c) to § 271(f) as a

101. See ESKRIDGE, *supra* note 90, at 271–72 (noting that under the “Whole Act Rule” approach to statutory interpretation, “it is presumed that Congress uses terms consistently, intends that each provision add something to the statutory scheme, and does not want one provision to be applied in ways that undercut other provisions”).

102. See 35 U.S.C. § 271. See also Ken Hobday, *The Incredibly Ever-Shrinking Theory of Joint Infringement: Multi-Actor Method Claims*, 38 CAP. U. L. REV. 137, 152–53 (2009) (written after *Cardiac Paces. en banc* and discussing the similarity in language between the statutory subsections).

103. 35 U.S.C. § 271(b) (emphasis added).

104. 35 U.S.C. § 271(f)(1) (emphasis added).

105. 35 U.S.C. § 271(a).

106. 35 U.S.C. § 271(f)(1).

107. 35 U.S.C. § 271(b).

whole. However, § 271(c) is directed to contributory infringement, which is more analogous to § 271(f)(2); on the other hand, § 271(f)(1), like § 271(b), “is directed to inducement of infringement of ‘a patent.’”¹⁰⁸ Therefore, a comparison of § 271(c) to § 271(f)(1) is misplaced because these two statutory subsections have different applicability and distinct purposes. Regardless, the Federal Circuit majority’s interpretation is flawed, even if considered in relation to § 271(f)(2).¹⁰⁹ “Component” should be broadly defined based on the statutory language from which it derives; there is no basis for a categorical exclusion.

b) Borrowing Language from § 271(c) Indicates that § 271(f)(2) Should Also Be Applied to All Categories of Invention

A similar analysis performed with § 271(f)(2) also shows that the Federal Circuit’s interpretation is too restrictive and narrow. Section 271(c) renders the following actions contributorily infringing:

“offer[ing] to sell or sell[ing] within the United States or import[ing] into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be *especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use . . .*”¹¹⁰

Section 271(f)(2) forbids the supply of “any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity suitable for substantial noninfringing use,” if the supplier knows that this component is especially made for the invention and intends for the patented combination to be made abroad.¹¹¹ Although § 271(f)(2) incorporates the language from § 271(c) regarding material, non-staple parts of the invention, there is also a stark contrast between the two provisions: § 271(f)(2) uses the general “patented invention” terminology, which has been applied to all patentable subject matter under other provisions of the same statute such as § 271(a), but § 271(c) specifically indicates the categories of invention covered (excluding processes), but also then includes “material[s] or apparatus[es] for use

108. *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc. (Cardiac Paces. en banc)*, 576 F.3d 1348, 1368 (Fed. Cir. 2009) (en banc) (Newman, J., dissenting).

109. *See infra* Section III.A.2 (discussing the flaws in the majority’s analysis).

110. 35 U.S.C. § 271(c) (emphasis added).

111. 35 U.S.C. § 271(f)(2).

in . . . patented process[es].” Section 271(c)’s clear language shows that a “material or apparatus” can “constitut[e] a material part of a [process] invention.”¹¹² Therefore, a material part of an invention used to practice a process should qualify as a component under both § 271(c) and § 271(f)(2). Despite this possible interpretation, the Federal Circuit in *Cardiac Pacemakers* interpreted § 271(c) as indicating that Congress, by distinguishing between the components of a non-process invention and things necessary to perform a patented process, believed that a component is “separate and distinct from a ‘material or apparatus for use in practicing a patented process.’”¹¹³ Therefore, the court held that components of methods claims are not the articles needed to perform the method, but rather the actual steps of the method itself.¹¹⁴ The *Cardiac Pacemakers* court overruled the holding regarding the definition of component asserted in *Union Carbide*: a catalyst used to perform a patented process would no longer be regarded as a component of the invention.

Conversely, Judge Newman took a different stance regarding the relationship between the language in § 271(c) and § 271(f), arguing that the majority gave a unique meaning to “patented invention” in § 271(f), despite its consistent usage throughout the rest of the Patent Act as being applicable to all statutory categories of patentable subject matter.¹¹⁵ Because the majority judicially narrowed the statutory language of § 271(f), it therefore ignored the maxim of statutory construction that “identical words used in different parts of the same act are intended to have the same meaning.”¹¹⁶

c) Inconsistent Interpretation of the Same Terminology May Lead to the Notice Function of Enacted Law Being Poorly Served by All Sections of a Statute

The ruling in *Cardiac Pacemakers* renders § 271(f) inconsistent with other sections of 35 U.S.C. § 271, thus creating uncertainty in the application of the patent infringement statute as a whole.¹¹⁷ For example, in *Amgen v. International Trade Commission*, § 271(e)’s safe harbor was applied to process

112. 35 U.S.C. § 271(c) (emphasis added).

113. *Cardiac Pacemakers en banc*, 576 F.3d at 1363–64 (quoting 35 U.S.C. § 271(c)).

114. *Id.* at 1363.

115. *See id.* at 1368–69 (Newman, J., dissenting).

116. *Id.* at 1369 (Newman, J., dissenting) (quoting *Sullivan v. Stroop*, 496 U.S. 478, 484 (1990)) (internal quotations omitted).

117. *See* Maria Raia Hamilton, *Process Patents and the Limits of the International Trade Commission’s Jurisdiction: Finding the Line in the Sand*, 50 IDEA 161, 187 (2010) (explaining that “until Congress specifies whether its statutes are intended to specifically include process patents in each regard, the treatment of process patents under the law will continue to be subject to uncertainty”).

patents, even though § 271(e) contains the same enabling language as § 271(f), namely “patented invention.”¹¹⁸ Such differences in interpretation cause tension in applying the various subsections of the patent infringement statute overall, making the notice function of the statute unreliable.¹¹⁹ The interpretation of § 271(e) in *Amgen* further buttresses the assertion that the phrase “patented invention” should encompass all forms of statutory subject matter, especially when viewed in conjunction with prior interpretations of §§ 271(a)–(c).

d) Explicit Inclusion of Process Inventions in § 271(g) Does Not Necessarily Imply Exclusion of Such Inventions from § 271(f)

How a statutory provision is interpreted may facially differ if different subsections address different acts. For example, under § 271(g), infringement occurs when someone “imports into the United States or offers to sell, sells, or uses within the United States a product which is made by a process patented in the United States.”¹²⁰ Judge Newman echoed the sentiments of the *amici curiae* who supported Cardiac on appeal: “since § 271(g) specifically mentions practice of a patented process, then ‘patented invention’ in § 271(f) must exclude processes.”¹²¹ But the acts in these two scenarios are very different—importation of a product produced by a patented process as compared to the export of components of patented inventions. Therefore, infringement under these two situations must inherently be defined in different ways.

B. INTENTIONALIST APPROACHES TO INTERPRETING § 271(F)

Like textualists, intentionalists consider the statutory text to be an instrumental part of statutory interpretation, but they also believe that the specific legislative intent in enacting the statute is “[a] key reason why statutes ought to be obeyed: . . . [T]hey are directives from the legislature that We the People have elected and that our Constitution has [been] charged with

118. *Amgen v. Int’l Trade Comm’n*, 565 F.3d 846 (Fed. Cir. 2009); see 35 U.S.C. § 271(e)(1).

119. See generally Benjamin J. Byers, *Undampened Oscillations in the Circuit: Combining the Components of 271(f) Doctrine Supplied by the Federal Circuit*, 7 PGH. J. TECH. L. & POL’Y 4 (2007) (comparing application of § 271(g) with that of § 271(f) on the basis of the different type of acts the two provisions address, and providing an overall summary of the arguably convoluted way in which the § 271(f) doctrine has developed); Eric W. Gutttag, *When Offshore Activities Become Infringing: Applying § 271 to Technologies that “Straddle” Territorial Borders*, 14 RICH. J.L. & TECH 1 (2007) (discussing the application of various sections of § 271).

120. 35 U.S.C. § 271(g).

121. *Cardiac Pacemakers en banc*, 576 F.3d at 1368 (Newman, J., dissenting).

issuing such directives.”¹²² Therefore, intentionalists utilize the legislative history not only in cases where the statutory language is ambiguous, but also to improve on any construction discerned from the plain meaning of the statute. Nevertheless, the reliability of the different sources of legislative history varies. Several factors should be considered in assessing a source’s reliability, such as whether it is (1) readily available to attorneys, (2) relevant to the statutory question at hand, (3) representative evidence of the consensus reached by legislators, and (4) obtainable with low transaction costs.¹²³ This Note examines both congressional reports and excerpts from congressional hearings to evaluate the legislative intent in enacting § 271(f). Reports by congressional committees are considered the most reliable form of legislative history, as these documents tend to reflect the consensus reached by legislators as to both the general intent (policy underlying the statute) and the specific intent (analysis of each enacted provision).¹²⁴ The reliability of statements from hearings, many of which in this case are by supporters, is significantly lower than statements in congressional reports because supporters generally have not taken on a leadership role in having the statute enacted.¹²⁵ They may also face few repercussions for making statements that are not entirely accurate.¹²⁶

1. *The Overall Purpose in the Enactment of § 271(f) Was to Close the Loophole Created in DeepSouth*

In a committee report, the Senate expressed that

[t]he purpose of [§ 271(f)] is to overrule *Deep South* [sic] . . . and provide for relief to the patentee in situations where a party has made substantially all of the components of a patented machine, manufacture, combination or composition, but has not fully assembled, combined or completed the patented invention, intending, however, that the invention be completed outside the United States.¹²⁷

122. ESKRIDGE, *supra* note 90, at 221–22.

123. *Id.* at 304.

124. *See id.* at 311–12; *see also* Landgraf v. USI Film Prods., 511 U.S. 244, 287 (1994) (refusing to rely solely on opinions of supporters in the Congressional Record regarding the Civil Rights Act of 1991).

125. ESKRIDGE, *supra* note 90, at 313.

126. *Id.*

127. *1976 Report on Patent Law Revision*, *supra* note 11, at 39. The language that appears to exclude processes from the scope of this proposed legislation was later amended in the statutory text itself. *See infra* note 2 for the language of the statute.

This new subsection was “applicable only in those situations where a party intends that the components of a patented subject matter will be combined outside the United States.”¹²⁸

2. *Evolution of the Proposed Statutory Language*

The way in which a statute evolves over the course of legislation indicates the meaning that Congress intended the codified statutory language to possess. The Senate held hearings as early as 1973, during which the following statutory language was proposed:

Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as an infringer.¹²⁹

Although sales of materials or apparatuses used in the practice of process claims were covered at this point in the legislation, process claims were not included in the first phrase that lists statutory classes of patentable subject matter other than processes. A textualist tool of statutory interpretation that affords meaning to a negative implication is useful in evaluating the intent of the legislature when it drafted this proposed language. “[I]nclusio expressio unius est exclusio alterius,” which means that “the inclusion (expression) of one thing suggests the exclusion of all others,”¹³⁰ suggests the conclusion that exclusion of a statutory class of patentable subject matter—processes—was not omitted from this first phrase through careless error. Rather, it was not explicitly mentioned in that phrase to demonstrate that process claims should be treated differently than other types of claims—namely that “component” should be defined for this type of claim as “material[s] or apparatus[es] for use in practicing [the] patented process.”¹³¹ Such a broadening of the language to “patented invention,” combined with the negative implication applied to the previously proposed language, indicates that the legislature

128. *Id.* at 39.

129. *Patent Law Revision: Hearings on S. 1321 Before the Subcomm. on Patents, Trademarks, and Copyrights of the S. Comm. on the Judiciary*, 93d Cong. 66 (1973) (American Patent Law Association, proposed amendments) (proposed statutory language, emphasis added to the portion that underwent significant alteration before codification). This language was borrowed directly from 35 U.S.C. § 271(c).

130. ESKRIDGE, *supra* note 90, at 263–64 (brackets in original omitted).

131. *See supra* Section III.A.2.

intended for all statutory categories of invention to be under the guise of § 271(f).

Although there is no smoking gun suggesting that the legislature intended to broaden the later version of the statute, there is ample support both in the text itself as well as in the legislative history to support a category-neutral application of § 271(f).¹³² In addition, the previously proposed wording provides insight on how “component” should be defined for process claims—as the materials or apparatuses used in practicing the process, not as the steps of the process itself. Therefore, under this interpretation, supplying a component of a process claim is not a “physical impossibility.”

3. *The Legislature Differentiated Between the Two Subsections of § 271(f)*

Section 271(f) as a whole prohibits the supply of components of a patented invention that are to be combined outside the United States, but there are differences between the two subsections of this statutory provision. Many of the conclusions reached by examining the legislative history are synonymous with those reached through a relatively strict textualist interpretation relying on the doctrine of giving consistent meaning to similar language in different statutory provisions within the same statute.¹³³ Under § 271(f)(1), one must supply or cause to be supplied “all or a substantial portion” of the components and must “actively induce” the combining of the components “in a manner that would infringe the patent if such a combination occurred within the United States.”¹³⁴ The legislature acknowledged that the “actively induce” language is drawn from § 271(b), which provides that whoever actively induces patent infringement is liable as an infringer.¹³⁵ Under § 271(f)(1), the components may be staple articles or commodities of commerce that are also suitable for substantial non-infringing use.¹³⁶ On the other hand, § 271(f)(2) requires that the components at issue be “especially made or especially adapted for use in the invention,”

132. See Keith Bradley, *The Ghost Is the Machine: Protection of Process Patents Under 35 U.S.C. § 271(f)*, 15 TEX. INTEL. PROP. L.J. 123, 132–45 (2006) (discussing frameworks involving combinations of technology-neutral and category-neutral applications of § 271(f)). *But see* Katherine E. White, *The Recent Expansion of Extraterritoriality in Patent Infringement Cases*, 2007 UCLA J.L. & TECH. 1 (2007) (explaining why a technology-specific and category-specific application is preferable).

133. See *supra* Section III.A.2.

134. 35 U.S.C. § 271(f)(1).

135. *Patent Law Improvements Act: Hearing on S. 1535 and S. 1841 Before the Subcomm. on Patents, Trademarks, and Copyrights of the S. Comm. on the Judiciary*, 98th Cong. 23 (1984) [hereinafter *1984 Hearing*].

136. See 35 U.S.C. § 271(f)(1) (omitting language related to commodities that is present in § 271(f)(2)).

and therefore the legislature indicated that such a component could “not [be] a staple article or commodity of commerce” under this subsection.¹³⁷ The Senate also acknowledged that the “especially made” language is lifted from § 271(c), which governs contributory infringement.¹³⁸ Section 271(f)(2) contains the further requirement that infringers have an intent that the components “will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States”; such a requirement is also present in § 271(c).¹³⁹ Because both §§ 271(b) and (c) apply to all statutory patentable subject matter, this examination of the distinct purposes and origins of the two subsections of § 271(f), as well as the legislature’s clear acknowledgment that language was being drawn from these sections, gives further support to a category-neutral interpretation of both subsections of the statute.¹⁴⁰

4. *The Presumption Against the Extraterritorial Application of U.S. Law Cuts Against Applying § 271(f) to Process Claims, but Is Not Conclusive*

Although there is a principle of statutory construction that creates a presumption against the extraterritorial application of American law, this presumption only applies where Congress fails to indicate its intent that such a presumption should not apply.¹⁴¹ In this situation, there are strong implicit indications in the choices and sources of statutory language that Congress

137. 35 U.S.C. § 271(f)(2).

138. 35 U.S.C. § 271(f)(2) (including the element that the alleged infringer was “knowing that such component is so made”); *Report on the Patent Law Amendments of 1984*, *supra* note 11, at 7.

139. 35 U.S.C. § 271(f)(2); *Report on the Patent Law Amendments of 1984*, *supra* note 13, at 7.

140. A variety of members of the intellectual property bar provided testimony as to the purposes and intended affects of § 271(f), but these statements are not analyzed in detail, as they are not as reliable as reports made by the congressional body itself. *See 1984 Hearing*, *supra* note 135, at 18–19, 22–24, 26–27 (statement of Hon. Gerald J. Mossinghoff, Assistant Secretary and Commissioner of Patents and Trademarks, Patent and Trademark Office); *id.* at 40–42, 46, 94 (statement of Donald W. Banner, President, Intellectual Property Owners, Inc.); *id.* at 55–58, 60–62 (statement of Bernarr R. Pravel, President, American Intellectual Property Law Association); *id.* at 133 (American Bar Association endorsement of S. 1535); *id.* at 144, 146–48, 151–52 (statement of John Maurer, general consulting attorney, Monsanto Co.); *id.* at 169, 171–73, 175–77 (statement of Richard C. Witte, chief patent counsel, Procter & Gamble).

141. *See* Catherine Schulte Feldman, Case Comment, *Patent Law—No Infringement for Extraterritorial Completion of Method Patents—Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 33 SUFFOLK TRANSNAT’L L. REV. 391 (2010) (discussing how *Cardiac Pacemakers* could be decided employing the presumption against extraterritoriality instead of invoking a categorical exclusion of method patents from the scope of § 271(f)); *see also* EEOC v. Arabian Am. Oil Co., 499 U.S. 244, 248 (1991) (highlighting the desire of Congress to make it clear when a statute is intended to have extraterritorial application).

intended for a restricted yet extraterritorial application of § 271(f).¹⁴² The arbitrary line-drawing employed by the *Cardiac Pacemakers* court, through the categorical exclusion of method claims from the realm of § 271(f) liability, is not in line with the “objective intent” expressed by the words of the statute, the legislative intent, or the purpose of the statute as a whole.¹⁴³ Such a holding only serves to reopen a *DeepSouth*-like loophole for those wishing to infringe process claims. But Congress closed that loophole twenty-five years ago for all categories of invention.

C. PURPOSIVIST APPROACHES TO INTERPRETING § 271(F)

Purposivism, a descriptive theory of statutory interpretation, takes a big picture view of statutory interpretation. The relevant question to a purposivist is not what the specific intent of the legislature was in enacting the provision, but rather what the overall goal of the statute is.¹⁴⁴ Because the overall purpose is central to this inquiry, purposivism is uniquely poised to more nimbly address new or unforeseen circumstances such as technological developments.¹⁴⁵

The purpose of enacting § 271(f) was to prevent clever potential infringers from escaping patent infringement liability through mere technicalities.¹⁴⁶ In *Cardiac Pacemakers*, the plaintiff could only rely on process claims which, based on the Federal Circuit’s holding, did not provide a basis for § 271(f) liability. But if there had been valid product claims, the defendant would have been liable under § 271(f). Although the technology is markedly different than the industrial machinery in *DeepSouth*, this is precisely the type of technical loophole that § 271(f)’s drafters wanted to avoid. Therefore, purposivist considerations also suggest a broad, category-neutral reading of the statute, especially given its remedial nature.

142. See *supra* Sections III.A.2 and III.B.2.

143. See *infra* Section III.C.

144. ESKRIDGE, *supra* note 90, at 222. To illustrate his point, Eskridge gives the well-known example of the interpretation of a law prohibiting “vehicles in the park.” One looking to the purpose or goal of the text would recognize that the rule governs vehicles that might be hazardous in a park, rather than a tricycle, even though a tricycle is a type of vehicle. *Id.*

145. *Id.* at 222 (“The most legitimate basis for statutory interpretation under an intentionalist theory would be actual specific intent, but that is typically hard to discover, and it is completely unknowable when interpreters face new problems unanticipated by drafters.”).

146. See 1976 Report on Patent Law Revision, *supra* note 11, at 39.

D. POLICY IMPLICATIONS OF *CARDIAC PACEMAKERS*

Although the *Deepsouth* decision spurred the enactment of § 271(f), which rendered the exportation of “components of a patented invention” patent infringement and which was intended to close the loophole for all “patented invention[s],” *Cardiac Pacemakers* selectively reopens this loophole for process inventions. Judge Newman’s dissent in *Cardiac Pacemakers* addressed this new loophole, which runs counter to the language and purpose of the statute, as well as the legislative intent in enacting the provision.¹⁴⁷

On the other hand, although this Note criticizes the Federal Circuit’s categorical exclusion of method claims from the reach of § 271(f), there are policy considerations that cut in the opposite direction. For example, if § 271(f) covered process claims, some corporations could be tempted to move research and manufacturing offshore, hurting the American economy. Because § 271(f) only prohibits the supply of components from within the United States, if an American corporation outsources component production to a foreign location, supply of components from that foreign location to another would not constitute infringement. There has been a good deal of discussion in the legal literature regarding this issue in relation to *AT&T II*, as software development is a type of research that is relatively easy to outsource, as opposed to technologies requiring significantly more complex equipment than a computer terminal.¹⁴⁸

147. *Cardiac Pacemakers en banc*, 576 F.3d at 1374 (Newman, J., dissenting). See *infra* Section III.B.1.

148. There are parallels between *AT&T II*, *Cardiac Pacemakers*, and anticipated biotechnology cases. Some authors believe that *AT&T II* was correctly decided on the basis of limited extraterritorial application of U.S. law (or advised prior to the Supreme Court ruling that *AT&T I* should be reversed). See generally, e.g., Jennifer Giordano-Coltart, *Walking the Line: Why the Presumption Against Extraterritorial Application of U.S. Patent Law Should Limit the Reach of 35 U.S.C. § 271(f)*, 2007 DUKE L. & TECH. REV. 4, 28 (2007) (suggesting that the Supreme Court should reverse *AT&T I* because the presumption is important to the structure of the international relations of the United States with other countries); Sean Fernandes, Note, *Microsoft Corp. v. AT&T: A Welcome Return to Patent Law’s Tradition of Territoriality*, 23 BERKELEY TECH. L.J. 75, 99–104 (2008) (examining the political and social concerns underlying the Supreme Court’s ruling in *AT&T II*, and agreeing with the imposition of the presumption). Others disagree with the way in which the statute was applied in *AT&T II*, as it creates a new loophole for cunning potential infringers. See, e.g., G. Matthew Brockway, Note, *Microsoft Corp. v. AT&T Corp.: Amputating the Long Arm of Patent Law with Regard to Software Patents*, 13 J. TECH. L. & POL’Y 149, 174 (2008) (arguing that *AT&T II* reopened the *Deepsouth* loophole, the result of which “effectively kills protection for Internet software patents”); Christopher Rogers, Note, *AT&T v. Microsoft: Is this a Case of Deepsouth Déjà vu?*, 59 ME. L. REV. 191, 192 (2007) (suggesting that “[t]he Supreme Court [had] a chance to prevent a new loophole from opening when it decide[d] [*AT&T III*]”). The potential impacts on the biotechnology industry, as a result of the similar replicable nature of

In addition, the presumption against the extraterritorial application of U.S. law and the effect such application could have on foreign relations also seem to oppose the construction of § 271(f) proposed in this Note. However, this presumption is rebuttable, and should not be applied contrary to the indicated legislative intent.¹⁴⁹ Furthermore, the activities that would impose liability originate from within the United States, and a compulsory licensing scheme, or a similar plan of action, applied to actors in the United States would constitute a reasonable employment of U.S. patent law.

E. A PROPOSED CLARIFICATION OF § 271(F)

Because courts at all levels have struggled with interpreting and applying this statutory provision, Congress should clarify the definitions of key statutory terms via amendment. “Patented invention” and “components” should be defined either in new subdivisions or in phrases set off by commas within the existing statutory provisions. The former would likely provide for greater clarity, and therefore the following additional subsections of § 271(f) are suggested:

(3) As used in this subsection, “patented invention” includes all statutory categories of patentable subject matter as defined in 35 U.S.C. § 101.

(4) As used in this subsection, “component” includes the physical constituents of machines, manufactures, combinations, or compositions of matter. The components of a process are not defined as the steps of the process, but rather are defined as any materials or apparatuses used in the practice of the patented process.

Such a change would provide courts with clear definitions that are in line with both the current statutory text and legislative history, permitting consistent application of the law. These minor amendments would also give proper notice of the reach of § 271(f) to parties of patent infringement suits as well as potential infringers.

such inventions to software inventions, have also been considered. *See, e.g.,* Jennifer L. Schuster, Note, *Combining the Components of Life: The Application of Patent Extraterritoriality Doctrine to Biotechnology*, 83 IND. L.J. 363, 366 (2008) (suggesting that some confusion resulting from application of the extraterritoriality doctrine to the complicated biotech context could be alleviated with a “biotech specific amendment”).

149. *See supra* Section III.B.4.

IV. CONCLUSION

The *Cardiac Pacemakers* decision categorically excludes method claims from the coverage of § 271(f) and reopens a loophole for a class of inventions that the statute was intended to close. In addition, such an interpretation may negatively affect American commerce and U.S. patent holders, especially in situations in which only process claims protect a patentee's invention (as in *Cardiac Pacemakers*). Industries with replicable technology—such as software and biotechnology—may particularly be affected because the export of a master copy from which useable copies can easily be made does not constitute infringement under the Federal Circuit's standing interpretation of the law. Because the application of § 271(f) has proved difficult for courts at all levels, Congress should respond by clarifying what categories of invention are covered by § 271(f) as well as how “component” should be interpreted under this statute.

DIAGNOSING PATENTABLE SUBJECT MATTER

Asher Hodes[†]

Holders of diagnostic method patents attempt to claim an exclusive right to the correlation between a patient’s medical data and a medical prognosis. These patents are a major source of controversy in the courts, with three prominent unresolved cases currently in litigation. The key question is whether diagnostic correlations are patentable subject matter under 35 U.S.C. § 101. Although the ultimate resolution of these cases is unclear, this Note argues that in light of recent scientific advances, the public interest supports granting patents on diagnostic correlations.

Part I reviews the origins of patentable subject matter doctrine and the basis for the current controversy. Part II provides a tutorial on modern diagnostic medicine and explains that data gathering is becoming increasingly standardized and affordable. Part III discusses the public policy concerning patents on diagnostic correlations. Finally, Part IV concludes that granting patents on diagnostic correlations is in the public interest.

I. THE LEGAL CONTROVERSY OVER DIAGNOSTIC METHOD PATENTS

The doctrine governing diagnostic method patents is in flux. Since 2006, three cases have reached the Supreme Court and a fourth is rising through the courts. Although unique issues of medical fact and policy may influence the outcome of the pending cases, the doctrine remains rooted in more general Supreme Court precedent on methods as patentable subject matter.

A. PATENTABILITY OF PRINCIPLES

The U.S. Supreme Court has long held “[l]aws of nature, natural phenomena, and abstract ideas” unpatentable.¹ The earliest published case

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1. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

articulating this doctrine was *Boulton v. Bull*,² a 1795 English case concerning a method patent related to the steam engine, which set forth the general rule that a “principle” could not be patented.³ The basis for the rule was unclear, conflating issues of reduction to practice, novelty, improvement patents, and statutory interpretation.⁴ Walker, in his classic treatise on U.S. patent law, noted the general rule that a principle cannot be patented, but observed that no cases on point existed in the United States until the mid-nineteenth century.⁵

Walker identified five nineteenth century Supreme Court cases that evaluated patents claiming use of a “principle” or “law of nature” to accomplish an end, independent of any specific apparatus.⁶ In *O’Reilly v. Morse*, a claim for “electro-magnetism, however developed for [communicating]” was unpatentable for claiming all use of electromagnetism for communication, regardless of the machine or process for actually effecting the communication.⁷ Yet in four other cases, inventors had their patents upheld.⁸ Walker reasoned that the key distinction was that these other inventors claimed all the natural laws required for their invention, applied in a specific order and manner.⁹ Morse claimed the application of only one of the many natural laws necessary to accomplish his end.¹⁰ Walker reasoned that allowing patents to claim a single natural law would invite inventors to preclude all invention in their field, by correctly guessing which natural law would prove indispensable.¹¹

As new fields of useful discovery and invention have emerged, the Supreme Court has refined its jurisprudence on the patentability of principles. For example, the Court held genetically altered bacteria patentable

2. (1795) 126 Eng. Rep. 651 (P.C.).

3. *Id.* at 651, 656.

4. *See id.* at 656. At the time, monopolies in England were prohibited except for patents on “the sole working or making of any manner of new manufactures within this realm . . .” *Id.* at 661. The scope of patents in England was therefore potentially narrower than the Constitutional scope of U. S. patents. *See* U.S. CONST. art. I, § 8, cl. 8 (“The Congress shall have 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.”)

5. ALBERT HENRY WALKER, TEXT-BOOK OF THE PATENT LAWS OF THE UNITED STATES OF AMERICA § 7 (4th ed. 1904).

6. *Id.* §§ 8–12.

7. 56 U.S. 62, 113 (1854).

8. WALKER, *supra* note 5, § 12.

9. *Id.* § 13.

10. *Id.*

11. *Id.* § 14.

in *Diamond v. Chakrabarty*, because they were made by man, though the Court held that “laws of nature, physical phenomena, and abstract ideas” were unpatentable.¹² The Court has reasoned that such patents would impede rather than promote science, by blocking off whole fields of endeavor,¹³ and commentators have noted that it might be impossible to avoid practicing a law of nature.¹⁴

B. METHOD PATENTS THROUGH *BILSKI*

Method patents have been a source of controversy since the early days of the Information Age.¹⁵ Classic cases created a pattern of restrictions on algorithm and software patents that were gradually eased. The first Supreme Court case to address software patents was *Gottschalk v. Benson*, in which the Court held that an algorithm for converting numbers between binary encoded decimals and true binary was unpatentable because the patent wholly preempted the use of the algorithm.¹⁶ This formula may be an unpatentable abstract idea, but it is not necessarily comparable to the law of gravity (a law of nature) or the trade winds (a natural phenomenon), which act and can be useful even before any human mind has conceived of them.

The similarities between laws of nature, physical phenomena, and abstract ideas seem to lie in their potential preclusion of diverse unimagined applications. Thus, in *Diamond v. Diehr*, basic thermodynamic principles expressed in the Arrhenius equation were suspect as patentable subject matter.¹⁷ The patent was held valid only because the equation was coupled to a machine for curing rubber.¹⁸ Narrowing the scope of the method patent by coupling it to a specific “structure or process” within the scope of patent-

12. 447 U.S. 303, 309 (1980).

13. See, e.g., *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (explaining that “[p]henomena of nature, . . . mental processes, and abstract intellectual concepts are not patentable” because “they are the basic tools of scientific and technological work”).

14. See, e.g., Alan Durham, *Natural Laws and Inevitable Infringement*, 93 MINN. L. REV. 933, 949 (2009) (“Humanity had enjoyed the benefits of fire long before understanding the role of oxygen in combustion; the discoverer of oxygen could not have monopolized the use of fire.”).

15. See, e.g., *Gottschalk*, 409 U.S. at 64 (describing controversy over the patentability of a mathematical method).

16. 409 U.S. at 67–68 (“Here, the ‘process’ claim is so abstract and sweeping as to cover both known and unknown uses of the BCD to pure binary conversion.”).

17. 450 U.S. 175 (1981).

18. *Id.* at 188, 192–93 (1981).

eligible subject matter minimized the danger that patents would cover pure knowledge of the world and hinder harvesting the fruits of such knowledge.¹⁹

The chain of cases relaxing process patent standards culminated in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*²⁰ In *State Street Bank*, the Federal Circuit held that a method could be patentable if it had a “useful, concrete, or tangible result.”²¹ In practice, this essentially reduced the patentable subject matter analysis to a utility analysis.²² Lowering the § 101 subject-matter bar led to a proliferation of new method patents,²³ including many claiming allegedly shoddy business methods, like the *Bilski* patent, which attempted to claim commodity price hedging.²⁴

The *Bilski* patent served as the basis for the courts to reconsider the scope of patentable subject matter under § 101. The Federal Circuit used *In re Bilski* to rein in the proliferation of method patents by constructing the “machine-or-transformation” test while hewing closely to Supreme Court precedent.²⁵ This test required that a method be tied to a specific machine or transform a physical object from one state to another to be patentable under § 101.²⁶ The Supreme Court held that the Federal Circuit’s machine-or-transformation test is not necessarily dispositive, but referred to the test as a “useful and important clue, an investigative tool.”²⁷ Many observers have

19. *See id.* at 192 (holding that a mathematical formula can be implemented as part of an otherwise patent-eligible process without rendering the process ineligible). *But see id.* at 191–92 (noting that mere limitation of an abstract mathematical formula to a specific context would not confer patent-eligibility).

20. 149 F.3d 1368 (Fed. Cir. 1998).

21. *Id.* at 1373.

22. *See* Ebby Abraham, Note, *Bilski v. Kappos: Sideline Analysis from the First Inning of Play*, 26 BERKELEY TECH. L.J. 15, 36 (2011).

23. *See* John Bagby, *Business Method Patent Proliferation: Convergence of Transactional Analytics and Technical Scientifics*, 56 BUS. LAW. 423, 445–46 (2000).

24. *Bilski v. Kappos (Bilski II)*, 130 S. Ct. 3218, 3220 (2010) (“Petitioners’ patent application seeks protection for a claimed invention that explains how commodities buyers and sellers in the energy market can protect, or hedge, against the risk of price changes.”).

25. *In re Bilski (Bilski I)*, 545 F.3d 943, 959–60 (Fed. Cir. 2008).

26. *Id.* at 961.

27. *Bilski II*, 130 S. Ct. at 3227 (2010). The Court stated:

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.

since noted that the Court gave little guidance to lower courts, other than general statements that prior Supreme Court cases are still good law.²⁸

C. MEDICAL METHOD PATENTS

Medical method patents have been a source of controversy for over one hundred years,²⁹ starting in the mid-1800s, when Dr. William Morton patented the use of ether as a surgical anesthetic.³⁰ This ignited more than a decade of controversy until Morton's patent was held invalid on the grounds that his new use of ether was not a patentably novel improvement over the prior art.³¹ The Patent Office relied on this judicial invalidation to block subsequent patents on medical methods and modes of treatment,³² but then removed the block in 1954.³³ In 1996, public discomfort with patents on medical procedures led to Congressional action that severely limited the remedies available for patent infringement by medical practitioners.³⁴ The liability limitations—codified in 35 U.S.C. § 287(c)—covered surgical procedure patents, but not the use of patented machines and pharmaceuticals.³⁵ “Biotechnology patents” are also exempt from these limitations, though the term “biotechnology” is not defined in the statute.³⁶

Id. (emphasis added).

28. See, e.g., Abraham, *supra* note 22, at 41 (citing Douglas J. Levy, *U.S. Patent Attorneys Say 'Bilski' Ruling Didn't Give Necessary Guidance*, Michigan Lawyer's Weekly (Feb. 5, 2010, 10:04 PM), <http://www.allbusiness.com/legal/trial-procedure-decisions-rulings/14825834-1.html>; Dennis Crouch, *Bilski v. Kappos*, PATENTLY-O, Jun. 28, 2010, 2010 WLNR 13013837, available at <http://www.patentlyo.com/patent/2010/06/bilski-v-kappos-business-methods-out-software-still-patentable.html>).

29. See generally ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW AND POLICY: CASES AND MATERIALS 182–86 (4th ed. 2007) (reviewing patentability of medical techniques); Joseph Reisman, *Physicians and Surgeons as Inventors: Reconciling Medical Process Patents and Medical Ethics*, 10 HIGH TECH. L.J. 355 (1995) (discussing the debate over medical technique patents shortly before passage of 35 U.S.C. § 287(c) (2006)).

30. See *Morton v. N.Y. Eye Infirmary*, 17 F. Cas. 879, 879 (S.D.N.Y. 1862).

31. *Morton*, 17 F. Cas. at 884 (S.D.N.Y. 1862) (considering the patent as “nothing more, in the eye of the law, than the application of a well-known agent, by well-known means, to a new or more perfect use, which is not sufficient to support a patent”). Under the 1952 Patent Act this basis for rejection would not be under 35 U.S.C. § 101 for patentable subject matter, but under § 102 for novelty or § 103 for obviousness. See 35 U.S.C. §§ 101–103 (2006).

32. See Reisman, *supra* note 29, at 378 (citing, for example, *Ex parte Brinkerhoff*, 24 Dec. Comm'r Pat. 349 (1883)).

33. *Ex parte Scherer*, 103 U.S.P.Q. (BNA) 107, 110 (B.P.A.I. 1954).

34. 35 U.S.C. § 287(c) (2006); see also *Pallin v. Singer*, 36 U.S.P.Q.2d (BNA) 1050, 1054 (D. Vt. 1995) (the proximal cause of Congressional action).

35. See § 287(c).

36. *Id.*

Diagnostic method patents have generated controversy in recent years.³⁷ For example, throughout the 1990s, Dr. M.H. Bogart asserted his method patent on Down's syndrome diagnosis against medical providers.³⁸ This created substantial backlash.³⁹ Though he lost an enforcement action against a state healthcare provider on sovereign immunity grounds, the validity of his patent was never litigated to conclusion on patentable subject matter grounds.⁴⁰ A recent clutch of cases on the patentability of diagnostic methods has risen through the courts, driven by hostility to business method patents and a growing cultural skepticism towards intellectual property generally.⁴¹

1. *Laboratory Corp. of Am. Holdings v. Metabolite Laboratories, Inc.*

The recent wave of cases addressing diagnostic correlations as patentable subject matter began with *Laboratory Corp. of Am. Holdings v. Metabolite Laboratories, Inc. (LabCorp)*.⁴² The patent at issue claimed a method for detecting vitamin B deficiencies by measuring amino acid levels in a patient's blood and then correlating those amino acid levels with vitamin B levels.⁴³

Though LabCorp argued for invalidity on a variety of grounds in the lower courts,⁴⁴ it did not raise the issue of whether diagnostic correlations were patentable subject matter under § 101 until it appealed to the Supreme Court.⁴⁵ The Court initially granted certiorari,⁴⁶ possibly because the justices were interested in the patentable subject matter issue. The Court then dismissed the writ of certiorari as improvidently granted,⁴⁷ possibly due to LabCorp's failure to raise the patentable subject matter issue prior to appeal.

37. See generally MERGES & DUFFY, *supra* note 29, at 182–86; Reisman, *supra* note 29.

38. U.S. Patent No. 4,874,693 (filed Oct. 10, 1986); see Seth Shulman, *Cashing in on Medical Knowledge*, TEC. REV. (March 1998), <http://www.technologyreview.com/business/11659/>. The '693 patent expired on Oct. 17, 2006.

39. Shulman, *supra* note 38.

40. See *Biomedical Patent Mgmt. Corp. v. Cal., Dept. of Health Servs.*, 505 F.3d 1328, 1343 (Fed. Cir. 2007).

41. Gaia Bernstein, *In the Shadow of Innovation*, 31 CARDOZO L. REV. 2257, 2262–64 (2010) (reviewing “the intellectual property wars”).

42. 548 U.S. 124 (2006).

43. U.S. Patent No. 4,940,658 (filed Nov. 20, 1986).

44. *Metabolite v. Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1365–69 (Fed. Cir. 2004).

45. Brief for the United States as Amicus Curiae at 15–19, *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124 (2006) (No. 04-607), 2005 WL 3533248.

46. *Lab. Corp. of Am. Holdings v. Metabolite Laboratories, Inc.*, 546 U.S. 999 (2005).

47. *LabCorp*, 548 U.S. 124, 125 (2006) (per curium).

Three justices dissented from the dismissal.⁴⁸ The dissenting justices argued that diagnostic correlations are mere descriptions of nature, not patentable subject matter.⁴⁹ Specifically, Justice Breyer argued that the patent claimed the natural relationship between vitamin B compounds and certain amino acids.⁵⁰ Although the diagnostic was certainly useful, Justice Breyer rejected the *State Street Bank* “useful, concrete, or tangible” doctrine.⁵¹ Though not binding on lower courts, this facet of the dissent guided the Federal Circuit’s *Bilski* decision.⁵²

Justice Breyer also reasoned that inclusion of a transformation step should not necessarily qualify a method for patentability under § 101.⁵³ *Metabolite* argued that amino acid measurement in fact requires transformation of a blood sample, but Justice Breyer noted that this measurement step is not the core of the patent.⁵⁴ He reasoned that the inclusion of a non-novel step involving transformation does not alter the overall subject matter.⁵⁵ The patent, in Justice Breyer’s view, covers the relationship between amino acids and B vitamins—the transformation needed to measure the amino acids is immaterial.⁵⁶

There is no majority or plurality opinion that might countervail Justice Breyer’s substantive dissent, which has proven persuasive to at least one district court deciding diagnostic method patentability.⁵⁷ In contrast, the Federal Circuit has rejected or declined to discuss his reasoning.⁵⁸

2. *Classen Immunotherapies, Inc. v. Biogen IDEC*

In *Classen Immunotherapies, Inc. v. Biogen IDEC*,⁵⁹ the Federal Circuit considered the patentability of method patents for discovering optimal immunization schedules.⁶⁰ The district court had held that the method

48. *Id.* at 125 (Breyer, J., dissenting).

49. *Id.* at 138.

50. *Id.* at 135.

51. *Id.* at 136–37.

52. *In re Bilski (Bilski I)*, 545 F.3d 943, 959–60 (Fed. Cir. 2008).

53. *LabCorp*, 548 U.S. at 135–36 (Breyer, J., dissenting).

54. *Id.*

55. *Id.* at 136.

56. *Id.*

57. *See* *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus I)*, No. 04-CV-1200 JAH (RBB), 2008 WL 878910, at *8 (S.D. Cal. Mar. 28, 2008).

58. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus II)*, 581 F.3d 1336, 1346 n.3 (Fed. Cir. 2009); *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus IV)*, 628 F.3d 1347, 1356 n.2 (Fed. Cir. 2010).

59. 304 F. App’x 866 (Fed. Cir. 2008).

60. *See, e.g.*, U.S. Patent No. 6,420,139 col. 52 l. 40 (filed July 6, 2000) (claim 1).

patents were not connected to a specific vaccine; instead, the patents' holders had attempted to patent the *idea* of a possible connection between vaccination schedules and immune disorders.⁶¹ In a brief, non-precedential opinion, the Federal Circuit held that the patent failed the machine or transformation test.⁶² The Supreme Court granted certiorari, vacated without comment, and remanded the case for reconsideration consistent with *Bilski*.⁶³

Several commentators have noted that vaccinations transform a patient by conferring immunity.⁶⁴ However, the *Classen* vaccination step is not performed on an actual patient to protect him or her from a specific disease.⁶⁵ Instead it is performed on a generic research subject.⁶⁶ Indeed, the *Classen* patent seems to claim merely the performance of a controlled experiment in the field of minimizing vaccine-induced autoimmune reactions.⁶⁷ Thus, the *Classen* transformation might be judged ancillary, insignificant, extra-solution activity.⁶⁸ This centrality standard might serve to distinguish processes that produce a direct patient benefit from those that are research tools.

3. Ass'n for Molecular Pathology v. U.S. PTO

A coalition of advocacy groups has recently brought suit against Myriad Genetics, seeking to invalidate patents relating to the *BRCA* breast cancer genes.⁶⁹ Although much of the media attention has focused on the “composition” patents claiming the isolated DNA sequence of the *BRCA* genes,⁷⁰ stakeholders also dispute several diagnostic method claims.⁷¹ These

61. *Classen Immunotherapies, Inc. v. Biogen IDEC*, No. WDQ-04-2607, 2006 WL 6161856, at *5 (D. Md. 2006)

62. *Classen*, 304 F. App'x at 866.

63. *Classen Immunotherapies, Inc. v. Biogen IDEC*, 130 S. Ct. 3541 (2010).

64. See e.g., Angela D. Follett, *The Problem with Bilski: Medical Diagnostic Patent Claims Reveal Weaknesses in a Narrow Subject Matter Test*, 7 U. ST. THOMAS L.J. 229, 247 (2009).

65. See, e.g., '139 Patent col. 52 l. 40 (claim 1).

66. *Id.*

67. *Id.* The claim thus raises significant questions of novelty and obviousness.

68. See *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989) (finding a generalized method of medical diagnosis unpatentable).

69. *Ass'n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181 (S.D.N.Y. 2010). Certain versions of Breast Cancer Susceptibility Genes 1 and 2 (*BRCA* genes) place women at increased risk for breast cancer. *Id.* at 184–185.

70. See, e.g., John Schwartz & Andrew Pollack, *Judge Invalidates Human Gene Patent*, N.Y. TIMES, Mar. 30, 2010, at B1, available at <https://www.nytimes.com/2010/03/30/business/30gene.html>; Danny Townsend, *Myriad Genetics Can't Patent a Human Gene: The Wise Judicial Ruling in a Lawsuit Over a Test for Breast Cancer*, SLATE (Apr. 7, 2010), <http://www.slate.com/id/2250082/>.

71. See *Ass'n for Molecular Pathology*, 702 F. Supp. 2d at 234–35.

method claims generally cover “analyzing” the *BRCA* sequence and then inferring breast cancer risk based on the sequence data.⁷²

The Southern District of New York heard the case while the “machine-or-transformation” test was still dispositive,⁷³ and held the *BRCA* diagnostic methods claims invalid because they failed to meet that test.⁷⁴ Because the claims were not tied to any specific machine, the district court did not need to address the machine prong of the test.⁷⁵ Addressing the transformation prong, the court found that a claim to “analyzing” DNA merely covered interpreting DNA sequence data; an analytic claim did not include the transformative physical isolation and processing of DNA molecules.⁷⁶ Thus, the data gathering step did not claim transformation.⁷⁷ Further, the court reasoned that even if physical transformation did occur in the data gathering step, it was merely “insignificant extra-solution activity.”⁷⁸

The court may also have considered whether the claims covered any transformation of the patient.⁷⁹ Although a medical procedure—tissue collection—must have occurred prior to the “analyzing” step, this procedure was not included in the claims.⁸⁰ Furthermore, the test was not claimed in the context of any treatment, such as mastectomy, though a treatment step would seemingly involve transformation of the patient.⁸¹

72. *See id.* at 234. Some claims cover similar methods, for example, analyzing the *BRCA* DNA sequence to determine whether *BRCA* mutation was involved in creating a tumor that has *already* grown. *Id.* at 235.

73. *See In re Bilski*, 545 F.3d 943, 959–60 (Fed. Cir. 2008) (constructing the machine or transformation test). *But see Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010) (holding that the machine or transformation test is useful but *not* dispositive).

74. *Ass’n for Molecular Pathology*, 702 F. Supp. 2d at 234–35.

75. *See id.* at 232–37 (discussing Myriad’s argument that the patented methods transform DNA, but not analyzing the machine prong of the test).

76. *Id.* at 234–36. This transformation is logically required for “analyzing”, but not literally recited in the disputed claims. *Id.* at 235–36.

77. *Id.* at 234–36.

78. *Id.* at 236–37.

79. *See id.* at 235. The district court states:

Similarly, the inclusion of the phrases “from a human subject” or “from a nontumor sample” in the claims serve only to specify the identity of the DNA or RNA sequence to be “analyzed” or “compared,” i.e., from a human sample as opposed to an animal sample or cell culture, and do not, as Myriad argues, establish that the claims should be read to include *the physical transformations associated with obtaining DNA from those sources.*

Id. (emphasis added).

80. *Id.*

81. *See, e.g.*, U.S. Patent No. 5,709,999 col. 161 l. 17 (filed June 7, 1999). The ’999 patent claims:

The court also analyzed a claim for identifying anti-cancer drugs by growing human cells with a high-risk *BRCA* DNA sequence and “comparing” the cells’ growth with and without potential drugs.⁸² The court reasoned that the claim recited “the scientific method itself,”⁸³ analogous to the *Classen* describing controlled experiments in anti-vaccine reactions.⁸⁴

Although the court conducted its analysis under the machine-or-transformation standard, its holding that the diagnostic method claims covered unpatentable mental processes may stand, pending appeal to the Federal Circuit.⁸⁵ Given the high probability that the DNA composition claims will eventually come before the Supreme Court,⁸⁶ the related method claims make a likely test case for the patentability of diagnostic correlations post-*Bilski*.

4. Prometheus Labs., Inc. v. Mayo Collaborative Services

Prometheus Laboratories, Inc. patented methods for dosing drugs from a class of chemicals termed thiopurines, which treat autoimmune disorders.⁸⁷ These drugs do not have a direct effect on the immune system.⁸⁸ Instead, the patient’s body breaks the drugs down into new chemicals, including 6-methyl-mercaptopurine and 6-thioguanine.⁸⁹ These new chemicals, or

1. A method for detecting a germline alteration in a BRCA1 gene, said alteration selected from the group consisting of the alterations set forth in Tables 12A, 14,18 or 19 in a human which comprises analyzing a sequence of a 20 BRCA1 gene or BRCA1 RNA from a human sample or analyzing a sequence of BRCA1 cDNA made from mRNA from said human sample with the proviso that said germline alteration is not a deletion of 4 nucleotides corresponding to base numbers 4184–4187 of SEQ ID NO:1.

Id.

82. See *Ass’n for Molecular Pathology*, 702 F. Supp. 2d at 237 (analyzing claim 20 of U.S. Patent No. 5,747,282).

83. *Id.*

84. See *Classen Immunotherapies, Inc. v. Biogen IDEC*, No. WDQ-04-2607, 2006 WL 6161856, at *5 (D. Md. 2006).

85. *Ass’n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181 (S.D.N.Y. 2010), *appeal docketed*, No. 2010-1406 (Fed. Cir. June 16, 2010).

86. Harold C. Wegner, *Myriad DNA Case: ACLU Declares Victory, Wins SG Support*, IP FRONTLINE (Feb 22, 2011), <http://www.ipfrontline.com/depts/article.aspx?id=24955&deptid=7> (noting that “discussions about the Myriad case have suggested an inevitability of a Supreme Court review,” but also noting that the case could turn “on the procedural basis of a lack of justiciable controversy”).

87. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus II)*, 581 F.3d 1336, 1339 (Fed. Cir. 2009).

88. *Id.*

89. *Id.*

“metabolites,” can treat the patient but may have dangerous side effects.⁹⁰ The patents at issue, 6,355,623 (“the ’623 patent”) and 6,680,302 (“the ’302 patent”), claim methods for optimizing thiopurine dosage by measuring the levels of the pharmacologically active metabolites.⁹¹ The claims specify levels of metabolites.⁹² If the metabolite levels are too high, it “indicates a need” to decrease dosage.⁹³ If the levels are too low, it “indicates a need” to increase dosage.⁹⁴ The claims cover a three step process: (1) the thiopurine is administered (“administering” step), (2) the levels of metabolites are determined (“determining” step), and (3) a need to adjust dosage is indicated (“inference” step).⁹⁵

Prometheus manufactured a testing kit, previously used by Defendants Mayo Collaborative Services and the Mayo Clinic Rochester.⁹⁶ Mayo planned to begin using its own kit, testing for the same metabolites but using different levels to determine toxicity.⁹⁷ Prometheus then sued Mayo for patent infringement, prompting Mayo to suspend its plans pending resolution of the case.⁹⁸ The District Court held the patents invalid under § 101.⁹⁹ The Federal

90. *Id.*

91. *Id.* at 1340.

92. *Id.* at 1339–40.

93. *Id.*

94. *Id.*; see also U.S. Patent No. 6,355,623 col. 20 l. 10 (filed April 8, 1999) (claim 1). The inventors of the ’623 patent claimed:

1) A method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug providing 6–thioguanine to a subject having said immune-mediated gastrointestinal disorder; and

(b) determining the level of 6–thioguanine in said subject having said immune-mediated gastrointestinal disorder,

wherein the level of 6–thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject and

wherein the level of 6–thioguanine greater than about 400 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

Id.

95. Prometheus Labs., Inc. v. Mayo Collaborative Servs. (*Prometheus I*), No. 04-CV-1200 JAH (RBB), 2008 WL 878910, at *6 (S.D. Cal. Mar. 28, 2008). Note that the “administering” and “determining” steps are so named by the Court using the actual claim language, while the “inferring” step is purely this author’s own appellation for convenience. The *Prometheus I* court refers to the “inferring” step as the “warning” step, another appellation not found in the claim language. *Id.*

96. *Prometheus II*, 581 F.3d at 1340.

97. *Id.*

98. *Id.*

99. *Prometheus I*, 2008 WL 878910, at *14.

Circuit then reversed and remanded.¹⁰⁰ Mayo appealed to the Supreme Court, which granted certiorari, reversed, and remanded for reconsideration post-*Bilski*.¹⁰¹ The Federal Circuit again held the claims valid.¹⁰²

Back in 2008, the Southern District of California held the patents invalid under § 101 because they claimed unpatentable subject matter.¹⁰³ First, the court reasoned that the patents primarily claimed the correlation between metabolite levels and drug efficacy.¹⁰⁴ The court adopted Mayo's proposed construction of "indicates a need," interpreting the phrase to mean that "when the identified metabolites reach the specified level, the doctor is warned or notified that a dosage adjustment may be required," if the doctor believes that is the proper procedure.¹⁰⁵ Thus, the court rejected the view that the patent recited correlation in the context of a method of treatment, because under the adopted construction of "indicates a need," no actual treatment is required.¹⁰⁶ The court also determined that "administering" and "determining" steps were "merely necessary data-gathering steps for any use of the correlations"¹⁰⁷ and that these steps were merely grafted onto the core claim of the correlation.¹⁰⁸

The district court then held that the correlation recited was an unpatentable natural phenomenon, relying heavily on the *LabCorp* dissent's reasoning and language.¹⁰⁹ The court reasoned that because the bodily processes converting the thiopurines occur naturally, the correlation was *discovered* rather than *invented*.¹¹⁰

100. *Prometheus II*, 581 F.3d at 1350.

101. *Mayo Collaborative Servs. v. Prometheus Labs., Inc. (Prometheus III)*, 130 S. Ct. 3543 (2010).

102. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus IV)*, 628 F.3d 1347 (Fed. Cir. 2010).

103. *Prometheus I*, 2008 WL 878910, at *14.

104. *Prometheus I*, 2008 WL 878910, at *6.

105. *Id.* ("[T]he 'warning' step does not require that dosage be adjusted, or any other action. Indeed, contrary to Plaintiff's assertion, the 'warning step' does not require that the doctor (or any person) 'provide' a warning.")

106. *See id.*

107. *Id.*

108. *Id.* ("[T]he claims recite the correlations themselves.")

109. *Id.* at *6–8 (citing *Lab. Corp. of Am. Holdings v. Metabolite Laboratories, Inc.*, 548 U.S. 124 (2006) (Breyer, J., dissenting from dismissal of certiorari)). The District Court also referenced *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948), in which the Supreme Court held that a naturally occurring mixture of bacteria was not patentable. *Id.* at *7. In relying on *Funk Bros.*, the District Court glossed over the distinction between method and product claims. *Id.* at *9 (citing *Funk Bros.*, 333 U.S. at 130, 132).

110. *Id.* at *7.

According to the district court, recitation of a natural phenomenon invalidates a claim if the claim wholly preempts use of the natural phenomenon.¹¹¹ In this case, the court held that the patents claimed a general correlation between drug administration, metabolite levels, drug efficacy, and toxicity, without limitation to a specific disease, and without requiring any actual treatment action after the diagnostic test.¹¹² Because the correlation can only be observed after “administering” treatment and “determining” metabolite levels, and because the “inferring” step requires no action, it is impossible to observe the correlation without performing all three steps. Thus, the District Court held that the claims wholly preempt the natural correlation.¹¹³

The district court issued its decision prior to the Federal Circuit’s *In re Bilski* decision, but *Prometheus*’s appeal was post-*In re Bilski*.¹¹⁴ The Federal Circuit thus applied its “machine or transformation” test to find the claims patentable under § 101.¹¹⁵ The Federal Circuit held that the “administering” and “determining” steps are transformative, reasoning that “administering” the drug transforms the patient and that “determining” metabolite levels transforms patient samples.¹¹⁶ Yet these findings were merely a threshold analysis; the Federal Circuit recognized that patentability also requires that the transformative steps be more than ancillary to an unpatentable core process.¹¹⁷

The core process in the *Prometheus* patents is a medical treatment.¹¹⁸ Unlike the District Court, the Federal Circuit held that even though the patents do not require post-diagnostic action, the diagnostic correlation is still linked to a medical treatment.¹¹⁹ Thus, even if the “inferring” step is a purely mental step, the “administering” and “determining” steps are “not

111. *Id.* at *10.

112. *Id.* at *6, 11.

113. *Id.* at *10–12.

114. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus II)*, 581 F.3d 1336, 1345 n.2 (Fed. Cir. 2009).

115. *Id.* at 1342–43, 1345–46.

116. *Id.* at 1345–47. The Federal Circuit declined to analyze the machine prong because it was moot. *Id.* at 1346.

117. *Id.* at 1347 (citing *In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008)).

118. *See Prometheus II*, 581 F.3d at 1348.

119. *Id.*, 581 F.3d at 1348. This connection to a specific treatment distinguishes *Prometheus* from the prior *Grain* case, in which the Federal Circuit invalidated a diagnostic algorithm that existed independent of any specific disease or treatment regimen. *Id.* (citing *In re Grain*, 888 F.2d 835, 840 (Fed. Cir. 1989)).

merely data-gathering steps or insignificant extra-solution activity.”¹²⁰ Instead, these steps connect the final “inferring” step to a specific medical treatment process—i.e., to the “transformation” of a patient.¹²¹ Indeed, the patents claim not only a maximum level of metabolite to avoid inherent toxicity, but also a minimum level required for effective treatment.¹²²

Following its decision in *Bilski*, the Supreme Court granted certiorari, vacated without comment, and remanded *Prometheus* to the Federal Circuit for reconsideration consistent with *Bilski*.¹²³ In *Prometheus IV*, the Federal Circuit again held the patents valid.¹²⁴ The Federal Circuit accepted the Supreme Court’s holding that the machine-or-transformation test was merely a “useful and important clue, an investigative tool,” and found that this “clue” was dispositive for the *Prometheus* patents.¹²⁵ The three-judge panel unanimously restated the court’s earlier conclusion that the patents fulfilled the transformation prong because the human body was transformed by thiopurine treatment and the measurement process transformed patient samples.¹²⁶ The Federal Circuit held that the patents claimed a specific treatment method,¹²⁷ and therefore rejected the argument that the transformative steps were merely ancillary data-gathering steps appended to a natural process claim.¹²⁸ Interestingly, the Federal Circuit specifically declined to discuss or apply Justice Breyer’s influential *LabCorp* dissent, stating “it is not controlling law.”¹²⁹

On remand, the Federal Circuit again reasoned that the final step is an extension of medical drug treatment, just as the *Diehr* algorithm was an extension of a rubber curing machine.¹³⁰ Thus, the court held that the presence of a mental step is not sufficient to invalidate a claim if the mental

120. *Id.* at 1348 (internal quotations omitted).

121. *Id.*

122. *See* U.S. Patent No. 6,355,623 col. 20 l. 17 (filed April 8, 1999).

123. *Mayo Collaborative Servs. v. Prometheus Labs., Inc. (Prometheus III)*, 130 S. Ct. 3543 (2010).

124. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus IV)*, 628 F.3d 1347 (Fed. Cir. 2010).

125. *Id.* at 1355.

126. *Id.* at 1356–58.

127. *Id.* at 1356–57.

128. *Id.* at 1357.

129. *Id.* at 1356 n.2.

130. *See* *Diamond v. Diehr*, 450 U.S. 175, 188 (1981); *Prometheus IV*, 628 F.3d at 1357–59 (finding that the correlation between metabolite levels and physiological effect is applied as part of a claimed treatment). This is also analogous to *In re Abele*, 684 F.2d 902 (C.C.P.A. 1982), in which an image processing algorithm was an extension of an imaging machine. *Prometheus IV*, 628 F.3d at 1358 (citing *Abele*, 684 F.2d at 908).

step can be attached to steps that *do* concern patentable subject matter.¹³¹ In cases where the tangible steps might be unpatentable for lack of novelty or obviousness, this is analogous to permitting an improvement patent in which the improvement is a purely mental step.

Because of the direct tie between the mental step and the specific, transformative medical treatment, there is little danger that the *Prometheus* patents will preempt the underlying biological processes responsible for breaking the drug down into metabolites or even the correlation between the metabolite and treatment efficacy. Indeed, the core purpose of the machine-or-transformation test may have been to construct an easily applicable proxy for preemption—as the Federal Circuit stated in *Prometheus II*, the machine-or-transformation test subsumed the preemption test.¹³² Although in *Bilski v. Kappos* the Supreme Court held that the machine or transformation test was not necessarily dispositive,¹³³ *Prometheus IV* reasserted the utility of the machine-or-transformation test as sufficient to ensure a patent does not preempt a law of nature.¹³⁴

Additional evidence suggests the *Prometheus* patents are not preclusive: they can potentially be invented around. A patient's ability to break down the toxic metabolite is determined in large part by whether the patient has two, one, or zero working copies of the *TPMT* gene.¹³⁵ Indeed, the correlation between the gene and the gene's medically relevant activity is much tighter than for *BRCA*, in which only some *BRCA*-positive patients develop breast cancer.¹³⁶ The *TPMT* correlation is in the prior art of the *Prometheus* patents.¹³⁷ Testing for the *TPMT* gene or the gene's product, *TPMT* enzyme, can single out the patients most endangered by treatment with the thiopurine drug.¹³⁸

131. *Prometheus IV*, 628 F.3d at 1358–59.

132. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus II)*, 581 F.3d 1336, 1349 (Fed. Cir. 2009) (citing *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008)).

133. *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010).

134. *Prometheus IV*, 628 F.3d at 1355, 1359.

135. Liewei Wang, *Pharmacogenomics: A Systems Approach*, 2 WIREs SYSTEMS BIOLOGY AND MEDICINE 1, 6 (Jan/Feb 2010). A person with two working copies of the thiopurine methyltransferase gene (*TPMT*) makes metabolite at normal levels, a person with one working copy makes reduced levels, and a person with no working copies makes no metabolite. *Id.* at 6.

136. *Id.* at 6; *Ass'n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181, 202 (S.D.N.Y. 2010) (stating that breast cancer incidence may reach 85%, among women with certain *BRCA* DNA sequences).

137. U.S. Patent No. 6,355,623 at [56], col. 14 l. 13, col. 19 l. 26 (filed April 8, 1999).

138. See E. A. Fargher et al., *Current Use of Pharmacogenetic Testing: A National Survey of Thiopurine Methyltransferase Testing Prior to Azathioprine Prescription*, 32 J. CLINICAL PHARMACY &

Although this testing cannot fully predict patients' precise metabolite levels,¹³⁹ further research into determinants of thiopurine metabolism might enable accurate predictions of toxic metabolite levels and avoid the need to use patients as guinea pigs for their own medical treatment.

D. UNCERTAINTY ABOUT MEDICAL DIAGNOSTIC PATENTS

The patentability of medical diagnostic claims remains uncertain. The Supreme Court may grant certiorari to *Prometheus*, particularly given the Federal Circuit's dismissive language declining to discuss the *LabCorp* dissent.¹⁴⁰ The Federal Circuit still faces *Classen* on remand from the Supreme Court and *Ass'n for Molecular Pathology* on appeal from the Southern District of New York.

The Federal Circuit, evidenced by its opinion in *Prometheus IV*, seems committed to the machine-or-transformation test, but the Supreme Court may weigh in again, and might choose to apply any of several alternative standards. These alternatives include: (1) invalidating all patents on diagnostic correlations, (2) allowing all diagnostic correlations as patentable subject matter, and (3) allowing diagnostic correlation patents only in some cases—for example, only when the diagnostic relates to a medical intervention. Under the current Federal Circuit analysis, a specific medical therapy necessarily transforms the body and an associated diagnostic is patentable.¹⁴¹ In contrast, the Federal Circuit could adopt the Southern District of New York reasoning from *Ass'n of Molecular Pathology* to find that a diagnostic dissociated from any known medical intervention fails the machine-or-transformation test, unless the diagnostic is connected to a specific machine.¹⁴²

1. *No Patents for Diagnostic Correlations*

One possible standard would be to broadly interpret and apply Justice Breyer's *LabCorp* dissent and prohibit patenting all diagnostic correlations.¹⁴³

THERAPEUTICS 187, 188 (2007) (referencing the “tight correlation between absent TPMT activity and severe neutropaenia”).

139. *See id.* (referencing “the less than 100% predictive value of TPMT testing”).

140. *See Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus IV)*, 628 F.3d 1347, 1356 n.2 (Fed. Cir. 2010).

141. *See id.* at 1356, 1359.

142. *See Ass'n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181, 234–35 (S.D.N.Y. 2010).

143. *See Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 135 (2006) (Breyer, J., dissenting) (arguing that the correlation between vitamin B and homocysteine is a natural phenomenon, but noting that “this case is not at the boundary”).

Justice Breyer argued that correlations between data and medical prognoses are natural processes or products of nature, and therefore unpatentable.¹⁴⁴ A broad application of this rule might invalidate all diagnostic correlations patents, including not only the *LabCorp* patent, but also the *Prometheus*, *Classen*, and *Ass'n of Molecular Pathology* patents—all of which center around gathering data on one aspect of human biology and correlating those data with another aspect of human health.¹⁴⁵

As the Federal Circuit has observed, a broad application of Justice Breyer's standard could be problematic, because all inventions operate via natural laws and processes.¹⁴⁶ If courts were to presume that claims preclude all applications of the natural processes involved in an invention's operation, it would be impossible to draft any valid patent. Such a high barrier to patentability would seemingly invalidate both an improved combustion engine whose operation presumes the laws of thermodynamics and a new music playing device whose operation requires human hearing for utility. Despite the potential for doctrinal inconsistency, § 101 does not require perfect congruity across fields of discovery. Indeed, § 101's vague implication that some inventions are not appropriate subject matter for patents serves fundamentally as a tool for enabling such inconsistencies, when other patentability requirements fail to operate in accord with the broad policy goals of the patent system. Thus, concerns over inhibited research and limited patient access might lead some to support invalidating all medical correlation patents via § 101 or rendering such patents irrelevant via an infringement liability exemption.¹⁴⁷

144. *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 548 U.S. 124, 137–38 (2006) (Breyer, J., dissenting) (“[Metabolite] cannot avoid the fact that the process is no more than an instruction to read some numbers in light of medical knowledge.”).

145. *See, e.g., Prometheus IV*, 628 F.3d at 1356 (quoting the '623 specification: “[t]he present invention provides a method of optimizing therapeutic efficacy of 6-mercaptopurine drug treatment of an immune-mediated gastrointestinal disorder”); *Classen Immunotherapies, Inc. v. Biogen IDEC*, No. WDQ-04-2607, 2006 WL 6161856, at *5 (D. Md. Aug. 16, 2006) (“[T]he 139 and 739 patents are an indirect attempt to patent the idea that there is a relationship between vaccine schedules and chronic immune mediated disorders.”); U.S. Patent No 5,709,999, at [57], col. 161 l. 17 (filed June 7, 1995) (the abstract states, “the invention relates to germline mutations in the BRCA1 gene and their use in the diagnosis of predisposition to breast and ovarian cancer,” and claim 1 accomplishes this by “analyzing a sequence of a BRCA1 gene.”).

146. *Prometheus IV*, 628 F.3d at 1356 (“[Q]uite literally every transformation of physical matter can be described as occurring according to natural processes and natural law.”)

147. *See, e.g.,* Rochelle C. Dreyfuss, *The Patentability of Genetic Diagnostics in U.S. Law and Policy*, N.Y.U. SCH. OF LAW, LAW & ECONOMICS RESEARCH PAPER SERIES, No. 10-44 at 17, 29 (2010), available at <http://ssrn.com/abstract=1678123> (discussing, without endorsing,

2. *Allow All Patents on Diagnostic Correlations*

Diagnostic correlations might be generally permissible as patentable subject matter. Courts can view the law of nature standard as a tool for implementing the constitutional mandate to advance science and the useful arts. If the standard is simply intended to avoid preclusion that hinders advancement of the useful arts, perhaps it should be inapplicable to laws of nature so narrow that there is little danger of precluding further research and development. Alternatively, courts may not view diagnostic correlations as laws of nature at all, because the patented processes begin with a necessary data-gathering step and involve interactions with patients.

3. *The Human Intervention Standard and the Anti-Preclusion Standard*

A variety of intermediate positions are possible in addition to the machine-or-transformation standard applied by the Federal Circuit. One might, for example, distinguish patentable from unpatentable diagnostic methods by considering whether human intervention creates the observed correlation¹⁴⁸ or whether the claims actually preclude subject matter outside the scope of the actual invention.¹⁴⁹

The human intervention standard would permit patents in cases where human intervention creates the phenomenon being correlated to human health, on the theory that the correlation is not “natural.”¹⁵⁰ Thus, the *Prometheus* patents would be valid because they correlate the results of pharmacological treatment with thiopurine drugs. A broader version of this

the possibility of a ban on diagnostic methods and discussing a liability exemption for diagnostic testing recommended in the SEC’Y’S ADVISORY COMM. ON GENETICS, REVISED DRAFT REPORT ON GENE PATENTS AND LICENSING PRACTICES AND THEIR IMPACT ON PATIENT ACCESS TO GENETIC TESTS, HEALTH, AND SOC’Y 90 (2010), available at <http://oba.od.nih.gov/oba/SACGHS/SACGHS%20Patents%20Report%20Approved%202-5-20010.pdf>.

148. See Chris Holman, *The Impact of Bilski on Biotechnology*, Holman’s Biotech IP Blog (July 3, 2010, 11:22 AM), <http://holmansbiotechipblog.blogspot.com/2010/07/impact-of-bilski-on-biotechnology.html>.

149. C.f. Brian P. Murphy & Daniel P. Murphy, *Bilski’s “Machine-or-Transformation” Test: Uncertain Prognosis for Diagnostic Methods and Personalized Medicine Patents*, 20 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 755, 763–67 (2010) (discussing the older and more permissive test prohibiting patents that wholly preclude all applications of a fundamental principle).

150. See Holman, *supra* note 148 (“By drawing a line between biological phenomena that occurs absent human intervention and phenomena that occurs as a result of human intervention, one could have a principled basis for finding the [*LabCorp*] claim patent ineligible while upholding the eligibility of the *Prometheus* claims, and drug patents in general.”). As discussed above, all processes are natural in the broad sense. *Prometheus IV*, 628 F.3d at 1356.

standard would also permit patents on detection of a pre-intervention state that correlates with efficacy of a subsequent intervention. Such a standard would not necessarily require a subsequent intervention step, but might allow the claims to merely reference the possibility—analogue to the *Prometheus* patents whose “inference” steps suggest, but do not require, altering thiopurine dosage.¹⁵¹ The human intervention standard recognizes that all inventions operate in conjunction with the laws of nature and does not require diagnostic correlations to be treated any differently than combustion engines, which are also (and obviously) the product of human intervention in the natural world.

Although human intervention might seem to set a reasonably bright line, there is potential ambiguity. If unintentional contact with human-generated pollutants causes a disease, would it qualify as human intervention? Would treating Vitamin B deficiencies qualify as a human intervention to validate the *LabCorp* patent, or would the *LabCorp* patent be invalid because Vitamin B remains a natural product, even when given as a megadose in purified pill form? Would the *Ass'n of Molecular Pathology* patents be valid under this standard if Myriad had claimed bilateral prophylactic mastectomy as the final step?

Another approach would ask whether a specific diagnostic correlation claim actually precludes other uses of the natural processes involved, such that the bar against preclusive claiming is not fatal in fact, but instead leads to a fact-specific analysis rooted in claim construction. This approach could be applied instead of, or in addition to, the human intervention standard. Permitting only non-preclusive diagnostic method patents would give inventors an incentive to draft their claims narrowly, and to argue for narrow constructions during litigation. Permitting only narrow claims to pass the § 101 threshold test would be consistent with traditional written description and reduction to practice principles. Such a standard might function similarly to the machine or transformation test, limiting patents to specific contexts to prevent patent holders from blocking or extracting rents from later inventions, practices which might inhibit discovery.

II. **THE SCIENCE BEHIND THE LAW**

Modern diagnostic correlations tend to fall into one of several broad classes, depending on the type of data analyzed. Genetic diagnostics analyze

151. See *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus I)*, No. 04-CV-1200 JAH (RBB), 2008 WL 878910, at *6 (S.D. Cal. Mar. 28, 2008).

the sequence of a specific piece of DNA, like the Myriad Genetics patents in *Ass'n for Molecular Pathology*.¹⁵² Other diagnostics use antibodies to detect the presence of specific proteins or large sugar complexes.¹⁵³ Diagnostics can also detect some proteins or sugars via chemical reactions in which a new, easier to detect chemical is produced.¹⁵⁴ Chemical reaction diagnostics can also sometimes detect smaller molecules produced by the body—metabolites—but more direct methods can also detect metabolites, including the mass spectrometry used in the *LabCorp* patent and the high-pressure liquid chromatography (HPLC) used in the *Prometheus* patents.¹⁵⁵ A unifying theme in the development of these diagnostics is the increasing standardization of collecting data from medical samples.¹⁵⁶ As a result, it will become increasingly difficult to obtain patent protection for diagnostic advances by claiming novel, non-obvious data-gathering techniques.

Genetic diagnostics represent a limiting case within the field of diagnostic medicine. While the mechanisms for gathering genetic data are among the most standardized, the ability to gather vast quantities of data has only increased the complexity of data analysis.¹⁵⁷ Furthermore, genetic diagnostics

152. See, e.g., U.S. Patent No. 5,709,999 (filed June 7, 1999) (claiming analyzing the *BRC A* gene to detect inherited mutations, termed “germline” mutations).

153. See, e.g., A. Kappel et al., *Fully Automated Immunoassay for Quantitative Determination of FXIII*, 31 HÄMOSTASEOLOGIE 1, 1–6 (2011) (describing invention of an antibody diagnostic for a blood clotting disorder by scientists at Siemens Healthcare Diagnostics Products GmbH).

154. See, e.g., Nestor Chamoles et al., *Hurler-Like Phenotype: Enzymatic Diagnosis in Dried Blood Spots on Filter Paper*, 47 CLINICAL CHEMISTRY 2098 (2001) (describing a new variation on methods for detecting of defects in lysosome proteins by measuring the proteins’ alteration of small chemicals).

155. The *LabCorp* ’658 patent claims detection by mass spectrometry (independent claim 1); high-pressure liquid chromatography (HPLC) (e.g., derivative claim 16); and chemical reaction with a radioactive label (e.g., derivative claim 17). U.S. Patent No. 4,940,658 col. 41 l. 2, col. 42 l. 11, col. 42 l. 19 (filed July 10, 1990). The *Prometheus* ’623 patent claims HPLC detection (e.g., derivative claim 6) but explains several other techniques in the prior art and specification, included under the broader claims which do not limit the detection method. U.S. Patent No. 6,355,623 col. 20 l. 38, col. 9 l. 12 (filed Apr. 8, 1999). Mass spectrometry identifies molecules by determining the ratio of their weight to their electrical charge. HARVEY LODISH ET AL., *MOLECULAR CELL BIOLOGY* 94–95 (5th ed. 2003). HPLC identifies molecules by how quickly they pass through a material that lets molecules through at different speeds. DONALD VOET ET AL., *FUNDAMENTALS OF BIOCHEMISTRY* 99–100 (Upgrade ed. 2002); see also LODISH ET AL. *supra*, at 90–93 (describing methods of liquid chromatography).

156. See Hans V. Westerhoff & Bernhard O. Palsson, *The Evolution of Molecular Biology into Systems Biology*, 22 NATURE BIOTECHNOLOGY 1249, 1249 (2004) (describing the “scaling up” of molecular biology).

157. See *id.* at 1249–52.

can implicate potentially basic elements of human biology or unchanging attributes of individuals.

A. DNA-BASED DIAGNOSTICS

Genes are discrete, physical units of heritability. When genes were first discovered by Gregor Mendel, the physical basis for genes was not understood.¹⁵⁸ During the mid-twentieth century, scientists first realized that genes were encoded by strands of deoxyribonucleic acid (DNA), composed of four chemical units, termed nucleotides (abbreviated A, T, C, and G¹⁵⁹) and arranged in ordered sequence.¹⁶⁰ The sequence of nucleotides in a gene specifies the sequence of an intermediate molecule, RNA, whose sequence in turn specifies the sequence of amino acids in the protein produced by the gene.¹⁶¹ The sequence of amino acids determines the chemical properties which enable a protein to function biologically within the human body.¹⁶² The protein made from the DNA gene actually performs the “work” of the gene, conferring traits on a person which are referred to as the person’s “phenotype.”¹⁶³

DNA sequencing technology has made it possible to sequence genes and whole genomes.¹⁶⁴ The advancing ability to obtain massive quantities of raw

158. VOET ET AL., *supra* note 155, at 53.

159. Adenine, thymine, guanine, and cytosine. *Id.* at 42–47.

160. *Id.* at 53–55.

161. *Id.* at 54–55.

162. *Id.* at 94.

163. LODISH ET AL., *supra* note 155, at 22.

164. The DNA genomes of all living creatures are bonded strands of the individual A, T, C, and G DNA nucleotides. VOET ET AL., *supra* note 155, at 48–52. Each genome has two strands which stick together like a zipper. LODISH ET AL., *supra* note 155, at 103–04. These strands are complementary and form strongly associated nucleotide pairs, known as base pairs—with rare exceptions, A always pairs with an opposite strand T, and C with an opposite strand G. *Id.* at 104. Each strand has one end that is chemically reactive, termed the three-prime (3′) end. *See id.* at 102. When DNA replicates each strand is left naked and used as a template to build a new complementary strand. *Id.* at 131. The new strand starts from a short DNA or RNA stub called a primer. *Id.* at 133. The primer sticks to the original strand using A-T, C-G matching, and the 3′ end of primer “attacks” complementary DNA nucleotides, reacting chemically to bond them to the growing complementary strand. *See id.* DNA sequencing techniques mimic natural replication. These techniques initiate replication of a DNA strand using an artificial primer and then track which complementary nucleotides are added first, second, third, and onwards, relative to the primer. *Id.* at 372–75. Thus, the sequencing process requires beginning with some knowledge of the DNA sequence. This bit of primer sequence is the only unique aspect of a method for sequencing a specific gene. *See id.* As sequencing costs have been driven down by next generation sequencing techniques, random (also termed “shotgun”) sequencing of pieces of DNA has become more affordable, making it possible to sequence entire genomes rather than merely specific genes of interest.

DNA sequence was essential for whole-genome sequencing in particular.¹⁶⁵ In 1995, scientists sequenced the genome of a bacterium, *Haemophilis influenza*.¹⁶⁶ A race between a private company and government coalition to sequence the human genome ensued, and the field of “genomics” continues to accelerate.¹⁶⁷ By 2003, the whole human genome had been sequenced—an achievement that took thirteen years and almost three billion dollars.¹⁶⁸ Advances in technology have driven down sequencing costs,¹⁶⁹ making sequencing fast and relatively inexpensive. For example, it is now possible to sequence more nucleotides than the entire human genome’s length for around \$1000.¹⁷⁰ Because whole-genome sequencing is now possible, future

See Pauline Ng & Ewen Kirkness, *Whole Genome Sequencing*, in 628 METHODS IN MOLECULAR BIOLOGY 215, 217–18 (Michael Barnes & Gerome Breen eds., 2010). It follows that a genetic diagnostic can only receive meaningful patent protection if the claims cover the correlation itself.

165. *See* Westerhoff, *supra* note 156, at 1250 tbl. 1 (diagramming the development of genomics).

166. *See id.*

167. *See*, Julia Karow, *The Human Genome Race: A Tale of the Tortoise and the Hare . . . and the Fly and the Worm and the Mouse*, SCIENTIFIC AMERICAN (Apr. 24, 2000), <http://www.scientificamerican.com/article.cfm?id=the-human-genome-race>.

168. *See* National Human Genome Research Institute, National Institutes of Health, *The Human Genome Project Completion: Frequently Asked Questions*, <http://www.genome.gov/11006943> (last visited Feb. 18, 2011).

169. *See* Paola Benaglio & Carlo Rivolta, *Ultra High Throughput Sequencing in Human DNA Variation Detection: A Comparative Study on the NDUFA3-PRPF31 Region*, 5 PLOS ONE e13071 (2010), <http://www.plosone.org/article/fetchObjectAttachment.action;jsessionid=C66991AA62E3EA7E86E9843CABA46165.ambra02?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0013071&representation=PDF> (reviewing and comparing next generation sequencing techniques including 454 and Illumina).

170. For example, the Duke core sequencing facility can use Illumina technology to sequence more nucleotides than the entire human genome length for \$1050. *Duke IGSP Genome Sequencing & Analysis Core Facility Price List*, <http://www.genome.duke.edu/cores/sequencing/illumina/documents/DukeIGSPSeq.CorePricelist.pdf> [hereinafter *Duke Price List*]. The need to oversequence to ensure full genome coverage and computationally reassemble the disjointed sequence fragments requires multiple sequencing runs, raising the price for whole genome sequencing at least ten-fold. *See id.* Scientists predict the \$1000 genome to be just around the corner. *See, e.g.*, Howard Wolinsky, *The Thousand-Dollar Genome*, 8 EMBO REPORTS 900, 900–03 (2007) (speculating that a \$1000 genome will soon exist); *Question of the Year*, NATURE GENETICS, <http://www.nature.com/ng/qoty/index.html> (last visited Feb. 18, 2011) (posing the Nature Genetics question of the year for 2007: “What would you do if it became possible to sequence the equivalent of a full human genome for only \$1000?” Scientists’ answers to the question are posted on the website.). As mentioned *supra*, such sequencing now exists. *See Duke Price List, supra*. Further, doctors or scientists can specifically sequence the human “exome,” a portion of the genome that includes all protein-coding sequences. *See* Jamie Teer & James Mullikin, *Exome Sequencing: The Sweet Spot Before Whole Genomes*, 19 HUMAN MOLECULAR GENETICS R145, R145 (2010).

genetic diagnostics are unlikely to receive meaningful patent protection unless the diagnostic correlation itself is patentable. Although a \$1000 of random “shotgun” sequencing is unlikely to reveal every nucleotide in a given patient’s genome, the cost of whole genome sequencing is becoming competitive with the over \$3000 charged by Myriad for their patented *BRC4* diagnostic.¹⁷¹

The human genome projects sequenced DNA only from select individuals,¹⁷² but every person has a unique DNA sequence. Each individual version of a gene is called an allele, and certain alleles can cause disease.¹⁷³ This recognition, coupled with the ability to sequence DNA, has led to an explosion of genetic diagnostics.¹⁷⁴

One of the first genetic tests was for Huntington’s disease, a neurodegenerative disease which famously killed folk singer Woody Guthrie.¹⁷⁵ Doctors observed that a child of a Huntington’s disease sufferer had a fifty percent chance of inheriting the disease, indicating that the disease was caused by a dominant mutation.¹⁷⁶ Because the inheritance pattern was simple and the disease was caused by a defect in a single gene, scientists could identify the genetic basis of Huntington’s disease relatively easily.¹⁷⁷

Huntington’s disease does not manifest symptoms until middle age.¹⁷⁸ Thus, although there is no cure for Huntington’s disease, some children of sufferers choose to sequence their own Huntington’s gene and determine

171. See Ass’n for Molecular Pathology v. U.S. PTO, 702 F. Supp. 2d 181, 203 (S.D.N.Y. 2010) (*BRC4* tests priced at over \$3000 each).

172. See Emily Singer, *Craig Venter’s Genome: The Genomic Pioneer Bares His Genetic Code to the World*, *TEC. REV.* (Sept. 4, 2007), <http://www.technologyreview.com/biomedicine/19328/?a=f>; National Human Genome Research Institute, *supra* note 168.

173. LODISH ET AL., *supra* note 155, at 22.

174. See GENE TESTS, <http://www.genetests.org> (last visited Feb. 18, 2011). The website, run by the University of Washington, provides a comprehensive list of tests and providers in the United States. *Id.*

175. See Heidi Chial, *Huntington’s Disease: The Discovery of the Huntington Gene*, *NATURE EDUCATION* (2008), <http://www.nature.com/scitable/topicpage/huntington-s-disease-the-discovery-of-the-851>; *Hereditary Disease Foundation Supports and Catalyzes Critical Achievements Toward the Cure*, HEREDITARY DISEASE FOUNDATION, <http://www.hdfoundation.org/achievements.php> (describing the Hereditary Disease Foundation’s role in discovering the gene); J.M. Ringman, *The Huntington Disease of Woody Guthrie: Another Man Done Gone*, 20 *COGNITIVE BEHAVIORAL NEUROLOGY* 238 (2007).

176. See Chial, *supra* note 175.

177. This relative ease does not reflect absolute ease. The research program took over a decade. See *id.*; *Hereditary Disease Foundation*, *supra* note 175.

178. Chial, *supra* note 175.

whether they have inherited the disease allele.¹⁷⁹ This information can guide their life choices.

The Huntington's diagnostic is only one of many tests for genetic diseases caused by mutation in a single gene. Few single gene mutation tests enable individuals to take specific actions to prevent their own disease, although *BRC4* positive patients, for example, can elect prophylactic double mastectomy.¹⁸⁰ Actual cures are even less common, but the diagnoses can help guide medical research and life planning decisions. For example, some Ashkenazi Jews base family planning decisions in part on the results of genetic tests for disease alleles that often lie dormant in that population.¹⁸¹

B. OBTAINING NON-GENETIC MEDICAL DATA FROM PATIENT SAMPLES

After the advantages of large scale acquisition of raw genetic data were revealed, interest grew in obtaining other large medical data sets. The various approaches for analyzing comprehensive data sets are denoted with the suffixes “ome” and “omics.”¹⁸² For example, the entirety of proteins in a given sample is the “proteome” and research on the proteome is “proteomics.”¹⁸³

The unifying feature of the “omics” is that they involve large investments of money and expertise in building tools that make data gathering cheaper, easier, and more uniform.¹⁸⁴ Transcriptomics was one of the earliest “omics”, enabled by the Affymetrix-developed technology of chip microarray hybridization, which allowed simultaneous analysis of all the RNA transcripts

179. *Id.*

180. L. Lustumbo, et al., *Prophylactic Mastectomy for the Prevention of Breast Cancer*, 11 COCHRANE DATABASE SYSTEMATIC REVIEWS at 54–55 (2010) (reviewing and synthesizing studies of women receiving bi-lateral prophylactic mastectomy).

181. See, e.g., V.R. Sutton, *Tay-Sachs Disease Screening and Counseling Families at Risk for Metabolic Disease*, 29 OBSTETRICS & GYNECOLOGY CLINICS OF N. AM. 287, 287 (2002) (reviewing testing procedures and family planning options and noting that for non-Ashkenazi individuals, potential Tay-Sachs carriers should be screened “enzymatically” for protein activity, rather than genetically for presence of the particular mutation common among Ashkenazi).

182. See Joshua Lederberg & Alexa T. McCray, *Ome Sweet Omics—A Genealogical Treasury of Words*, 15 THE SCIENTIST 8, 8 (2001).

183. Barbara Marte, *Proteomics*, 422 NATURE 191, 191 (2003). The proteome alternately refers to the entire set of proteins potentially made from the genome of a given organism, or to the set of proteins actually made at a given time, given tissue, or given cell. *Id.*

184. See Westerhoff, *supra* note 156, at 1249.

in a cell or tissue (the “transcriptome”).¹⁸⁵ Proteomics developed next.¹⁸⁶ Proteins are more chemically diverse than DNA and RNA molecules and therefore relatively challenging to apply the “omics” model to.¹⁸⁷ One particular approach is analogous to the blind process of genomic “shotgun” sequencing: LC/MS, in which a collection of proteins are chopped into pieces, separated, and analyzed by mass spectrometry to determine each fragment’s charge to mass ratio and deduce which amino acids compose it.¹⁸⁸ By comparison to other protein fragments or to genomic data, it is then possible to deduce the order of these amino acids and obtain the protein sequence.¹⁸⁹ Another approach—2D gel electrophoresis—involves taking two samples, separating all the proteins in each sample, and then identifying the protein differences between the samples, possibly by mass spectrometry.¹⁹⁰ Yet another approach is to test pairs of proteins for their ability to stick together inside cells, thereby mapping all the potential physical interactions between pairs of proteins.¹⁹¹

The sugars, fats, hormones, and other small molecules that comprise the metabolites are even more chemically diverse than proteins.¹⁹² It follows that whole-metabolome analysis remains at best extremely challenging.¹⁹³ Metabolomics requires first the separation of small molecules—for example, by gas chromatography, HPLC, or capillary electrophoresis.¹⁹⁴ Each of these

185. See Mark Schena et al., *Quantitative Monitoring of Gene Expression Patterns with a Complementary DNA Microarray*, 270 SCIENCE 467, 467–70 (1995) (reporting the first use of a microarray for global transcript profiling).

186. See Akhilesh Pandey & Matthias Mann, *Proteomics to Study Genes and Genomes*, 405 NATURE 387, 387 (2000) (reviewing early post-genomic advances in proteomics).

187. VOET ET AL., *supra* note 155, at 80–81, 94–95. Proteins are made up of strings of amino acids. *Id.* at 94–95. Twenty different amino acids are used and these twenty vary widely in chemical properties—literally ranging from “like oil” to “like water” and from positive to negative electrical charge. *Id.*

188. Ruedi Aebersold & Matthias Mann, *Mass Spectrometry-Based Proteomics*, 422 NATURE 198, 198 (2003).

189. *Id.* at 202.

190. *Id.* at 200.

191. Eric Phizicky et al., *Protein Analysis on a Proteomic Scale*, 422 NATURE 208, 208 (2003).

192. See Haleem Issaq et al., *Analytical and Statistical Approaches to Metabolomics Research*, 32 J. SEPARATION SCI. 2183, 2183–84 (2009) (describing diverse metabolites, of which amino acids are one subset).

193. *See id.*

194. *Id.* at 2186–89. Table 1 tallies the occurrences of each approach using keyword searches of PubMed, a database of scientific publications. *Id.* at 2189 tbl. 1. The higher values in the right-hand “metabolite” column suggest that each separation technique is used most frequently to study metabolites one or two at a time, outside the metabolomics context.

techniques works well on some types of metabolites and poorly or not at all on other types.¹⁹⁵ Furthermore, the precise settings used in a separation procedure also affect which metabolites can be isolated best.¹⁹⁶ The separated metabolites are then analyzed, often by mass spectrometry.¹⁹⁷ Nuclear magnetic resonance (NMR) can analyze either separated or unseparated samples.¹⁹⁸

The development of uniform techniques for gathering data on any given DNA, protein, or metabolite makes it increasingly difficult to protect a diagnostic technique by patenting a specific data-gathering method. The techniques used in metabolomics are generally the same basic techniques that would be used to analyze a single metabolite.¹⁹⁹ The '623 *Prometheus* diagnostic patent, for example, claims HPLC detection.²⁰⁰ Of course, a tailored version of detection is cheaper and easier. It remains cheaper to sequence a single gene than the entire genome.²⁰¹ Similarly, it is easier to detect and measure a protein of interest with a single specific antibody than by simultaneously analyzing the thousands of proteins in a sample.²⁰² Still, the continuing advance of “omics” techniques makes data-gathering patents

Id. It is worth noting that metabonomics is largely synonymous with metabolomics. *Id.* at 2183.

195. *See id.* at 2186.

196. *See, e.g., id.* at 2187 (“HPLC separations are not limited to one mode (mechanism) of separation, which is an advantage when a global metabolome analysis is required. It can be tailored to the separation of a specific class of compounds using RP, normal phase, ion exchange, chiral, size exclusion, hydrophilic interaction chromatography (HILIC), and mixed modes.”).

197. *See id.* at 2189–90.

198. *Id.* at 2189–90.

199. *See id.* at 2189; *supra* note 124 and accompanying text.

200. *See* U.S. Patent No. 6,355,623 col. 20 l. 38 (filed Apr. 8, 1999) (dependent claim 6).

201. *Cf. Duke Price List, supra* note 170. Compare the \$1.75 cost of “traditional” Sanger sequencing, providing 800–900 contiguous bases, with the cost of Illumina sequencing, which can sequence 200 million 36–72 nucleotide patches in a single run. *Id.*

202. Antibodies themselves are proteins, produced the immune systems of humans and other vertebrates to stick or “bind” to foreign molecules, thereby tagging the foreign molecules for destruction by other immune system effectors. LODISH ET AL., *supra* note 155, at 73. Over an animal’s life, it encounters new foreign molecules, and develops new antibodies to tag these new molecules for destruction. *Id.* at 73, 237. By harnessing this process, scientists can produce an antibody against “your favorite protein.” *Id.* at 237–39. Antibody patents are granted not on a specific antibody, but on the collection of all antibodies that tag a specific molecular motif, or epitope—for example, a specific fragment of protein. *See* Deborah Lu et al., *The Patentability of Antibodies in the United States*, 23 NATURE BIOTECHNOLOGY 1079, 1079 (2005) (citing *Noelle v. Lederman*, 355 F.3d 1343, 1350 (Fed. Cir. 2004)). Most proteins will have many different epitopes susceptible to antibody detection. LODISH ET AL., *supra* note 155, at 73, 237.

increasingly easy to invent around. If in fact granting patent exclusivity on new medical diagnostics represents good policy, permitting direct patenting of diagnostic correlations could soon be the only option.

III. THE POLICY BASIS FOR DIAGNOSTIC METHOD PATENTS

Four related trends support granting patents on diagnostics. First, scientists are attempting to tackle complex diseases in which multiple genes interact with environmental factors. The challenges these diseases present belie the notion that diagnostic medical research has become intellectually or financially trivial. Second, genetic diagnostics are increasingly connected with the development of new therapies. Third, genetic diagnostics—specifically in the field of personalized medicine—now let doctors avoid unnecessary and potentially harmful therapies. Fourth, it will become increasingly difficult to enforce diagnostic method patents against individual patients and their doctors.

A. COMPLEX DISEASES ARE HARD TO STUDY

One justification for patents is that they provide an incentive for expensive research, development, and commercialization by providing assurance that inventors or their licensees will have exclusive rights to market inventions.²⁰³ If research and development becomes trivial, this justification is undermined. Complex genetic diseases caused by defects in more than one gene (“polygenic diseases”) belie the notion that discovering diagnostic correlations is now cheap or routine. Even though genomics is the most advanced of the “omics” disciplines, the sequencing and data processing necessary to discover such correlations remain expensive, and the sample collection and organization are also likely to be extremely costly. The more genes and alleles that contribute to a disease, the more patient samples required to discover its cause. It is entirely possible as a matter of mathematics that some complex genetic diseases would remain underdetermined even when working with samples from the entire world population.²⁰⁴

203. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266, 276–78 (1977); Peter S. Menell & Suzzane Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1474, 1525 (A. Mitchell Poninsky & Steven Shavell eds., 2007); Ted Sichelman, *Commercializing Patents*, 62 STAN. L. REV. 341, 373–76 (2010).

204. See generally Teri A. Manolio et al., *Finding the Missing Heritability in Complex Diseases*, 461 NATURE 747, 449 (2009) (“Sample size is even more strongly affected by small odds

The current best mode for studying gene correlations with diseases is genome-wide association (GWA).²⁰⁵ Researchers using this method first detect differences between the genomes of donor samples.²⁰⁶ Most commonly, researchers analyze single nucleotide differences (“single nucleotide polymorphisms,” or “SNPs”), though other differences gene copy-number variants (CNVs) can be used.²⁰⁷ The researchers then look for statistical correlations between specific SNPs and a phenotype.²⁰⁸ Because adjacent DNA segments are usually inherited together, researchers often observe that a cluster of adjacent SNPs all correlate with a phenotype.²⁰⁹ The researchers must then conduct a more targeted analysis to determine which alleles of which gene in the SNP neighborhood actually cause the phenotype.²¹⁰ One study, funded by Schering-Plough,²¹¹ analyzed over 1,600 genomes from patients in treatment for Hepatitis C.²¹² In their attempt to identify alleles that made some of these patients resistant to treatment-induced anemia, the researchers analyzed over 500,000 SNPs per study volunteer.²¹³ They discovered a cluster of SNPs in a region of chromosome 20, and through several rounds of further analysis, discovered that variants of one gene, inositol triphosphatase (*ITPA*), protected patients from therapy-induced anemia.²¹⁴ There also were hints that the study might have discovered even more genes if they had tested more patient samples. Several SNPs showed weak, statistically insignificant association with the anemia phenotype.²¹⁵ Some of these SNPs were near a gene already known to be involved in some forms of anemia, suggesting that their weak association was

ratios than by small [minor allele frequency], so low frequency and rare variants will need to have higher odds ratios to be detected.”)

205. See generally Mark I. McCarthy et al., *Genome-Wide Association Studies for Complex Traits: Consensus, Uncertainty, and Challenges*, 9 NATURE REVIEWS GENETICS 356 (2008) (reviewing the value and challenges of GWA studies).

206. See *id.* at 359–60.

207. See *id.* at 359–60, 365 (“GWA scans have focused almost exclusively on the detection of effects that are attributable to common SNPs.”).

208. See *id.* at 360–62.

209. See *id.* at 362.

210. See *id.* at 364 (“Because genome-wide association (GWA) studies directly genotype only a small proportion of the variants that segregate within the population examined, it is unlikely that the causal variant(s) will be among those for which genotype data are available.”).

211. Jacques Fellay et al., *ITPA Gene Variants Protect Against Anemia in Patients Treated for Chronic Hepatitis C*, 464 NATURE 405, 408 (2010).

212. *Id.* at 405.

213. *Id.*

214. *Id.* at 405, 407.

215. *Id.* at 405.

real and that 1,600 patient samples were simply not powerful enough to reveal all the genes involved in the phenotype.²¹⁶

A particularly striking example of the difficulty of studying polygenic phenotypes comes from research on height. 80% of height variation is attributable to inheritance.²¹⁷ Teams of researchers conducting smaller studies of other phenotypes also collected data on patient height and combined all their data into one large study.²¹⁸ They analyzed 63,000 patient samples for approximately 500,000 SNPs each at a cost of roughly \$30,000,000.²¹⁹ The researchers discovered 54 genes involved in determining height, including 40 new genes.²²⁰ Collectively, these genes accounted for only 5% of height variation—only around 1/16 of the total genetically determined height variation.²²¹

As the \$30,000,000 cost of the height study indicates, analyzing data is not the only difficulty when studying complex diseases. Gathering massive quantities of raw data on the chemical composition of a medical sample remains expensive, although it grows easier by the year.²²² Furthermore, collecting medical samples is not trivial. Only licensed medical professionals, whose time is expensive, can collect samples. Researchers must identify or screen sample donors, and may often need to compensate them. Researchers must also take safety precautions to avoid possible infection via blood or other means. Finally, donors must give informed consent to the sample collection and the research.²²³

216. *Id.* at 405. Fellay et al state that [f]urther association signals were detected in the hexokinase 1 gene (HK1) This result is not genome-wide significant, but supported by other lines of evidence: rare HK1 mutations cause severe haemolytic anaemia in both humans and mice; in a recent GWAS, HK1 SNPs associated with differences in Hb concentration and haematocrit in Europeans.

Id.

217. See Peter M. Visscher, *Sizing Up Human Height Variation*, 40 NATURE GENETICS 489, 489 (2008).

218. See *id.* at 489–90 (2008) (reviewing three different studies on height genetics, each of which analyzed the aggregated data acquired during multiple smaller studies).

219. See *id.*

220. See *id.* at 490 (2008).

221. See Teri A. Manolio et al., *supra* note 204, at 747–48 tbl.1 (summarizing the percentage of heritability explained for a variety of physiologic attributes and diseases).

222. See, e.g., Benaglio & Rivolta, *supra* note 169, at 1; *Duke Price List*, *supra* note 170.

223. See generally Dean Troyer, *Biorepository Standards and Protocols for Collecting, Processing, and Storing Human Tissues*, 441 METHODS IN MOLECULAR BIOLOGY 193 (B.C.S. Liu ed.) (describing the technical, administrative, personnel, and ethics requirements for banking medical samples for research).

New research studies often require collecting new samples, rather than reusing old ones. Medical histories of the sample donors must exist to draw correlations with the sample data, but a given collection of donors may not be rich in every syndrome.²²⁴ Although collecting detailed medical histories of donors would increase the potential for sample reuse, ethical limitations apply, because acquiring excessive information can compromise donor anonymity.²²⁵ Sample reuse is also complicated by informed consent. Many research groups and institutions believe it impossible for a donor to grant generic informed consent to all research projects.²²⁶ In one recent scandal, Native Americans who had donated genetic material for diabetes research withdrew their samples from an Arizona research group after discovering that the samples had been used for other research projects, including one that revealed historical inbreeding.²²⁷

The private sector may be better equipped than the public sector to handle studies on complex diseases, because academia favors smaller-scale projects with more scope for innovation by individual investigators and because industry is more easily incentivized to undertake the organizational and funding challenges.²²⁸ Although the human genome project represents a partial counter-example in that the publicly funded project was promoted and completed, organizing political support for large scale science projects can be challenging.²²⁹

224. *See id.* at 204–05, 214 n.5.

225. Indeed, even pure genomic data may be impossible to anonymize. *See* Jennifer Couzin, *Whole-Genome Data Not Anonymous, Challenging Assumptions*, 321 *SCIENCE* 1278 (2008).

226. *But see generally* David Wendler, *One-Time General Consent for Research on Biological Samples: Is It Compatible With the Health Insurance Portability and Accountability Act?*, 166 *ARCHIVES INTERNAL MED.* 1449 (2006) (discussing mechanisms by which generalized consent to research could be made compatible with the HIPAA medical privacy statute).

227. Amy Harmon, *Indian Tribe Wins Fight to Limit Research of Its DNA*, *N.Y. TIMES*, Apr. 21, 2010, at A1, available at https://www.nytimes.com/2010/04/22/us/22dna.html?_r=1.

228. *See, e.g.*, Karow, *supra* note 167. Karow states:

The race to sequence the human genome—now in its final laps—is speeding up. Some three weeks ago, the Maryland company Celera Genomics—a relative newcomer to the track, headed by Craig Venter—appeared to lurch ahead of the favored contestant, the publicly funded Human Genome Project. On April 6, Celera announced that after only seven months of work, they had deciphered close to all 3,000,000,000-odd base pairs, or letters of the genetic alphabet, in the human genome.

Id.

229. *See, e.g.*, Paul Berger, *For Sale: \$20 Million Particle Accelerator, Never Used*, *WIRED* (Sept. 9, 2009, 7:54 PM), at 2, <http://www.wired.com/wiredscience/2009/09/super-collider-gallery/2/> (describing the Superconducting Supercollider, abandoned half-finished in Texas).

Private sector research on complex genetic diseases would be disincentivized by the inability to obtain patents. Diagnostic testing and analysis is regulated lightly by the FDA and, absent any regulatory link to a drug, there is little barrier to entry into the diagnostic market by free riders.²³⁰ Indeed, in 2009 the average post-discovery cost to develop a single-gene diagnostic testing kit was only \$10,000.²³¹ Assuring potential inventors that they can recoup their research costs without competition from free riders is one traditional policy rationale underlying the U.S. patent system.

There is some concern that research on polygenic diseases could be inhibited by thickets of gene patents claiming DNA sequences. Patents on genetic diagnostics are more limited in scope than traditional DNA product patents.²³² Even under the broadest interpretation, modeled on Justice Breyer's *LabCorp* dissent, genetic diagnostics would only confer exclusivity in relation to a specific function of a gene. Newly discovered functions would not be covered, and thus genetic diagnostic patents present less of a concern for this developing field. Furthermore, there is little empirical evidence that such thickets pose a significant problem.²³³

230. See James T. O'Reilly, "Personalized Medicine" *Diagnostic Issues*, 1 FOOD & DRUG ADMIN. § 18:114.50 (3d ed. 2010) (noting that if tests are performed at a central lab, the facility is overseen by the Center for Medicare and Medicaid, but FDA clinical testing is required to distribute testing kits to doctors or pharmacies). When a diagnostic test is coupled to an FDA regulated drug, full pharmaceutical regulations apply. See Jeanene Swanson, *Companion Diagnostics Take Off*, GENOMEWEB (Oct. 2009), <http://www.genomeweb.com/dxpgx/companion-diagnostics-take> (describing the recent surge of "companion" diagnostics approved in connection with drug prescribing, usage, or labelling).

231. SEC'Y'S ADVISORY COMM. ON GENETICS, REVISED DRAFT REPORT ON GENE PATENTS AND LICENSING PRACTICES AND THEIR IMPACT ON PATIENT ACCESS TO GENETIC TESTS, HEALTH, AND SOC'Y, *supra* note 147, at 31.

232. Compare U.S. Patent No. 5,747,282 col. 153 l. 57 (filed June 7, 1995) (claim 1) ("An isolated DNA coding for a BRCA1 polypeptide, said polypeptide having the amino acid sequence set forth in SEQ ID NO:2."), with U.S. Patent No. 6,033,857 col. 169 l. 47 (filed Mar. 20, 1998) (claim 2) ("A method for diagnosing a predisposition for breast cancer in a human subject which comprises comparing the germline sequence of the BRCA2 gene or the sequence of its mRNA in a tissue sample from said subject with the germline sequence of the wild-type BRCA2 gene or the sequence of its mRNA, wherein an alteration in the germline sequence of the BRCA2 gene or the sequence of its mRNA of the subject indicates a predisposition to said cancer."). See also Tina Saladino, Note, *Seeing the Forest Through the Trees: Gene Patents and the Reality of the Commons*, 26 BERKELEY TECH. L.J. 301, 318 (2011).

233. See Lisa Larrimore Ouellette, *Access to Bio-Knowledge: From Gene Patents to Biomedical Materials*, 2010 STAN. TECH. L. REV. N1, N11-13 (2010).

B. DIAGNOSTIC METHOD PATENTS CAN INCENTIVIZE THERAPY DEVELOPMENT

One traditional rationale for patents is that they provide an incentive for risky or expensive research and development.²³⁴ Patents on diagnostic methods can not only incentivize discovery and development of complex diagnostics,²³⁵ but they can also incentivize the discovery and development of new medical therapies. A diagnostic method patent can act as a drug target patent for therapy development.²³⁶ Furthermore, the FDA has approved some therapies that can only be prescribed after performing a companion diagnostic test.²³⁷ Patents on such companion diagnostics increase the chances that the inventor's exclusive right to provide the treatment will survive litigation by generic drug manufacturers.²³⁸ If a companion diagnostic patent is filed after the physical drug patent, the diagnostic patent will extend the functional term of patent protection.²³⁹

As biomedical science develops, it is increasingly possible to understand the causes and consequences of diseases at a molecular level. This understanding enables highly specific diagnostics based on the presence of particular alleles, proteins, or metabolites. At the same time, detailed molecular understanding of a disease lets researchers design therapies that directly target the molecular mechanism causing a disease. These parallel

234. See Kitch, *supra* note 203, at 266, 276–78; Menell & Scotchmer, *supra* note 203, at 1525; Sichelman, *supra* note 203, at 373–76.

235. See *supra* Section III.A.

236. Cf. Marvin M. Goldenberg, *Trastuzumab, a Recombinant DNA-Derived Humanized Monoclonal Antibody, a Novel Agent for the Treatment of Metastatic Breast Cancer*, 21 CLINICAL THERAPEUTICS 309, 309 (1999) (stating that the HER2 protein acts as a diagnostic biomarker for a class of breast cancers, because HER2 has carcinogenic activity. Genentech developed a therapy that specifically disrupts that carcinogenic activity.).

237. See Swanson, *supra* note 230 (“The Personalized Medicine Coalition, a nonprofit advocacy group, reports that there are currently about 40 drugs in the US that have companion diagnostic tests associated with them—whether that means as a requirement to their being prescribed, a recommendation for use, or label information that lists genetic susceptibility relating to efficacy or dose.”).

238. See Gregory J. Glover, *Securing Exclusivity for Your Product Throughout Its Life Cycle*, 878 PLI/PAT 609, 614, 616–19 (2006) (stating that the FDA allows generic manufacturers to submit generic drugs for approval only if the relevant “Orange Book” patents covering the original drug are expired or invalid, therefore if a “method of using such drug” is patented, a generic manufacturer must invalidate two patents to enter the market).

239. See 35 U.S.C. § 154 (2006) (providing that patent terms in the United States run for fixed periods from the date of filing—presumptively twenty years, but subject to patent term modifications).

applications of basic medical discoveries interact in important ways, illustrated by the following example from the genetics of cancer biology.

Cancers are polygenic diseases. For cancer to arise, cells must collect a series of mutations in their DNA, with each mutation conferring new traits.²⁴⁰ For example, the “parent” cell which grows into a prostate tumor might first acquire a mutation that makes it likely to acquire mutations quickly.²⁴¹ The cell might then need to acquire mutations allowing it to grow more quickly, to avoid natural cell death pathways that would limit its lifespan, to avoid the immune system’s cancer monitoring processes, and to obtain adequate blood supply.²⁴² This list of functional shifts en route to becoming full blown cancer is non-exhaustive, and each functional shift could be enabled by mutations to different single genes or combinations of genes.²⁴³

Even though two cancers of the same general type might appear similar, the different mutations they acquire might mean that they are different at the cellular and molecular level.²⁴⁴ For example, a subset of cancers might express a molecule that confers resistance to chemotherapy, while expression of another molecule might make another subset of cancers a promising target for developing a new chemotherapy. One prominent example is the *HER2*-type breast cancer.²⁴⁵ The *HER2* gene is mutated in a subset of breast cancers.²⁴⁶ Unlike *BRCA*, *HER2* mutations are not generally inherited and therefore are not easily tested for as an indicator of increased risk of developing breast cancer.²⁴⁷ Instead, *HER2* can become mutated in a single cell so that the *HER2* gene makes elevated levels of *HER2* protein, which can lead to cancer.²⁴⁸ Genentech recognized that *HER2* mutations were implicated in a subset of breast cancers and developed a therapy that

240. LODISH, *supra* note 155, at 940–41.

241. *Id.* at 964.

242. *Id.* at 951–61.

243. *Id.*

244. *See, e.g.*, William D. Foulkes et al., *Triple-Negative Breast Cancer*, 363 *NEW ENG. J. MED.* 1938 (2010) (reviewing the varied properties of breast cancers that have no known cancer gene).

245. *See* Goldenberg, *supra* note 236, at 309.

246. *See* Foulkes et al., *supra* note 244, at 1939 (stating that 15–20% of breast cancers have extra copies of *HER2*).

247. *See* P. Kenemans et al., *Oncogenic Pathways in Hereditary and Sporadic Breast Cancer*, 49 *MATURITAS* 34, 37 tbl. 1 (2004).

248. Frédérique Penault-Llorca et al., *Emerging Technologies for Assessing HER2 Amplification*, 132 *Am J Clin Pathol* 539, 539 (2009).

inhibited HER2 protein activity and turned it partially “off.”²⁴⁹ Based on the mechanism of the treatment, the HER2 inhibition therapy is effective only against breast cancers expressing the HER2 protein.²⁵⁰

Because cancers are so varied and respond to different therapies, matching potential therapies to specific cancer subtypes can be essential for proving efficacy in FDA clinical trials. Indeed, Genentech’s current goal is to always have a matching diagnostic test when they initiate clinical trials.²⁵¹ Some doctors believe that the FDA’s recent withdrawal of provisional approval for the cancer drug Avastin could have been avoided if a diagnostic test existed that could specifically identify the small fraction of patients for whom the drug is effective.²⁵²

While increasing the odds of FDA approval is a powerful incentive to discover diagnostics that help target therapies, granting patents on such diagnostics can also be a valuable means of incentivizing therapy development. Additionally, granting patents on diagnostics with therapeutic tie-ins can discourage a particularly unproductive form of drug development gamesmanship which has been rising in the pharmaceutical industry—the creation of marginally distinctive “mimic” or “me too” drugs which, unlike true generics, can win patent protection and require full FDA testing prior to approval.²⁵³

249. See Goldenberg, *supra* note 236, at 309. The treatment’s precise mechanism of action is uncertain. See Rebecca A. Burrell, *Targeting Chromosomal Instability and Tumour Heterogeneity in HER2-Positive Breast Cancer*, 111 J. CELLULAR BIOCHEMISTRY 782, 783 (2010) (“Trastuzumab has multiple potential mechanisms of action”).

250. Frédérique Penault-Llorca et al., *supra* note 248, at 540.

251. *Personalized Medicine Could Shake Up Drug Industry*, EUROPEAN AIDS TREATMENT GROUP (Apr. 3, 2010), <http://www.eatg.org/eatg/Global-HIV-News/Pharma-Industry/Personalized-medicine-could-shake-up-drug-industry>. A Genentech spokeswoman stated that “Genentech is always looking for biomarkers to help identify patients for its new drugs and builds biomarkers into all of its pipeline products.” *Id.*

252. Andrew Pollack, *F.D.A. Rejects Use of Drug in Cases of Breast Cancer*, N.Y. TIMES, Dec. 16, 2010, at A1, available at <https://www.nytimes.com/2010/12/17/health/policy/17drug.html> (“Many experts said Avastin appeared to help some patients live longer. But right now, it is impossible to predict in advance which patients. If Genentech could figure out how to predict this—such as by a genetic test—it would clear the way for the drug to retain approval for a subset of patients.”).

253. Robert A Bohrer, *Reach-Through Claims for Drug Target Patents: Rx for Pharmaceutical Policy*, 26 NATURE BIOTECHNOLOGY 55, 55–56 (2008); Ron A. Bouchard et al., *The Pas de Deux of Pharmaceutical Regulation and Innovation: Who’s Leading Whom?*, 24 BERKELEY TECH. L.J. 1461, 1482 (2009) (“Specifically, we argue that the global pharmaceutical industry is leaning away from the development of new drugs and towards incremental changes in existing drugs as a result of firms locking in to discrete IPR rights targets provided for by law.”).

Patents currently play a major role in incentivizing therapy development. Therapy development comprises two stages: first, initial discovery and pre-clinical development, and second, clinical trials mandated by the FDA.²⁵⁴ In the biotechnology industry, initial discovery and development costs an average of \$615 million, including capital costs and accounting for failures, while FDA mandated clinical testing adds another \$626 million.²⁵⁵

Although exclusive rights conferred by patents play a role in incentivizing companies to move forward with FDA trials, the clinical testing itself represents a significant barrier to entry—both as an expense and as a regulatory hurdle. In some instances, generic drug manufacturers can avoid having to repeat clinical trials, but only if the original drug maker has no valid patents covering the drug.²⁵⁶ As a result, certain companion diagnostics might reduce risk for a company considering entering clinical trials, and thereby increase drug development incentives. Yet, in the case of biologic medicines like purified proteins, the clinical trial barrier often provides insurmountable exclusivity.²⁵⁷ Thus, FDA approval can itself confer first movers with benefits that parallel the exclusive right granted by patent. Yet even in these cases, patents can still confer beneficial exclusivity, because nearly half the cost of therapy development occurs before the FDA approval process has begun.²⁵⁸

Patents are most important for biologic medicines at the discovery and development stage. At this stage a company may try a wide array of formulations as a potential therapy. A company developing a traditional small-molecule pharmaceutical might test hundreds or thousands of potential drugs to determine whether they have promising effects in a relatively affordable system, possibly cells grown on a lab bench or laboratory mice.²⁵⁹ A drug company then generally synthesizes a collection of potential drugs similar to the best initial candidates and repeats the testing, at some point moving to more expensive preclinical and clinical testing of the most

254. Joseph A. DiMasi & Henry B. Grabowski, *The Cost of Biopharmaceutical R&D: Is Biotech Different?*, 28 *MANAGERIAL & DECISION ECON.* 469, 477 (2007).

255. *Id.*

256. Glover, *supra* note 256, at 618–19.

257. See DiMasi & Grabowski, *supra* note 254, at 477; Linfong Tzeng, Note, *Follow-on Biologics, Data Exclusivity, and the FDA*, 25 *BERKELEY TECH. L.J.* 135, 141 (2010).

258. *Cf.* DiMasi & Grabowski, *supra* note 254, at 477 (discovering that, in the biotechnology industry, \$615 million of the \$1.241 billion cost of drug development is incurred before clinical trials begin).

259. See, e.g., *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356–63 (Fed. Cir. 2007) (describing discovery of diabetes drug in the context of obviousness analysis); *In re Brana*, 51 F.3d 1560, 1562–63 (Fed. Cir. 1995) (describing discovery of a cancer chemotherapy agent in the context of utility analysis).

promising candidates.²⁶⁰ Similarly, a biotechnology company attempting to turn off a protein like HER2 using an antibody may test many monoclonal antibodies, each of which attaches to the target protein in a different way or at a different epitope location on the protein.²⁶¹

While the physical products tested are patentable, they are all targeted to a single market. Like patients with high cholesterol who take only a single statin (such as Lipitor), patients will generally receive little benefit from taking two drugs with the same mode of action.²⁶² This means that the exclusivity benefit of a product patent is severely compromised, because a competitor need not replicate any specific therapy to enter the market. This potential for competition might have little effect on incentives to develop potential “blockbuster” drugs, but it could harm incentives to develop more economically marginal therapies.

Lack of economic incentives to develop drugs for small markets—termed “orphan” drugs—is a long standing problem in the pharmaceutical industry. The Orphan Drug Act somewhat addresses this problem by granting seven years of exclusivity post-FDA approval.²⁶³ This problem is increasingly significant because the parallel growth of new diagnostics and targeted therapeutics actually creates smaller potential markets as it

260. See, e.g., *Takeda* 492 F.3d at 1356–63.

261. See Davinder S. Gill, *Protein Pharmaceuticals: Discovery and Preclinical Development*, in PHARMACEUTICAL BIOTECHNOLOGY 28, 29 (Carlos Alberto Guzman & Giora Z. Feuerstein eds., 2009) (describing wide scope of the initial screening process and stating “[i]ncreasingly however, the trend has been to carry out functional assays upfront where possible”).

262. See Robert J. Herman, *Drug Interactions and the Statins*, 161 CAN. MED. ASS’N J. 1281, 1285 (1999) (“Drug interactions commonly occur in patients taking multiple medications. Although there may be some differences in the potential for statin preparations to be involved in serious adverse drug reactions, in general, they have a proven record of safety and efficacy in large clinical studies.”). Although mimic drugs often provide little benefit over the first drug in a family, one important exception occurs in anti-retroviral combination therapy against H.I.V. Although many of the best combination therapies rely on drugs with different modes of action (e.g., a nucleoside analog inhibitor (NAI) and a protease inhibitor), combinations of NAIs are more effective than treatment with a single NAI. See Stefano Alcaro, *Molecular and Structural Aspects of Clinically Relevant Mutations Related to the Approved Non-Nucleoside Inhibitors of HIV-1 Reverse Transcriptase*, DRUG RESISTANCE UPDATES at 1 (Feb. 3, 2011) (electronic publication ahead of print, available online at http://www.science.direct.com/science?_ob=MImg&_imagekey=B6WDK-523DFN2-1-1&_cdi=6769&_user=4420&_pii=S1368764611000033&_origin=search&_coverDate=02%2F03%2F2011&_sk=999999999&view=c&wchp=dGLzVzz-zSkzS&md5=a50b32d956bfb9d85562538fd623d25d&ie=/sdarticle.pdf). This advantage is driven by the unique dynamics of H.I.V. infection, a life-long disease capable of rapid evolution during the course of a single infection. *Id.*

263. See 21 U.S.C. § 360cc (2006). Orphan drug development also receives tax incentives. See Small Business Job Protection Act of 1996, Pub. L. No. 104-188 § 1205.

subdivides diseases. For example, not every breast cancer is a *HER2* breast cancer.²⁶⁴ Even if the subdivision does not create a true orphan disease, it may create markets so small that they can only support a single drug with any given mode of action. Thus, after the first drug with a given mode of action is approved, it may not make sense for another firm to develop a mimic with the same mode of action. A firm might even decline to continue development if another drug of the same class has already entered the FDA process, reasoning that if the first drug succeeds, the market will be too small to justify development costs, while if the first drug fails, the odds that the second fails will increase too much to justify development costs. Such behavior would not greatly harm the public interest, because one drug would already exist. Indeed, creation of non-identical mimic therapies is a wasteful expenditure of scientific resources incentivized by the current patent and FDA approval system.²⁶⁵ Furthermore, it should be easy for firms to determine which among them has won the race at each stage of FDA testing.

In contrast, initial discovery and development is more opaque. Even when firms choose to publicize their early progress, the lack of clear benchmarks and presence of undiscovered hurdles make it difficult to determine if any firm has an insurmountable lead. The risk of coming in second can of course create an incentive to rush forward with development, but the limited term of patent protection and the costs of research capital already provide incentives for speed. More significantly, the risk of finishing second can discourage early stage development entirely.

Patents on molecular diagnostics required for therapy can act as patents on particular modes of drug action.²⁶⁶ Such patents encourage companies to invest in discovery and initial development by removing uncertainty regarding potential competition.²⁶⁷ The patents simultaneously deter pharmaceutical companies from socially wasteful investments in mimic therapeutics.²⁶⁸ DNA product patents have served a similar role in the biotechnology industry.²⁶⁹ The therapy incentivizing role of genetic diagnostics would be particularly valuable if DNA product patents are

264. See Foulkes, *supra* note 244.

265. See Bouchard, *supra* note 253, at 1482.

266. See Bohrer, *supra* note 253, at 55.

267. This is a traditional “prospect” rationale for the patent system. See Kitch, *supra* note 203, at 266, 276–78; Menell & Scotchmer, *supra* note 203, at 1525.

268. See Bohrer, *supra* note 253, at 55.

269. See Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1676–77 (2003).

invalidated.²⁷⁰ Indeed, diagnostic correlation patents represent a less preclusive alternative to traditional DNA purified product patents.²⁷¹ Unlike a product patent, which precludes all use of a particular gene, a genetic diagnostic patent is limited to the context of a specific disease. Thus, a genetic diagnostic patent cannot preclude undiscovered roles for the gene. It follows that diagnostic method patents can function as narrow “target” patents, providing exclusivity to incentivize therapy development targeting a specific gene or gene-product as it functions to cause a specific disease.

C. DIAGNOSTIC METHOD PATENTS CAN INCENTIVIZE BENEFICIAL INACTION

Medical therapies do not always cure. As discussed in Section III.B., cancers are varied and often a therapy will only work against a specific subtype. Not every breast cancer makes HER2, so not every breast cancer is treatable with Genentech’s anti-HER2 drug, Avastin.²⁷² Similarly, certain patients cannot metabolize particular drugs into medically active forms. The *Prometheus* thiopurines serve as just one example.²⁷³

These therapies can be expensive and have dangerous side effects. Chemotherapy agents for cancer treatment are famously harsh.²⁷⁴ The *Prometheus* diagnostic is useful in part because it helps doctors protect their patients from toxic concentrations of thiopurine metabolites.²⁷⁵ Knowing under what circumstances a drug will work can be extremely valuable in obtaining FDA approval.²⁷⁶ After full FDA approval, although patients would benefit from knowledge of what subsets of disease a drug will treat, that same knowledge might financially harm drug companies and medical

270. See *Ass’n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181, 232 (S.D.N.Y. 2010) (holding DNA product patents invalid under 35 U.S.C. § 101); Saladino, *supra* note 232, at 318.

271. See *supra* note 232.

272. Foulkes, *supra* note 244.

273. See generally Wang, *supra* note 135, at 6–9 (discussing thiopurine metabolism and other genetic pathways that influence drug efficacy).

274. See *Chemotherapy Side Effects Fact Sheets*, NATIONAL CANCER INSTITUTE, <http://www.cancer.gov/cancertopics/coping/chemo-side-effects> (last visited Feb. 16, 2011); *Chemotherapy Effects*, AMERICAN CANCER SOCIETY, <http://www.cancer.org/Treatment/TreatmentsandSideEffects/PhysicalSideEffects/ChemotherapyEffects/index> (last visited Feb. 16, 2011).

275. *Prometheus Labs., Inc. v. Mayo Collaborative Servs. (Prometheus II)*, 581 F.3d 1336, 1339 (Fed. Cir. 2009).

276. See EUROPEAN AIDS TREATMENT GROUP, *supra* note 251; Pollack, *supra* note 252.

service providers because it would limit the market for the drug.²⁷⁷ Diagnostic method patents can provide a financial incentive to develop diagnostics in these situations where incentives for overtreatment might otherwise suppress continued efficacy research.

If drug pricing were based entirely on medical value, the price of drugs needed to cure five patients of a given disease might always be the same. It would make little difference if doctors had to give the drug to one hundred patients to cure five, or whether they had to give the drug to only five patients. Indeed, if the pricing accounted for negative side effects, the cost to cure five out of five patients might actually be higher than the cost to cure five out of one hundred. In fact, the market-based pricing currently dominant in the United States can have the opposite result. Marketing—both to physicians and direct to consumers (DTC)—can increase demand beyond what a drug’s effectiveness would dictate, as the patients pay a premium for hope.²⁷⁸ Arguably, a modest “hope premium” could actually reflect real benefits of the placebo effect.

A company holding the patent on an FDA approved drug could capture this lost hope premium by charging for the diagnostic test itself. This capture might be difficult absent patent protection that enables a price premium. Importantly, the drug owner could best recapture its lost hope premium if it discovered the diagnostic. If another company such as Prometheus, Metabolite, or Myriad Genetics discovered the diagnostic, it could market and sell the test itself, or charge the drug-maker for a license. This creates an incentive for pharmaceutical and biotechnology firms to research market-limiting diagnostics for their own drugs. Such an incentive benefits the public, because the firm that develops a drug has inherent advantages that make its continuing research more efficient. The original innovator has an advantage in aggregating data related to its own sales and may employ or have partnerships with medical researchers who acquired expertise on the drug during the development process. Granting patents on market-limiting discoveries discourages pharmaceutical companies from letting these natural advantages go to waste and instead encourages their use for the private and public benefit.

277. See Paula Tironi, *Pharmaceutical Pricing: A Review of Proposals to Improve Access and Affordability of Prescription Drugs*, 19 ANNALS HEALTH L. 311, 340 (2010).

278. See Eileen M. Kane, *Patent-Mediated Standards in Genetic Testing*, 2008 UTAH L. REV. 835, 841–42 (2008); Tironi, *supra* note 277, at 343. See generally CONG. BUDGET OFFICE, *PRESCRIPTION DRUG PRICING IN THE PRIVATE SECTOR* (2007), available at www.cbo.gov/doc.cfm?index=7715 (describing factors other than “hope” that influence drug prices).

Granting diagnostic method patents also provides an incentive for firms to promote their tests. Exclusivity prevents generic competitors from free-riding on marketing expenses.²⁷⁹ This pattern of increased marketing of patented products is widespread in the pharmaceutical industry, as marketing is an extremely effective means of affecting physician and patient behavior.²⁸⁰ This influence is often characterized as pernicious, but it can be harnessed for positive ends. Physicians are notoriously bad at adopting best practices as they are discovered.²⁸¹ Incentivizing the aggressive marketing of diagnostics tests for which physicians can charge and that bring patient care more in line with best practices can help improve public health while living within the suboptimal overtreatment incentives of the American healthcare system.²⁸²

D. DIAGNOSTIC METHOD PATENTS WILL BECOME DIFFICULT TO ENFORCE AGAINST PATIENTS AND THEIR DOCTORS

A major policy argument against granting diagnostic method patents is that patents increase testing costs, thereby burdening patients. The Association of Molecular Pathology argued this in the Southern District of New York and the court noted that Myriad Genetics' *BRCA* test costs \$3000 in the United States, while similar tests retail for one-third of that cost just over the Canadian border, where the patent is not enforced.²⁸³ The basis for this concern is fading, however, as it becomes possible for patients to analyze their own genome, proteome, or metabolome.²⁸⁴ This option will both save

279. See Kitch, *supra* note 203, at 266, 277.

280. See Ashley Wazana, *Physicians and the Pharmaceutical Industry: Is a Gift Ever Just a Gift?*, 283 JAMA 373, 378–79 (2000); NO FREE LUNCH, <http://www.nofreelunch.org> (last visited Feb. 16, 2011).

281. See Ford Fessenden, *Quick, What Do You Give a Heart Attack Patient?*, N.Y. TIMES, Aug. 28, 2005, at 14NJ, available at <https://www.nytimes.com/2005/08/28/nyregion/nyregionspecial2/28njHEART.html#> (discussing low conformity with best practices in heart attack and pneumonia care, revealed in a national survey of hospitals, and stating “[d]octors can be stubborn . . . [you need] physician buy-in”).

282. Cf. Atul Gawande, *The Cost Conundrum: What a Texas Town Can Teach Us About Health Care*, NEW YORKER (June 1, 2009), http://www.newyorker.com/reporting/2009/06/01/090601fa_fact_gawande#ixzz1GXmxhRZV (describing how reimbursement practices incentivize doctors to over-treat patients, resulting in high Medicare costs in McAllen, TX).

283. *Ass'n for Molecular Pathology v. U.S. PTO*, 702 F. Supp. 2d 181, 203 (S.D.N.Y. 2010).

284. See, e.g., Steven L. Salzberg & Mihaela Pertea, *Do-It-Yourself Genetic Testing*, 11 GENOME BIOLOGY at 1 (2010) (announcing the successful design of software for home analysis of *BRCA* phenotype using only files with raw data from Illumina sequencing, and announcing that the authors were sharing this free, open source software with the public); see also Kevin E. Noonan, *“At-Home” Testing for BRCA Gene Mutations*, PAT. DOCS: BIOTECH & PHARMA PAT. & NEWS BLOG (Oct. 13, 2010, 11:46 PM), <http://www.patentdocs.org/>

money for patients who avail themselves of the opportunity and likely create some downward pressure on prices for patented diagnostics, in a manner analogous to purchases of prescription drugs from Canada.²⁸⁵

The “omics” revolution has led to increasing automation of data-collection, enabling large amounts of raw data to be collected semi-randomly. Data collection companies and core research facilities specialize in gathering this raw data and delivering it for analysis.²⁸⁶ A patient receiving this raw data may be able to analyze it independently. For example, a patient whose entire genome has been sequenced might be able to search for *BRCA* mutations.²⁸⁷ Such self-diagnosis would be particularly achievable if patients had access to software that can perform the data analysis for them. While creators and distributors of such software might be liable for patent infringement, the software could be designed with relative ease by patient or public domain activists and spread via the same distribution channels that currently bedevil record companies and the RIAA. Alternatively, a patient might email the raw data overseas for analysis, or send a tissue sample to Canada or India. Overseas processing and re-importation of test results could potentially violate 35 U.S.C. § 271(f) or § 271(g). This result is far from clear and infringement by individuals within the United States may be more likely than off-shoring.²⁸⁸

Given that an entire genome sequence will have non-infringing uses, holders of patents on pure genetic diagnostics like the *BRCA* patents will have little ability to enforce their patent rights against providers of whole genome sequencing. The remaining enforcement options are unenviable. Tracking down and suing individuals for single acts of infringement is expensive and inefficient. Faced with a similar dynamic as internet music

2010/10/at-home-testing-for-brca-gene-mutations.html (summarizing Salzberg & Pertea, and discussing the significance of their work). Noonan notes that at-home testing lacks the support and educational capability of medical settings, potentially creating emotional and other hardships for self-diagnosers. *Id.*

285. See Michael J. Rosenquist, *U.S. v. Rxdepot: The Battle Between Canadian Store-Front Companies, the FDA and Brand-Name Companies*, 9 MARQ. INTELL. PROP. L. REV. 423, 430–31 (2005); Luke W. Cleland, *Modern Bootlegging and the Prohibition on Fair Prices: Last Call for the “Repeal” of Pharmaceutical Price Gouging*, 15 ALB. L.J. SCI. & TECH. 183, 185–86 (2004).

286. See, e.g., DUKE INSTITUTE FOR GENOME SCIENCES AND POLICY: TECHNOLOGIES AND CORE FACILITIES, <http://www.genome.duke.edu/cores/index.php> (last visited February 28, 2011).

287. See Salzberg & Pertea, *supra* note 284.

288. Amy E. Hayden, Note, *Cardiac Pacemakers v. St. Jude Medical: The Federal Circuit Has Re-opened the DeepSouth Loophole for Method Claims*, 26 BERKELEY TECH. L.J. 197, 215 (2011).

sharing grew widespread, the Recording Industry Association of America (RIAA) pursued a strategy of deterrent “show trials” with only modest success.²⁸⁹ A woman seeking a double mastectomy after discovering a *BRCA* mutation in her genome sequence would likely make a more sympathetic defendant than a college student sharing music. Any deterrent “show trial” following the RIAA model would have uncertain results at trial and would invite Congressional action in the form of a liability exemption like § 287(c).²⁹⁰

Alternatively, Myriad Genetics might bring suit against doctors or insurance companies for contributory infringement under 35 U.S.C. § 271(b) if they perform a prophylactic mastectomy on a *BRCA* gene carrier.²⁹¹ Even if courts were willing to find contributory infringement after the patient had already performed the infringing act, it would be hard to prove that the treatment decision was based on the diagnostic. Again, such suits might even invite Congressional action in the form of another liability exemption. Finally, personal analysis of one’s own genome could easily be construed as falling under the “idle curiosity” experimental use exemption.²⁹²

Diagnostic tests closely tied to specific treatments, like the *Prometheus* test, are less susceptible to at-home infringement. The *Prometheus* test can only be performed using patient samples collected during a course drug treatment.²⁹³ Thus, it is unlikely that patient whose blood was drawn in the necessary window and analyzed for a broad collection of metabolites would have a non-infringing purpose, and such testing would likely create a strong inference of contributory infringement by the hospital or testing center.

In sum, it will be difficult to enforce diagnostic method patents against individuals empowered to analyze their own medical data. The exceptions to this difficulty occur with the very diagnostics that are least controversial—those that necessarily involve unique testing procedures or that are coupled to a prior medical treatment. Given that the burden of diagnostic method

289. See Ken Nicholds, *The Free Jammie Movement: Is Making A File Available to Other Users over A Peer-to-Peer Computer Network Sufficient to Infringe the Copyright Owner's* 17 U.S.C. § 106(3) *Distribution Right?*, 78 FORDHAM L. REV. 983, 990–91 (2009).

290. 35 U.S.C. § 287(c) (2006); see also *Pallin v. Singer*, 36 U.S.P.Q.2d (BNA) 1050 (D. Vt. 1995) (the proximal cause of Congressional action).

291. See 35 U.S.C. § 271(b) (2006) (“Whoever actively induces infringement of a patent shall be liable as an infringer.”).

292. See *Madey v. Duke Univ.*, 307 F.3d 1351, 1362 (Fed. Cir. 2002) (discussing and restricting the scope of the research exemption).

293. See U.S. Patent No. 6,355,623 col. 20 l. 13 (filed April 8, 1999) (claiming as the methods first step “administering a drug”).

patents on individual patients will weaken substantially, weight should be placed on the value of these patents as incentives for research and development.

IV. CONCLUSION—THE POSSIBLE STANDARDS FOR MEDICAL DIAGNOSTICS

Section 101 is sometimes framed as a space to hash out competing policy arguments, and medical diagnostics are no exception. A rational standard must balance the goals of broad medical access and unfettered research against the goal of preserving incentives for therapy development, complex disease diagnostics, and beneficial inaction. A variety of standards might suffice, including the Federal Circuit's continued application of the machine-or-transformation test.

The importance of diagnostic patents in therapy development and as incentives for inaction weighs in favor of some form of patentability. Similarly, although discovery grows easier, significant hurdles remain, particularly for more complex diagnostics. Given that the potential of diagnostic patents to harm patients is likely to decrease substantially, the fact that some less complex diagnostics might still be discovered without patent incentives should not be a dispositive argument against the patentability of the entire class of discoveries. Indeed, to the extent that a diagnostic correlation is trivial to discover, obviousness doctrine should be applied to prohibit patentability.

Some important policy goals facilitated by diagnostic method patents are unrelated to actual therapies. For example, the discovery of complex diagnostics might enable valuable life-planning by patients, without connection to medical therapy. Thus, the human intervention standard—narrowly construed—would not be an ideal compromise for preserving the ability to patent diagnostic correlations.

The potential of diagnostic method patents to restrict further research is particularly dangerous. This possibility could be limited by a standard under which diagnostic correlation patents are read narrowly. Alternatively, forceful application of the written description standard might help to limit broad preclusive effects of these patents.

The courts already have doctrinal tools that favor socially valuable patents. A blanket prohibition on diagnostic method patents under § 101 would needlessly undermine the positive effects of these patents. Regardless of the ultimate result, wise judicial decision-making will require a nuanced understanding of biomedical science and industry dynamics.

RESCUE ME!: THE ATTACK ON SETTLEMENT NEGOTIATIONS AFTER *RESQNET V. LANSA*

Parker Kuhl[†]

Patent litigation often results in settlement with the parties agreeing to a license involving the patent-in-suit.¹ Licenses arising out of litigation are commonly referred to as settlement licenses or litigation licenses. The terms of a license resulting from settlement negotiations may depend on many factors such as the technology involved, the competitive position of the parties, the anticipated cost of further litigation, and the relative strengths of each party's claims.² Prior licenses involving the patent-in-suit play a central role in establishing damages for patent infringement. Although parties emphasize prior licenses, courts have traditionally deemed settlement licenses inadmissible as evidence due to the concern that these licenses lack adequate probative value. Courts have found that two considerations weigh against admission: the complexities of litigation and the multitude of factors unrelated to the value or validity of a patent that nonetheless affect the parties' decision to settle.³ Despite the traditional bias against admitting settlement licenses, the Federal Circuit's opinion in *ResQNet.com Inc. v. Lansa Inc.*⁴ brought the issue of admissibility of settlement licenses back into question.

In *ResQNet*, the Federal Circuit vacated and remanded a damage award for patent infringement because the district court improperly determined the reasonable royalty rate.⁵ After evaluating the various licenses considered by the district court, the Federal Circuit stated that "the most reliable license in

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1. PETER S. MENELL ET AL., PATENT CASE MANAGEMENT JUDICIAL GUIDE §§ 1.2, 2.6.8 (2009).

2. *Fenner Invs, Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *3 (E.D. Tex. Apr. 28, 2010) (listing possible reasons parties enter into settlements, including "cost of additional litigation," "relative financial positions of the parties," the "risk of a sizeable verdict against a defendant," and the risk of "a finding of invalidity or unenforceability against a plaintiff").

3. *See infra* Section I.C.

4. *See generally* *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860 (Fed. Cir. 2010).

5. *Id.* at 868.

this record arose out of litigation.”⁶ Based on this statement, some district courts have expanded admissibility of settlement licenses in patent cases and have also opened up discovery of the underlying settlement negotiations,⁷ leaving litigators and other courts questioning how licenses arising out of settlement negotiations may be used in future litigation.⁸ Of particular interest is the inconsistent treatment of settlement licenses within the Eastern District of Texas.⁹ This uncertainty is causing parties to fear that negotiations in one case will be used against them down the road, which could have a significant chilling effect on settlement generally.

This Note attempts to address several issues arising from the *ResQNet* decision. Part I reviews the discovery and admissibility of litigation-induced licenses as well as their underlying negotiations. Part II discusses the *ResQNet* case and how district courts have interpreted the opinion. Part III addresses three key questions arising from *ResQNet*: (1) to what extent settlement licenses and negotiations should be admissible or discoverable in the wake of the *ResQNet* decision; (2) if admitted, how settlement licenses should factor into a reasonable royalty analysis; and (3) how increased admissibility might affect patent litigation and settlement negotiations. This Note argues that courts should decide the admissibility of settlement licenses on a case-by-case basis so that judges can balance the relevant rules of evidence and civil procedure in making these determinations. It also argues that increased discovery of settlement negotiations based on *ResQNet* conflicts with the recent judicial policy trend to promote settlement, and that the justification being used to support discovery relies on a flawed assumption regarding the reliability of settlement communications.

I. BACKGROUND ON SETTLEMENT LICENSES AND NEGOTIATIONS

A. USE OF LICENSING AGREEMENTS IN REASONABLE ROYALTY CALCULATIONS

In patent infringement cases, federal statute provides for “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.”¹⁰ In

6. *Id.* at 872.

7. *See infra* Section II.C.

8. *See infra* Section II.C.

9. *See infra* Section II.C.1.

10. 35 U.S.C. § 284 (2006).

the absence of an established royalty rate, courts base damages on a reasonable royalty, which is “that amount which would have been set in a hypothetical negotiation between a willing patent owner and a willing potential user as of the date when the infringement began in fact and on the assumption that the patent was valid and entitled to respect.”¹¹ In *Georgia-Pacific Corp. v. United States Plywood Corp.*, the Southern District of New York identified fifteen factors for courts to consider when determining a reasonable royalty.¹² Under the first factor, courts should look to “royalties

11. 7 DONALD S. CHISUM, CHISUM ON PATENTS § 20.03 (2010).

12. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). The factors are:

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promot[e]r.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
14. The opinion testimony of qualified experts.

received by the patentee for the licensing of the patent-in-suit, proving or tending to prove an established royalty.”¹³ Among these factors, the factor that looks to prior and existing licenses involving the patent-in-suit is often the most influential.¹⁴ Despite the emphasis placed on direct licenses for the disputed technology, courts have traditionally held licenses arising out of litigation inadmissible because they are not probative of a hypothetical negotiation between the two parties at the time the infringement began, even if the licenses involve the patent-in-suit.¹⁵ The Supreme Court took this position over a century ago in *Rude v. Westcott*, stating:

It is clear that a payment of any sum in settlement of a claim for an alleged infringement cannot be taken as a standard to measure the value of the improvements patented, in determining the damages sustained by the owners of the patent in other cases of infringement. Many considerations other than the value of the improvements patented may induce the payment in such cases. The avoidance of the risk and expense of litigation will always be a potential motive for a settlement.¹⁶

The statement in *ResQNet* that the most reliable license in the record arose out of litigation is at odds with the traditional bias against using settlement licenses to determine patent damages. Part III, *infra*, explores the implications of the potential use of settlement license in royalty analysis in the wake of *ResQNet*.

15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

Id.

13. *Georgia-Pacific*, 318 F. Supp. at 1120.

14. 7 CHISUM, *supra* note 11, § 20.03.

15. *Rude v. Westcott*, 130 U.S. 152, 164 (1889); *see also* *Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc.*, 860 F. Supp. 1448, 1452 (C.D. Cal. 1993) (“It is a century-old rule that royalties paid to avoid litigation are not a reliable indicator of the value of a patent, and should therefore be disregarded when determining reasonable royalty rates.”).

16. *Rude*, 130 U.S. at 164.

B. USE OF LICENSES TO SUPPORT VALIDITY

Prior licenses can also provide evidence of nonobviousness to support a claim of validity.¹⁷ In *Graham v. John Deere*, the Supreme Court held that in determining the nonobviousness of an invention under 35 U.S.C. § 103, courts should consider (1) “the scope and content of the prior art,” (2) “differences between the prior art and the claims at issue,” and (3) “the level of ordinary skill in the pertinent art.”¹⁸ Additionally, the Court stated that commercial success was a “secondary consideration” that “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.”¹⁹ Some courts consider licensing by market competitors to be an indication of commercial success supporting validity based on the theory that competitors would not willingly agree to pay for the technology if they did not believe the patent was valid.²⁰

Although commercial success is recognized as a secondary consideration, its relevance is disputed by courts.²¹ Also, the same litigation issues that cause concern about the value of settlement licenses in determining damages also apply when using these licenses to show the nonobviousness of a patent. Thus, prior licenses that have been influenced by litigation may be even less relevant to proving nonobviousness via commercial success than other licenses. If the decision in *ResQNet* results in increased admission of settlement licenses, courts should be aware of the questionable value of these licenses for determining nonobviousness in addition to damages.²² Section III.A, *infra*, further discusses how the potential use of settlement licenses to show commercial success should affect their admissibility.

C. ADMISSIBILITY AND DISCOVERY OF SETTLEMENT LICENSES AND NEGOTIATIONS

Exclusion of settlement licenses for purposes of establishing a reasonable royalty or assessing nonobviousness is typically based on Federal Rules of Evidence 403 and 408. The Federal Rule of Civil Procedure 26 governs discovery of both the licenses and the underlying settlement negotiations. This Section provides background information on these rules.

17. 2 CHISUM, *supra* note 11, § 5.05.

18. *Graham v. John Deere*, 383 U.S. 1, 17 (1966).

19. *Id.* at 17–18, 35–36.

20. 2 CHISUM, *supra* note 11, § 5.05.

21. *Id.*

22. The probative value of settlement licenses for showing nonobviousness is also addressed *infra* Section III.B.

1. *Federal Rule of Evidence 403*

Federal Rule of Evidence 403 provides for the exclusion of evidence on the grounds of prejudice, confusion, or waste of time, even if the evidence is otherwise relevant.²³ It states that “[a]lthough relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.”²⁴ Rule 403 allows courts to account for factors besides relevance when deciding whether a piece of evidence should be admissible.²⁵ According to the Advisory Committee Notes on Rule 403, “[s]ituations in this area call for balancing the probative value of and need for the evidence against the harm likely to result from its admission.”²⁶ The “unfair prejudice” aspect of Rule 403 only applies to jury trials, because trying a case in front of a judge does not carry the same risk of prejudice necessitating the exclusion of evidence.²⁷ Thus, probative evidence should only be excluded under Rule 403 in a bench trial if the evidence would be cumulative or a waste of time.

There are some alternatives to excluding evidence altogether under Rule 403. Providing the jury with limiting instructions may be appropriate as long as the prejudice and confusion remaining after the instructions do not substantially outweigh the probative value of the evidence.²⁸ The availability of other means of proof may also be an appropriate factor for a court to consider.²⁹ A court may exclude evidence when there are less prejudicial alternative means to prove the fact at issue or may admit potentially confusing evidence when no better evidence exists.³⁰

A common argument for excluding litigation licenses is that they lack probative value.³¹ The possibility that admitting licenses will confuse or

23. FED. R. EVID. 403.

24. *Id.*

25. FED. R. EVID. 403 advisory committee’s note (“The case law recognizes that certain circumstances call for the exclusion of evidence which is of unquestioned relevance.”).

26. *Id.*

27. 2 MICHAEL M. MARTIN, FEDERAL RULES OF EVIDENCE MANUAL, § 403.02 (citing *Schultz v. Butcher*, 24 F.3d 626, 632 (4th Cir. 1994) (holding that evidence in a bench trial should not be excluded on the ground of unfair prejudice)).

28. FED. R. EVID. 105 (addressing limiting instructions).

29. FED. R. EVID. 403 advisory committee’s note (“The availability of other means of proof may also be an appropriate factor.”).

30. FED. R. EVID. 408 advisory committee’s note.

31. *See Rude v. Westcott*, 130 U.S. 152, 164 (1889); *Wang Labs., Inc. v. Mitsubishi Elecs. Am., Inc.*, 860 F. Supp. 1448, 1452 (C.D. Cal. 1993).

unfairly prejudice the jury is also a common concern.³² A party may weigh various factors when considering whether to negotiate a settlement or take a case to trial, and the true value of the patent-in-suit is only one of those considerations.³³ These circumstances add complexity for a jury attempting to accurately evaluate how much premium or discount should be assigned to a license that arose under these conditions. Evidence of a previous settlement on the patent-in-suit could create presumptions in the jury's mind. The jury might assume that a patent is invalid if the plaintiff settled. Conversely, a jury might assume that a defendant would never settle an invalid patent, creating a presumption of validity.

2. *Federal Rule of Evidence 408*

Some courts may also rely on Federal Rule of Evidence 408 to exclude settlement licenses.³⁴ Rule 408 excludes evidence of compromise and offers to compromise for proving the validity or amount of a claim.³⁵ It provides that the following evidence is “not admissible on behalf of any party, when offered to prove liability for, invalidity of, or amount of a claim that was disputed as to validity or amount”: “(1) furnishing or offering or promising to furnish or accepting or offering or promising to accept a valuable consideration in compromising or attempting to compromise the claim; and (2) conduct or statements made in compromise negotiations regarding the claim.”³⁶ The rule applies even when evidence of compromise is proffered by the party that made the settlement offer.³⁷

32. *See, e.g.*, *Fenner Invs., Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *2 (E.D. Tex. April 28, 2010) (“[P]arties are prejudiced by being forced to litigate the similarities and differences in the facts regarding the ‘same’ claims against other defendants to determine what, if any, light the [settlement agreement] sheds on the value of the claim against [this defendant.]”); *Pioneer Corp. v. Samsung SDI Corp.*, No. 2:06-cv-384, slip op. at 9 (E.D. Tex. Oct. 2, 2008) (“[E]ven if negotiations, offers, and agreements reached under the threat of litigation had some probative value, such value would be too slight and clearly outweighed by the danger of unfair prejudice and confusion.”); *Spreadsheet Automation Corp. v. Microsoft Corp.*, 587 F. Supp. 2d 794, 801 (E.D. Tex. 2007) (“[S]ettlements[] and licenses made under the threat of litigation . . . would likely confuse the jury . . . [and are] inadmissible under Federal Rule of Evidence 403.”).

33. *Rude*, 130 U.S. at 164; *Fenner*, 2010 WL 1727916, at *2–3.

34. *See, e.g.*, *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078–79 (Fed. Cir. 1983).

35. FED. R. EVID. 408.

36. *Id.*

37. *See, e.g.*, *Pierce v. F.R. Tripler & Co.*, 955 F.2d 820, 828 (2d Cir. 1992) (applying Rule 408 regardless of which party attempts to offer the evidence).

Rule 408 attempts to encourage settlement by excluding from trial most offers to settle and statements made during settlement negotiations when they are offered to show the validity or amount of a claim.³⁸ In theory, preventing use of compromise negotiations at trial promotes more open and honest communication, which in turn increases the chance of settling a case. The rationale for promoting settlement is that it is more efficient and reduces the demands on the court system.³⁹ A secondary rationale is that compromise evidence has little or no probative value when used to prove the validity or amount of a claim because an offer to settle may be an attempt at peace rather than an admission of liability or evidence of weakness.⁴⁰

Rule 408 clearly applies to existing claims in an ongoing case, but courts differ in how they have applied the rule to negotiations during other litigations or with third parties. Some courts do not apply Rule 408 to settlement agreements from prior litigations or that involve a third party.⁴¹ Others do not make this distinction.⁴² Courts that apply Rule 408 broadly to prior litigation and third party agreements claim that doing so provides a stronger incentive for compromise.⁴³ A narrower rule of exclusion may deter litigants from open negotiations in instances where multiple suits have been or might be brought.⁴⁴ Similarly, when the parties to a suit have previously engaged in related settlement negotiations, the compromise evidence should be excluded based on the same rationale.

38. FED. R. EVID. 408 advisory committee's note.

39. FED. R. EVID. 408 advisory committee's note.

40. *Id.*

41. *Sunstar, Inc. v. Alberto-Culver Co.*, No. 01 C 0736, 2004 WL 1899927, at *29 (N.D. Ill. Aug. 23, 2004) ("Substantial authority supports [the plaintiff's] contention that Rule 408 only bars evidence of settlement negotiations to prove the validity or amount of the claim under negotiation."); *Donnelly Corp. v. Gentex Corp.*, 918 F. Supp. 1126, 1133–34 (W.D. Mich. 1996) ("[I]t is obvious that [Rule 408] itself does not preclude evidence of these compromises because the offers to compromise the claims do not concern the claim being litigated in this case.").

42. *See, e.g., Hudspeth v. C.I.R.*, 914 F.2d 1207, 1213 (9th Cir. 1990) (stating that the "contention that Rule 408 does not apply when third party compromises are involved is not tenable" and holding that "Rule 408 does apply to situations where the party seeking to introduce evidence of a compromise was not involved in the original compromise.").

43. *Cf. FED. R. EVID. 408 advisory committee's note* ("[A] more consistently impressive ground is promotion of the public policy favoring the compromise and settlement of disputes.").

44. *See, e.g., Branch v. Fidelity & Cas. Co.*, 783 F.2d 1289, 1294 (5th Cir. 1986) ("The spectre of a subsequent use to prejudice a separate and discrete claim is a disincentive which Rule 408 seeks to prevent."); *United States v. Contra Costa County Water Dist.*, 678 F.2d 90, 92 (9th Cir. 1982) (holding a settlement with another party previously dismissed from the case inadmissible under Rule 408).

In parties' attempts to exclude litigation licenses, Rule 408 often receives less attention than Rule 403. One possible reason is that Rule 408 only applies if the evidence is offered to prove the validity or amount of the claim. Offers to compromise are often admitted under another context. There are several reasons why a settlement agreement may find its way into a case without being subject to Rule 408. One example, already discussed, is that some jurisdictions do not apply Rule 408 to third-party agreements.⁴⁵ Second, the parties simply may not have presented a proper objection. This could occur for any number of reasons. During litigation, parties are forced to pick their battles and may feel that making a Rule 403 argument is stronger than arguing Rule 408. Another possibility is that the parties agree to admit the license, potentially with stipulations. This could result in a redacted version or accompanying limiting instructions.⁴⁶ Parties may also agree to admission of the license provided that settlement communications would still be privileged. Finally, the proponent may have been able to get the license admitted for a purpose other than to prove validity or amount, such as to prove willingness to license.

3. *Federal Rule of Civil Procedure 26*

Federal Rule of Civil Procedure 26(b)(1) states that "parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense" or "appears reasonably calculated to lead to the discovery of admissible evidence." Although settlement licenses are usually inadmissible under the rules of evidence, they are generally discoverable based on the potential for the agreements to lead to other admissible evidence.⁴⁷

45. See *supra* Section I.C.2.

46. See, e.g., *Datatreasury Corp. v. Wells Fargo & Co.*, No. 2:06-CV-72 DF, 2010 WL 903259, at *2 (E.D. Tex. Mar. 4, 2010) discussed *infra* Section II.C.1.

47. See, e.g., 4 ROBERT A. MATTHEWS, JR., ANNOTATED PATENT DIGEST, § 30:101 (2010) (citing *West v. Jewelry Innovations, Inc.*, 2009 WL 668695, at *1–2 (N.D. Cal. Mar. 13, 2009) (granting motion to compel discovery of settlement agreements); *Bd. of Trs. of Leland Stanford Junior Univ. v. Tyco Int'l Ltd.*, 253 F.R.D. 521, 522–23 (C.D. Cal. 2008) (granting motion to compel production of a settlement agreement and finding no federal settlement privilege); *Phoenix Solutions Inc. v. Wells Fargo Bank, N.A.*, 254 F.R.D. 568, 583 (N.D. Cal. 2008) (allowing discovery of settlement negotiations even though settlement had not been completed); *Rates Tech., Inc. v. Cablevision Sys. Corp.*, 2006 WL 1026044, at *1–2 (E.D.N.Y. Apr. 14, 2006) (ordering production of "all documents concerning any licenses, settlement agreements, covenants not to sue, or any other agreements concerning either or both of the patents at issue" even if the material would be inadmissible under FRE 408)).

Treatment of settlement negotiations is more varied compared to decisions on the admissibility of settlement licenses. Similar to the rationale for excluding offers to compromise from evidence under Federal Rule of Evidence 408, denying discovery of settlement negotiations encourages open and honest communication for the purpose of promoting settlement. Since Rule 408 is an evidentiary rule, however, it only prevents admission and not discovery of settlement-related documents. As a result, some courts have found settlement negotiations discoverable under Rule 26(b)(1) based on the potential to lead to other admissible evidence.⁴⁸ But even courts that find final agreements to be discoverable are typically reluctant to allow discovery of the settlement negotiations in fear of disturbing open and free communication during negotiations. Generally, “courts have been reluctant to order the production of documents relating to ongoing settlement negotiations, absent a showing of substantial need or, at a minimum, a particularized showing of the relevance of such documents.”⁴⁹ For example, prior to *ResQNet*, the Eastern District of Texas (following the Sixth Circuit’s decision in *Goodyear Tire & Rubber Co. v. Chiles Power Supply, Inc.*⁵⁰) “adopted a bright-line rule that settlement negotiations are privileged while the resulting license agreement is discoverable.”⁵¹

II. *RESQNET.COM INC. V. LANSA INC.*

A. FACTS AND PROCEDURAL HISTORY

ResQNet.com (“ResQNet”) initially sued Lansa for infringement of five patents, alleging that Lansa’s “NewLook” product infringed one or more claims of the asserted patents.⁵² The patented technology related to methods

48. 4 MATTHEWS, *supra* note 47, § 30:101 (citing *Tyco Int’l*, 253 F.R.D. at 523 (finding no federal privilege preventing the discoverability of settlement agreements); *Phoenix Solutions*, 254 F.R.D. at 583 (granting motion to compel discovery of settlement negotiations and rejecting the contention that the negotiations were privileged)); *see also In re Subpoena Issued to Commodity Futures Trading Comm’s*, 370 F. Supp. 2d 201, 211 (D.D.C. 2005) (declining to recognize the settlement privilege in *Goodyear Tire & Rubber Co. v. Chiles Power Supply, Inc.*, 332 F.3d 976 (6th Cir. 2003)).

49. 4 MATTHEWS, *supra* note 47, § 30:101 (citing *Primestar 24 Joint Venture v. Echostar Commc’ns Corp.*, No. 98civ6738, 2000 WL 97680, at *4 (S.D.N.Y. Jan. 28, 2000); *United States v. Am. Soc’y of Composers, Authors, & Publishers*, No. CIV 13-95, 1996 WL 157523, at *2 (S.D.N.Y. Apr. 3, 1996)).

50. *Goodyear*, 332 F.3d 976.

51. *Tyco Healthcare Group LP, v. E-Z-Em, Inc.*, No. 2:07-CV-262 (TJW), 2010 WL 774878, at *2 (E.D. Tex. Mar. 2, 2010).

52. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 863–64 (Fed. Cir. 2010).

for downloading screen display information from a remote mainframe computer for display on a local personal computer.⁵³

The Southern District of New York conducted a bench trial and rendered a decision in 2008.⁵⁴ At the time of trial, the claims at issue were claim one of U.S. Patent No. 5,831,608 (the '608 patent) and claim one of U.S. Patent No. 6,295,075 (the '075 patent).⁵⁵ The district court ruled that the '075 patent was valid and infringed by Lansa, and that the '608 patent was not infringed.⁵⁶ The parties agreed that the appropriate method of calculating damages was to determine a reasonable royalty, since lost profits could not be proven.⁵⁷

At trial, ResQNet offered expert testimony and an expert report to support its damages claim.⁵⁸ The expert addressed each of the *Georgia-Pacific* factors and concluded that an appropriate reasonable royalty rate for use of the patents-in-suit was 12.5 percent.⁵⁹ The court found that “[t]he key factor driving [the expert’s] ultimate conclusion was the first [factor], the royalties ResQNet received for actual licenses of the patents-in-suit.”⁶⁰ The district court acknowledged that the rate in one of the prior licenses “was reached by virtue of settlement with [another company] and without the assumption . . . that the '075 patent was valid and enforceable.”⁶¹ ResQNet’s expert claimed to account for the fact that the license arose out of settlement and that it had a royalty rate lower than 12.5 percent.⁶² Lansa did not offer expert testimony on the issue of damages.⁶³

Ultimately, the district court awarded damages of \$506,305 for past infringement based on a hypothetical royalty of 12.5 percent, plus prejudgment interest.⁶⁴ ResQNet’s motion for a permanent injunction was denied, and instead, the district court imposed a license for future activity

53. *Id.*

54. *ResQNet.com, Inc. v. Lansa, Inc. (ResQNet S.D.N.Y.)*, 533 F. Supp. 2d 397 (S.D.N.Y. 2008).

55. *ResQNet*, 594 F.3d at 863.

56. *Id.*

57. *ResQNet S.D.N.Y.*, 533 F. Supp. 2d at 415.

58. *Id.* at 417.

59. *Id.*

60. *Id.*

61. *Id.* The royalty rate agreed to in the settlement was under a protection order.

62. *Id.* at 418 (“[O]nly two straight patent licenses, one of which was lower than 12.5%, were granted in the shadow of litigation, and without the assured validity of the '075 Patent.”).

63. *Id.* at 417.

64. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 863 (Fed. Cir. 2010).

covered by the '075 patent with a royalty rate of 12.5 percent.⁶⁵ ResQNet appealed the district court's rulings on validity and infringement and Lansa cross-appealed the damages award.

B. THE FEDERAL CIRCUIT'S ANALYSIS

On appeal, the Federal Circuit affirmed the district court's rulings on the issues of validity and infringement for both the '608 and '075 patents.⁶⁶ The court vacated the damages award and remanded the case for redetermination of damages.⁶⁷ The court held that "the district court's award relied on speculative and unreliable evidence divorced from proof of economic harm linked to the claimed invention and was inconsistent with sound damages jurisprudence."⁶⁸

The Federal Circuit decision relied heavily on its opinion in *Lucent Technologies, Inc. v. Gateway*.⁶⁹ In *Lucent*, the Federal Circuit rejected a patentee's reliance on licenses in determining a reasonable royalty because "some of the licence [sic] agreements [were] radically different from the hypothetical agreement under consideration."⁷⁰ Under *Lucent*, the district court must link licenses to the infringed patent so the fact finder can "adequately evaluate[] the probative value of [the] agreements."⁷¹

The court held that the majority of the licenses on which ResQNet relied had the same problem as the *Lucent* licenses, meaning there was a lack of reliable evidence linking the licenses to the claimed invention.⁷² The expert based his damages opinion on seven ResQNet licenses, five of which had no relation to the claimed invention, according to the Federal Circuit.⁷³ These five licenses (which the court called "re-bundling licenses") provided finished software products and source code, as well as services such as training, maintenance, marketing, and upgrades, to other software companies in exchange for ongoing revenue-based royalties.⁷⁴ Two of these licenses had a top rate of 25 percent, two others had a top rate of 30 percent, and one had a top rate of 40 percent.⁷⁵ According to the court, none of these licenses

65. *Id.*

66. *Id.*

67. *Id.*

68. *Id.* at 868.

69. *Lucent Techs., Inc. v. Gateway*, 580 F.3d 1301, 1327–28 (Fed. Cir. 2009).

70. *ResQNet*, 594 F.3d at 869 (citing *Lucent*).

71. *Lucent*, 580 F.3d at 1328.

72. *ResQNet*, 594 F.3d at 869.

73. *Id.* at 870–71.

74. *Id.* at 870.

75. *Id.*

mentioned the patents in suit or showed any other discernible link to the claimed technology.⁷⁶ Furthermore, the other two so-called “straight” licenses arose out of litigation over the patents-in-suit.⁷⁷ The Federal Circuit noted that the rates in the re-bundling licenses were much larger than the rates of the straight licenses, and that one of the straight licenses was a lump-sum payment of stock that the expert could not equate to a running royalty rate.⁷⁸ The other straight license was an ongoing rate averaging substantially less than 12.5 percent of revenues.⁷⁹

Considering the nature of all seven licenses, the Federal Circuit stated that “the most reliable license in this record arose out of litigation,” referring to the straight license with an ongoing rate.⁸⁰ The court noted that “[o]n other occasions, this court has acknowledged that the hypothetical reasonable royalty calculation occurs before litigation and that litigation itself can skew the results of the hypothetical negotiation.”⁸¹ Furthermore, the court acknowledged that “a reasonable royalty can be different than a given royalty when, for example, widespread infringement artificially depressed past licenses.”⁸² Prior to this statement, the court also noted that “the record already contained evidence of licenses on the claimed technology.”⁸³

Upon remand, the court directed that “the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates more clearly linked to the economic demand for the claimed technology.”⁸⁴ The court concluded by saying that “the district court erred by considering ResQNet’s re-bundling licenses to significantly adjust upward the reasonable royalty without any factual findings that accounted for the technological and economic differences between those licenses and the ’075 patent.”⁸⁵

In a dissenting opinion, Circuit Judge Newman took issue with the majority’s emphasis on the license arising out of litigation and the dismissal

76. *Id.*

77. *Id.*

78. *Id.* at 870–71.

79. *Id.* at 870.

80. *Id.* at 872.

81. *Id.* (citing *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078–79 (Fed. Cir. 1983)).

82. *Id.*

83. *Id.*

84. *Id.* at 872–73.

85. *Id.* at 873.

of the other licenses.⁸⁶ The dissent noted the district court's recognition that settlement of ongoing litigation can involve considerations quite different from the "hypothetical negotiation" conducted on the premise that the patent is valid and would be infringed.⁸⁷ Accordingly, the dissent found it reasonable that the district court approved of a royalty higher than that in the litigation settlement, but much lower than any of the licenses that included the software code.⁸⁸

Acknowledging the majority's emphasis on the settlement license, the dissent noted that "[t]he panel majority thus appears to exclude all evidence except for the royalty in the settlement agreement between ResQNet and [the licensee],"⁸⁹ and that "[i]n contrast to precedent, the panel majority moves the [settlement] agreement to the forefront of the analysis."⁹⁰ The dissent also points out that even *Lansa* argued that the royalties of litigation-induced licenses should not be considered.⁹¹

C. SUBSEQUENT INTERPRETATION BY DISTRICT COURTS

Several courts have addressed the *ResQNet* decision with respect to the admissibility of litigation licenses or the discovery of settlement negotiations.⁹² These courts have reached varying and conflicting interpretations of the opinion. Some hold that *ResQNet* altered the admissibility of settlement licenses, while others claim that nothing has changed.⁹³ The following sections provide a summary of the cases that have considered the *ResQNet* opinion regarding the admissibility of settlement licenses and discovery of settlement negotiations.

86. *Id.* at 878 (Newman, J., dissenting) ("The [lump sum, litigation-induced] license is relevant, for the lump sum amount therein is substantially greater than the amount that was here awarded to ResQNet.").

87. *Id.* at 878–79.

88. *Id.*

89. *Id.*

90. *Id.* at 880.

91. *Id.*

92. *See, e.g.*, Phillip M. Adams & Assocs., LLC v. Asustek Computer, Inc., No. 1:05-CV-64 TS, 2010 WL 3069898, at *2 (D. Utah Aug. 4, 2010); ReedHycalog UK, Ltd. v. Diamond Innovations Inc., No. 6:08-CV-325, 2010 WL 3021550, at *1 (E.D. Tex. Aug. 2, 2010); Software Tree, LLC v. Red Hat, Inc., No. 6:09-CV-097, 2010 WL 2788202, at *1–4 (E.D. Tex. June 24, 2010); Fenner Invs., Ltd. v. Hewlett-Packard Co., No. 6:08-CV-273, 2010 WL 1727916, at *1, *3 (E.D. Tex. Apr. 28, 2010); Datatransury Corp. v. Wells Fargo & Co., No. 2:06-CV-72 DF, 2010 WL 903259, at *1–2 (E.D. Tex. Mar. 4, 2010); Tyco Healthcare Group LP, v. E-Z-Em, Inc., No. 2:07-CV-262 (TJW), 2010 WL 774878, at *2 (E.D. Tex. Mar. 2, 2010).

93. *See infra* Sections II.C.1–II.C.2.

1. *Eastern District of Texas Courts Disagree Over ResQNet's Applicability*

Several cases in the Eastern District of Texas have already discussed *ResQNet*. The first case was *Tyco Healthcare Group LP v. E-Z-EM, Inc.*, which held that settlement licenses and related negotiations were discoverable.⁹⁴ In an opinion by Judge Ward, the court acknowledged that “[t]his Court has in the past . . . adopted a bright-line rule that settlement negotiations are privileged while the resulting license agreement is discoverable.”⁹⁵ Directly addressing the *ResQNet* opinion, the court said, “[*ResQNet*] causes the Court to shift its approach toward the discoverability of settlement negotiations.”⁹⁶ Although it recognized that “litigation itself can skew the results of the hypothetical negotiation,” the court allowed discovery of the settlement negotiations because “the parties are entitled to show whether and to what extent the rate from a prior license agreement is the result of a compromise or reflects a desire to avoid litigation.”⁹⁷ The court concluded that “in light of the admissibility and importance of prior related settlement agreements, *ResQNet* suggests that the underlying negotiations are relevant to the calculation of a reasonable royalty using the hypothetical negotiation damages model.”⁹⁸

Two days later, in *Datatransury Corp. v. Wells Fargo & Co.*, the court admitted litigation-related licenses and permitted discovery of the settlement negotiations.⁹⁹ The issue before Judge Folsom was “whether the litigation-related licenses (including their amounts) [were] admissible for essentially all purposes.”¹⁰⁰ The court permitted supplemental briefing on the issue because of *ResQNet*.¹⁰¹ In spite of the contention by defendants that *ResQNet* did not directly address admissibility and involved a bench trial instead of a jury trial,¹⁰² the court held that “[i]n light of *ResQNet*, litigation-related licenses should not be excluded.”¹⁰³ The court reasoned that “[a]lthough *ResQNet* involved a bench trial, the licenses at issue were considered by that trial court

94. *Tyco*, 2010 WL 774878, at *2.

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.*

99. *Datatransury Corp. v. Wells Fargo & Co.*, No. 2:06-CV-72 DF, 2010 WL 903259, at *2 (E.D. Tex. Mar. 4, 2010).

100. *Id.*

101. *Id.* at *1.

102. The possibility of unfair prejudice and jury confusion are not a concern in bench trials because there is no jury.

103. *Datatransury*, 2010 WL 903259, at *2.

sitting as trier of fact, just as the jury will sit in [this] case.”¹⁰⁴ To reduce potential jury confusion, the court allowed the parties to propose final jury instructions providing guidance on applying litigation-related licenses.¹⁰⁵ The court also ruled that the defendants were entitled to discovery of the negotiations surrounding the admitted litigation-related licenses.¹⁰⁶

The next case from the Eastern District of Texas to address the issue took the opposite approach. In *Fenner Investments Ltd. v. Hewlett-Packard Co.*, Magistrate Judge Love refused to admit evidence and testimony relating to settlement agreements in prior litigation.¹⁰⁷ In response to defendants’ assertion that, based on *ResQNet*, they should be allowed to introduce settlement licenses entered into as a result of prior litigations with third parties, the court stated that the “*ResQNet* decision has not altered the admissibility of agreements entered into under the threat of litigation.”¹⁰⁸ The court noted that “[i]n *ResQNet*, the litigation-related licenses were part of the record and their admissibility was not before the court.”¹⁰⁹ Additionally, the court emphasized that there was no risk of jury confusion because *ResQNet* was a bench trial.¹¹⁰ The court proposed that the “most reliable license” comment was made in the context of evaluating an expert’s application of the first *Georgia-Pacific* factor to the licenses in the record.¹¹¹ The court also expressed concern that allowing settlement licenses could invite mini-trials on the similarities and differences between the present case and the settled claims, implying that the potential value of a settlement license is not worth the effort required to determine its appropriate weight.¹¹²

In *Software Tree, LLC v. Red Hat, Inc.*, Judge Love maintained the position taken in *Fenner*.¹¹³ At issue was defendant’s motion to compel production of plaintiff’s settlement negotiations related to licenses for the patent-in-suit.¹¹⁴ The licenses were part of settlement agreements by co-defendants in the

104. *Id.*

105. *Id.*

106. *Id.*

107. *Fenner Invs., Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *3 (E.D. Tex. Apr. 28, 2010).

108. *Id.*

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.*

113. *Software Tree, LLC v. Red Hat, Inc.*, No. 6:09-CV-097, 2010 WL 2788202, at *4 (E.D. Tex. June 24, 2010).

114. *Id.* at *1.

same case.¹¹⁵ The plaintiff produced the license agreements but not the underlying negotiations.¹¹⁶ The court held that statements made in furtherance of settlement are privileged and protected from third-party discovery because there is “a strong public interest in favor of secrecy of matters discussed by parties during settlement negotiations.”¹¹⁷ The court suggested that the *existence* of the talks or the agreement may be admissible, but the *content* of the talks or agreement are not, and that any communications made in furtherance of settlement are privileged.¹¹⁸ Responding to the longstanding bias against admitting settlement licenses, the court said that “[t]he Federal Circuit’s decision in *ResQNet* has called this ‘bright-line’ rule into considerable question,” but that it “did not alter the law regarding discoverability.”¹¹⁹ As stated in *Software Tree*, “[l]itigation licenses, and the negotiations underlying them, are not probative of the fair value of a patent, but rather are probative of the value of settling a particular case.”¹²⁰ The court noted that the discoverability of negotiations underlying the licenses in *ResQNet* was not before the court,¹²¹ but did cite a few cases where discovery was allowed by other courts.¹²² Ultimately the court held that “[c]ontinuing to exclude underlying negotiations is consistent with [the] Court’s past decisions . . . and is most appropriate given the chilling effect such discovery would have on settlements.”¹²³

The *Software Tree* court also weighed in on when a license is considered to be induced by litigation. Regarding other licenses in question, the court held that the contention that the possibility of litigation was discussed prior to entering an agreement is insufficient to qualify a license for privileged status. “Absent a stronger showing that the licenses were entered into within the context of litigation, . . . the [] agreements are not subject to the settlement privilege.”¹²⁴

Finally, in *ReedHycalog UK, Ltd. v. Diamond Innovations, Inc.*, Judge Davis followed the *Fenner* and *Software Tree* line of cases in rejecting the admissibility

115. *Id.*

116. *Id.*

117. *Id.*

118. *Id.* at *2 (noting that Federal Rule of Evidence 408 generally bars admission of settlement agreements).

119. *Id.*

120. *Id.* at *4.

121. *Id.* at *3.

122. *Id.* at *4.

123. *Id.*

124. *Id.*

of litigation licenses.¹²⁵ The court acknowledged that “based on [*ResQNet*], some parties are arguing, and some courts are finding, that settlement licenses are admissible to prove a reasonable royalty.”¹²⁶ The defendant moved to prohibit any evidence regarding any previous litigation settlements or discussions.¹²⁷ The court denied the motion, but allowed evidence of settlement licenses provided they would not be identified as litigation licenses.¹²⁸ Again, the court recognized that admissibility was not at issue before the Federal Circuit in *ResQNet*.¹²⁹ Furthermore, the court stated that the emphasis on the litigation license in *ResQNet* was “merely a reflection on the evidence before it,” and “not the adoption of a bright-line rule regarding the reliability of litigation licenses nor even a ruling on their admissibility.”¹³⁰ Despite these comments, the court supported the position that settlement licenses are admissible under certain circumstances: “After considering *ResQNet* and other case law, . . . the admissibility of litigation licenses—like all evidence—must be assessed on a case-by-case basis, balancing the potential for unfair prejudice and jury confusion against the potential to be a ‘reliable license.’”¹³¹

2. *Treatment by Other District Courts Has Also Varied*

Outside the Eastern District of Texas, *Phillip M. Adams & Associates, LLC v. Asustek Computer, Inc.* concerned a consent judgment involving a previous settlement between the plaintiff and another party.¹³² The judgment declared that the plaintiff’s patent was valid and that the defendant admitted to infringement.¹³³ The plaintiff argued that settlement agreement was admissible as a secondary consideration to show commercial success and nonobviousness.¹³⁴ The defendant sought to exclude the judgment as hearsay, prejudicial, irrelevant, and confusing to the jury.¹³⁵ The court admitted the settlement because the defendant’s expert relied heavily on the

125. *ReedHycalog UK, Ltd. v. Diamond Innovations Inc.*, No. 6:08-CV-325, 2010 WL 3021550, at *4 (E.D. Tex. Aug. 2, 2010).

126. *Id.* at *1.

127. *Id.*

128. *Id.* at *4.

129. *Id.* at *2.

130. *Id.*

131. *Id.* at *3.

132. *Phillip M. Adams & Assocs., LLC v. Asustek Computer, Inc.*, No. 1:05-CV-64 TS, 2010 WL 3069898, at *1 (D. Utah Aug. 4, 2010).

133. *Id.*

134. *Id.*

135. *Id.* at *2.

licenses to challenge the plaintiff's damages calculation and therefore made the licenses an issue.¹³⁶ The court reasoned that “[i]f such arguments are raised by Defendants at trial, Plaintiff is entitled to explore why the . . . settlement and licence [sic] supports its theory of damages.”¹³⁷ Although the court admitted the settlement, it excluded portions of the consent judgment that would be confusing to the jury and prejudicial to the defendants.¹³⁸

In *Douglas Dynamics, LLC v. Buyers Products Co.*, the plaintiff sought to exclude evidence relating to a cross-license agreement involving its own patent that resulted from a settlement that the plaintiff entered into in a different patent infringement case.¹³⁹ Based on *ResQNet*, the court stated that “[b]ecause determining a reasonable royalty is a fact-specific inquiry dependent on the consideration of many factors, even licenses arising from resolution of unrelated patent litigation can ordinarily be considered.”¹⁴⁰ Although the court left open the possibility of admission, the license was ultimately excluded. Since the patent was no longer at issue, the court held that its relevance was “extremely weak” and that “the probative value of th[e] license [was] substantially outweighed by unfair prejudice to plaintiff and by the likely confusion it would create for the jury.”¹⁴¹

III. DISCUSSION

A. ADMISSIBILITY OF LITIGATION-INDUCED LICENSES SHOULD BE DETERMINED CASE-BY-CASE

The cases subsequent to *ResQNet* show the various ways the opinion is affecting how district courts deal with admissibility and discovery relating to settlement licenses.¹⁴² The cases also demonstrate the wide range of circumstances surrounding settlement licenses. Because settlement licenses may arise under any number of different conditions, courts should determine admission of the agreements and discovery of the underlying negotiations on a case-by-case basis after considering the relevant rules of evidence and civil procedure. This is the position taken by the court in *ReedHycalog*.¹⁴³ As

136. *Id.*

137. *Id.*

138. *Id.*

139. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, No. 09-CV-261-WMC, 2010 WL 4118098, at *1 (W.D. Wis. Oct. 8, 2010).

140. *Id.* (internal citations omitted).

141. *Id.*

142. *See supra* Section II.C.

143. *ReedHycalog UK, Ltd. v. Diamond Innovations Inc.*, No. 6:08-CV-325, 2010 WL 3021550, at *4 (E.D. Tex. Aug. 2, 2010).

opposed to bright-line rules, a flexible standard allows courts to account for specific circumstances in any particular case.

Although the court in *ResQNet* did not specifically address admissibility of settlement licenses, courts have used the opinion's focus on settlement licenses to give such licenses more probative value. *Tyco* and *Datatreasury* imply that because settlement licenses were the most reliable in the *ResQNet* case, they may also be reliable in other cases.¹⁴⁴ The Federal Circuit also stated that upon remand "the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates *more clearly linked to the economic demand for the claimed technology*."¹⁴⁵ In light of the court's comment that the litigation license is the "most reliable in this record," this statement implies that settlement licenses can have significant probative value. If *Tyco* and *Datatreasury* are accurate representations of the law, the significance of settlement licenses has increased from their prior status of being dismissed almost out of hand. These decisions effectively rebut the presumption that settlement licenses are inadmissible due to a lack of probative value. But given the *ResQNet* court's qualifying statements and the negative opinion in *Fenner*, it would be an overstatement to say that there is now a presumption that settlement licenses have adequate probative value for admission.¹⁴⁶

Considering the varying interpretations of *ResQNet* among lower courts, the law is still unclear about whether licenses arising out of litigation should be admissible. As illustrated by the district court cases after *ResQNet*, there are arguments both for and against admitting settlement licenses in litigation.¹⁴⁷

In almost any case, the complexities of litigation mean that the licensing terms arising out of litigation are not representative of a license that would result from a hypothetical negotiation under the assumption that the patent is valid and infringed.¹⁴⁸ If the rate found in a settlement license is favorable for the plaintiff, the defendant can argue that a previous defendant paid a premium to avoid the costs of further litigation or to evade the risk of a large

144. See *Datatreasury Corp. v. Wells Fargo & Co.*, No. 2:06-CV-72 DF, 2010 WL 903259, at *2 (E.D. Tex. Mar. 4, 2010); *Tyco Healthcare Group LP, v. E-Z-Em, Inc.*, No. 2:07-CV-262 (TJW), 2010 WL 774878, at *2 (E.D. Tex. Mar. 2, 2010).

145. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872–73 (Fed. Cir. 2010) (emphasis added).

146. *ResQNet*, 594 F.3d at 872. The *ResQNet* court said that the licenses were the most reliable "in this record," while also warning of the effects of litigation.

147. See *supra* Section II.C.

148. *ResQNet*, 594 F.3d at 880 (Newman, J., dissenting) ("The unpredictability of patent litigation remains notorious.").

verdict. The defendant might also argue that admission of a settlement license creates an unfair presumption that the patent is valid simply because another defendant settled.¹⁴⁹ If the license is favorable for the defendant, the plaintiff could argue that the rate represents a discount due to the plaintiff's efforts to avoid the costs of further litigation. The patentee could also argue that it accepted a lower rate to eliminate any risk of a finding of invalidity or unenforceability, which could end the current litigation and inhibit future actions against other alleged infringers.¹⁵⁰ This would be difficult to argue, however, because it shows a lack of confidence by the plaintiff in its own patent. Additionally, the court in *ResQNet* recognized that widespread infringement can also artificially depress license rates.¹⁵¹ Although not unique to litigation licenses, this is another argument the plaintiff could potentially use.

There are also valid reasons for permitting courts to admit settlement licenses. In cases where evidence of a reasonable royalty is severely limited (e.g., there are no licenses for the patent-in-suit that did not arise out of litigation), the probative value of a settlement license involving the patent-in-suit might be relatively high, outweighing the potential for unfair prejudice or confusion. This position is consistent with a conservative interpretation of *ResQNet*—that in a particular case, a license arising out of litigation may have the most relevance. Allowing a settlement license into the record may also be appropriate when denying admission would unfairly prejudice one of the parties, such as the situation in *Phillip*.¹⁵² Where one party has already used a settlement license as part of its argument, refusing to allow further use may unfairly prejudice the other party.

Allowing settlement licenses under certain circumstances would also help alleviate the concern of “sham” lawsuits. If settlement licenses were inadmissible under any circumstances, cooperative parties could formally initiate litigation to keep their agreement privileged even when no true controversy exists. This would reduce the amount of relevant evidence in subsequent litigation by protecting agreements that accurately represent a hypothetical negotiation between two willing parties, and should otherwise be disclosed.

149. See *supra* Section I.B.

150. *Fenner Invs., Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *3 (E.D. Tex. Apr. 28, 2010).

151. *ResQNet*, 594 F.3d at 872 (majority opinion).

152. See *supra* Section II.C.2.

Deciding admissibility on a case-by-case basis also gives the courts flexibility to apply conditions on admissibility. Some courts have already shown a willingness to allow settlement licenses after *ResQNet* under specified conditions and limitations.¹⁵³ For example, the court in *ReedHycalog* decided to allow evidence of settlement licenses under the condition that the licenses would not be defined or identified as litigation licenses.¹⁵⁴ Also, the *Datatresury* court said that jury instructions would be appropriate.¹⁵⁵ Alternatives such as limiting instructions and redaction allow courts to maintain the probative value of a license while reducing the possibility of confusion or unfair prejudice.

The alternative to deciding admissibility of settlement licenses on a case-by-case basis would be to instate an across-the-board exclusion or admission of all relevant licenses arising out of litigation. Both options would reduce uncertainty in the litigation process. Admitting all related settlement licenses would increase the amount of relevant evidence. Excluding them would increase efficiency and reduce potential for confusion and unfair prejudice.¹⁵⁶ Even if the influences of litigation in a particular case did not affect the probative value of a license, as a matter of overall policy, the efforts required to determine the value of settlement licenses may not be worth whatever probative value they would provide.¹⁵⁷

Regardless of the potential benefits of a uniform admission or exclusion rule, neither is likely to be adopted. An across-the-board rule in either case is inconsistent with Federal Rule of Evidence 403, because Rule 403 is a general balancing rule without any topic-specific exceptions. Also, blanket admission would represent a complete reversal of the traditional bar against these types of licenses.¹⁵⁸ It would also directly conflict with Rule 408 when the

153. *See supra* Section II.C.

154. *ReedHycalog UK, Ltd. v. Diamond Innovations Inc.*, No. 6:08-CV-325, 2010 WL 3021550, at *4 (E.D. Tex. Aug. 2, 2010).

155. *Datatresury Corp. v. Wells Fargo & Co.*, No. 2:06-CV-72 DF, 2010 WL 903259, at *2 (E.D. Tex. Mar. 4, 2010) (allowing both parties to propose jury instructions giving guidance on applying litigation-related licenses).

156. *Fromson v. Western Litho Plate & Supply Co.*, 853 F.2d 1568, 1574 (Fed. Cir. 1988) (“Determining a fair and reasonable royalty is often . . . a difficult judicial chore, seeming often to involve more the talents of a conjurer than those of a judge.”); *Fenner Invs., Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *3 (E.D. Tex. Apr. 28, 2010) (expressing concern that admitting settlement licenses would invite “mini-trials”).

157. The efficiency argument is similar to the mini-trial concern in *Fenner. Fenner*, 2010 WL 1727916, at *3.

158. *See supra* Section I.A.

negotiated licenses are clearly offers to compromise or offered to prove the validity or amount of a claim. Also, even if prohibiting evidence of all settlement licenses could be reconciled with Rule 403, denying admission based on Rule 408 may be challenging because of the difficulty in determining when a claim is actually disputed. Rule 408 applies not only when there is continuing litigation, but also when there was a threat of litigation or when litigation was probable.¹⁵⁹ For example, as mentioned in *Software Tree*, the possibility that litigation was discussed prior to entering into the agreement was not enough to convince the court that a license arose out of litigation.¹⁶⁰ The uncertainty in Rule 408 would reduce the efficiency benefits of an outright exclusion rule.

B. AMBIGUITY REMAINS ABOUT HOW TO USE SETTLEMENT LICENSES
IN REASONABLE ROYALTY ANALYSIS

If settlement licenses are admitted for use in reasonable royalty analysis, *ResQNet* does not resolve whether they should be treated differently from other licenses. Generally, a reasonable royalty is the royalty that willing parties would have agreed to had they negotiated a license for the patent.¹⁶¹ To be applicable, “the rate must be supported by evidence in the record and not mere conjecture,”¹⁶² and licenses must be linked to the infringed patent so that the fact finder can “adequately evaluate[] the probative value of [the] agreements.”¹⁶³

Although the *ResQNet* court stated that the litigation license was the most reliable in that case, it did not provide general guidance on factoring settlement agreement rates into a reasonable royalty analysis.¹⁶⁴ The dissent noted that the expert acknowledged that factors involved in litigation can affect the negotiated rate, and proposed a rate between the rate in the settlement license and the significantly higher rates in the re-bundling licenses.¹⁶⁵ This suggests that the expert believed that the settlement rate represented a discount from the true value of the patent. The majority rejected the relevance of the re-bundling licenses, which were used at least in

159. *PharmaStem Therapeutics, Inc. v. Viacell Inc.*, A.A. 02-148 GMS, 2003 WL 22387038, at *2 (D. Del. Oct. 7, 2003).

160. *See Software Tree, LLC v. Red Hat, Inc.*, No. 6:09-CV-097, 2010 WL 2788202, at *4 (E.D. Tex. June 24, 2010).

161. 7 CHISUM, *supra* note 11, § 20.03.

162. *Id.*

163. *Lucent Techs., Inc. v. Gateway*, 580 F.3d 1301, 1328 (Fed. Cir. 2009).

164. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872 (Fed. Cir. 2010).

165. *Id.* at 877–78 (Newman, J, dissenting).

part by the expert, and vacated the damage award.¹⁶⁶ Although the *ResQNet* court did not provide specific guidance on valuing the settlement rate, it implied that the settlement rate, which was “substantially less” than 12.5 percent, did not justify this proposed rate.¹⁶⁷

In practice, courts rarely establish a lower rate than in prior or existing licenses.¹⁶⁸ The rate determined by the court may be greater than in prior and existing licenses if the patent owner can demonstrate that prior rates were depressed, either by widespread infringement and defiance of the patent or by pressure to settle threatened or pending litigation.¹⁶⁹ On the other hand, alleged infringers could also argue that the effects of litigation potentially increased royalty rates in settlement agreements.¹⁷⁰

Despite the tendency to set the reasonable royalty at a rate greater than the rate in existing or prior licenses, the court in *ResQNet* held that “the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates more clearly linked to the economic demand for the claimed technology.”¹⁷¹ If one assumes that “rates more clearly linked to the economic demand for the claimed technology” referred to the rate in the litigation-induced license, then the awarded rate would be capped at the rate in the settlement license. As Judge Newman notes in the dissent, this approach “assur[es] the infringer, after losing in litigation, of no worse penalty than the lowest royalty previously accepted in settlement.”¹⁷² Furthermore, it would “make an election to infringe a handy means for competitors to impose a ‘compulsory license’ policy upon every patent owner.”¹⁷³ Given the general trend of setting the reasonable royalty at a rate greater than that in prior licenses, limiting the rate to that of a previous or existing license would be a significant change. Also, because of the emphasis on settlement licenses in *ResQNet*, it is unclear whether such a rule would apply only to litigation-induced licenses or would apply more generally.

Overall, without knowing the specific conditions under which a license arose, it is difficult to forecast whether the rates found in settlement licenses should be discounted or enhanced to account for the effects of litigation.

166. *ResQNet*, 594 F.3d at 870 (majority opinion).

167. *Id.* at 871.

168. 7 CHISUM, *supra* note 11, § 20.03.

169. *Id.*

170. *See supra* Section III.A.

171. *ResQNet*, 594 F.3d at 872–73.

172. *Id.* at 880 (Newman, J, dissenting).

173. *Id.* (quoting *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 900 (Fed. Cir. 1986)).

C. THE EFFECTS OF ADMITTING SETTLEMENT LICENSES AND
INCREASING DISCOVERY OF SETTLEMENT NEGOTIATIONS

The decisions following *ResQNet* that promote increased discovery of negotiations leading to a settlement license are a direct assault on the promotion and encouragement of open settlement communications. These holdings have received significant attention from practitioners and are causing uncertainty and concern among in-house counsel.¹⁷⁴ Expanding discovery of settlement negotiations creates concerns beyond those resulting from admitting settlement licenses—specifically that negotiations will be used against parties in subsequent litigation and will make parties more reserved, more calculated, and ultimately less likely to settle claims in the future.¹⁷⁵

1. *Discovery of Settlement Negotiations Is of Greater Concern Than
Admission of the Final Agreement*

Although increased disclosure of settlement negotiations would be a significant change from present expectations, discovery of the agreements themselves would not represent a dramatic change from current litigation practice. The admissibility of settlement agreements may result in more disclosure of licensing terms, but many courts already require parties to disclose prior agreements during litigation, regardless of whether they resulted from litigation or not.¹⁷⁶ As such, parties have grown accustomed to being forced to disclose the terms of prior agreements.¹⁷⁷

174. See, e.g., E. Danielle Thompson Williams and Leslie T. Grab, *Contemporary Issues in Patent Royalty Damages; TMI: How Much Settlement Information is Too Much Settlement Information?*, PRACTICING LAW INSTITUTE (October 13, 2010), <http://patentlawcenter.pli.edu/2010/10/13/contemporary-issues-in-patent-royalty-damages/>; Edward A. Gold, *Interpreting Litigation-Related Licenses for Damages*, INVOTEX (Fall 2010), http://www.invotex.org/lit_perspectives_1010.html#31010; Robert A. Matthews, Jr., *Possible Shift in the Treatment of License Rates*, IPFRONTLINE.COM (March 31, 2010), <http://www.ipfrontline.com/depts/article.aspx?id=24187&deptid=7>; Jayme Partridge, *Unwinding a Case: Issues That May Arise Regarding Settlement Agreements in Patent Infringement Litigation* (2010) (unpublished), http://works.bepress.com/jayne_piana/1/.

175. See, e.g., *Lake Utopia Paper Ltd., v. Connelly Containers, Inc.*, 608 F.2d 928, 930 (2d. Cir. 1979) (discussing the importance of confidentiality in resolving disputes: “If participants cannot rely on [confidentiality] then counsel of necessity will feel constrained to conduct themselves in a cautious, tight-lipped, non-committal manner more suitable to poker players in a high-stakes game than to adversaries attempting to arrive at a just resolution of a civil dispute.”).

176. See *supra* Section I.C.3.

177. See, e.g., *Goodyear Tire & Rubber Co. v. Chiles Power Supply, Inc.*, 332 F.3d 976, 981 (6th Cir. 2003).

Furthermore, disclosure outside the context of litigation may be common. A licensor may have legitimate motives for disclosing the terms of prior licenses in order to increase trust with potential licensees and promote efficient negotiations.¹⁷⁸ Prior agreements can provide a useful reference point for all parties involved in a negotiation. Otherwise, each negotiation begins from scratch, which may be an inefficient strategy. Licensees want to know what others have paid for a particular technology, while the licensor can likely reveal “standard pricing” without sacrificing significant negotiating advantage. Depending on the circumstances, it is unlikely that a licensor will safeguard prior agreements to the point that it prevents productive negotiations. This may be especially true when a patentee is seeking to negotiate with a large number of potential licensors where efficiency is of greater concern. Overall, if the benefit of revealing the terms of a prior license exceeds the potential gain of keeping them secret, the licensor will want to reveal the terms.¹⁷⁹

The value of revealing licensing terms will depend heavily on whether the terms support the licensor’s desired outcome and how much the other party values the information.¹⁸⁰ As such, a licensor may want to keep an agreement secret for a variety of reasons, including unfavorable terms, circumstances that would result in confusion and irrelevant comparisons, competition concerns, or changes in market conditions.

The limited number of cases that go to trial is another reason why the admissibility of settlement agreements is a secondary concern to the discovery of settlement communications. Since few cases go to trial, admission of settlement licenses at trial will not affect the vast majority of patent cases.¹⁸¹ The impact of admission at trial would obviously increase to the extent that admission of such licenses chills settlement and causes more trials. However, unless there is a significant increase in trials, over the long run, advantage in settlement negotiations will be more critical than advantage

178. See Ellen E. Deason, *The Need for Trust As A Justification for Confidentiality in Mediation: A Cross-Disciplinary Approach*, 54 U. KAN. L. REV. 1387, 1403 (2006) (discussing the importance of trust in effective negotiations).

179. *Id.* at 1401 (“The choices the parties make are based on a cost-benefit analysis comparing the rewards and costs of breaking (or forgoing) trust with maintaining (or creating) it.”).

180. 1 CHARLES B. CRAVER, *EFFECTIVE LEGAL NEGOTIATION AND SETTLEMENT* §§ 4.01, 6.02 (2001) (discussing the ideas that “knowledge constitutes power in the bargaining context” and that “[n]egotiators should not readily volunteer their most significant information”).

181. MENELL ET AL., *supra* note 1, § 2.6.

at trial. Since many more cases involve at least some amount of discovery,¹⁸² allowing discovery of settlement negotiations creates significant potential for parties to obtain a competitor's prior negotiation strategies.

2. *Discovery of Settlement Negotiations Discourages Settlement While Providing Limited Information*

Some courts are relying on *ResQNet* to expand discovery of negotiations underlying settlements under the assumption that the settlement communications can help evaluate the ultimate agreement.¹⁸³ But the justification of using negotiations to shed light on the relevance and probative value of settlement licenses is misguided. The rationale for using settlement negotiations is that by analyzing communications that occurred in the course of settlement negotiations, one can gain valuable insight into the motives of the parties and their driving considerations. Given this information, one can separate the litigation-related considerations of the parties from statements that reveal the true economic value of the technology.

This justification may make sense theoretically, but it is unlikely to be true in practice. The words spoken during a negotiation are not necessarily true representations of a party's position.¹⁸⁴ The nature of negotiations, and indeed often the key to negotiating to one's own advantage, is to reveal only that which enhances one's position.¹⁸⁵ Thus, negotiations can be filled with significant posturing and half-truths that convey little useful information as the parties seek to feel out the other side, establish trust, and gain some advantage.¹⁸⁶ This is true even if total confidentiality among the parties is assured.

Although the nature of negotiation makes the value of settlement negotiations questionable, prior settlement communications may have some significance if parties assume that their negotiations are not discoverable.¹⁸⁷ If parties are confident that their negotiations will not be revealed, it is more

182. *Id.* § 1.2 (noting that approximately 70 percent of patent cases resolve only after at least some court action).

183. See *Tyco*, *Datatresury*, and *Phillip* discussed *supra* Sections II.C.1–II.C.2.

184. 1 CRAVER, *supra* note 180, § 1.03 (discussing the “deliberate deception associated with most legal negotiations”).

185. See *id.* §§ 4.01, 6.02.

186. See *id.* § 1.03.

187. *Dunlop v. Bd. Of Governors*, 16 F.E.P. Cases 1116, 1117 (N.D. Ill. 1975) (noting that enforcing a privilege for settlement negotiations allows opposing counsel to “feel free to candidly and fully set forth their proposed compromises”).

likely that they will decide to let down their guard and divulge information or make concessions.¹⁸⁸ The belief that discussions are confidential can motivate parties to reduce excessive posturing and reveal true strengths and weaknesses to reach a resolution.¹⁸⁹

Looking forward, however, an environment where negotiations are open to discovery is likely to reduce the already questionable value of these communications. Opening settlement negotiations to discovery or admission will simply exasperate the posturing and tactical nature of the communications. Once parties understand that what they say during settlement negotiations can be used against them in subsequent litigation, different considerations come into play. Parties' focus will shift from resolving the dispute at hand to preventing future litigation risk. Rather than negotiate transparently, parties will seek to convey information that is a careful and calculated balance between their interests in the current litigation and exposure to risk in future disputes.

If a party is unafraid of future repercussions, or believes that dispute over the technology is unlikely to arise again, the confidentiality of negotiations might be of little concern because there is no future risk in revealing information.¹⁹⁰ In this case, communications may proceed with a focus on maximizing strategic interests in the current controversy. Conversely, a party that foresees continued litigation involving the patent will be reserved about divulging information that may prove harmful in subsequent disputes. However, because parties are likely unable to accurately predict the extent and nature of future liability, it becomes nearly impossible for them to make any type of meaningful tradeoff.¹⁹¹ Under these conditions, the parties' uncertainty is more likely to paralyze communication than to encourage the type of open negotiations that facilitates dispute resolution. It is difficult to see any situation where increased discovery of negotiations does not erode the value of these communications in extracting information regarding the

188. *Id.*

189. Wayne D. Brazil, *Protecting the Confidentiality of Settlement Negotiations*, 39 HASTINGS L.J. 955, 990 (1988) (“[I]f the law wants to encourage settlement by encouraging frank negotiations, it is important to create an environment in which counsel and parties can be fairly confident that what they say as they negotiate, and the terms of any agreements they might reach, will not be used against them later.”).

190. Deason, *supra* note 178, at 1396 (“If risk for a decision maker is a ‘perceived probability of loss,’ then there is no risk in a decision to take an action unless that action may lead to a loss.”).

191. *Id.*

merits or value of the claim and in determining their relevance to the current dispute.

As time progresses, the probative value of settlement communications may dissolve further as parties transition from simple future risk avoidance to developing strategies and calculated distortions that may benefit them in subsequent litigation. If courts begin to routinely analyze settlement negotiations in patent disputes, parties will likely seek to use settlement communications offensively to position themselves in subsequent litigation. Parties' ulterior motives will detract attention from resolving the matter at hand and undermine the effectiveness of current negotiations in favor of disputes that may never arise. Over time, the net result is negative for efficient dispute resolution. If parties increasingly negotiate with an eye to future litigation, the resulting settlement communications will provide less value in both the current negotiations and future disputes.

3. *Increased Discovery of Settlement Negotiations Conflicts with Recent Policy Trends*

The decisions in *Tyco* and *Datatresury* are at odds with the modern trend of promoting mediation and settlement through confidential communications.¹⁹² Due to the costly and time consuming nature of patent litigation, courts should create rules that maximize communication and compromise.¹⁹³ Over the past several decades, federal courts have initiated several efforts aimed at promoting settlement, including encouraging mediation and ensuring confidentiality of discussions.¹⁹⁴ Many courts now require counsel to discuss how they will attempt to mediate the case,¹⁹⁵ and

192. Michael P. Dickey, *ADR Gone Wild: Is It Time for a Federal Mediation Exclusionary Rule?*, 25 OHIO ST. J. ON DISP. RESOL. 713, 714 (2010) (“Beginning with amendments to Rule 16 of the Federal Rules of Civil Procedure (FRCP) in 1983, continuing with the Civil Justice Reform Act of 1990, and culminating in the mandates of the ADR Act of 1998, federal courts integrated alternative dispute resolution generally, and mediation in particular, as a docket management tool.”).

193. MENELL ET AL., *supra* note 1, § 2.5.

194. Dickey, *supra* note 192, at 714–15 (noting that “[C]ourts and commentators increasingly perceive the mediation process as a means of managing congested dockets,” and that “federal courts have . . . adopted and enforced rules ostensibly meant to protect the confidentiality of mediation, and gone so far as to sanction parties for bringing motions that described what transpired or what was said at a mediation.”).

195. MENELL ET AL., *supra* note 1, § 2.6.1. (“Discussion about mediation may be required by either local rules or standardized order.”); *see also* Dickey, *supra* note 192, at 715 n.4 (“In response to the ADR provisions of the [Civil Justice Reform Act of 1990], most district courts had implemented mediation programs by 1996.”).

have authority to order participation.¹⁹⁶ For example, the patent local rules in the Northern District of California have a broad prohibition on disclosure or use outside of mediation of anything said or done in mediation, in order to promote communications.¹⁹⁷ Rules such as these are based on the strong belief that confidentiality encourages the parties to communicate truthfully, which facilitates settlement.

One possible result of increased discovery is that parties may seek confidentiality safe-havens or arrangements with a strong presumption that any communication between parties will be protected. Given the importance some courts place on protecting settlement communications, courts should respect such confidentiality agreements.¹⁹⁸ But efforts by federal courts to promote settlement and protect confidential communications have been uncoordinated, resulting in inconsistent or even contradictory approaches—the privilege “appears robust in one jurisdiction but effaces into nonexistence in the next.”¹⁹⁹ Even so, the trend is towards acknowledging a privilege.²⁰⁰ Parties negotiating within the confines of these safe havens should have some assurance that courts will uphold the long-standing presumption that such communications are confidential.

IV. CONCLUSION

In *ResQNet* the Federal Circuit stated that “the most reliable license in th[e] record arose out of litigation.”²⁰¹ In response, some district courts have expanded admissibility of settlement licenses and have opened up discovery of the underlying settlement negotiations.²⁰² Other courts claim that *ResQNet* has not changed the admissibility of licenses arising out of litigation.²⁰³ The varying responses have created uncertainty about whether settlement licenses are admissible in subsequent litigation and how they should be evaluated if admitted. The more troubling trend, however, is the increased discovery of

196. 28 U.S.C. §§ 651(b), 652(a) (2006) (authorizing use of alternative dispute resolution processes in civil actions).

197. MENELL ET AL., *supra* note 1, § 2.6.5 (citing N.D. Cal. Patent Local Rule 6-11); *see also* E.D. Mo. Loc. R. 16-604(A) (ensuring mediation confidentiality).

198. MENELL ET AL., *supra* note 1, § 2.6.5.

199. Dickey, *supra* note 192, at 731.

200. *Id.*

201. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872 (Fed. Cir. 2010).

202. *See, e.g.*, *Tyco Healthcare Group LP, v. E-Z-Em, Inc.*, No. 2:07-CV-262 (IJW), 2010 WL 774878, at *2 (E.D. Tex. Mar. 2, 2010); *Datatreasury Corp. v. Wells Fargo & Co.*, No. 2:06-CV-72 DF, 2010 WL 903259, at *2 (E.D. Tex. Mar. 4, 2010).

203. *See, e.g.*, *Fenner Invs., Ltd. v. Hewlett-Packard Co.*, No. 6:08-CV-273, 2010 WL 1727916, at *3 (E.D. Tex. Apr. 28, 2010).

settlement negotiations. Reduced protection of settlement negotiations may have a chilling effect on settlement as parties become fearful of their communications being used against them in future cases. Increased discovery of settlement negotiations also conflicts with courts' recent efforts to promote settlement. Furthermore, the argument that settlement negotiations can assist in evaluating the value of the final agreement is based on a flawed assumption that settlement communications are reliable. Over time, reduced confidentiality of settlement negotiations would likely degrade the effectiveness of settlement efforts, which would have a chilling effect on good-faith settlements and further reduce the usefulness of these communications for evaluating the value of disputed patents.

SEEING THE FOREST THROUGH THE TREES: GENE PATENTS & THE REALITY OF THE COMMONS

Tina Saladino[†]

Patents prevent anyone but the patent-holder from manufacturing, using, or distributing discoveries and inventions for twenty years from the date of filing.¹ In order to be patentable, an invention needs to be useful, non-obvious, and represent an original design or process rather than an abstract concept or item commonly found in nature.²

Patents related to genetics received their first legal test in 1980, when the U.S. Patent and Trademark Office (USPTO) granted protection to a genetically engineered bacterium that consumed oil and was useful in cleaning oil spills.³ The legality of this patent was affirmed in *Diamond v. Chakrabarty*, where the Supreme Court observed that although “[t]he laws of nature, physical phenomena, and abstract ideas” were not patentable subject matter under § 101, the claimed invention in the case was distinguished from nature as “a product of human ingenuity having a distinctive name, character and use.”⁴ The Court held that although the invention comprised a living thing, the patentee had produced a new bacterium with “markedly different characteristics” from the original. The bacterium was, therefore, “not nature’s handiwork but [the patentee’s] own.”⁵

Although *Chakrabarty* settled the question of whether manufactured genes can receive patent protection, it did not address the patentability of naturally occurring genes.⁶ In the absence of such definitive legal guidance, the USPTO routinely issues patents on human deoxyribonucleic acid (DNA) sequences, reasoning that the material has been purified from its natural form through human intervention and is thus sufficiently “touched by man” to be

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1. 35 U.S.C. § 154(a)(2) (2006).

2. *Id.* §§ 101–103.

3. *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

4. *Id.* at 309.

5. *Id.* at 310.

6. Robert Field, *New Court Ruling May Alter the Legal Landscape for Gene Patents*, 35 PHARMACY & THERAPEUTICS 322–23 (2010).

beyond the scope of nature.⁷ From 1980 to 2009, the USPTO issued between 3,000 and 5,000 patents on human genes, encompassing nearly 20% of the human genome.⁸ In addition, the USPTO has issued nearly 50,000 patents involving human genetic material, yet the fundamental validity of such patents has never been reviewed until now.

In March 2010, a district court decision in New York brought attention to the role of gene patents in the advancement of biomedical research. In *Association for Molecular Pathology v. United States Patent and Trademark Office* (“AMP”),⁹ the Southern District of New York enforced a strict standard for subject matter patentability by invalidating seven patents relating to the human breast cancer genes BRCA1¹⁰ and BRCA2¹¹ (collectively “BRCA”).¹² The court reasoned that not only were the coding sequences and mutations of BRCA results of natural phenomena, but that the purified forms of BRCA maintain essentially the same structures and functions as their natural forms and therefore fall outside the scope of patent law protection.¹³

Although the decision primarily addressed the patent’s subject matter, the court also noted the possible social implications resulting from how patents affect access and innovation in biomedical research.¹⁴ Contrary to concerns raised by the plaintiffs in *AMP*, empirical studies indicate that gene patents do not impede access to biomedical research data or play a significant role in

7. *Parke Davis & Co. v. H. K. Mulford Co.*, 189 F. 95, 103 (S.D.N.Y. 1911) (“[B]y removing it [adrenaline] from the other gland-tissue in which it was found . . . it became for every practical purpose a new thing commercially and therapeutically.”); *see also* *Kuehnmsted v. Farbenfabriken*, 179 F. 701 (7th Cir. 1910) (holding that aspirin, purified from a previously known compound, constituted a new invention as the beneficial and therapeutic effects of aspirin were unavailable in the known compound); *Union Carbide v. Am. Carbide*, 181 F. 104 (2d Cir. 1910) (holding crystalline carbide novel and not anticipated by amorphous carbide); *In re Bergstrom*, 427 F.2d 1394 (S.D.N.Y. 1970) (product did not occur in purified form).

8. The accuracy of this percentage is questioned. Some argue that only 2% of the human genome is patented.

9. 702 F. Supp. 2d 181 (S.D.N.Y. 2010).

10. BRCA1 is a human gene expressed in the cells of breast and other tissues to repair damaged DNA and suppress tumor growth.

11. BRCA2 is a human gene that binds to and regulates a protein which fixes breaks in DNA. Although structurally different from BRCA1, BRCA2 serves a similar function and the two genes are often referred to collectively as “BRCA”.

12. *Id.*

13. *Id.* at 227, 231–32.

14. *Id.* at 207–11. (noting the deep divide between the parties with regard to the implications of patents on the furtherance of research and health of society. The court did not come to their own opinion on the social implications of the patent).

influencing the topics of research that scientists choose to pursue.¹⁵ These results suggest that while gene patents do not impede innovation, they may not be necessary for it either, at least at the foundational level. Some scholars still maintain, however, that patent protection is necessary to ensure adequate funding for further research, development, and marketing of their innovations.¹⁶

This Note focuses on the role of patent law in encouraging or discouraging innovation in the field of biomedical research. Specifically, this Note analyzes the policy justifications underlying gene patents and explores whether these justifications validly apply to the patenting of the BRCA gene. Part I establishes a basic understanding of patents, genes, and gene patents. Part II provides greater detail regarding the arguments and holding in the *AMP* case. Part III introduces the traditional rationales for patent protection and applies them to gene patents. Part IV considers the concerns surrounding gene patents and whether these concerns are realistic given the results of empirical studies on the relationship between patents and biomedical research. Part IV also examines whether the district court's holding in *AMP* is consistent with the policy goals behind intellectual

15. See John P. Walsh et al., *Effects of Research Tool Patenting and Licensing on Biomedical Innovation*, in PATENTS IN THE KNOWLEDGE-BASED ECONOMY 285–341 (Nat'l Academies Press 2003) (Wesley M. Cohen and Stephen A. Merrill eds.); see also Robert Cook-Deegan et al., *Impact of Gene Patents and Licensing Practices on Access to Genetic Testing for Inherited Susceptibility to Cancer: Comparing Breast and Ovarian Cancers with Colon Cancers*, GENETICS IN MED., S15, S23 (April 2010 Supp.); Wesley M. Cohen & John P. Walsh, *Real Impediments to Academic Biomedical Research*, in 8 INNOVATION POLICY AND THE ECONOMY 1 (Adam B. Jaffe, Josh Lerner, & Scott Stern eds. 2008), available at <http://www.nber.org/~marschke/mice/Papers/cohenwalsh.pdf>; Robert Cook-Deegan & Christopher Heaney, *Patents in Genomics and Human Genetics*, 12 ANN. REV. GENOMICS & HUM. GENETICS 383 (2010); Dianne Nicol & Jane Nielsen, *Patents and Medical Biotechnology: An Empirical Analysis of Issues Facing the Australian Industry* (Centre for Law & Genetics Occasional Paper No. 6, 2003), available at <http://www.ipria.org/publications/reports/BiotechReportFinal.pdf>; Sadao Nagaoka, *An Empirical Analysis of Patenting and Licensing Practices of Research Tools From Three Perspectives*, Presentation at the Conference on “Research Use of Patented Inventions” Organized by the Spanish National Research Council, the Spanish Patent and Trademark Office, and the OECD (May, 18–19 2006), available at <http://www.oecd.org/dataoecd/20/54/36816178.pdf>; Joseph Straus, *Genetic Inventions and Patents: A German Empirical Study*, Presentation at Genetic Inventions, Intellectual Property Rights and Licensing Practices (Jan. 24–25 2002), available at <http://www.oecd.org/dataoecd/36/22/1817995.pdf>.

16. See *BIO Speakers See IP Spurring Innovation in Life Sciences Despite Its Legal Battles*, 80 PATENT TRADEMARK & COPYRIGHT JOURNAL 47 (Mar. 14, 2010) (quoting Robert Armitage, senior VP and general counsel for Eli Lilly, who said that “the ability to cure rests largely on IP”); see also Lee Bendekgy & Diana Hamlet-Cox, *Gene Patents and Innovation*, 17 ACAD. MED. 1373, 1375–76 (2002).

property rights and the reality of the industry. Finally, this Note concludes that, in general, patents do not impede upon innovation. However, the broad issuance of composition claims, such as those held by Myriad in *AMP*, may block research in areas of study that the patent holder is not pursuing (such as therapeutics). This Note suggests that this issue could be resolved by narrowing the focus of the patent claim to the application of the gene composition, rather than the composition on its own.

I. BACKGROUND

The primary fact at issue in the *AMP* case was whether isolated DNA is patentable within Section 101 of the Patent Act.¹⁷ In order to understand the arguments as well as the district court's holding, this part provides background on patents and genes.

A. WHAT IS A PATENT?

A patent is a social contract between the government and an inventor in which the inventor is granted a state-sanctioned monopoly over their invention for a fixed term in exchange for making their discoveries public.¹⁸ These contracts are intended to stimulate innovation by providing investors with an opportunity to temporarily dominate the market to recoup their investment and continue to invest in new ideas.¹⁹ To be eligible for patent protection, the invention must be useful, novel, and non-obvious.²⁰

Patent protection does not automatically afford the holder the right to do anything, but patent rights do exclude everyone, except the patentee and its licensees, from making, using, selling, offering for sale, or importing the invention for twenty years from the date of filing.²¹ If patent infringement

17. 35 U.S.C. § 101 (2006).

18. 35 U.S.C. § 101 (“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.”); see Alan R. Williamson, *Gene Patents: Socially Acceptable Monopolies or an Unnecessary Hindrance to Research?*, 17 TRENDS GENETICS 670 (Nov. 2001); see also *Eli Lilly & Co. v. Barr Labs. Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2001) (“[A patent] creates a statutory bargained-for-exchange by which a patentee obtains the right to exclude others from practicing the claimed invention for a certain time period, and the public receives knowledge of the preferred embodiments for practicing the claimed invention”); Cook-Deegan & Heaney, *supra* note 15, at 386.

19. Cook-Deegan & Heaney, *supra* note 15, at 394, 395; see also Williamson, *supra* note 18, at 671.

20. 35 U.S.C. §§ 101–103 (2006); see also *Diamond v. Chakrabarty*, 447 U.S. 303 (1980).

21. 35 U.S.C. § 154 (a)(2) (2006).

occurs, a patent holder can seek a court-issued injunction against the infringer to cease their infringing activity (and seek monetary damages) or demand that the infringer take a license under the threat of legal action.²² But patent protection never guarantees permanent protection from competition, improvements, or alternative means of achieving the same effect.²³

Patent law has a statutory disclosure requirement. The USPTO requires a patent applicant to describe their invention in sufficient detail such that a “person having ordinary skill in the art” will be able to make and use the claimed invention without “undue experimentation.”²⁴ Each patent application is then published eighteen months from the earliest filing date.²⁵ Researchers and potential competitors can use this published data to pursue further innovation and improvements once the patent expires or through licensing agreements with the patent holder.

The claims in the patent application also establish the “metes and bounds” of the patent holders’ rights, giving notice of the intellectual property rights claimed as well as those left to the public.²⁶ This includes the “best mode” known by the inventor to carry out the invention.²⁷ This requirement serves as a safeguard to prevent inventors from obtaining patent protection without making full disclosure as required by the statute.²⁸ By requiring that the best mode of a patent be disclosed, the USPTO encourages further improvements upon the most advanced, available technology.

Section 101 of the Patent Act specifies the general subject matter that can be patented. The language of the statute explains that any person who “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.”²⁹ Interpretations by the Supreme Court have further defined the limits of the field of subject matter that can be patented, and have excluded from protection the laws of nature,³⁰ physical phenomena, and

22. Brandon L. Pierce et al., *The Impact of Patents on the Development of Genome-Based Clinical Diagnostics: An Analysis of Case Studies*, GENETICS MED., at 2 (Mar. 2009).

23. Cook-Deegan et al., *supra* note 15, at S30.

24. 35 U.S.C. § 112 (2006).

25. *Id.* § 122.

26. *Id.* § 112(b).

27. *Id.* § 112.

28. *Id.*; see also *In re Nelson*, 280 F.2d 172 (C.C.P.A.1960).

29. 35 U.S.C. § 101 (2006).

30. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 132 (1948) (holding that the combination of seeds to produce a more reproductively capable plant was new and useful, but lacked the requirement of invention and discovery). Once nature’s secret of the

abstract ideas.³¹ The exclusion by the Court of the laws of nature, however, does not preclude the patenting of certain works that are sufficiently “touched by man.”³² The USPTO has interpreted this exclusion to include isolated gene sequences.³³

B. WHAT IS A GENE?

A “gene” commonly refers to a fundamental unit of inheritance.³⁴ A gene resides on a stretch of DNA that can code for a type of protein or for an RNA molecule that has a function in the person.³⁵ The genetic code stored within a gene is produced through the pairing and sequence of four specific nucleotides (adenine, thymine, cytosine, and guanine).³⁶ Similar to the order of words in a sentence, the sequence of these nucleotide pairings provides information in the form of the genetic code.³⁷ At its simplest, a gene includes these coding regions, but as knowledge in the field of genetic research expands so does the definition of a “gene”, creating an increasing complex dialogue for such a small chemical composition.

The notion of a “gene” is evolving alongside the science of genetics. As a result, reaching a consensus over a modern definition has become increasingly challenging.³⁸ For instance, Karen Eilbeck, the coordinator of the Sequence Ontology Consortium (SOC)³⁹ at the University of California at Berkeley, said that it took twenty-five SOC scientists the better part of two days to reach a consensus on a loose, working definition of a gene.⁴⁰ They finally settled on defining a gene as “[a] locatable region of genomic

non-inhibitive quality of certain strands of the species was discovered the state of the art made respondent’s production of a mixed inoculants a simple step. *Id.*

31. *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972) (holding that a certain use of a computer program related to processing data was not patentable because the claim was so abstract and sweeping that it covered a mere idea).

32. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (holding that a micro-organism produced by genetic engineering was not excluded from patentable subject matter since it avoided the category of law of nature by being sufficiently “touched by the hand of man”).

33. Util. Examination Guidelines, 66 Fed. Reg. 1092, 1093 (Dep’t of Commerce Jan. 5, 2001) (notice).

34. *What is a Gene?—Genetics Home Reference*, U.S. NAT’L LIBRARY OF MED. (Feb. 27, 2011), <http://ghr.nlm.nih.gov/handbook/basics/gene>.

35. *Genome.gov—A Brief Guide to Genomics*, NAT’L HUMAN GENOME RESEARCH INST. (Aug. 24, 2010), <http://www.genome.gov/18016863>.

36. *Id.*

37. *Id.*

38. See Helen Pearson, *Genetics: What is a Gene?*, 441 NATURE 399 (May 2006).

39. SOC defines labels for landmarks within genetic sequence databases, so that research can be more easily collected and compared.

40. Pearson, *supra* note 38, at 401.

sequence, corresponding to a unit of inheritance, which is associated with regulatory regions, transcribed regions, and/or other functional sequence regions.”⁴¹

For scientists working in different disciplines, the term “gene” is used in a variety of contexts and often has dramatically different meanings.⁴² Rather than striving to reach a single definition, most geneticists instead incorporate less ambiguous words into their vocabulary such as “transcript” or “exon” and then attach an adjective describing its function.⁴³ As a result, today a “gene” has begun to increasingly encompass not only the protein-encoding sequences as well as other functional regions of the genome itself.⁴⁴

People have different physical characteristics because each person has a unique genetic code.⁴⁵ Each unique structure or version of a gene is called an allele.⁴⁶ Mutations (random changes) in genes create new alleles, which can produce new traits, for example through a change in cellular function.⁴⁷ These mutations can be helpful for the purposes of evolution, but they can also pose problems such as increasing the risk of certain diseases, such as cancer.⁴⁸

In order to study genes (e.g., to identify mutations), researchers use a process called genetic sequencing.⁴⁹ This process begins with the purification

41. *Id.* The scientists decided that the definition of a gene should include its nucleic sequences and the purposes these sequences serve. For example, sequences which regulate other bodily functions, copy and send the information within the DNA, and/or other functions. *Id.*

42. *Id.* (Explaining that the term varied depending on the researcher’s use of the gene).

43. *Id.* “Transcripts” assist in the copying of genetic information stored in DNA. “Exons” are coding portions of a gene (the nucleic sequence) that produces a functional gene product.

44. *Id.* (quoting Francis Collins, director of the National Human Genome Research Institute at the National Institutes of Health in Bethesda, Maryland, who stated that when describing genes, “[w]e almost have to add an adjective every time we use that noun.”). Although not discussed, an example of a functional region of a gene would include BRCA’s nucleic sequences which suppress tumor growth in breast tissue.

45. *Genome.gov—Deoxyribonucleic Acid (DNA) Fact Sheet*, NAT’L HUMAN GENOME RESEARCH INST. (Nov. 26, 2010) <http://www.genome.gov/25520880> (explaining animal characteristics and heredity).

46. *Allele—Glossary Entry—Genetics Home Reference Guide*, U.S. NAT’L LIBRARY OF MED. (Feb. 27, 2011), <http://ghr.nlm.nih.gov/glossary=allele>.

47. *What is a Gene Mutation and How Do Mutations Occur?—Genetics Home Reference Guide*, U.S. NAT’L LIBRARY OF MED. (Feb. 27, 2011), <http://ghr.nlm.nih.gov/handbook/mutationsanddisorders/genemutation>.

48. *Id.*; see *Genome.gov—A Brief Guide to Genomics*, *supra* note 35.

49. *Genome.gov—A Brief Guide to Genomics*, *supra* note 35.

of the gene from its natural state.⁵⁰ Purification occurs when a particular gene is “removed from the body and separated from the surrounding cellular material.”⁵¹ Once the gene is separated from the surrounding cellular material, it can be isolated into a concentrated form. Similar to removing a thread from a sweater, the isolated gene may maintain a similar structure and purpose⁵² as it possessed in its original state but now a researcher can examine it to identify particular coding regions, make copies of it, and manipulate it more easily. Isolated genes are also extremely useful to researchers who may want to examine their therapeutic values and functions.⁵³

C. GENE PATENTS

Much of the concern surrounding gene patents arises out of the erroneous perception that patent protection of a genetic sequence is equivalent to ownership of that gene.⁵⁴ The rights conferred by a patent, however, are distinct from those provided via ordinary personal property rights. In particular, ordinary property rights generally include a positive “right to use.”⁵⁵

A gene patent grant is limited to the right to exclude others from the use, sale, distribution, or production of the patented gene.⁵⁶ The patent owner’s right to exclude is limited to the patented subject matter defined by the claims of the patent.⁵⁷ Some patent claims are broadly drafted in an attempt to encompass all possible variants of a gene, including those yet to be discovered. Such drafting comes close to a patent claiming a gene per se,

50. Util. Examination Guidelines, 66 Fed. Reg. 1092, 1093 (Dep’t of Commerce Jan. 5, 2001) (notice).

51. Brief for The Biotechnology Indus. Org. as Amici Curiae in support of defendants opposition to plaintiffs motions for summary judgment, *Ass’n for Molecular Pathology v. U.S. Patent and Trademark Office*, 702 F. Supp. 2d 181 (S.D.N.Y. 2010)(09 Civ. 4515)(2009 U.S. Dist. Ct. Briefs LEXIS 918); see also *DNA Extraction Virtual Lab*, UNIV. OF UTAH GENETIC SCI. LEARNING CTR., <http://learn.genetics.utah.edu/content/labs/extraction/> (explaining how to isolate DNA from a human mouth)(last visited Mar. 30, 2011).

52. It is argued by Myriad and others that isolated genes are structurally and functionally different due to the fact that they are no longer in their chemical environment and their chemical links have been broken.

53. Util. Examination Guidelines, 66 Fed. Reg. 1092, at 1093 (Dep’t of Commerce Jan. 5, 2001).

54. Christopher Holman, *The Impact of Human Gene Patents on Innovation and Access: A Survey of Human Gene Litigation*, 76 UMKC L. REV. 295, 302 (2007).

55. *Id.*

56. 35 U.S.C. § 154(a)(2) (2006).

57. *Id.* § 112.

since they appear to include any biotechnological product, or process of making or using the claimed sequence. These broad claims to gene sequences, however, are more likely to result in litigation and are not the norm.⁵⁸ Most gene patents only claim some narrowly defined product or process involving the use of a genetic sequence. These patents do not impede the use of the gene in other contexts.

In sum, a “gene patent” is a patent on “specific sequences of genes, their usage, and their chemical composition⁵⁹.”⁶⁰ Some interpretations might say that genes are not patentable as elements of nature that are merely discovered.⁶¹ However, there is no explicit rule that genes are unpatentable. Longstanding judicial precedent has held that the isolation of a natural product from its native environment can confer patentability by virtue of the application of human intervention.⁶² This precedent was not directed to DNA,⁶³ yet in 1992, the USPTO granted the first DNA patent and continues to issue such patents today.

58. Holman, *supra* note 54, at 313.

59. “Chemical composition” refers to the amount of carbon, hydrogen, nitrogen, and phosphorous found in a nucleotide sequence.

60. *Id.* at 310.

61. For instance, the court in *Amgen* stated:

[A] gene is a chemical compound, albeit a complex one, and it is well established in our law that conception of a chemical compound requires that the inventor be able to define it so as to distinguish it from other materials, and to describe how to obtain it [in order to acquire patent protection].

Amgen Inc. v. Chugai Pharm. Co., 927 F.2d 1200, 1206 (Fed. Cir.1991).

62. The court in *Parke Davis* held “even if it were merely an extracted product without change, there is no rule that such products are not patentable. [B]y removing it from the other gland tissue . . . [adrenaline] became for every practical purpose a new thing commercially and therapeutically. That was good ground for a patent.” *Parke Davis & Co. v. H. K. Mulford Co.*, 189 F. 95, 103 (S.D.N.Y. 1911); *see also Amgen Inc.*, 927 F.2d 1200; *In re Bergstrom*, 427 F.2d 1394, 1397 (C.C.P.A. 1970).

63. *Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980). This holding was in reference to a bacterium and was meant to encompass human-altered living things, not necessarily DNA, which arguably is not within the scope of the Court’s intention. *See id.*

II. *AMP V. USPTO*

We have now arrived at *Association for Molecular Pathology v. the United States Patent and Trademark Office*. This part will begin with an analysis of the facts of the case and then detail the decision.

A. THE FACTS

In 1995, Myriad Genetics, in conjunction with the University of Utah and several other research laboratories identified the nucleotide sequences for BRCA and discovered links between mutations in those sequences and the development of breast and ovarian cancer.⁶⁴ Myriad also developed a diagnostic test to identify these mutations within women.⁶⁵ Subsequent to these findings, Myriad filed for patent rights in the United States and Europe.⁶⁶ Myriad's claims in their patent applications included the rights to the mutations of the genes, the mental act of comparing forms of the BRCA genes, and the correlation between certain genetic mutations and an increased risk of breast and ovarian cancer.⁶⁷

On May 12, 2009, various non-profit agencies, led by the Association for Molecular Pathology ("AMP"), filed suit to challenge the validity of the BRCA patents held by Myriad Genetics and the University of Utah Research Foundation (collectively "Myriad").⁶⁸ The plaintiffs claimed that Myriad's patents were invalid under § 101 of the patent code because DNA is a product of nature and therefore not patentable subject matter.⁶⁹

The BRCA genes encode proteins that assist in the repair of damaged DNA and the suppression of tumors.⁷⁰ Mutations in these genes are associated with a 40–85% increased risk of breast cancer and a 15–40% increased risk of ovarian cancer compared to a 1.4% risk in the general female population.⁷¹ Between 5 and 10% of all women who will develop breast cancer have a BRCA gene mutation.⁷² Through genetic testing, a

64. *Ass'n of Molecular Pathology v. U.S.P.T.O.*, 702 F. Supp. 2d 181, 201–03 (S.D.N.Y. 2010).

65. *Id.*

66. *Id.* at 202.

67. *Id.* at 211–14.

68. *Id.* at 186.

69. *Id.* at 206–11.

70. *Id.* at 203.

71. Marisa Noelle Pins, *Impeding Access to Quality Patient Rights: How Myriad Genetics' Gene Patents are Unknowingly Killing Cancer Patients and How to Calm the Ripple Effect*, 17 J. INTELL. PROP. L. 377, 384 (2010).

72. *Id.*

patient not only learns of her risk but also obtains valuable information which may determine prevention and treatment options since BRCA mutations are an important factor in determining appropriate course of care^{73, 74}

Myriad offers multiple forms of their patented BRCA testing to the public at a cost of \$3,000 per test.⁷⁵ For low income patients who meet certain economic and clinical requirements, Myriad offers financial assistance programs and the opportunity for free testing at certain non-profit agencies.⁷⁶

B. THE ARGUMENTS

AMP argued that Myriad's economic and clinical requirements are extremely steep and leave many at-risk patients without access to testing.⁷⁷ Many times, those who are tested at non-profit research agencies are denied access to the results of their tests due to the scope of Myriad's patents.⁷⁸ Because of the patents' scope these agencies are entitled to conduct the BRCA test for research purposes only while Myriad maintains the rights to diagnostic testing (i.e. the right to reveal results).⁷⁹ Women who do have access to the tests and wish to seek a second opinion are often denied since only Myriad-approved testing agencies are allowed to conduct the test and those agencies do not accept Medicaid or many other insurance programs.⁸⁰

AMP also alleged that Myriad's patents hindered improvements in the screening of BRCA by refusing to issue licensing agreements to universities and non-profits who want to test the validity of Myriad's results or to conduct further genetic screening for clinical purposes.⁸¹

Myriad argued that DNA should be treated like any other chemical compound and that its purification from the body renders it patentable by transforming it into something distinctly different in character thereby complying with 35 U.S.C. § 101.⁸² Myriad relied extensively on Judge Learned Hand's opinion in *Parke-Davis & Co. v. H.K. Mulford Co.*, 189 F. 95 (S.D.N.Y.

73. *Ass'n of Molecular Pathology*, 702 F. Supp. 2d at 203.

74. *Id.* For example, certain chemotherapies depending on whether the mutation is on the BRCA 1 or BRCA2 gene.

75. *Id.*

76. *Id.*

77. *Id.* at 203, 206.

78. *Id.* at 203.

79. *Id.*

80. *Id.* at 188–89, 204.

81. *Id.* at 206–09.

82. *Id.* at 228.

1911).⁸³ In *Parke-Davis*, the court held that although adrenaline was a naturally occurring substance within the body, the process the patent protected was “for every practical purpose a new thing commercially and therapeutically” due to the fact that the adrenaline was separated and purified from the adrenal glands.⁸⁴

On March 29, 2010, the Federal Circuit granted summary judgment, in part, to AMP, holding that Myriad’s patents on BRCA were invalid.⁸⁵ Although the Court recognized that Myriad had identified and isolated the BRCA genes, Judge Sweet held that purified natural substances, without more, do not constitute § 101 subject matter.⁸⁶

Judge Sweet held that manufacture, under § 101, implies a change that is transformative, distinct of character and use, and therefore requires markedly different characteristics from the original.⁸⁷ Mere purification of known materials, the court held, does not result in a patentable product.⁸⁸ Even in their isolated and purified forms, the BRCA genes were not markedly different from those that exist in nature.⁸⁹ Judge Sweet emphasized in his argument the importance of DNA as representing the physical embodiment of biological information, distinct in its essential characteristics from any other chemical found in nature.⁹⁰ Judge Sweet reasoned that “DNA’s existence in an ‘isolated form’ alters neither the fundamental quality of DNA as it exists in the body, nor the information it encodes.”⁹¹ Myriad’s patents directed at “isolated DNA” were, therefore, “unsustainable as a matter of law.”⁹² The court also held that the method claims for identifying BRCA mutations and comparing cell growth were unpatentable mental processes.⁹³

C. ANALYZING THE MYRIAD PATENTS

One of the chief issues surrounding the patents at issue in *AMP* was their breadth. Unlike most patents, the BRCA patents are neither narrowly defined nor limited by a particular usage. To illustrate, claim six of Myriad’s 5,837,492

83. *See id.* at 224.

84. *Parke-Davis & Co. v. H.K. Mulford Co.*, 189 F. 95, 103 (S.D.N.Y. 1911).

85. *Ass’n of Molecular Pathology*, 702 F. Supp. 2d at 181.

86. *Id.* at 227.

87. *Ass’n of Molecular Pathology*, 702 F. Supp. 2d at 227–32.

88. *Id.* at 227.

89. *Id.*

90. *Id.* at 227–32.

91. *Id.* at 185.

92. *Id.*

93. *Id.*

patent, a composition claim,⁹⁴ is one of the broader claims asserted and is directed to a DNA nucleotide encoding any mutant BRCA2 protein that is associated with a predisposition to breast cancer.⁹⁵ Claim six reads: “[a]n isolated DNA molecule coding for a mutated form of the BRCA polypeptide set forth in SEQ ID NO:2, wherein said mutated form of the BRCA2 polypeptide is associated with susceptibility to cancer.”⁹⁶

As a result of the breadth of Myriad’s composition claims, the patents foreclose researchers from the use of isolated BRCA obtained from any human being. Similarly, claim one of the 5,709,999 patent,⁹⁷ a method claim, forecloses researchers from the use of the process of identifying the existence of certain specific mutations in the BRCA1 gene by “analyzing” the sequence of the BRCA1 DNA, RNA, or cDNA obtained from any human being. Most of the remaining method claims are directed to the comparison of gene sequences.⁹⁸

As written, Myriad’s composition claims for isolated BRCA preclude anyone from isolating the genetic sequence for any purpose, even if the purpose is not within the scope of the claimed language of the patents. One fear is that patents with broad coverage will hamper research further downstream in areas including therapeutics. One way to avoid this type of monopolization is to limit gene patents only to particular usages. For example, the Myriad patent claims could be limited to using the isolation and comparison processes for the identification of the mutation for diagnostic purposes. Such a limitation would leave room for other researchers to utilize the sequence for therapeutic research purposes.

94. A composition claim is a claim asserted over a composition of matter or a mixture of chemicals that produces a particular composition.

95. *Ass’n of Molecular Pathology*, 702 F. Supp. 2d at 212–13.

96. *Id.* at 213 n.30.

97. Claim one states:

A method for detecting a germline alteration in a BRCA1 gene, said alteration selected from a group consisting of the alterations set forth in Table 12, 14, 18, or 19 in a human which comprises analyzing a sequence of a BRCA1 gene or BRCA1 RNA from a human sample or analyzing a sequence of BRCA1 cDNA made from mRNA from said human sample with the proviso that said germline alteration is not a deletion of 4 nucleotides corresponding to base number 4184-4187 of SEQ ID No:1.

U.S. Patent No. 5,709,999 (filed June 7, 1995) (issued Jan. 20, 1998); *see also Ass’n of Molecular Pathology*, 702 F. Supp. 2d at 213.

98. *Ass’n of Molecular Pathology*, 702 F. Supp. 2d at 213 (referring to claim 1 of the ’001 patent, claim 1 of the ’441 patent, claim 2 of the ’857 patent).

III. TRADITIONAL RATIONALES FOR PATENT PROTECTION

Patent protection confers to the patent holder the exclusive right to exclude others from the use of the patented product or process for a limited time period. This right has been traditionally justified as necessary to promote progress in science and the arts.

A. PATENT LAW AS PROMOTING INNOVATION AND PREVENTING UNAUTHORIZED FREE-RIDING

Patent protection supports the level of investment and risk necessary to develop and commercialize important research ventures.⁹⁹ Patents ensure that companies have a monopoly for a limited time frame over the products they develop. These companies can then recoup their initial investments and pass along the profits to investors. Such protections encourage future investment, and further research and development in other scientific ventures.¹⁰⁰ Absent the guaranteed protections of patents, companies will be forced to rely more heavily on trade secret¹⁰¹ protections. Trade secret protections preclude the publication and disclosure of knowledge, counter to the goals of the U.S. Constitution in “promoting progress in Science and the Useful Arts.”¹⁰² By keeping secret the most advanced or efficient modes of a particular industry, trade secret precludes others from improving upon their methods and delays progress and advancement that would otherwise be made within the protected industry.

Patent protection discourages unauthorized free-riding by giving inventors a temporary monopoly to recoup their initial expenses in research and development. Concerns about free-riders are most acute in situations where the innovation is expensive to develop but easy to copy.¹⁰³ For example, in gene-based research, the cost of isolating and identifying a gene

99. *Economic Report of the President*, 1 PUB. PAPERS 1134 (Feb. 5, 2002) available at http://www.gpoaccess.gov/usbudget/fy03/pdf/2002_erp.pdf; see also Fabio Pammolli & Maria Alesandra Rossi, *Intellectual Property, Technological Regimes and Market Dynamics* 13 (Economia e Politica Industriale Paper No. 2/2005, 2005), available at <http://www.who.int/intellectualproperty/submissions/IP-tech-reg-final.pdf>.

100. Pammolli & Rossi, *supra* note 99, at 13.

101. A trade secret is information that is not reasonably ascertainable whereby a business can acquire an economic advantage. The secret is protected under state intellectual property or misappropriation laws as long as it continues to be a secret.

102. U.S. CONST. art. 1 § 8 cl. 8 (“The Congress shall have 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 . . .”).

103. Bendekgy & Hamlet-Cox, *supra* note 16, at 1375.

and transforming it into a commercially viable product is expensive, but once complete the gene is easily duplicated.¹⁰⁴ If the government did not provide patent protection for isolated gene sequences, laboratories would have little incentive to invest in the cost of pursuing such research knowing that others could take from their findings and profit with little investment.¹⁰⁵ Therefore, by providing a limited monopoly in the use of a gene sequence, the government encourages research labs to continue isolation and identification research, promoting further knowledge in the field while at the same time discouraging free-riding for the length of the patent term.¹⁰⁶

B. PATENT LAW AS PROMOTING DISCLOSURE

As previously discussed, patent applicants must disclose their invention to receive a patent and provide sufficient information to enable a person skilled in the art to reproduce the invention.¹⁰⁷ The disclosure of technical information is the quid pro quo of legal protection in a balance of rights between the inventor and society.¹⁰⁸ Patents thus encourage the free dissemination of innovative knowledge in exchange for a limited monopoly.¹⁰⁹ Protection begins at the time of filing, and thus may encourage researchers who have filed a patent application to share their research findings at conferences and meetings.¹¹⁰

Due to the high cost of isolation and identification of genes and the low cost of duplication of that research, disclosure of the discovery of a particular sequence and the method of identification might otherwise be kept secret if patent protection were not guaranteed.¹¹¹ As such, the requirement of disclosure for gene patents encourages the dissemination of knowledge in this field.

C. PATENT LAW AS A SIGNALING FUNCTION

Through the requirement of disclosure, patents provide a unique “signaling” function.¹¹² First, through disclosure of claims, patent applications clearly define the boundaries of the object of the invention and

104. *Id.*

105. *Id.*

106. *Id.*

107. 35 U.S.C. § 112 (2006).

108. Pammolli & Rossi, *supra* note 99, at 4.

109. *Id.*

110. Wesley M. Cohen et al., *R&D Spillovers, Patents and the Incentives to Innovate in Japan and the United States*, 31 RES. POL'Y 1349, 1364 (2002).

111. *See supra* text accompanying note 101.

112. Pammolli & Rossi, *supra* note 99, at 4, 13.

thereby signal to scientists which areas of technology may require more research and development.¹¹³ Second, possession of patents serves the purpose of signaling a firm's innovative capabilities and, as a result, increases its ability to raise the necessary capital for further research and development.¹¹⁴

1. *Signaling Legal Title*

Patent protection of gene sequences signals to others in the field the metes and bounds of the knowledge claimed. By defining the particular sequence and application of that sequence, gene patents signal to others in the industry which fields are still open to discovery and research.

A patent's limited time period also encourages innovation. This short-term of protection encourages competitors to improve and "invent around" existing patents. By publicly releasing the details of all patented inventions, the patent system provides researchers with an extensive database of relevant information to aid in focusing their own pursuits.¹¹⁵

2. *Signaling Innovative Capabilities*

In research fields characterized by significant levels of uncertainty, such as genetics, patent databases prove useful for the furtherance of innovation.¹¹⁶ By signaling a researcher's competencies and capabilities, patents assist industries that might otherwise be crippled by uncertainty in attracting funding.¹¹⁷ Patents influence investors' confidence in risky and uncertain innovative research where profitability is initially low.¹¹⁸ Thus, patents encourage the adequate flow of funds toward innovative activities that would otherwise face challenges in exploiting other sources of financing.¹¹⁹

As discussed, in genetics, the initial costs of isolating and identifying a gene sequence can be high. The isolation of the sequences does not guarantee a profit if the protections of monopoly are not granted since others can enter the field, benefit, and even take credit for the research that

113. *Id.*

114. *Id.*

115. Ian R. Walpole et al., *Human Gene Patents: The Possible Impacts on Genetic Services Healthcare*, 179 MED. J. AUSTL. 203, 204 (2003).

116. *Id.* at 13.

117. *Id.*

118. *Id.*

119. *Id.* at 13; see also Paul Gompers & Josh Lerner, *The Venture Capital Revolution*, 15 J. ECON. PERSP. 145 (2001).

has already been done. Through the elements of publication and disclosure, gene patents signal to investors which researchers were the first to isolate and identify the gene sequence. Thus, those laboratories who invest the initial time and expense of the isolation and identification of the sequences are rewarded for their labor.

D. ARGUING AGAINST PATENTS: THE TRAGEDY OF THE ANTI-COMMONS

Numerous scholars have expressed concern regarding the recent proliferation of intellectual property rights in biomedical research.¹²⁰ These scholars are concerned that the fragmentation of rights will result in what Heller and Eisenberg coined “the Tragedy of the Anti-Commons.”¹²¹ This “tragedy” refers to a coordination breakdown where the existence of numerous rights holders obstructs the achievement of a socially desirable outcome.¹²² This breakdown more readily occurs in the patent setting due to the exclusivity of rights that patent protection confers. For example, if the creation of a single product involves many techniques and components patented by different individuals, it can be challenging to effectively negotiate with all the necessary rights holders. The resulting licensing fees may be too expensive for a researcher attempting to create the desired product. Thus, socially desirable products may not be produced because the transaction and licensing fees associated with them, as a result of patents, are too high.

Applied to genetics, an excessive fragmentation of patent rights may prevent coherent aggregation of rights that are essential for future biomedical research.¹²³ For example, if one gene has three important alleles and the gene, as well as all three individual alleles, are covered by patents held by separate individuals; locating, negotiating, and paying the licensing fees in order to study the specific function of that gene in various organisms may be too expensive. This is of considerable importance to research when the patentee claims an entire sequence yet utilizes the sequence for only one isolated purpose. For example, in *AMP*, although they were not pursuing research in

120. Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 *SCIENCE* 698 (1998) (postulating that the accumulation of intellectual property rights in medicine will hamper future research since scientists will be unable to pay all of the individual licensing fees); see also Walpole et al., *supra* note 115, at 203–05. See generally Pins, *supra* note 71 (arguing that Myriad’s patents and others like it are hampering the advancement of necessary therapeutics and putting patients at risk.).

121. Heller & Eisenberg, *supra* note 120, at 698.

122. *Id.*

123. Pammolli & Rossi, *supra* note 100, at 26.

developing a therapeutic treatment for BRCA-linked cancers, Myriad maintained control over *all* uses of the BRCA mutation.¹²⁴ This precluded research and development into necessary therapies and was a significant source of frustration with the patents.

Because academic research is facilitated by the freedom to operate, granting monopolies could slow down and even prevent the advancement of genomic medicine.¹²⁵ Granting patents at such early stages of research as purification and isolation may be too early since it precludes any use of the isolated sequence outside that of the patent holder. Conversely, if gene patents were limited to a specific application of an isolated segment, this would serve both the goal of awarding research and encouraging future innovation.

IV. SEEING THE FOREST THROUGH THE TREES: THE REALITIES OF SCIENTIFIC RESEARCH

A patent holder maintains the right to exclude anyone from the use of his invention. This exclusionary right lies at the heart of the controversy in biomedical research. Some argue that in biomedical research, this right to exclude precludes individuals from access to necessary diagnostic testing and hampers innovation in medical research.¹²⁶ Studies indicate, however, that patent protection increases an individual's access to necessary diagnostic testing.¹²⁷

A. SOCIAL POLICY: HEALTH AND WELL-BEING

Public health and well being have been of considerable importance in the media's depiction of the *AMP* case.¹²⁸ But the role of patent law in improving health outcomes and increasing access to necessary therapeutic and diagnostic tests is left out of this picture.

A study conducted in light of *AMP*, by Robert Cook-Deegan and colleagues, suggests that patent law may actually increase accessibility of clinical diagnostics.¹²⁹ The study examined the BRCA patents in light of other

124. *Ass'n of Molecular Pathology*, 702 F. Supp. 2d 181, 203 (S.D.N.Y. 2010).

125. Cook-Deegan & Heaney, *supra* note 15, at S1–S2.

126. *See generally* Pins, *supra* note 71; *see also* Walpole et al., *supra* note 115, at 203–05.

127. Cook Deegan et al., *supra* note 15, at S15.

128. John Schwartz, *Cancer Patient Challenge the Patenting of a Gene*, N.Y. TIMES, May 13, 2009, at A16; *see also* Lynne Peeples, *The Gene Hunt: Should Finder's Be Keeper's?*, SCI. AM., July 29, 2009, at 2 (discussing the arguments posed in the case and noting the number of patients affected and the limited licensing in which Myriad has engaged).

129. Cook Deegan et al., *supra* note 15, at S15.

similar patents.¹³⁰ The study found that the BRCA patents, which were predominately held only by Myriad (compared to the other patents which were held by multiple organizations and institutions) were both more affordable and more readily available to individuals with insurance.¹³¹ The price reduction was likely correlated with Myriad's monopoly, since the exclusive rights allowed the company to make up any loss in cost through sheer volume of tests it conducted.¹³² This study suggests that patent holders, like Myriad, who invest in marketing to educate the public about the conditions for which their testing targets, actually increases access, affordability, and frequency of clinical testing, such as that for BRCA.¹³³

B. ACCESS

1. *The Role of Academia*

Although restrictions placed on the flow and exchange of research findings may delay scientific progress in the manner already described, these obstructions are not necessarily a result of patent protection and may be more of a result of the setting where this research takes place: academia. There is little empirical evidence of patents substantially slowing the progress of genetic research.¹³⁴ Studies examining the frequency of access problems, in the context of patent enforcement, find them to be rare, even for industry scientists, and especially for academic scientists.¹³⁵

Empirical studies suggest that priority of discovery and the internal motivations within the field of academia play a far more important role in influencing the exclusionary practices of researchers than patent law.¹³⁶ For decades, the priority of discovery has been widely recognized as a significant motivation for scientific research since it confers both tangible and intangible benefits to academics.¹³⁷ In addition to improving an academic's reputation among peers, discovery increases the likelihood of promotion, tenure, and receipt of grant money.¹³⁸ These benefits are self-reinforcing; reputation and

130. *Id.*

131. *Id.* at S23; *see also* Cook-Deagen & Heaney, *supra* note 15, at 409.

132. Cook Deegan et al, *supra* note 15, at S17.

133. *Id.* at S18.

134. Cook-Deagen & Heaney, *supra* note 15, at 409 (citing Caulfield et al., *Evidence and Anecdotes: An Analysis of Human Gene Patenting Controversies*, 24 NAT'L BIOTECHNOLOGY 1091 (2006)).

135. *See supra* note 15.

136. *See also* Cohen & Walsh, *supra* note 15, at 3.

137. *Id.*

138. *Id.* at 5.

grant money attracts quality students who, in turn, increase a researcher's likelihood of success.¹³⁹

To generate the private good of reputation in the priority based system of academia, a researcher must publish.¹⁴⁰ Publication serves to reinforce a sense of sharing and inclusion among academic peers, but this sense of collegiality extends only to a limited degree. While academics are required to disclose a sufficient amount of material in order to persuade the academic community of the merit and validity of their discoveries, scientific competition dampens a researcher's willingness to disclose or share intermediate inputs that are potentially vital to following research projects.¹⁴¹ Academic scientists often refuse to discuss ongoing research until priority has been established through publication.¹⁴² Thus, Heller and Eisenberg's "anti-commons" may exist, but not in the context they imagined.

In 2005, the National Academy of Sciences' Committee on Intellectual Property Rights in Genomic and Protein-Related Inventions published a study concerning the impact of patents and licenses on researchers studying signaling proteins.¹⁴³ The study focused on responses of academic scientists and found few issues of access.¹⁴⁴ Although nearly 30% of respondents complained about restricted access to patented technologies and findings, few of the respondents felt that the restrictions actually caused them to stop a promising line of research.¹⁴⁵ Additionally, they found no instance where industrial or academic researchers stopped investigating certain fields due to an inability to gain access to a large number of patents for a research project.¹⁴⁶ The study found that although a patent can signal to scientists which areas of technology may require more research and development, fewer than 5% of researchers surveyed actually checked for relevant patents on a consistent basis.¹⁴⁷ These findings indicate that although a patent may confer a legal right to exclude, it does not confer actual excludability in

139. *Id.*

140. *Id.* at 6.

141. *Id.*

142. *Id.*

143. WALSH ET AL., PATENTS, MATERIAL TRANSFERS AND ACCESS TO RESEARCH INPUTS IN BIOMEDICAL RESEARCH: FINAL REPORT TO THE NATIONAL ACADEMY OF SCIENCES' COMMITTEE INTELLECTUAL PROPERTY RIGHTS IN GENOMIC AND PROTEIN-RELATED INVENTIONS (2005), available at <http://www2.druid.dk/conferences/viewpaper.php?id=776&cf=8>.

144. *Id.*

145. *Id.* at 3, 22.

146. *Id.* at 17.

147. *Id.* at 16.

academic research settings.¹⁴⁸ Since most scientists do not regularly check for patents during the course of their research, it is likely that they have or continue to infringe upon the patent rights of others in the course of their work.¹⁴⁹

Patent law, itself, may encourage this practice of unlicensed use. Generally, for-profit firms do not threaten infringement action for unlicensed use largely due to the high costs and limited damages available through litigation.¹⁵⁰ Additionally, patent protection also provides a means for the holder to capture improvements upon their discovery since the original patent holder holds an effective block to the commercial release of any improvement upon the original patented product.¹⁵¹ Thus, those who improve upon the patented product are eventually forced into licensing negotiations if they wish to place the product on the market during the term of the patent.¹⁵² This allows the patent holder to capture the profits from the improvement while permitting the innovator to market his improvement before the end of the patent period.

In conclusion, while the exclusionary behavior of Myriad may have had an impact on the activities of researchers, it does not appear, based on empirical studies, that patent protection generally impedes on access or innovation in the field of biomedical research. Exclusionary behavior in academic research is most commonly linked to internal motivations of academia including priority of discovery. Furthermore, patent prosecution is an expensive venture with limited rewards.¹⁵³ Thus, patents should facilitate licensing discussion rather than outright exclusion.

2. *Accessibility of Clinical Data*

Accessibility of research data becomes more complex in a clinical setting. For example, a 2001 telephone survey found that patents and licenses have a significant effect on the ability of clinical laboratories to conduct research, as well as develop and provide genetic tests that can identify particular gene

148. *Id.*

149. This study did not examine whether or not these researchers chose to infringe instead of allow the patents to restrict their research. Some researchers do believe that they are exempt from patent enforcement.

150. Pressman et al., *The Licensing of DNA Patents by US Academic Institutions: an Empirical Survey*, 24 NATURE BIOTECHNOLOGY, Jan. 2006, at 35.

151. *Id.*

152. *Id.*

153. *Id.* at 39.

sequence mutations.¹⁵⁴ When asked “Has notification from a patent holder or licensee ever prevented you from continuing to perform any clinical test or service that you had developed and were offering?” 25% of respondents answered, “Yes.”¹⁵⁵ Of the respondents that reported being prevented from performing a test, 57% reported being prevented from performing one test and 40% reported being prevented from performing more than one test.¹⁵⁶ Laboratory directors at companies were more likely to report being prevented from performing a test (71%) than laboratory directors at universities (24%).¹⁵⁷ Similarly, of the 53% of respondents that claimed that, due to a patent, they decided not to develop or perform a test for clinical purposes, corporate laboratories were more likely (63%) than laboratories at universities to report blockage.¹⁵⁸ The study concluded that the patents and licenses significantly and negatively affected the ability of clinical laboratories to continue to perform already developed genetic tests.¹⁵⁹ However, this study did not examine whether patents provided a major incentive for initial research that led to the development of the genetic tests at issue.

Other studies come to the opposite conclusion regarding patent protection—that fragmentation of patent rights has not inhibited access or the commercialization of genetic testing.¹⁶⁰ An analysis of case studies on four clinical applications of genetic testing conducted by the University of Washington and the Fred Hutchinson Cancer Research Institute found that in each case, all patent rights critical to performing the tests were unified via licensing without intervention from the government (i.e. compulsory licenses) or groups of patent holders (i.e. patent pools—when companies agree to cross license their patents to one another).¹⁶¹ The study also found that when faced with exclusion researchers adapted their practices in order to

154. Mildred Cho et al., *Effects of Patents and Licenses on the Provision of Clinical Genetic Testing Services*, 5 J. MOLECULAR DIAGNOSTICS 3, 3 (2003).

155. *Id.* at 5.

156. *Id.*

157. *Id.*

158. *Id.*

159. *Id.* at 8.

160. See generally WALSH ET AL., *supra* note 142; 8 WESLEY M. COHEN & JOHN P. WALSH, *Real Impediments to Academic Research*, in INNOVATION POLICY AND THE ECONOMY 1–30 (Adam B. Jaffe et al. eds., 2008) available at <http://www.nber.org/~marschke/mice/Papers/cohenwalsh.pdf>; Cook-Deegan et. al, *supra* note 15, at S15–S38; Pierce et al., *supra* note 22.

161. See Pierce et al., *supra* note 22, at 10.

avoid obstructions to their research and testing, such as “inventing around the claims of the patent.”¹⁶²

The ability to “invent around” the claims of a patent depends on the scope of its claims.¹⁶³ Broad claims make such practices difficult. If we consider genes, however, even if a broad claim has been issued, patents related to a specific mutation can still be granted if the proposed patent improves the prior technology in a new and non-obvious way.¹⁶⁴ Under such a circumstance, the owner of the broad patent may practice the patented technology without infringement, provided they avoid using any technologies claimed in the subsequent patents.¹⁶⁵

The breadth of Myriad’s claims to BRCA was an issue in *AMP*.¹⁶⁶ Some contend that the broad scope of the claim language precluded researchers from “inventing around” or improving upon the technology without risk of infringement.¹⁶⁷ As such, it has been suggested in this Note that Myriad’s claims could be adjusted to encompass a more specific method of diagnostic use rather than therapeutic use, especially given that Myriad was not pursuing research in treatment of breast and ovarian cancer.¹⁶⁸

C. CHOICE OF TOPIC

Some scholars argue that even if patents do not stop ongoing research, the very prospect of the financial costs of navigating through licensing arrangements or risking infringement may limit progress by dissuading researchers from choosing particular projects. To explore this possibility, a study conducted by Walsh and Cohen asked academic respondents to indicate the importance of different factors for their choice of research

162. *Id.* at 7; *see also* Nicol & Nielsen, *supra* note 15, at 212 (stating that many of the researchers interviewed stated that they invented around patents in order to accomplish their research); Walpole et al, *supra* note 115, at, 204; John P. Walsh & Wesley M. Cohen, *supra* note 15, at 19, 31, 40.

163. Heller & Eisenberg, *supra* note 120, at 700 (stating that broad patents “aimed at understanding the basis of disease” are challenging to invent around); Nicol & Nielsen, *supra* note 15, at 159, 213 (stating that patents in the U.S. are easier to invent around because they are more narrowly defined); *see also*, Pierce et al., *supra* note 22, at 9 (the nature of the claims may make them difficult to invent around).

164. 35 U.S.C. § 101 (2006).

165. *Id.*

166. *Ass’n of Molecular Pathology v. USPTO*, 702 F. Supp. 2d 181, 213, 235 (S.D.N.Y. 2010).

167. *Id.* at 205, 208 (citing the enforcement of the patent as well as disagreement over the affect on research); *see also* Pins, *supra* note 71, at 381.

168. Pins, *supra* note 71, at 414.

projects.¹⁶⁹ The most pervasive reasons were scientific importance (97%), interest (95%), feasibility (88%), and access to funding (80%).¹⁷⁰ The patentability of research results was more than moderately important for only 7% of respondents.¹⁷¹

To investigate further, the same academic researchers were asked to assess the importance of reasons that may have dissuaded them from pursuing the most recent project they considered but did not pursue.¹⁷² In order of importance, their responses were a lack of funding (62%) or lack of time (60%), and scientific competition in the form of too many researchers already pursuing the same topic (29%).¹⁷³ Technology control rights and patents were significantly less likely to be mentioned (10% and 3%, respectively) as an influencing factor, although respondents pursuing pharmaceutical research were somewhat more likely to report unreasonable licensing terms as an important reason for them not to pursue a project.¹⁷⁴

The Walsh and Cohen study indicates that, contrary to the claims made by the plaintiffs in *AMP*, the existence of patents does not influence researchers in their choice of topics to pursue and, therefore, does not impede innovation in terms of the direction of research.

D. BEHAVIORAL ADJUSTMENTS TO PATENT LAW

Patents do not limit access to published research results because researchers in firms and academia employ a suite of working solutions to access and utilize research products.¹⁷⁵ These solutions include “inventing around” the claims (especially those that are broad), challenging patent validity through litigation, and knowingly (or innocently) infringing patents that can potentially block future research.¹⁷⁶ Patent law, therefore, has a built-in structure that enables scientists to avoid problems of exclusion inherent in the field of academia and continue to pursue their research of interest.

These behavioral adjustments cannot be utilized, however, when the breadth of a patent forecloses them. In the *AMP* case, the broad scope of Myriad’s patents precluded any use of the BRCA patents which was not

169. See also Cohen & Walsh, *supra* note 15, at 13.

170. *Id.*

171. *Id.*

172. *Id.* at 14.

173. *Id.*

174. *Id.*

175. *Id.* at 12; see also Pierce et al., *supra* note 22, at 17.

176. Pammolli & Rossi, *supra* note 99, at 3.

specifically licensed by Myriad.¹⁷⁷ Myriad's reputation for enforcing its patents, and the subsequent realistic fear of litigation, also discouraged scientists and physicians from pursuing research that they might otherwise have followed.¹⁷⁸

E. LICENSING

Licenses have proven valuable for developing drugs and biologics that might not otherwise be developed and continue to have such an effect in other areas of science as well.¹⁷⁹ Studies indicate that the existence of licensing is an attractive arrangement for many scientists.¹⁸⁰ Through licensing arrangements, scientists gain access to research data and input that might otherwise be unavailable. The issuance of licenses can also help patent holders prevent overly repetitive research and thereby increase efficiency in research efforts.¹⁸¹ Licensing often involves the pooling of resources by both the licensee and licensor into a promising field of research.¹⁸² Many patent holders require their licensees reach certain "diligence milestones" to ensure the productive use of time and money.¹⁸³ If licensees do not show progress toward the milestones, the licensor will extend the license to another company.¹⁸⁴

Licenses of purified gene sequences provide the patent holders with an additional incentive to share their knowledge for the public benefit. Through license arrangements, gene patent holders maintain control of their invention while encouraging innovation for the public good. Without licensing arrangements, gene researchers would either use patents purely to block improvements on their inventions or (in the absence of patents) rely on trade secret protection and refuse to share their knowledge with the public.

177. *Ass'n of Molecular Pathology v. USPTO*, 702 F. Supp. 2d 181, 204–05 (S.D.N.Y. 2010).

178. *Id.*

179. See Kyle Jensen & Fiona Murray, *Intellectual Property Landscape of the Human Genome*, 310 SCI. 239, 239 (2005).

180. See Pierce et al., *supra* note 22, at 8 (discussing the attractiveness of enacting compulsory licenses as a form of patent reform); see also Cohen & Walsh, *supra* note 15; Cook-Deegan et al., *supra* note 15, at S15–S38; Walsh et al., *supra* note 15.

181. Arti K. Rai, *Fostering Cumulative Innovation in the Biopharmaceutical Industry: The Role of Patents and Antitrust*, 16 BERKELEY TECH. L.J. 813, 824 (2001).

182. Pressman et al., *supra* note 150, at 37–38.

183. *Id.*

184. *Id.*

F. NECESSITY FOR INNOVATION

While patent protections may not impede innovation, this does not mean that patents are unnecessary for innovation. Most of the studies discussed in this Note focused on whether or not the existence of patent protection impedes innovation in the field of biomedicine. The majority of these studies indicate that patent protection does not impede access or innovation. These studies have indicated that patents, such as those held by Myriad, (1) encourage the disclosure of discoveries in an otherwise highly exclusionary field of academia; (2) decrease the cost and increase the availability of genetic testing; and (3) incentivize investors to continue to fund research and development by providing them with an opportunity to recoup their investments. Thus, patents are necessary for innovation.

G. RESOLVING MYRIAD

One concern regarding the patents issued to Myriad is the broad scope of their composition claims and their relevance to furthering the goals of intellectual property law.¹⁸⁵ The USPTO commonly grants patents covering genetic sequences provided that the sequences are purified from their natural source and have at least one potential novel and useful application.¹⁸⁶ The scope of protection, however, is not limited to the utility disclosed in the application and extends to uses not indicated in the patent.¹⁸⁷ As such, composition claims have a broad impact in terms of the scope of behavior they exclude, which may include uses of the composition which were not anticipated by the patent applicant.¹⁸⁸ This can be resolved, however, by limiting claims to a particular usage of the composition rather than the composition itself.¹⁸⁹ Such a policy would provide notice to the public of the metes and bounds of the claim, and simultaneously fulfill one of the other goals of patent law, promoting innovation, since the patent holder would still maintain exclusive control over the particular use.

Another concern is the effect of the process claims on both preventing the availability of secondary testing and permitting Myriad to charge high fees

185. *Ass'n of Molecular Pathology v. USPTO*, 702 F. Supp. 2d 181, 206–11 (S.D.N.Y. 2010).

186. Util. Examination Guidelines, 66 Fed. Reg. 1092, 1093 (Jan. 5, 2001) (notice); *see also Ass'n of Molecular Pathology*, 702 F. Supp. 2d at 211.

187. Pammolli & Rossi, *supra* note 99, at 24.

188. *Id.*

189. *See generally id.*; *see also Holman*, *supra* note at 54, at 313 (discussing the scope of patent claims).

for testing (which currently stands at \$3000 per test).¹⁹⁰ These concerns, however, are not specific to gene patents but apply to patents in general, particularly those claiming molecular biology methods used in drug development.¹⁹¹

In practice, human gene patents have a positive impact on the cost and availability of therapeutic drugs and medical devices. Patents play a central role in this because (1) they encourage disclosure of discoveries in an otherwise highly secretive and exclusive field of academia and (2) they incentivize investors to continue to fund research and development by providing them with an opportunity to recoup their investments.¹⁹² Consequently, more products end up in the market and prices decrease as funds gained through monopolizing the market and licensing fees increase.

In conclusion, genetic sequences should be patentable to the extent that the metes and bounds of the claims are confined to a particular application of the composition rather than the composition in its entirety. With regard to the Myriad patents, this would require Myriad to confine their claims to the application of BRCA for identification of the mutation in a human being. Under these terms, researchers utilizing BRCA to investigate therapeutic treatments for breast and ovarian cancer would be free to do so without the risk of infringement. Such a policy permits the existence of patents and their beneficial effects while providing sufficient notice to the public of the metes and bounds of the claims.

V. CONCLUSION

This Note has attempted to address one of the largest public concerns voiced against the granting of patents: the concern regarding a potential lack of reasonable access to technology for the research and development of therapeutic and diagnostic products. Although empirical studies reveal that patents do not, in the aggregate, harm innovation, the broad issuance of composition claims, such as those held by Myriad in *AMP*, may prevent researchers from pursuing areas that the patent holder is not pursuing (such as research into medical treatment). This type of predicament could be resolved through the limitation of gene patent claims to the application of the genetic sequence rather than the sequence itself.

190. *Ass'n of Molecular Pathology*, 702 F. Supp. 2d at 203.

191. See Bendekgey & Hamlet-Cox, *supra* note 16, at 1377.

192. See Pammolli & Rossi, *supra* note 99, at 4, 13.

LUCENT V. GATEWAY: PUTTING THE “REASONABLE” BACK INTO REASONABLE ROYALTIES

Bo Zeng[†]

In a decision eagerly anticipated by the patent community, the Federal Circuit in *Lucent v. Gateway* vacated the jury award of \$358 million and closely scrutinized the district court’s application of the hypothetical negotiations approach used to determine reasonable royalties.¹ The court analyzed the sufficiency of the past licenses presented and took an active role in excluding unreliable expert testimony.² This approach deviated from historic practice and represented the newest effort by the court to prevent excessively large jury awards. Although not offering a bright-line holding, the decision portended a shift in the court’s patent damages jurisprudence.³ The jury award, if not vacated, would have served as a prime example for future plaintiffs of another excessively large patent damages award and continued to allow non-practicing entities to thrive. Post-*Lucent* cases followed the trend set forth in *Lucent*, where the Federal Circuit similarly scrutinized the evidence presented and acted as a gatekeeper in excluding questionable evidence.⁴

Part I of this Note traces the historic development of patent damages up to the decision in *Lucent v. Gateway* and discusses how the Federal Circuit has tried to prevent excessively large patent damage awards. Part II summarizes the decision in *Lucent v. Gateway* and the decisions of post-*Lucent* cases. This Part also examines the current state of the law regarding past licenses and expert testimony. Part III argues that the Federal Circuit has taken the right approach, and further urges judges to take on a greater role in acting as

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1. *Lucent Techs. Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1308 (Fed. Cir. 2009).

2. *See id.* at 1325–39.

3. Eric Bensen, *Bensen on Lucent Techs., Inc. v. Gateway, Inc.*, 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sep. 11, 2009), and its *Impact on Patent Damages Law*, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

4. *See infra* Section II.C.

gatekeepers. This Note focuses solely on the issues related to the Federal Circuit, which has exclusive appellate jurisdiction over all cases arising under the patent laws.⁵

I. HISTORICAL BACKGROUND

A. ORIGIN OF PATENT DAMAGES

The division between law and equity shaped the earliest period of patent damages.⁶ Early equity courts had only injunctive power, which gave judges the ability to order an equitable accounting of a patent infringer's illicit profits.⁷ This meant that, at that time, patent owners could not recover profits in an action at law or damages in equity.⁸

The 1870 Patent Act partially fixed this problem by allowing the recovery of damages in equity.⁹ However, courts soon faced difficulties in measuring damages and profits.¹⁰ The main issue was finding an appropriate measure of damages when the patent owner could neither prove lost profits nor an established royalty rate.¹¹ In response, the courts established the reasonable royalty approach, which was codified in the 1922 and 1946 Patent Acts.¹²

A reasonable royalty is a judicially defined amount that reflects what a willing patent owner and a willing user would have hypothetically negotiated, assuming that the patent claims are valid and infringed.¹³ The purpose of the royalty is not to punish the infringer, but to make the patent owner whole.¹⁴ Courts must determine how much money the patent owner would have made if there was no infringement.¹⁵ Patent owners are compensated with a reasonable royalty even if they cannot prove lost profits or an established royalty.¹⁶ The Patent Act of 1952, later codified as 35 U.S.C. § 284, set the

5. 28 U.S.C. § 1295(a) (2006).

6. DONALD S. CHISUM, TREATISE ON THE LAW OF PATENTABILITY, VALIDITY, AND INFRINGEMENT § 20.02 (2001).

7. *Id.*

8. *Id.*

9. *Id.* § 20.02[1][d].

10. *Id.*

11. *Id.*

12. *Id.* § 20.02[2].

13. *Id.*

14. *See* CHISUM, *supra* note 6, § 20.03[4][c][i].

15. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964).

16. *Hayhurst v. Rosen*, 1992 U.S. Dist. LEXIS 7312, at *33 (E.D.N.Y. 1992) (“Reasonable royalty as a measure of recovery is intended to provide a just recovery to persons who for evidentiary or other reasons cannot prove lost profits or an established royalty.”); *see* Mark Lemley, *The Boundaries of Patent Law: Distinguishing Lost Profits from*

basis for modern patent damages jurisprudence.¹⁷ Under § 284, the court “shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty.”¹⁸

B. EVOLUTION OF THE HYPOTHETICAL NEGOTIATION APPROACH

Courts use several methods for calculating a reasonable royalty.¹⁹ An analytical method focuses on the infringer’s profit projections for the infringing product.²⁰ A more common approach, the hypothetical negotiation or “willing licensor-willing licensee” approach, attempts to determine what the parties would have agreed upon had they successfully negotiated a licensing agreement prior to infringement.²¹ In the landmark case of *Georgia-Pacific Corp. v. U.S. Plywood Corp.*,²² the court identified fifteen pertinent factors for determining a reasonable royalty.²³ These factors were drawn

Reasonable Royalties, 51 WM & MARY L. REV. 655, 657 (2009) (discussing how lost profits is preferred over reasonable royalties as a measure of damages because lost profits fits within the traditional conception of patent protection, which is to give patent owners a means of excluding competitors from selling the patented product).

17. See CHISUM, *supra* note 6, § 20.03.

18. 35 U.S.C. § 284(a) (2006).

19. *Lucent Techs. Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009).

20. *Id.*

21. *Id.*

22. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

23. The factors are:

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
3. The nature and scope of the license [i.e. exclusivity, restrictiveness]
4. The licensor’s established policy and marketing program
5. The commercial relationship between the licensor and licensee
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices
10. The nature of the patented invention
11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business . . . to allow for the use of the invention or analogous inventions.

from a series of leading cases²⁴ and have been consistently used by the Federal Circuit to determine reasonable royalties in patent infringement cases.²⁵

However, *Georgia-Pacific* may lack a historical basis.²⁶ The hypothetical negotiation approach essentially originated from *Georgia-Pacific*, with modern cases following suit.²⁷ Early courts only provided a general statement of approach, rather than a specific analytical framework requiring particular types of evidence. Before *Georgia-Pacific* and the establishment of the Federal Circuit, the Supreme Court ruled that, in the absence of an established royalty, the courts can resort to “general evidence” to approximate a reasonable royalty.²⁸ General evidence could be anything related to the nature of the invention, its utility and advantages, and the extent of use involved.²⁹

The Supreme Court’s ambiguity failed to give definite guidelines as circuit courts differed in their views. For example, the Sixth Circuit viewed reasonable royalties as an approximation of the market value of a license under the patent-in-suit.³⁰ The Sixth Circuit looked not at what the parties would have agreed to had there been a hypothetical negotiation, but rather at what reasonable parties would have agreed to based on the market at the time.³¹ The Ninth Circuit used a slightly different course that closely

13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

14. The opinion testimony of qualified experts.

15. The amount that a licensor . . . and a licensee . . . would have agreed upon (at the time the infringement began) if both had been reasonably trying to reach an agreement

Id. at 1120.

24. *Id.*

25. The Federal Circuit has cited the district court opinion in *Georgia-Pacific* forty-two times. Westlaw search, CTAF database, “318 f.supp. 1116,” performed Dec. 10, 2009.

26. *See* Bensen, *supra* note 3 (“What is frequently overlooked, however, is that *Georgia-Pacific* has little historical basis.”); *see* CHISUM, *supra* note 6 (discussing generally the historical basis of reasonable royalties).

27. *See, e.g.*, *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860 (Fed. Cir. 2010); *see also* *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1309 (Fed. Cir. 2010).

28. *E.g.*, *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 648 (1915); *Suffolk Co. v. Hayden*, 70 U.S. 315, 320 (1866).

29. *Suffolk*, 70 U.S. at 320.

30. *E.g.*, *Horvath v. McCord Radiator & Mfg. Co.*, 100 F.2d 326, 335 (6th Cir. 1938); *U.S. Frumentum Co. v. Lauhoff*, 216 F. 610, 614–18 (6th Cir. 1914).

31. *Horvath*, 100 F.2d at 335; *U.S. Frumentum*, 216 F. 610 at 614–18.

resembled the modern hypothetical negotiation approach.³² It focused primarily on what the parties would have agreed upon if both were reasonably trying to reach an agreement, while accounting for secondary factors.³³ Thus, prior to *Georgia-Pacific*, a market based reasonableness standard appeared to be the norm. It was not until *Georgia-Pacific* that patent damages jurisprudence began to change.

In *Georgia-Pacific*, the New York District Court rejected past approaches offered by both parties.³⁴ Instead, the court created a list of fifteen “evidence facts” relevant to determining the amount of a reasonable royalty³⁵ and proceeded to focus on a few of the most relevant factors based on the evidence presented.³⁶ Worried about speculative evidence and guesswork, the court scrutinized the evidence presented and derived a reasonable royalty rate based on a close factual analysis of the total record.³⁷

In essence, *Georgia-Pacific*'s hypothetical, individually-negotiated approach complicated reasonable royalty determinations by adding many factors into the mix.³⁸ Some factors are notably subjective or possibly irrelevant.³⁹ For example, the policies that the patentee had against licensing (factor four) or the relationship between the parties (factor five) may only be marginally relevant to the patent-in-suit.⁴⁰ These factors would rarely affect the market value for the patent.⁴¹ Still, these factors can give experts great power to justify extreme positions with less pertinent factors.⁴² They can argue that a high royalty is warranted merely because the patentee would have never voluntarily granted a license.⁴³ The result is that experts vary widely in their

32. *Faulkner v. Gibbs*, 199 F.2d 635, 639 (9th Cir. 1952).

33. *Id.*

34. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1118–1120 (S.D.N.Y. 1970).

35. *Id.* at 1120.

36. *Id.* at 1143.

37. *Id.* at 1132.

38. Bensen, *supra* note 3.

39. *Id.*

40. *Id.*

41. *Id.*

42. *Id.*; Daralyn J. Durie & Mark A. Lemley, *Intellectual Property Remedies: A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 628–29 (2010) (discussing how some combination of the *Georgia-Pacific* factors can support any number an expert may come up with); *see also* William Choi & Roy Weinstein, *An Analytical Solution to Reasonable Royalty Rate Calculations*, 41 IDEA 49, 51 (2001) (“[L]icensing experts run down the list and identify some factors that support ‘high’ royalty rates, while others identify those factors that support ‘low’ royalty rates, whichever seems to benefit them most.”).

43. *See* Bensen, *supra* note 3.

estimations of reasonable royalties, which juries tend to address by splitting the difference.⁴⁴ This, in turn, causes experts to become even more extreme in their opinions.⁴⁵ Furthermore, court opinions generally do not discuss how the *Georgia-Pacific* factors are properly applied in various factual settings because juries determine the value for reasonable royalties.⁴⁶ Thus, *Georgia-Pacific* has been followed and applied for over three decades, but the specific body of law for the approach has not been well-developed and provides courts with little guidance in determining royalty awards.⁴⁷

C. RISE OF NON-PRACTICING ENTITIES⁴⁸

In the last decade, the uncertainty in the reasonable royalty standard has been exploited by a new participant in the patent marketplace, the so-called Non-Practicing Entities (NPEs) or patent trolls.⁴⁹ NPEs are not originators or users of patents.⁵⁰ Instead, they buy patents from inventors, often individuals or small businesses, and wait for others to infringe their patents.⁵¹ They selectively acquire patents (often in computers, electronics, business methods, or software fields) that are likely to lead to successful litigation outcomes and high licensing fees.⁵² Leanly staffed, NPEs employ mostly attorneys and only a few engineers who examine prior art.⁵³ After identifying a potential infringing use, NPEs file a patent infringement suit against the accused infringer.⁵⁴ Because it costs millions of dollars to defend against a

44. *Id.*; see also Durie, *supra* note 42, at 629 (discussing how plaintiffs have an incentive to “shoot for the moon” as long as juries have virtual carte blanche to pick a damages number between what the experts come up with).

45. See Bensen, *supra* note 3; see also Durie, *supra* note 42, at 629.

46. See Bensen, *supra* note 3.

47. *Id.*

48. While this Note appears to suggest that NPEs are the villains in this story, this is not entirely true. NPEs may actually “play an important role in the innovation economy by acting as intermediaries between promising independent inventors and users of technology.” Sannu K. Shrestha, *Trolls or Market-makers? An Empirical Analysis of Nonpracticing Entities*, 110 COLUM. L. REV. 114, 118 (2010). The Federal Circuit should prevent excessive compensation such that even NPEs are accurately compensated.

49. See COAL FOR PATENT FAIRNESS, CLARIFICATION OF THE “REASONABLE ROYALTY” STANDARD IS ESSENTIAL TO UNLEASH INNOVATION AND PROMOTE ECONOMIC GROWTH 1, available at http://www.patentfairness.org/pdf/whitepapers/Damages_FINAL.pdf.

50. Mark Liang, *The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities*, 19 TEX. INTELL. PROP. L.J. 29, 32–33 (2010).

51. *Id.*

52. *Id.* at 33.

53. *Id.*

54. *Id.* at 34.

patent litigation suit (in part due to uncertain patent damage standards), most infringers are incentivized to settle or agree to a licensing agreement.⁵⁵ The lucrative NPE business model is to acquire, detect, sue, license, and profit.⁵⁶

The negative impact of NPEs on patent damage awards has increased considerably in recent years.⁵⁷ From 1995 to 2001, the median damages award for NPEs was only about \$5 million, which was about the same as for practicing entities.⁵⁸ The median award is now \$12 million for NPEs, but only \$3.4 million for practicing entities.⁵⁹ In addition, in the past seven years, the numbers of defendants sued for patent infringement has nearly doubled (from 5,000 in 2000 to 9,000 in 2007).⁶⁰

The rise of NPEs has been accompanied by an increase in the number of jury trials and an increase in reasonable royalty awards. In the 1980s, juries decided only 14 percent of cases with patent damages awards; in the 1990s, juries decided 24 percent of cases.⁶¹ In the past decade, juries decided 51 percent of cases.⁶² It is no surprise that NPEs prefer juries, where plaintiff success rates are much higher compared to bench trials.⁶³ In addition, NPEs cannot claim lost profits as a measure of damages.⁶⁴ They do not provide products or services, so they have no established royalty rates and no profits to lose.⁶⁵ As a result, NPEs must sue for reasonable royalties, leading to an increase in the use of this standard. A recent study showed that reasonable royalties have been the predominant measure of patent damages awards.⁶⁶ Thus, jury trials and reasonable royalty awards have both risen alongside NPEs.

55. *Id.*

56. *Id.* at 35.

57. Aron Levko, Chris Barry, Vincent Torres & Robert Marvin, *Patent Litigation Trends And The Increasing Impact Of Nonpracticing Entities*, PRICEWATERHOUSECOOPERS, August 2009, available at <http://www.pwc.com/us/en/forensic-services/publications/assets/2009-patent-litigation-study.pdf>.

58. *Id.* at 6–7.

59. Levko, *supra* note 57, at 7; see Liang, *supra* note 50, at 35–36 (discussing how NPEs initiated less than 100 cases before 2000 but initiated over 450 cases in 2008 and 2009 alone).

60. COAL. FOR PATENT FAIRNESS, *supra* note 49, at 1.

61. Levko, *supra* note 57, at 8.

62. *Id.*

63. *Id.* at 9.

64. *Id.* at 11.

65. *Id.* at 11–12.

66. *Id.* at 11; *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *47 (Fed. Cir. Jan. 4, 2011) (“A reasonable royalty is the predominant measure of damages in patent infringement cases.”) (citation omitted); see Durie, *supra* note 42, at 634 (discussing how roughly 90 percent of the damage awards were solely reasonable royalty awards).

D. PATENT REFORM ATTEMPTS PRIOR TO *LUCENT V. GATEWAY*

The fifty-year-old Patent Act was designed for an era of more conventional patent litigation in which a patent owner manufactured his own invention.⁶⁷ The statute was also designed for an era of less complex products, “not for today’s world of products made up of thousands of elements, many of which could be claimed to implicate a dozen or more patents.”⁶⁸ Faced with uncertain patent damage standards and the rise of NPEs, Congress attempted to amend patent laws over the last decade, most notably through a number of Patent Reform Acts introduced from 2006 to 2010.⁶⁹ These Patent Reform Acts, though none have become law, would have limited venue in patent suits, expanded the prior use defense, increased the difficulty of proving willfulness, and created stricter rules regarding the criteria for measuring damages.⁷⁰ Congress responded to the trend of courts affirming extremely high royalty awards⁷¹ and attempted to remedy the situation through legislation.⁷² However, Congress has failed to pass any of

67. COAL. FOR PATENT FAIRNESS, *supra* note 49, at 4.

68. *Id.*

69. S. 3818, 109th Cong. (2006); H.R. 1908, 110th Cong. (2007); S. 3600, 110th Cong. (2008); S. 515, 111th Cong. (2009).

70. *E.g.*, H.R. 1908, 110th Cong. § 5 (2007).

71. *See e.g.*, *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 854 (Fed. Cir. 2010) (affirming a decision where the jury awarded \$200 million award); *Levko*, *supra* note 57, at 7.

72. An example of one of the proposed changes is H.R. 1908, 110th Cong. § 5 (2007), which would have added a Section 271(b)(1) to Title 35, as follows:

(b) REASONABLE ROYALTY.

(1) IN GENERAL. An award pursuant to subsection (a) that is based upon a reasonable royalty shall be determined in accordance with this subsection. Based on the facts of the case, the court shall determine whether paragraph (2), (3), or (4) will be used by the court or the jury in calculating a reasonable royalty. The court shall identify the factors that are relevant to the determination of a reasonable royalty under the applicable paragraph, and the court or jury, as the case may be, shall consider only those factors in making the determination.

(2) RELATIONSHIP OF DAMAGES TO CONTRIBUTIONS OVER PRIOR ART. Upon a showing to the satisfaction of the court that a reasonable royalty should be based on a portion of the value of the infringing product or process, the court shall conduct an analysis to ensure that a reasonable royalty under subsection (a) is applied only to that economic value properly attributable to the patent’s specific contribution over the prior art. The court shall exclude from the analysis the economic value properly attributable to the prior art, and other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process.

the prior Patent Reform Acts. Consequently, the issue of high damage awards remained unresolved, creating a climate of intense anticipation for the Federal Circuit's *Lucent* decision.⁷³

In the past several years, the Supreme Court has also attempted to prevent excessively large patent awards. In *KSR v. Teleflex*, the Court made it easier to find an invention unpatentably obvious.⁷⁴ In *eBay v. MercExchange*, the Court made it more difficult to obtain permanent injunctions to stop ongoing adjudged infringement.⁷⁵ Furthermore, the Court created limitations on damages through changes in other areas, such as the exclusionary power of patents in antitrust claims,⁷⁶ standing of licensees to challenge validity,⁷⁷ and the exhaustion doctrine.⁷⁸ These cases make it easier for defendants to win patent infringement cases, and may indirectly lead to reduced patent damage awards as a result.

E. DEFERENCE BY THE FEDERAL CIRCUIT PRIOR TO *LUCENT V. GATEWAY*

Prior to *Lucent*, the Federal Circuit greatly deferred to the rulings of district courts.⁷⁹ A 2010 study showed that the Federal Circuit affirmed 72

(3) ENTIRE MARKET VALUE. Upon a showing to the satisfaction of the court that the patent's specific contribution over the prior art is the predominant basis for market demand for an infringing product or process, damages may be based upon the entire market value of the products or processes involved that satisfy that demand.

(4) OTHER FACTORS. If neither paragraph (2) or (3) is appropriate for determining a reasonable royalty, the court may consider, or direct the jury to consider, the terms of any nonexclusive marketplace licensing of the invention, where appropriate, as well as any other relevant factors under applicable law.

(5) COMBINATION INVENTIONS. For purposes of paragraphs (2) and (3), in the case of a combination invention the elements of which are present individually in the prior art, the patentee may show that the contribution over the prior art may include the value of the additional function resulting from the combination, as well as the enhanced value, if any, of some or all of the prior art elements resulting from the combination.

73. See Bensen, *supra* note 3.

74. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415–22 (2007).

75. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 390–94 (2006).

76. *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 40–42 (2006).

77. *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 137 (2007).

78. *Quanta Computer, Inc. v. LG Elect., Inc.*, 553 U.S. 617, 631 (2008).

79. See, e.g., *Endress + Hauser, Inc. v. Hawk Measurement Sys. Pty. Ltd.*, 122 F.3d 1040, 1043 (Fed. Cir. 1997) (“There is more than sufficient evidence in the record to sustain the trial judge’s exercise of the broad discretion under which . . . contested damages

percent of reasonable royalty awards since 2000, and “barely more than 1% of the damage awards were rejected or modified as a matter of law.”⁸⁰ The court emphasized that “the methodology of assessing and computing damages under 35 U.S.C. § 284 is within the sound discretion of the district court.”⁸¹ In *Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, the Federal Circuit stated that “decisions underlying a damage theory are discretionary with the court, such as, the choice of an accounting method of determining profit margin . . . or the methodology for arriving at a reasonable royalty.”⁸² Furthermore, the Federal Circuit had consistently upheld experts’ use of hypothetical negotiations and the *Georgia-Pacific* factors for estimating a reasonable royalty.⁸³ In sum, prior to *Lucent*, the Federal Circuit did not scrutinize damage awards in detail and generally deferred to the district court.

II. LUCENT V. GATEWAY

The Federal Circuit decided *Lucent v. Gateway* in the context of the widespread use of the *Georgia-Pacific* factors, rise of NPEs, and mounting Congressional pressure for patent reform.⁸⁴ In *Lucent*, Lucent sued Gateway, Inc. et al. for patent infringement over the Day Patent.⁸⁵ The Day Patent was directed to a method of entering information into fields on a computer screen without a keyboard. Microsoft (who intervened in the case)

determinations are made.”); *Minco, Inc. v. Combustion Engineering, Inc.*, 95 F.3d 1109, 1118 (Fed. Cir. 1996) (“Because fashioning an adequate damages award depends on the unique economic circumstances of each case, the trial court has discretion to make important subsidiary determinations in the damages trial, such as choosing a methodology to calculate damages.”); *Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 869 (Fed. Cir. 1993) (“In reviewing the district court’s award, we must determine if the court abused its discretion in its methodology for determining a reasonable royalty rate.”); *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1576–77 (Fed. Cir. 1989) (“Deciding how much to award as damages is not an exact science, and the methodology of assessing and computing damages is committed to the sound discretion of the district court.”); *Nickson Indus., Inc. v. Rol Mfg. Co.* 847 F.2d 795, 798 (Fed. Cir. 1988); *Seattle Box Co., Inc. v. Indus. Crating & Packing Inc.*, 756 F.2d 1574, 1581 (Fed. Cir. 1985) (discussing how a district court may choose at its discretion the methodology with which to assess and compute damages and noting that the choice of method will be reviewed on an abuse of discretion basis provided that the award is adequate compensation and not less than a reasonable royalty).

80. Durie, *supra* note 42, at 634.

81. *Fromson v. W. Litho Plate & Supply Co.*, 853 F.2d 1568, 1576 (Fed. Cir. 1988).

82. *Smithkline Diagnostics, Inc. v. Helena Labs. Corp.*, 926 F.2d 1161, 1164 (Fed. Cir. 1991) (internal citations omitted).

83. *See, e.g., Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393 (Fed. Cir. 2003); *Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371, 1384 (Fed. Cir. 2001).

84. *See supra* Sections I.B–I.D.

85. *Lucent Techs. Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1308 (Fed. Cir. 2009).

incorporated the Day Patent technology into their Microsoft Outlook software, using the new technology to pick dates within the Outlook calendar.⁸⁶

At trial, Lucent asked for \$561.9 million, which was estimated to be 8 percent of the defendants' sales revenue from the allegedly infringing software products.⁸⁷ Gateway argued for a lump sum theory and asked for \$6.5 million.⁸⁸ The jury found for Lucent and awarded \$358 million.⁸⁹ Gateway moved for a new trial and judgment as a matter of law, challenging the jury's damage award.⁹⁰ The district court denied both motions, finding that there was substantial evidence in the record to support the jury's determination.⁹¹ Gateway then appealed to the Federal Circuit, where the Federal Circuit vacated the jury award and remanded for a new trial on damages.⁹²

A. PAST LICENSES IN *LUCENT*⁹³

Prior to *Lucent*, the Federal Circuit deferred to the judgment of the district court for damage calculations.⁹⁴ In *Lucent*, the court changed course, conducted an unusually close analysis of all evidence offered in connection with the *Georgia-Pacific* factors, and ruled that the verdict was unsupported by the evidence.⁹⁵

The Federal Circuit focused its analysis on *Georgia-Pacific* factor two (royalties of other comparable past patent licenses).⁹⁶ Lucent had relied on eight other licenses, but the court rejected four of them because they included running royalties instead of lump sum payments.⁹⁷ The other four lump sum licenses were merely characterized (in Lucent's brief) as covering "PC-related patents."⁹⁸ The court ruled that these licenses were not comparable because a personal computer kinship alone did not impart

86. *Id.* at 1317.

87. *Id.* at 1323.

88. *Id.*

89. *Id.* at 1309.

90. *Id.*

91. *Id.*

92. *Id.* at 1340.

93. This Note does not specifically address the entire market value rule ("EMVR"), which the Federal Circuit addressed in *Lucent*. The EMVR is just a running royalty damages award with a preset royalty base and a lower royalty rate.

94. *See supra* Section I.E.

95. *Lucent*, 580 F.3d at 1325–36.

96. *Id.* at 1325–32.

97. *Id.* at 1328.

98. *Id.*

enough comparability.⁹⁹ Lucent's expert presented no evidence showing how the broadly defined "PC-related patents" related to the date-picking Day Patent.¹⁰⁰ He never explained whether the "PC-related patents" were a small or large component of the featured licensed product.¹⁰¹ He never explained what those patents covered or how valuable or essential they were.¹⁰² He never explained what products were covered by the licenses or how the various royalty rates were calculated.¹⁰³ Furthermore, the four lump sum licenses were in the amounts of \$80, \$93, \$100, and \$290 million, while the jury award was \$358 million.¹⁰⁴ Taken together, the Federal Circuit found that these considerations necessitated a finding that the jury award had no evidentiary basis.¹⁰⁵ Thus, Lucent failed this *Georgia-Pacific* factor two analysis—the Federal Circuit could not affirm a jury award that was three to four times the average amount of the lump sum agreements in evidence.¹⁰⁶

B. EXPERT TESTIMONY IN *LUCENT*

The Federal Circuit also closely examined the expert testimony presented in court. Lucent presented a licensing expert who testified that reasonable royalties can be determined by looking at "what the value of each use of the patent might be and then speculating as to the extent of the future use."¹⁰⁷ However, Lucent submitted no documentation or testimony showing what the parties expected the Day Patent's future use would be.¹⁰⁸ Without this evidence, the court ruled that the jury lacked sufficient evidence to reasonably conclude what Microsoft and Lucent would have estimated the value of each patent to be at the time of the negotiation.¹⁰⁹

The Federal Circuit also identified a flaw in the approach adopted by Lucent's licensing expert.¹¹⁰ Lucent's expert opined that a 1 percent royalty on the selling price of a computer loaded with Outlook would be a reasonable royalty.¹¹¹ Microsoft filed a motion in limine to exclude such

99. *Id.*

100. *Id.*

101. *Id.* at 1330.

102. *Id.* at 1331.

103. *Id.*

104. *Id.* at 1332.

105. *Id.*

106. *Id.*

107. *Id.* at 1327.

108. *Id.*

109. *Id.*

110. *Id.* at 1338.

111. *Id.*

testimony, which the judge granted.¹¹² In response, Lucent's expert changed his opinion and stated that an 8 percent royalty on the selling price of the Outlook software itself would be reasonable, conveniently resulting in the same overall damages number as the 1 percent reasonable royalty presented earlier.¹¹³ The Federal Circuit saw through this ploy to overcome the original exclusion and rejected the expert's testimony (without any mention of *Daubert*).¹¹⁴ Thus, the Federal Circuit demonstrated that they will closely scrutinize expert testimony to ensure that experts present solid evidence grounded in fact.

C. POST-LUCENT CASES

In the wake of Lucent, the Federal Circuit has taken a similar approach by closely examining evidence in a number of other patent cases involving disputes over royalties.

1. ResQNet v. Lansa

In *ResQNet*, ResQNet sued Lansa for infringing on patents related to screen recognition and terminal emulation processes.¹¹⁵ The technology involved downloading information from a remote mainframe computer onto a local personal computer.¹¹⁶ The jury awarded damages of \$506,305 based on a hypothetical royalty of 12.5 percent plus prejudgment interest.¹¹⁷ On appeal, the Federal Circuit vacated and remanded the damages award because the district court's award relied on speculative evidence and because the district court failed to carefully tie proof of damages to the claimed invention's footprint in the market place.¹¹⁸

ResQNet presented seven licenses, all of which were problematic for the same reasons as in *Lucent*.¹¹⁹ Five of the licenses furnished software products, source code, or services (like training, maintenance, or marketing) to various companies.¹²⁰ The problem was that "none of these licenses even mentioned the patents in suit or showed any other discernible link to the claimed

112. *Id.*

113. *Id.*

114. *Id.* *Daubert* gives judges the ability to act as a gatekeeper and sets out the framework for determining whether expert testimony is properly admitted under Rule 702 of the Federal Rules of Evidence. See *infra* Section III.B.

115. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 863 (Fed. Cir. 2010).

116. *Id.*

117. *Id.*

118. *Id.* at 873.

119. *Id.* at 869.

120. *Id.* at 870.

technology.”¹²¹ Considering how these five licenses also had royalty rates ranging from 25 percent to 40 percent (much higher than the awarded 12.5 percent), the Federal Circuit was concerned that ResQNet’s expert used unrelated licenses to drive up the royalty rate.¹²² The other two licenses faced similar problems.¹²³ One license was a lump sum agreement that ResQNet’s expert was unable to analogize to a running royalty rate and the other agreement contained a royalty rate that was substantially less than the 12.5 percent awarded.¹²⁴ Unable to present strong evidence supporting its damages claim, ResQNet also failed the factor two analysis under *Georgia-Pacific*.¹²⁵ The Federal Circuit vacated the jury award just like in *Lucent*.¹²⁶

2. Wordtech v. Integrated Network Solutions

The Federal Circuit came to a similar conclusion in *Wordtech*, which involved a patent infringement suit over automated compact disc duplication technology.¹²⁷ The jury awarded \$250,000,¹²⁸ but the Federal Circuit found that a new trial was warranted on damages.¹²⁹ Citing *Lucent* and *ResQNet*, the Court ruled that Wordtech’s past licenses lacked a substantial basis for the jury to make a comparison and contained royalty rates far lower than the rate given by the jury.¹³⁰

Wordtech offered no expert opinion on damages.¹³¹ Instead, the company offered testimony from its president, who also was the inventor of the patents. He presented thirteen licenses, all dealing with the same disk duplication technology.¹³² All three asserted patents shared a common parent application.¹³³ However, the Federal Circuit still ruled that all thirteen past licenses failed to support the verdict.¹³⁴ The two lump sum agreements provided no basis for comparison because the license did not describe “how the parties calculated each lump sum, the licensees’ intended products, or

121. *Id.*

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.* at 872–73.

126. *Id.* at 873.

127. *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1310 (Fed. Cir. 2010).

128. *Id.* at 1312.

129. *Id.* at 1323.

130. *Id.* at 1319–21.

131. *Id.* at 1319.

132. *Id.*

133. *Id.* at 1311.

134. *Id.* at 1322.

how many products each licensee expected to produce.”¹³⁵ Another license was rejected because it used per-unit fees.¹³⁶ The rest of the ten licenses stated royalties from 3–6 percent, far too low to support the 26.3 percent verdict rate.¹³⁷ Thus, Wordtech also failed the *Georgia-Pacific* factor two analysis and the Federal Circuit vacated the jury award and remanded for damages.¹³⁸

3. *i4i* v. Microsoft

On the other hand, the Federal Circuit affirmed the jury’s damages awards in several post-*Lucent* cases. In *i4i*, the owners of a patent for a method of editing custom computer language sued Microsoft for patent infringement.¹³⁹ The jury awarded \$200 million in damages.¹⁴⁰ Despite the extremely high reasonable royalty calculation, the court concluded that the expert testimony supported the award.¹⁴¹

Unlike *Lucent*, *ResQNet*, and *Wordtech*, the Federal Circuit did not perform a factor two analysis because Microsoft did not file a pre-verdict JMOL on damages.¹⁴² Instead, the court performed a *Daubert* analysis and focused on the expert testimony.¹⁴³ The first expert for *i4i* used a calculated royalty rate of \$98 and multiplied that rate by the number of products sold.¹⁴⁴ The expert claimed that the \$98 base rate was based on the 25 percent rule,¹⁴⁵ which was “well-recognized” and “widely used” in the field at the time.¹⁴⁶ More

135. *Id.* at 1320.

136. *Id.*

137. *Id.*

138. *Id.* at 1323.

139. *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 839 (Fed. Cir. 2010).

140. *Id.*

141. *Id.* at 856.

142. *Id.* at 857.

143. *Id.* at 853–57.

144. *Id.* at 856.

145. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *48 (Fed. Cir. Jan. 4, 2011). The court noted that

“The 25 percent rule of thumb is a tool that has been used to approximate the reasonable royalty rate that the manufacturer of a patented product would be willing to offer to pay to the patentee during a hypothetical negotiation. . . . The Rule suggests that the licensee pay a royalty rate equivalent to 25 per cent of its expected profits for the product that incorporates the IP at issue.”

Id.

146. *i4i*, 598 F.3d at 853. *But see Uniloc*, 2011 U.S. App. LEXIS 11, at *56 (“This court now holds as a matter of Federal Circuit law that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical

importantly, i4i's expert provided a plethora of data on how he calculated damages, unlike the experts in *Lucent*, *ResQNet*, and *Wordtech*.¹⁴⁷ For example, the expert gave the exact numbers he used to calculate the royalty rate.¹⁴⁸ He explained what benchmark rate he used, what the benchmark product was, why it was chosen, and why it was necessary.¹⁴⁹ He also explained the sources and facts used in his analysis, using material from internal Microsoft documents, custom XML software, and a user survey.¹⁵⁰ In a thorough presentation, the expert explained how he considered *Georgia-Pacific* factors three, five, six, nine, and eleven, and then adjusted the baseline royalty accordingly by two dollars.¹⁵¹ Furthermore, he discussed the acceptance of the hypothetical negotiation model among damage experts and economists, and explained how he applied the model to the facts at hand.¹⁵² While parts of his testimony were based on estimations, he provided enough foundation to satisfy *Daubert*.¹⁵³ He even described weaknesses in his damages estimate, and how he adjusted accordingly.¹⁵⁴

A second expert gave intricate details of the survey, including all of the statistics involved.¹⁵⁵ This second expert acknowledged weaknesses in the survey, explained any assumptions and biases made, and documented the numbers used in the calculations.¹⁵⁶

Microsoft cross-examined the testimony, presented contrary evidence, and brought its own experts to attack every detail presented by i4i's two experts.¹⁵⁷ As a result, the Federal Circuit ruled that the *Daubert* standard was satisfied and that i4i's expert testimony was admissible.¹⁵⁸ The Federal Circuit affirmed the jury award of damages.¹⁵⁹

negotiation. Evidence relying on the 25 percent rule of thumb is thus inadmissible under *Daubert* . . .").

147. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852–56 (Fed. Cir. 2010).

148. *Id.* at 853.

149. *Id.*

150. *Id.* at 854.

151. *Id.* at 853–54.

152. *Id.* at 854.

153. *Id.* at 856.

154. *Id.* at 854 (discussing how the expert's damages estimate only considered users who "really needed" the custom XML editor, making it inappropriate to use the \$50 price difference paid by all purchasers of Word).

155. *Id.* at 855.

156. *Id.*

157. *Id.* at 856.

158. *Id.*

159. *Id.* at 857.

4. Fujifilm v. Benun

The Federal Circuit similarly affirmed the jury's damages award in *Fujifilm v. Benun*, where the court briefly discussed damages.¹⁶⁰ Fujifilm's expert testified at length about collateral sales.¹⁶¹ He explained in detail about what he included in the royalty base and how the royalty rate changed inversely to changes in the royalty base.¹⁶² The court did not cite *Daubert*, *Lucent*, or other post-*Lucent* cases, but did rule that the expert provided the jury with sufficient information for it to award the disputed amount.¹⁶³ Thus, the court affirmed the damage award.¹⁶⁴

5. Finjan v. Secure Computing

The Federal Circuit also affirmed the jury's damages award in *Finjan v. Secure Computing*.¹⁶⁵ Finjan sued Secure Computing Corporation for patent infringement over a proactive scanning technology for computer security.¹⁶⁶ The jury awarded \$9.18 million in royalties and the district court enhanced those damages by 50 percent along with a permanent injunction.¹⁶⁷ The Federal Circuit affirmed the damages award,¹⁶⁸ concluding that substantial evidence existed to support the award because Finjan's expert explained his analysis and based it on testimonial evidence.¹⁶⁹ For example, the expert discussed how he used company-wide instead of product-specific products to calculate gross profits.¹⁷⁰ He explained how he discounted 80 percent of research and development costs for future products and why.¹⁷¹ He also explained how he determined a 33 percent operating profit margin based on industry custom, prior licenses, competitiveness of the parties, and the importance of the patented technology.¹⁷²

The defendant argued that a Finjan-Microsoft license with a smaller royalty rate failed to support the verdict, but Finjan's expert explained how Finjan did not compete with Microsoft and how Finjan received significant

160. *Fujifilm Corp. v. Benun*, 605 F.3d 1366, 1372 (Fed. Cir. 2010).

161. *Id.* at 1372.

162. *Id.*

163. *Id.*

164. *Id.* at 1373.

165. *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1212 (Fed. Cir. 2010).

166. *Id.* at 1200.

167. *Id.* at 1202.

168. *Id.* at 1213.

169. *Id.* at 1209–10.

170. *Id.*

171. *Id.* at 1210.

172. *Id.* at 1210–11.

intangible value from Microsoft's endorsements of Finjan.¹⁷³ The court found that these differences allowed the jury to properly discount the Microsoft license.¹⁷⁴ Again, the court did not mention *Daubert*, *Lucent*, or post-*Lucent* cases, but ruled that the award was supported by the evidence (suggesting that the evidence passed the *Georgia-Pacific* factor two and *Daubert* analyses).¹⁷⁵ Therefore, the court affirmed the district court's decision.¹⁷⁶

6. Uniloc USA v. Microsoft

Uniloc is the most recent case in the series and it followed the trends set forth in *Lucent*, *ResQNet*, and *Wordtech*. Uniloc sued Microsoft for patent infringement over a system that deters copying software.¹⁷⁷ A jury found that Microsoft engaged in willful infringement and awarded Uniloc \$388 million in damages.¹⁷⁸ On appeal, the Federal Circuit determined that the jury award was fundamentally tainted by the use of the 25 percent rule and held that this rule was a legally inadequate methodology under *Daubert*.¹⁷⁹ Thus, a new trial for damages was required.¹⁸⁰

Uniloc's expert opined that damages should have been \$565 million.¹⁸¹ He explained how he began his calculations with the so-called 25 percent rule of thumb, adjusted for the relevant *Georgia-Pacific* factors, and multiplied by the number of infringing licenses given out.¹⁸² To double check the reasonableness of his calculations, he compared the resulting royalty to Microsoft's overall revenues from the accused product.¹⁸³

The main focus on appeal was the expert's use of the 25 percent rule, a tool used to approximate the reasonable royalty rate that the manufacturer of a patented product would be willing to pay the patentee during a hypothetical negotiation.¹⁸⁴ The rule, which has been widely accepted (and even "passively tolerated" by the Federal Circuit in prior cases¹⁸⁵), suggests that the licensee

173. *Id.* at 1211–12.

174. *Id.* at 1212.

175. *Id.*

176. *Id.*

177. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *3 (Fed. Cir. Jan. 4, 2011).

178. *Id.* at *13.

179. *Id.* at *2.

180. *Id.*

181. *Id.* at *43.

182. *Id.* at *44–45.

183. *Id.* at *45.

184. *Id.* at *48.

185. *Id.* at *52.

pay a royalty rate of 25 percent of its expected profits.¹⁸⁶ This percentage is based on a careful examination of years of licensing data across different companies and industries.¹⁸⁷

Using *Daubert*, the Federal Circuit took a firm stance and rejected the 25 percent rule as fundamentally flawed.¹⁸⁸ Citing *Lucent*, *ResQNet*, and *Wordtech*, the court stated that the rule did not “tie a reasonable royalty base to the facts of the case at issue.”¹⁸⁹ The court found that the 25 percent rule of thumb was an abstract construct that failed to say anything about any particular hypothetical negotiation or any particular technology.¹⁹⁰ When the rule was offered as a starting point for reasonable royalty calculations, it resulted in fundamentally flawed conclusions.¹⁹¹ Because Uniloc’s expert used the 25 percent rule, which was arbitrary and unrelated to the facts of the case, the damages estimate failed both the *Daubert* and *Georgia-Pacific* factor two analyses.¹⁹² Thus, the Federal Circuit held that Microsoft was entitled to a new trial on damages.¹⁹³

D. THE CURRENT STATUS OF FEDERAL CIRCUIT EVIDENTIARY REQUIREMENTS: PAST LICENSES AND EXPERT TESTIMONY

1. *No More Deference in Reviewing Patent Damages*

These cases illustrate that the Federal Circuit will no longer defer to the district court in reviewing damage calculations and will no longer follow an abuse of discretion standard.¹⁹⁴ Instead, the Federal Circuit will look at the substance of any past licenses presented. In *Lucent*, *ResQNet*, and *Wordtech*, the court scrutinized the patents used in the licensing agreements and compared them to the patent-in-suit.¹⁹⁵ They looked at *every* single license presented by the parties and noted any unexplained differences.¹⁹⁶ They

186. *Id.* at *48.

187. *Id.* at *50.

188. *Id.* at *56.

189. *Id.* at *56–65.

190. *Id.* at *62.

191. *Id.* at *63.

192. *Id.* at *65.

193. *Id.* at *2.

194. See note 79, *supra* (discussing how the Federal Circuit used to defer to the district court for damage calculations).

195. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1327–31 (Fed. Cir. 2009); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–73 (Fed. Cir. 2010); *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319–22 (Fed. Cir. 2009).

196. *Lucent*, 580 F.3d at 1327–31; *ResQNet*, 594 F.3d at 870–73; *Wordtech*, 609 F.3d at 1319–22.

examined the different *types* of licenses and distinguished running royalties from lump sum royalties.¹⁹⁷ Furthermore, the court looked at the methodologies used by the experts to calculate damages and rejected methodologies that were inappropriate.¹⁹⁸ For example, in *Uniloc*, the court analyzed and rejected both the expert's use of the 25 percent rule and his "check" on the reasonableness of his calculations.¹⁹⁹ The court even quoted expert testimony and dissected the specific words used by the expert.²⁰⁰ Despite mentioning a highly deferential standard in *i4i*,²⁰¹ the Federal Circuit will likely continue to scrutinize past licenses.

2. *Parties Must Present Evidence on the Subject Matter of the Past License Agreements*

The royalty rates of past licenses (*Georgia-Pacific* factors one and two) are some of the most influential factors in determining reasonable royalties.²⁰² While there are thirteen other *Georgia-Pacific* factors, many of these other factors are directly related to negotiating the royalty rates of the past license agreement.²⁰³ Since *Lucent*, the Federal Circuit has provided general guidelines for how parties should present past licenses as evidence.

First of all, parties can only present past licenses that bear some relation to the hypothetical negotiation at issue.²⁰⁴ The Federal Circuit is eliminating

197. *Lucent*, 580 F.3d at 1326.

198. *Lucent*, 580 F.3d at 1328–29; *ResQNet*, 594 F.3d at 870–72; *Wordtech*, 609 F.3d at 1319–22.

199. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *47–74 (Fed. Cir. Jan. 4, 2011).

200. *Lucent*, 580 F.3d at 1327; *ResQNet*, 594 F.3d at 870–71; *Wordtech*, 609 F.3d at 1321.

201. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 857 (Fed. Cir. 2010) ("This standard is highly deferential: we may set aside a damages award and remand for a new trial 'only upon a *clear showing* of excessiveness.") (internal citation omitted) (emphasis in original).

202. *Mobil Oil Corp. v. Amoco Chemicals Corp.*, 915 F. Supp. 1333, 1353 (D. Del. 1994) ("Courts and commentators alike have recognized that the royalties received by the patentee for the licensing of the patents in suit is the 'most influential factor' in determining a reasonable royalty."); *see also* Durie, *supra* note 42, at 641 ("Georgia-Pacific factors one, two, and twelve relate to what might seem the most obvious piece of evidence to be used in calculating a reasonable royalty—actual royalties charged for this or other comparable inventions in the industry.").

203. For example, factors such as the scope of the license (factor 3), relationship between the licensor and licensee (factor 5), duration of the patent and terms of the license (factor 7), profitability of the patent (factor 8), and nature of the patented invention (factor 10) all likely affect the rates of the license that the parties originally agreed upon.

204. *Uniloc*, 2011 U.S. App. LEXIS 11, at *62 ("The meaning of these cases is clear: there must be a basis in fact to associate the royalty rates used in prior licenses to the particular hypothetical negotiation at issue in the case.").

unrelated past licenses from consideration in patent damage analyses.²⁰⁵ Furthermore, information or data derived from unrelated past licenses is also prohibited.²⁰⁶ In *Uniloc*, the 25 percent rule of thumb was just a statistic based off of many unrelated past licenses.²⁰⁷ Uniloc's expert attempted to present this aggregate of unrelated past licenses in a different (numeric) form and failed to persuade the court on that basis. Thus, *Uniloc* expanded upon the previous cases to suggest that *both* unrelated past licenses and information based on unrelated past licenses (or other questionable evidence) are all unacceptable.

Second, parties must present evidence on the *subject matter* of the past license agreements for the jury to evaluate their probative value.²⁰⁸ However, the Federal Circuit has never clearly stated what subject matter would be sufficient, only stating what is insufficient.²⁰⁹ For example, the court in *Wordtech* did not accept arguments on how the jury could have inferred a higher rate because the patentee preferred a share of the expected profit over percentage royalty.²¹⁰ The court also did not accept arguments on how the jury could have inferred higher rates merely because numerous infringers existed before the patent-in-suit was issued.²¹¹ These arguments alone were too speculative and provided no information on exactly how the licensing environment influenced royalty rates.²¹² The Federal Circuit has also stated that past licenses that dealt with entire patent portfolios cannot be compared to licenses involving just one narrow method.²¹³ Past licenses with unknown subject matter or technology cannot be used in estimating royalties.²¹⁴ Past

205. Eric Bensen, *Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011) ("Because the Hypothetical License is nothing more than a naked right to practice the claimed invention while real world license agreements, in addition to being unrelated to the patent, typically provide for rights well beyond the right to practice the invention, the impact the Federal Circuit's holdings is to largely eliminate such licenses from consideration in patent damages analyses.").

206. *Uniloc*, 2011 U.S. App. LEXIS 11, at *56.

207. *Id.* at *50.

208. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1327–38 (Fed. Cir. 2009).

209. See *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–73 (Fed. Cir. 2010); *Lucent*, 580 F.3d at 1327–31; *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319–22 (Fed. Cir. 2009).

210. *Wordtech*, 609 F.3d at 1321–22.

211. *Id.* at 1322.

212. *Id.*

213. *Lucent*, 580 F.3d at 1328.

214. *Id.* (discussing how when the Court cannot figure out what the subject matter of the agreements is based on the evidence, the jury also could not have adequately evaluated the probative value of those agreements).

licenses that cover more than the patent-in-suit cannot be used.²¹⁵ In fact, the Federal Circuit may reject past licenses that cover the *same* exact patents as the patent-in-suit.²¹⁶ In *Wordtech*, the court refused to consider lump sum license agreements that covered the same disc duplication technology as the patents-in-suit because the agreements failed to describe how the parties calculated each lump sum.²¹⁷

If parties want to utilize past licenses to calculate hypothetical royalties on new licenses, then they must account for the “technological and economic differences” between them.²¹⁸ The Federal Circuit has provided some hints as to what parties must do. In *Uniloc*, the Federal Circuit rejected the 25 percent rule in part because the rule took “no account of the importance of the patent to the profits of the product sold, the potential availability of close substitutes or equally noninfringing alternatives, or any of the other idiosyncrasies of the patent at issue that would have affected a real-world negotiation.”²¹⁹ In *Wordtech*, the court suggested that parties should present evidence of intended products, expected production, volume of sales, or projected sales.²²⁰ These *business records* are likely the subject matter that the Federal Circuit was looking for to ensure that the jury had adequate evidence to thoroughly evaluate the value of a technology. The court wanted parties to provide details on the numbers used and why they were used so that these details could be subjected to rigorous cross-examination and contrasted with opposing evidence.²²¹ The cases suggest that the court is pushing patentees to

215. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–71 (Fed. Cir. 2010) (discussing how there was no link when ResQNet’s expert attempted to compare rebundled or patent plus software licenses to the patent-in-suit).

216. *Wordtech*, 609 F.3d at 1320.

217. *Id.*

218. *Id.* (“We stressed that comparisons of past patent licenses to the infringement must account for ‘the technological and economic differences’ between them.”); *ResQNet*, 594 F.3d at 873 (discussing how ResQNet’s rebundled licenses were adjusted upward without accounting for the technological and economic differences between those licenses and the patent-in-suit).

219. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *50 (Fed. Cir. Jan. 4, 2011).

220. *Wordtech*, 609 F.3d at 1320.

221. *See i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 856 (Fed. Cir. 2010) (discussing how vigorous cross-examination and presentation of contrary evidence are the ways to attack shaky evidence and how Microsoft had these opportunities and took advantage of them); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1210 (Fed. Cir. 2010) (discussing how Finjan’s expert was subject to cross-examination and how the jury was free to consider any contradicting evidence).

provide actual evidence of a patent's true value (i.e. apportion).²²² Mere recitations of royalty rates from unrelated past licenses (or data based on unrelated past licenses) do not allow the jury to weigh contradictory evidence or to resolve factual disputes. Parties must present evidence on the subject matter of past licenses. Otherwise, the Federal Circuit will reject the evidence via a *Georgia-Pacific* factor two analysis.

3. *Damage Experts Must Specify a Precise Methodology*

The Federal Circuit remanded the jury awards in *Lucent*, *ResQNet*, and *Wordtech*,²²³ but affirmed the jury awards in *iAi*, *Fujifilm*, and *Finjan*.²²⁴ The difference, at least in part, lies in how the experts presented their testimony. The experts in *iAi*, *Fujifilm*, and *Finjan* all presented a specific and *lengthy* methodology for calculating patent damages.²²⁵ They also presented the specific numbers used to calculate the hypothetical royalty rate.²²⁶ Their methodology did not have to be perfect—they admitted to weaknesses in their methodology and adjusted accordingly.²²⁷ More importantly, the other side had the opportunity to challenge and cross examine the experts' methodology.²²⁸

222. Eric Bensen, *Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011).

223. *Lucent*, 580 F.3d at 1340; *ResQNet*, 594 F.3d at 873; *Wordtech*, 609 F.3d at 1323.

224. *iAi*, 598 F.3d at 864; *Finjan*, 626 F.3d at 1213; *Fujifilm Corp. v. Benun*, 605 F.3d 1366, 1373 (Fed. Cir. 2010).

225. *iAi*, 598 F.3d at 853–56; *Finjan*, 626 F.3d at 1209–12; *Fujifilm*, 605 F.3d at 1372–73 (“[T]he expert testified at length about *Georgia-Pacific* factor 6.”).

226. *iAi*, 598 F.3d at 853 (discussing how the expert used a \$98 baseline royalty); *Finjan*, 626 F.3d at 1209 (discussing how the expert used an operating profit margin of 25 percent for the hardware products and 55 percent for the software products and how it resulted in the 8 percent and 18 percent royalty rates); *Fujifilm*, 605 F.3d at 1372–73 (discussing how if “50% of LFFPs [(lens-fitted film packages)] infringed, and the royalty base only included infringing LFFPs (a reduction by one-half in the size of the potential royalty base of all LFFPs), then the royalty rate would double from 40 cents to 80 cents per infringing LFFP”).

227. *iAi*, 598 F.3d at 855 (discussing how the expert opined that his estimate was conservative because he assumed every company that did not respond was not infringing, which was highly unlikely and caused a serious downward bias); *Finjan*, 626 F.3d at 1209 (“Parr admitted that he used Secure’s company-wide, instead of product-specific, gross profits to calculate royalty rates.”); *iAi*, 598 F.3d at 853 (noting that the expert used a “well-recognized” 25-percent rule, which seemed rather ambiguous at the time).

228. *iAi*, 598 F.3d at 856; *Finjan*, 626 F.3d at 1210; *Fujifilm*, 605 F.3d at 1373.

On the other hand, these opportunities were absent in *Lucent*, *ResQNet*, and *Wordtech*.²²⁹ The experts in *Lucent*, *ResQNet*, and *Wordtech* failed to provide any methodology. They appeared to show up in court merely to recite the royalty rates of other licenses.²³⁰ None of the experts provided any data on intended products, expected production, or projected sales.²³¹ *Lucent*'s and *ResQNet*'s experts did not even present any past licenses with a relationship to the patent-in-suit.²³² The Federal Circuit remanded these cases, in part, because damage experts must present a specific methodology. The court will not accept mere recitations of large royalty rates based on unreliable evidence that may mislead the jury. Such expert testimony will be rejected under *Daubert* and Rule 702 of the Federal Rules of Evidence.²³³

III. LUCENT AND POST-LUCENT CASES CLARIFIED EVIDENTIARY STANDARDS TO IMPROVE PATENT JURISPRUDENCE

Lucent and post-*Lucent* cases introduced two ideas that will improve the calculation of reasonable royalties. First, the Federal Circuit strengthened the Georgia Pacific factors by changing the evidentiary standards for past licenses.²³⁴ Second, the court took a closer look at expert testimony to exclude questionable testimony.²³⁵ Both of these improvements will have positive impacts on the resolution of patent infringement cases.

A. EVIDENTIARY STANDARDS FOR PAST LICENSES

Jury awards have increased significantly over the past decade.²³⁶ These large jury awards still populate the news.²³⁷ To prevent excessively large

229. *Wordtech* did not use a damages expert, but offered testimony through its President, who also happened to be the inventor of the patents-in-suit. *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319 (Fed. Cir. 2009).

230. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1328 (Fed. Cir. 2009); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010); *Wordtech*, 609 F.3d at 1319.

231. *Lucent*, 580 F.3d at 1328; *ResQNet*, 594 F.3d at 870; *Wordtech*, 609 F.3d at 1320.

232. *Lucent*, 580 F.3d at 1328; *ResQNet*, 594 F.3d at 870.

233. *Uniloc* also provides a great example of this standard. The Federal Circuit rejected the 25 percent rule because there was no methodology for how it was calculated. Conversely, the court appeared to have no qualms about the other aspects of *Uniloc*'s methodology (e.g. using an internal pre-litigation document, adjusting for the relevant *Georgia-Pacific* factors, or multiplying by the number of infringing licenses given out). *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *44–45 (Fed. Cir. Jan. 4, 2011).

234. See *supra* Section II.D.2.

235. See *supra* Section II.D.3.

236. See *supra* Section I.C.

awards, the Federal Circuit has required parties to present evidence on the subject matter of past licenses in *Lucent* and post-*Lucent* cases.²³⁸ This is the correct approach because the requirement clarifies the *Georgia-Pacific* factors, promotes economic growth, encourages greater disclosure of information, and increases the accuracy of jury awards.

1. *The Benefits of Clarifying Georgia-Pacific Factors One and Two*

Georgia-Pacific has been followed for decades, but the body of law provides little guidance in calculating royalty rates because juries make the ultimate royalty rate determinations.²³⁹ Over the last decade, this uncertain standard has allowed NPEs to thrive.²⁴⁰ While the Federal Circuit's decisions post-*Lucent* do not resolve all of the uncertainty surrounding the *Georgia-Pacific* factors, they do provide further guidance for factors one and two. Parties in the future will know that they cannot merely bring in highly qualified experts to recite royalty rates. The experts must present further evidence of expected production, volume of sales, availability of substitutes, or other business records detailing how they calculated the royalty rate. All parties have to do is keep the records that they used in their licensing negotiations. Thus, the Federal Circuit's recent guidance in this area reduces uncertainty because parties will not have to perform as much extensive legal or economic research compared to litigation pre-*Lucent*. This change minimizes litigation costs, which in turn promotes innovation and economic growth.

In fact, the Federal Circuit's clarification of the *Georgia-Pacific* reasonable royalty approach is essential to economic growth and innovation.²⁴¹ The uncertainty in patent litigation damages has increased the business risk for companies trying to introduce new goods and services to the market.²⁴² With the rise of NPEs, businesses have to divert resources from innovation to

^{237.} See, e.g., Gene Quinn, *CorporateCounsel.com Names Top 10 IP Litigation Wins of 2009*, IPWATCHDOG, Mar. 24, 2010, available at <http://ipwatchdog.com/2010/03/24/corporatecounsel-com-names-top-10-ip-litigation-wins-of-2009/id=9827/>; Miguel Helft & John Schwartz, *Apple Challenges Big Award over Patents*, N.Y. TIMES, Oct. 4, 2010, available at <http://www.nytimes.com/2010/10/05/technology/05apple.html>; Sinead Carew, *Microsoft Hit With \$1.52 Billion Patent Suit Damages*, REUTERS, Feb. 23, 2007 available at <http://www.reuters.com/article/idUSWEN465120070223>.

^{238.} See *supra* Section II.D.2.

^{239.} Eric Bensen, *Bensen on Lucent Techs., Inc. v. Gateway, Inc., 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sept. 11, 2009), and its Impact on Patent Damages Law*, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

^{240.} See *supra* Section I.C.

^{241.} COAL FOR PATENT FAIRNESS, *supra* note 49, at 1.

^{242.} *Id.*

litigation costs, licensing costs, infringement studies, and invalidity analysis.²⁴³ This causes the development of risky but promising products to be abandoned due to potential litigation costs and high damages awards.²⁴⁴ Patent infringement defendants have to spend millions on patent litigation because of technical complexity and unclear legal standards.²⁴⁵ The average patent suit costs millions to defend.²⁴⁶ As a result, millions of dollars that could have been devoted to creating new jobs and commercializing new products are drained by legal and expert fees.²⁴⁷ Engineers also have to spend time analyzing the influx of opportunistic lawsuits and licensing requests.²⁴⁸ A recent study by economist Everett Ehrlich found that clarification of the reasonable royalty standard could create over 100,000 jobs over the next five years because of additional investments in research and development of new products.²⁴⁹ Thus, the Federal Circuit made the correct move in specifying what evidence is required to support reasonable royalty analyses and clarifying a critical aspect of the *Georgia-Pacific* factors.

2. *The Importance of Encouraging Disclosure*

With all the uncertainty surrounding the calculations of reasonable royalties, the Federal Circuit should encourage disclosure of licensing data in general.²⁵⁰ Licensors and licensees have legitimate motives for concealing data and terms from prior licenses. The terms may be unfavorable, irrelevant, or

243. *Id.*

244. *Id.*

245. *Id.* at 4.

246. *Id.* at 4–5 (citing the AIPLA Report of the Economic Survey 2007, at 25–26); see Cliff Rudolph, *Defense Against Patent Infringement Suits*, PARKER, SMITH & FEEK, Oct. 2010, at 1, available at <http://www.psfinc.com/sites/default/files/print-pdfs/defense-against-patent-infringement-suits.pdf>; Mark Liang, *The Aftermath of TS Tech: The End of Forum Shopping in Patent Litigation and Implications for Non-Practicing Entities*, 19 TEX. INTELL. PROP. L.J. 29, 34 (2010) (discussing how it costs parties \$1.5–2.5 million to defend against patent infringement suits).

247. COAL. FOR PATENT FAIRNESS, *supra* note 49, at 6; see also Matthew Sag & Kurt Rohde, *Patent Reform and Differential Impact*, 8 MINN. J.L. SCI. & TECH. 1, 10 (“The meritless assertion of patent rights diverts scarce research and development funding from engineering to lawyering.”).

248. COAL. FOR PATENT FAIRNESS, *supra* note 49, at 6.

249. EVERETT EHRLICH, ECONOMIC EFFECTS OF CLARIFYING THE STANDARD FOR ASSESSING REASONABLE ROYALTY DAMAGES UNDER PATENT LAW 5 (Coalition for Patent Fairness 2009), available at http://www.patentfairness.org/pdf/whitepapers/Ehrlich_study_0309_FINAL.pdf.

250. *C.f.* *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995) (discussing how reasonable royalty calculations carry an inherent degree of approximation and estimation).

confusing. Although the value of protecting licensing information depends on how heavily the other party values the information, parties will reveal information if the benefits of disclosure outweigh the benefits of keeping it secret. In *Lucent* and subsequent cases, the Federal Circuit shifts this balance towards disclosure, which is important for several reasons.

First, when the court forces parties to disclose more licensing data at trial, parties will likely end up disclosing more data to the other side early on in litigation. They will have the incentive to keep better records and conduct better studies. This, in turn, may lead to quicker settlements and more efficient licensing agreements if parties realize that they will have to eventually disclose the information at trial.

Second, by clarifying the *Georgia-Pacific* reasonable royalty factors, the Federal Circuit reduces the power of NPEs. Because NPEs do not provide products or services, they generally do not have data on expected products or anticipated sales. At most, they can blindly cite their own licensing agreements, which were likely signed under the pressures of litigation. However, without any substance underlying their past agreements, NPEs will face great difficulty in producing evidence to support their asking rate. Large jury awards drive inflated licensing rates, which in turn drive large jury awards and settlement agreements. By emphasizing the disclosure of licensing data, the Federal Circuit ends this circularity and ensures that NPEs can no longer recite the large numbers from their past licenses without more evidence. In addition, NPEs will no longer be in a position to negotiate licensing fees that are grossly out of alignment with their contribution to the infringer's product. As a result, NPEs will eventually receive lower royalty rates.²⁵¹

Some may argue that requiring increased disclosure means that parties will have to expend greater resources to perform detailed economic studies. This is not the case. The Federal Circuit is not asking parties to conduct detailed surveys of a thousand large and small businesses (as *i4i* did).²⁵² The court has acknowledged that parties do not have precise data.²⁵³ Rough estimates of expected use are sufficient.²⁵⁴ There is no indication that the

251. Remember, the goal here is not to drastically weaken the power of NPEs, but to ensure that they are accurately compensated. NPEs may actually "play an important role in the innovation economy by acting as intermediaries between promising independent inventors and users of technology." Sannu K. Shrestha, *Trolls or Market-makers? An Empirical Analysis of Nonpracticing Entities*, 110 COLUM. L. REV. 114, 118 (2010).

252. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 855 (Fed. Cir. 2010).

253. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1333 (Fed. Cir. 2009).

254. *Id.*

court would require parties to spend more money on research. Instead, the court likely wants parties to present the information they already have, including how they obtained that information. In negotiating licenses, parties do not just pull numbers out of thin air; they must have had some numbers or data to base their values on. Even if the information they used was not accurate, it can still be presented to the court.

3. *The Value of Barring Parties from Presenting Unrelated Licenses*

The Federal Circuit has eliminated unrelated past licenses from consideration in patent damage analyses and should do so because every licensing agreement is unique. In proving reasonable royalties, parties should never recite royalty numbers of past licenses without accounting for the differences, even if the past licenses involved the same exact patents. Reasonable royalties, by definition, are not established royalties. Reasonable royalties are a legal fiction to determine what a hypothetical willing licensor and licensee would have agreed upon.²⁵⁵ The Federal Circuit has continually acknowledged that calculating reasonable royalties involves a certain amount of estimation and approximation.²⁵⁶ Every license will be different. Every license is the result of vigorous negotiation.²⁵⁷ Different companies have different bargaining power, and as a result, factors such as exclusivity, timing, signing fees, stock agreements, cross-licensing, milestone payments, minimum royalty payments, discounts, and other costs differ. A license that was agreed upon even months after another license involving the same patent could face a different market, making comparison of their royalty rates difficult. In addition, there is just no easy way to determine the value of a particular technology.²⁵⁸ Every molecule could be the next blockbuster therapeutic. Every electronic chip could change consumer demand. Thus, it is difficult to compare two licenses without accounting for their differences because so many factors could affect the royalty rate during negotiations. To enable the accurate comparison of licensing agreements and improve the

255. *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1159 (6th Cir. 1978).

256. *Lucent*, 580 F.3d at 1336; *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 881 (Fed. Cir. 2010); *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319 (Fed. Cir. 2009).

257. MARK HOLMES, *PATENT LICENSING: STRATEGY, NEGOTIATION, AND FORMS 4-2* § 4.1 (Practicing Law Institute 2010).

258. Jennifer Giordano-Coltart & Charles W. Calkins, *Best Practices in Patent License Negotiations*, Oct. 26 2007, available at <http://www.nature.com/bioent/2007/071001/full/bioe.2007.5.html>.

accuracy of jury awards, courts should always require disclosure of the data used by the parties in licensing negotiations.

B. EVIDENTIARY STANDARDS FOR EXPERT TESTIMONY

Daubert gives judges the ability to act as a gatekeeper and sets out the framework for determining whether expert testimony is properly admitted under Rule 702.²⁵⁹ Under *Daubert*, evidence is admissible when the scientific testimony is both relevant and reliable, such that the evidence is sufficiently related to the case at hand and the methodology is sound.²⁶⁰ It is the judge's role to make sure scientific expert testimony proceeds from scientific knowledge.²⁶¹

Wary of patent damage experts who have advanced degrees but do no more than recite royalty rates,²⁶² the Federal Circuit has required experts to specify their methodology for calculating damages in *Lucent* and subsequent cases.²⁶³ In doing so, the Federal Circuit also suggested that judges take on a greater role as gatekeepers. There are several reasons why the Federal Circuit should continue to act as a gatekeeper and why district judges should take on a more active role in reviewing the relevance of evidence.

1. *Gatekeeping is an Alternate Pathway to Ensuring Solid Evidence*

Gatekeeping greatly complements the stricter evidentiary requirements because it is an alternate pathway to excluding questionable evidence. The strict evidentiary requirements on the usage of past licenses deter parties from presenting irrelevant licenses to begin with. If parties do present such licenses, then gatekeeping serves as a “check” to ensure that the jury never sees them. Thus, the Federal Circuit's should continue to use both a *Georgia-Pacific* factor two analysis and a *Daubert* analysis to ensure solid evidence.

259. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589–90 (1993).

260. *Daubert*, 509 U.S. at 589; *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141–42 (1999); *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 351 (5th Cir. 2007); *Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276 (5th Cir.1998).

261. *Daubert*, 509 U.S. at 590–91. *Daubert* is not a guarantee of correctness and borderline shaky evidence is still admissible. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 854–56 (Fed. Cir. 2010).

262. For example, *i4i's* expert, Dr. Jesse David, has a Ph.D. in economics from Stanford. Yet, he presented past licenses with no relation to the patent-in-suit. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010).

263. *See supra* Section II.D.3.

2. *Gatekeeping Will Prevent Excessive Awards and Lead to More Accurate Damage Awards*

The court's gatekeeping is necessary to help prevent excessive jury awards. *Lucent* is a clear example of how a judge's role in screening evidence is critical to ensuring accurate damages. The Day Patent merely allows users to select a series of numbers and enter a date without the use of a keyboard.²⁶⁴ Microsoft Outlook is primarily used for e-mail.²⁶⁵ The Outlook software also includes a calendar, task manager, contact manager, journal, note taker, and many other features.²⁶⁶ The Day Patent's date-picking ability was a minuscule feature in the software package.²⁶⁷ It did not merit an 8 percent royalty of the entire market value of Outlook, equivalent to a \$358 million award.²⁶⁸ However, Lucent was able to present expert testimony that ultimately led the jury to pick an amount between what its experts and Microsoft's experts proposed.²⁶⁹ If the judge had prevented Lucent's expert from introducing unrelated past licenses that inflated the asking rates, the jury would have likely awarded a lower, but more accurate, amount of damages.

The unrelated past licenses presented by *Lucent* did not assist the jury, as required by *Daubert* and Rule 702.²⁷⁰ By keeping out such irrelevant and unreliable evidence, courts can prevent another *Lucent*. Courts will more accurately compensate the patentee, parties will provide better evidence, jury trials will become more predictable, and reasonable royalties will be more reasonable.

3. *Gatekeeping Is Necessary Because Daubert Is Rarely Used and Parties Do Not Challenge the Admission of Evidence Themselves*

Even though the *Daubert* framework permits judges to serve as gatekeepers in evaluating expert testimony, judges rarely exclude testimony on patent damages.²⁷¹ A 2010 study of Federal Circuit cases since 1993 found

264. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009).

265. *Id.* at 1332.

266. See Microsoft's Outlook website for a full list of features and abilities. Microsoft, <http://office.microsoft.com/en-us/outlook/?CTT=97> (last visited Feb. 21, 2011).

267. *Lucent*, 580 F.3d at 1332 ("Outlook consists of millions of lines of code, only a tiny fraction of which encodes the date-picker feature.").

268. *Lucent*, 580 F.3d at 1335.

269. *Id.* at 1336.

270. FED. R. EVID. 702.

271. Durie, *supra* note 42, at 635.

only ten rulings on *Daubert* motions for patent damages.²⁷² Of these ten decisions, only six involved reasonable royalties and five allowed the testimony.²⁷³ Thus, the Federal Circuit has excluded testimony for reasonable royalties in just *one* case.²⁷⁴ District courts also rarely exclude expert testimony for patent damages.²⁷⁵ There were fifty-four district court opinions since 2000 that decided *Daubert* motions in a patent case.²⁷⁶ Only six cases excluded the patentee's expert testimony on reasonable royalties; another three excluded the testimony in part.²⁷⁷

These numbers indicate not only the deference previously shown by the Federal Circuit (pre-*Lucent*), but also the fact that the parties themselves do not raise *Daubert* motions. In *Lucent*, the court emphasized several times how neither party objected to the evidence. At various points in the opinion, the court stated:

In the present appeal, the parties, in offering the damages evidence, each adopted the hypothetical negotiation approach, *without objection*.²⁷⁸

Microsoft objected neither to the introduction of any of the licenses discussed below nor to the testimony of Lucent's expert as it related to those licenses.²⁷⁹

Microsoft does not argue on appeal that any of the evidence relevant to the damages award was improperly before the jury.²⁸⁰

The license agreements admitted into evidence (*without objection from Microsoft, we note*) highlight how sophisticated parties routinely enter into license agreements that base the value of the patented inventions as a percentage of the commercial products sales price.²⁸¹

[W]e need not address [amici's] assertion regarding jury instructions given or not given, for the simple reason that neither party at trial challenged any damages instruction that was given nor proposed an instruction and objected when it was not given.²⁸²

272. *Id.*

273. *Id.*

274. *Id.*

275. *Id.*

276. *Id.*

277. *Id.*

278. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1325 (Fed. Cir. 2009) (emphasis added).

279. *Id.* at 1325.

280. *Id.*

281. *Id.* at 1339 (emphasis added).

282. *Id.* (emphasis added).

These repetitive quotes illustrate the court's concerns.²⁸³ The parties, for unknown reasons, should have challenged the evidence but failed to do so.²⁸⁴ Among *Lucent* and the post-*Lucent* cases, only the defendants in *i4i* challenged the admission of the expert testimony on damages.²⁸⁵ Thus, judges should take action because parties are not challenging the admissibility of the expert testimony or filing *Daubert* motions.

It is possible that judges are not proactively excluding evidence because of confusion about the validity of assuming the gatekeeper role. Under *Daubert*, judges are given the ability to gatekeep.²⁸⁶ Conversely, the Federal Circuit stated in *Lucent* that it is the parties' responsibility to object to the evidence.²⁸⁷ The court stated that, barring an objection, "the district court judge had no independent mandate to exclude any of that evidence."²⁸⁸ This statement suggests that district court judges can only exclude evidence if the parties first object to the evidence. This is generally not true. Courts have *sua sponte* analyzed expert testimony under *Daubert*.²⁸⁹ However, some judges may

283. The Federal Circuit also noted a lack of objections in *Uniloc*. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *45–46 (Fed. Cir. Jan. 4, 2011) (discussing how Microsoft's attorney made no objection to Uniloc's expert's demonstrative pie chart, which Uniloc's expert used to accompany his testimony).

284. Perhaps the parties do not challenge the evidence because it is common practice for plaintiff's experts to submit licenses that support a high royalty and for defendant's experts to submit a low royalty. See Eric Bensen, *Bensen on Lucent Techs., Inc. v. Gateway, Inc.*, 2009 U.S. App. LEXIS 20325 (Fed. Cir. Sep. 11, 2009), and its *Impact on Patent Damages Law*, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009).

285. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010).

286. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589–90 (1993).

287. *Lucent*, 580 F.3d at 1325 ("The responsibility for objecting to evidence, however, remains firmly with the parties.").

288. *Id.*

289. Gordon J. Beggs, *Novel Expert Evidence In Federal Civil Rights Litigation*, 45 AM. U.L. REV. 2, 39–40 (1995) ("Noting that neither party had challenged the admissibility of scientific evidence regarding the pain caused by lethal injection, the district court nonetheless considered itself bound to scrutinize this proof under *Daubert*. Accordingly, the court analyzed the evidence and ruled *sua sponte* that the expert evidence was admissible."); Iain D. Johnston, *Survey of Seventh Circuit Decisions: Class Actions*, 36 J. MARSHALL L. REV. 837, 852 (2003) (discussing how the 7th Circuit, *sua sponte*, engaged in an appellate, *Daubert* challenge to the expert's testimony); *O'Conner v. Commonwealth Edison Co.*, 13 F.3d 1090, 1094 (7th Cir. 1994) ("[A]fter reconsidering the issue of admissibility of Dr. Scheribel's testimony *sua sponte*, the district court determined that Dr. Scheribel's testimony was inadmissible and entered judgment in favor of the defendants."); *Hoult v. Hoult*, 57 F.3d 1, 9 (1st Cir. 1995) ("We think *Daubert* does instruct district courts to conduct a preliminary assessment of the reliability of expert testimony, even in the absence of an objection."); *Brenord v. Catholic Med. Ctr. of Brooklyn & Queens, Inc.*, 133 F. Supp. 2d 179, 188 n.4 (E.D.N.Y. 2001) ("The ability of a district court to evaluate expert testimony *sua sponte* and exclude such testimony where appropriate has been recognized by several courts.").

mistakenly think they cannot exclude evidence under *Daubert* unless the parties object, which may partially explain why *Daubert* is rarely used. When both sides blindly recite royalty rates that confuse and mislead the jury, judges should step in, even if the parties do not object. The *Lucent* court was greatly concerned by the lack of objections by both parties, as if both parties implicitly agreed to submit numbers in the extremes in the hope that the jury would pick one in the middle.²⁹⁰ Gatekeeping would certainly address these concerns.

The Federal Circuit has suggested that judges should take further action to gatekeep. For example, the Federal Circuit has stated that “district court judges must scrutinize the evidence carefully to ensure that the ‘substantial evidence’ standard is satisfied”²⁹¹ and that district courts must “exercise vigilance when considering past licenses to technologies *other* than the patent-in-suit.”²⁹² This need for “vigilance,” coupled with the fact that the Federal Circuit remanded cases with specific instructions to exclude such questionable evidence,²⁹³ suggests that district court judges should exclude expert testimony *sua sponte* when necessary.

4. *Parties Should Not Be Allowed to Submit Irrelevant Evidence under the Guise of the Georgia-Pacific Factors.*

The Federal Circuit had qualms about the expert testimony and how the parties cleverly used alternate methods to present questionable evidence in support of their claims.²⁹⁴ For example, Lucent’s expert changed his testimony from a 1 percent reasonable royalty rate to 8 percent when the district court excluded the 1 percent testimony.²⁹⁵ This inflated 8 percent rate greatly differed from the rates he proposed for other patents-in-suit, which were all in the 1 percent range.²⁹⁶ Furthermore, he admitted that there was no evidence that Microsoft had ever agreed to pay an 8 percent rate on similar patents.²⁹⁷ The Federal Circuit stated that “[t]his cannot be an acceptable way to conduct an analysis of what the parties would have agreed to in the

290. *Lucent*, 580 F.3d at 1325.

291. *Id.* at 1336.

292. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

293. *Id.* at 872–73 (“During that remand, however, the trial court should not rely on unrelated licenses to increase the reasonable royalty rate above rates more clearly linked to the economic demand for the claimed technology.”).

294. *See Lucent*, 580 F.3d at 1338; *ResQNet*, 594 F.3d at 870.

295. *Lucent*, 580 F.3d at 1338.

296. *Id.*

297. *Id.*

hypothetical licensing context.²⁹⁸ The approach of Lucent's expert ignores what the district court's evidentiary ruling tried to accomplish."²⁹⁹ *Daubert* should be used to exclude such evidence.

The Federal Circuit expressed similar concerns in *ResQNet*. The court described ResQNet's expert's analysis as "troubling" and found that the "inescapable conclusion" was that ResQNet's expert used unrelated licenses to drive up the royalty rate into double figures, an amount over eight times greater than a straight license on the claimed technology.³⁰⁰ The expert misrepresented ResQNet's rebundled licenses as being related to the patent-in-suit when the record showed the opposite.³⁰¹ The expert's strategy appeared to be a deliberate effort to create confusion about the content of past licenses by using broad terms, calling it a bundling license, and providing a long list of the contents of the licenses (training, maintenance, marketing, upgrades, software, and other services).³⁰² Such a strategy would confuse the jury about the appropriate royalty amount, leading them to pick a middle ground between the extremes.

Uniloc is another example of a clever effort by a party to evade the restriction on irrelevant evidence. Faced with the stricter evidentiary standards set forth in *Lucent*, *ResQNet*, and *Wordtech*, Uniloc's expert likely knew he could not present unrelated past licenses.³⁰³ Instead, the expert tried to present data *based on* unrelated past licenses, in the form of the 25 percent rule.³⁰⁴ While an expert may try to account for the many economic and technological differences between the licenses that form the basis for the 25 percent rule and the hypothetical license in any given case, the 25 percent rule coincidentally ignores those differences in practice.³⁰⁵ By using the 25

298. *Id.*

299. *Id.*

300. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010).

301. *Id.*

302. *Id.*

303. Uniloc's lawyers likely were up to date on recent patent law and informed Uniloc's expert that unrelated past licenses could not be presented in court. Furthermore, Uniloc's expert did not present any unrelated past licenses as evidence, suggesting that they likely knew that such licenses would not work under the new evidentiary standards.

304. *Uniloc USA, Inc. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, at *44 (Fed. Cir. Jan. 4, 2011).

305. Eric Bensen, *Eric E. Bensen on the Federal Circuit's Landmark Ruling on Patent Damages: Uniloc USA, Ltd. v. Microsoft Corp.*, 2011 U.S. App. LEXIS 11, 2011 LEXISNEXIS EMERGING ISSUES ANALYSIS 5500 (2011) ("While perhaps it would be theoretically possible for an expert to account for the economic and technological differences between those licenses and the Hypothetical License in a given case, the 25 percent rule in application ignores those differences.").

percent rule, Uniloc's expert attempted to circumvent the Federal Circuit's recent effort to eliminate consideration of unrelated past licenses in patent damage analyses. In the absence of judicial gatekeeping at the district court level, the expert's strategy was effective and resulted in the highest jury award among *Lucent* and the post-*Lucent* cases.³⁰⁶

Parties should not be able to admit irrelevant evidence under the guise of the *Georgia-Pacific* factors. *Georgia-Pacific* factor two allows parties to present royalty rates of past comparable licenses, but it does not define what "comparable" means nor how the past comparable licenses can differ. Parties should not be able to take advantage of such ambiguity to cleverly sneak irrelevant evidence into royalty assessments. Judges should follow the guidance of the Federal Circuit and actively seek to keep such evidence out.

5. *Congress Has Attempted to Implement Gatekeeping*

Congress has recognized a similar problem and attempted to address the issue by encouraging gatekeeping as well.³⁰⁷ As part of the 2007 Patent Reform Act, the House of Representative's proposal tried to force courts to serve as the gatekeeper of evidence relevant to reasonable royalty determinations.³⁰⁸ The Senate's proposal also tried to empower courts to serve as gatekeepers and to allow judges to identify evidence necessary for the jury's reasonable royalty determination.³⁰⁹ Furthermore, the 2009 Patent Reform Act had similar proposals.³¹⁰ Thus, to provide greater certainty in patent litigation and provide greater assistance to the jury, Congress also has suggested that judges should take on a greater role in gatekeeping.

6. *The Juries' Difficulty in Weighing Complex Evidence Necessitates Gatekeeping*

Judges must gatekeep because jurors face difficulties in weighing complex evidence and often lack legal guidance to determine the value of new

306. *Uniloc*, 2011 U.S. App. LEXIS 11, at *43 ("The jury here awarded Uniloc \$388 million, based on the testimony of Uniloc's expert, Dr. Gemini.").

307. Sannu K. Shrestha, *Trolls or Market-makers? An Empirical Analysis Of Nonpracticing Entities*, 110 COLUM. L. REV. 114, 116 (2010) ("Congress has also displayed concern about the role of NPEs and is currently considering several patent reform bills.").

308. Erick S. Lee, *Historical Perspectives on Reasonable Royalty Patent Damages and Current Congressional Efforts for Reform*, 2009 UCLA J.L. & TECH. 2 (2009); H.R. 1908, 110th Cong. § 5(a)(2) (2007).

309. Lee, *supra* note 308; S. 1145, 110th Cong. § 4(c)(1) (2008) ("The court shall . . . identify the factors that are relevant to the determination of a reasonable royalty, and [the fact finder] . . . shall consider only those factors in making such determination.").

310. Lee, *supra* note 308; H.R. 1260, 111th Cong. § 5(a) (2009).

technologies.³¹¹ Judges have marveled at the factual complexity of patent cases and expressed reservations about trying such cases to juries.³¹² A prominent patent litigator stated: “Give jurors a complicated biotechnology case or one involving lasers or computers and their eyes glaze over.”³¹³ Some patent litigators break down complex patent cases into a “good guy versus bad guy” story for juries so they can understand, while others bemoan how jury decisions are often based on emotion rather than facts or law.³¹⁴ This concern regarding juries also became a major focal point that Congress sought to address in the 2007 Patent Reform Act.³¹⁵ The problem is aggravated by the fact that courts excuse physicians, dentists, lawyers, and other professionals from jury service if such service would cause undue hardship or inconvenience.³¹⁶ As a result, highly educated people who are more likely to have technical and science backgrounds are underrepresented on juries.³¹⁷

Part of the problem lies with the multi-factor nature of the *Georgia-Pacific* framework. The royalty rates of past licenses may be incredibly useful to determining the royalty rate of the patent-in-suit, but sometimes, they are completely irrelevant (as in *Lucent* and *ResQNet*).³¹⁸ When such irrelevant evidence is presented alongside a plethora of other evidence in support of the many *Georgia-Pacific* factors, juries face great difficulty in recognizing the probative value (or lack thereof) of any past licenses. Thus, when parties have

311. This is especially problematic with the rise of jury trials for patent infringement cases. See *supra* Section I.C.

312. Kimberley A. Moore, *Symposium: Patent System Reforms: Jury Demands: Who's Asking?*, 17 BERKELEY TECH. L.J. 847, 848 n.1 (2002); Joseph D. Wilkinson Jr., Frank D. Zeilenski & George M. Curtis, III, *A Bicentennial Transition: Modern Alternatives to Seventh Amendment Jury Trials in Complex Cases*, 37 U. KAN. L. REV. 61, 64 (1988).

313. Moore, *supra* note 312, at 848 n.1.

314. *Id.* at 849 n.3.

315. Lee, *supra* note 308 (“Senate committee reports accompanying the most recent proposals for patent reform specifically noted that ‘juries (and perhaps judges) . . . lack adequate legal guidance to assess the harm to the patent holder caused by patent infringement,’ and formed a major focal point of the problem the Committee sought to address.”).

316. See, e.g., *United States v. Goodlow*, 597 F.2d 159, 161 (9th Cir. 1979); *United States v. Van Scoy*, 654 F.2d 257, 262 (3d Cir. 1981).

317. Gregory D. Leibold, *In Juries We Do Not Trust: Appellate Review of Patent Infringement Litigation*, 67 U. COLO. L. REV. 623, 649 (1996).

318. Eric Bensen, *Bensen on Lucent Techs., Inc. v. Gateway, Inc.*, 2009 U.S. App. LEXIS 20325 (*Fed. Cir. Sep. 11, 2009*), and *its Impact on Patent Damages Law*, 2009 LEXISNEXIS EMERGING ISSUES ANALYSIS 4468 (2009) (discussing how past licenses may only be marginally relevant to the patent-in-suit).

no relevant past licenses, they should not be able to present any past licenses to the jury.

Another concern deals with the proclivity of juries to have a just-deserts retribution approach, meaning that juries want to see bad people get what they deserve.³¹⁹ When opposing experts take extreme positions about what constitutes a reasonable royalty, juries are given a wide range of rates to choose from. With such discretion, juries may have an instinctive need to punish bad actors (patent infringers) and to seek retribution regardless of the deterrent effect.³²⁰ Juries may themselves inflate awards, despite the fact that patent law already incorporates deterrents specifically designed to discourage blatant infringement and allows for enhanced damages.³²¹ The *Lucent* jury may have acted to punish who it perceived to be the “bad actor.” Lucent asked for \$561.9 million and Microsoft asked for \$6.5 million, and the jury awarded \$358 million—a number much closer to Lucent’s asking price.³²² The jury’s desire for retribution may also explain the result in *Wordtech*. Wordtech only asked for \$114,000, but the jury awarded over twice that, even though the district court eventually trebled the damages.³²³ While Wordtech dealt with a willful infringer, most infringement is innocent infringement—a fact that jurors may not realize.³²⁴ Empirical evidence suggests that independent invention is the norm.³²⁵ Inflated royalty awards set precedent against both innocent and willful infringers alike when it comes to future settlement agreements and licensing rates.³²⁶ Therefore, without greater guidance from judges, juries may continue to overcompensate the patentee.

Patent trials are long and complex. Juries may face difficulties in juggling the plethora of information provided by counsel. Considering the increase of jury trials compared to bench trials, judges should aid the jury by acting as a gatekeeper to exclude irrelevant evidence.³²⁷

319. Brian J. Love, *The Misuse of Reasonable Royalty Damages as a Patent Infringement Deterrent*, 74 MO. L. REV. 909, 910 (2009).

320. *Id.*

321. 35 U.S.C. § 284 (2006).

322. *Lucent Techs. v. Gateway, Inc.*, 580 F.3d 1301, 1323–24 (Fed. Cir. 2009).

323. *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2009).

324. Love, *supra* note 319, at 936.

325. *Id.* at 940.

326. *Id.* at 935.

327. In the 1980s, juries decided only 14 percent of patent cases with damages awards. In the 1990s, juries decided 24 percent of cases. In this past decade, juries decided 51 percent of cases. Aron Levko, Chris Barry, Vincent Torres & Robert Marvin, *Patent Litigation*

IV. CONCLUSION

Lucent v. Gateway represents a significant shift in the Federal Circuit's patent damages jurisprudence. Deviating from a historic practice of deference, the court chose not to defer to the district court in reviewing patent damages and instead closely scrutinized the evidence presented in court.³²⁸ Post-*Lucent* cases further establish that parties must present evidence on the subject matter of any past licenses presented in court.³²⁹ In addition, expert testimony must have a specific methodology and cannot merely recite royalty rates.³³⁰

In *Lucent* and post-*Lucent* cases, the Federal Circuit made a critically important effort to ensure that reasonable royalty damage awards are actually reasonable. The court should continue to enforce a heightened evidentiary standard and serve as a gatekeeper to exclude questionable evidence. This gatekeeping serves as an alternate pathway to ensuring that only accurate evidence underlies damages awards. NPEs will also face greater hurdles if they try to obtain excessively large jury awards.

After *Lucent*, district courts have indeed scrutinized past licenses in greater detail,³³¹ and rejected past licenses based on speculative circumstances.³³² In addition, district courts have denied motions that request the other party to produce irrelevant past licenses.³³³ The Federal Circuit's rulings in *Lucent* and post-*Lucent* cases have improved the patent damages system and should help prevent excessively large jury awards in the future.

Trends and the Increasing Impact of Nonpracticing Entities, PRICEWATERHOUSECOOPERS, Aug. 2009, available at <http://www.pwc.com/us/en/forensic-services/publications/assets/2009-patent-litigation-study.pdf>.

328. See *supra* Section II.D.1.

329. See *supra* Section II.D.2.

330. See *supra* Section II.D.3.

331. Ricoh Co. v. Quanta Computer, Inc., 2010 U.S. Dist. LEXIS 27301 (W.D. Wis. 2010).

332. IP Innovation L.L.C. v. Red Hat, Inc., 705 F. Supp. 2d 687 (E.D. Tex. 2010); City of Aurora v. PS Sys., Inc., 720 F. Supp. 2d 1243 (D. Colo. 2010).

333. Wi-Lan Inc. v. Research in Motion Corp., 2010 U.S. Dist. LEXIS 77776 (S.D. Cal. 2010); Biax Corp. v. NVIDIA Corp., 2010 U.S. Dist. LEXIS 105869 (D. Colo. 2010).

ADDITIONAL DEVELOPMENTS— PATENT LAW

ARIAD PHARMACEUTICALS, INC. V. ELI LILLY AND CO.

598 F.3d 1336 (Fed. Cir. 2010)

The United States Court of Appeals for the Federal Circuit held that 35 U.S.C. § 112 contains a written description requirement that is independent and distinct from the enablement requirement. The court further held that this requirement applies to all patent applications, not just those involving amended claims, in order to ensure that the inventor actually possessed the claimed subject matter at the time of application.

The court interpreted the statute as having two separate description requirements: a written description of the invention, and of the manner and process of making and using it. The court then concluded that, had Congress intended to require only enablement from the specification, it would have written § 112 differently. The court also found support for this interpretation in longstanding Supreme Court precedent and in the basic quid pro quo of patent law.

Ariad had argued that, even if there was a separate written description requirement, it should properly only be used in policing priority. In other words, it should be used to scrutinize amended claims, but not the patent application as originally filed. The court, however, disagreed. Although original claims may often satisfy the written description requirement, some claims may not. In particular, generic claims that define the boundaries of a genus of chemical compounds, may leave open the question of whether the inventor had invented species sufficient to support a claim to the genus.

The court defined the legal standard as whether the disclosure “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” Specifically, in cases where a patent claims a genus of compounds, a sufficient description “requires the disclosure of either a representative number of species falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can ‘visualize or recognize’ the members of the genus.”

In an energetic dissent, Judges Rader and Linn argued that the Congressional language in § 112 was unambiguous and that that the written description is judged by enablement, not “some quixotic possession

requirement.” The dissent further argued that Supreme Court precedent was consistent with this reading of the statute and the Federal Circuit had improperly expanded the use of the possession analysis beyond policing priority in an earlier decision. The dissent accused the court of creating a written description requirement that “acts as a wildcard on which the court may rely when it faces a patent that it feels is unworthy of protection.”

FALSE MARKING

35 U.S.C. § 292 (2006)

A number of cases this year have addressed this largely dormant provision of false marking whereby an inaccurate patent marking on a product may lead to liability under 35 U.S.C. § 292, resulting in fines amounting to “not more than \$500 for every such offense.” *Forest Group, Inc. v. Bon Tool Company*, 590 F.3d 1295 (Fed. Cir., 2009). Lawsuits brought under this provision by members of the public, so called *qui tam* suits, may allow individuals to receive one-half of any penalties assessed against the company. These claims consist of two elements: the marking of an unpatented article and the intent to deceive the public.

The Federal Circuit held in *Forest Group* that Appellant Forest violated § 292 based upon the finding that the group had “sufficient information that it could no longer maintain a reasonable belief” that its products were covered by their patent. The court remanded for recalculation of fines on a “per article” basis. In doing so, the court separately imposed a fine for each falsely-marked article and rejected Forest’s argument that interpreting § 292 to require a “per article” calculation would result in a “cottage industry” of false marking litigation by plaintiffs who have not suffered any direct harm.” Forest’s fears proved apt, as more than 139 false marking claims were filed following the decision whereas only a handful of false patent marking claims were filed annually before.

The Federal Circuit’s subsequent decision in *Pequignot v. Solo Cup Co.*, 608 F.3d 1356 (Fed. Cir. 2010), allayed some of these fears. The plaintiffs sued Solo Cup Co. for falsely marking 20 billion cup lids and sought an award of \$ 500 per article—amounting to \$ 5.4 trillion dollars. The court, however, found that Solo Cup Co. lacked the requisite intent to be liable for falsely marking the products with an expired patent. Notably, the Court stated that “the bar for proving deceptive intent . . . is particularly high” and thus a “purpose of deceit, rather than simply knowledge that a statement is false, is required.” The U.S. District Court for the Western District of North Carolina in *Harrington v. CIBA Vision Corp.*, No. 3:08-cv-00251-FDW-DCK, 2010 U.S. Dist. LEXIS 74205 (W.D.N.C. July 21, 2010), similarly ruled that

defendant CIBA Vision Corp. did not violate the false patent marking statute in its contact lens care products as it had a “reasonable belief that the markings were proper.”

Recently, the Northern District of Ohio in *Unique Prod. Solutions, Ltd. v. Hy-Grade Valve, Inc.*, No. 5: 10-cv-1912, 2011 WL 649998 (N.D. Ohio Feb 23, 2011), dismissed a false marking claim on the grounds that the *qui tam* provision of Patent Act’s false marking statute was unconstitutional.

To counter fears of huge verdicts for false marking, the U.S. House and Senate have introduced bills—the latter as part of the patent reform bill—to eliminate *qui tam* lawsuits and restrict patent misuse suits to only plaintiffs that have suffered a competitive injury. The bills, H.R. 4954 and S. 515, have not become law.

***KONINKLIJKE PHILIPS ELECTRONICS N.V. v. CARDIAC
SCIENCE OPERATING CO.***

590 F.3d 1326 (Fed. Cir. 2010)

The holding in *Koninklijke Philips Electronics N.V. v. Cardiac Science Operating Co.* dispelled any doubt lingering from the 2009 *Agilent* decision about the proper approach for analyzing patent interference priority cases. *Agilent Technologies, Inc. v. Affymetrix, Inc.*, 567 F.3d 1366 (Fed. Cir. 1992). In *Philips*, the Federal Circuit ruled January 5, 2010 that a district court abused its discretion by dismissing a lawsuit challenging several rulings by the Board of Patent Appeals and Interferences.

During prosecution of its patent application (the “Owen application”), Cardiac Science provoked interference proceedings with Philips concerning its patent (the “751 patent”) that claimed an improved cardiac defibrillator that delivers electrical shock based on two parameters. Specifically, the ’751 patent disclosed a defibrillator that delivers electric shocks based upon a desired energy level input as well as a patient’s transthoracic impedance. The PTO declared an interference under 35 U.S.C. § 135(a), formulating one count that hinged on the construction of the term “impedance-compensated defibrillation pulse” within both interfering parties’ claim limitations. During the interference proceedings, Philips filed several preliminary motions to counter Cardiac Science’s assertion of priority, one of which critically underlies the holding in *Agilent*. Philips argued that the Owen claims, construed in light of definitions contained in its ’751 specification, lacked an adequate written description required under § 112. They contended that the Owen specification merely disclosed defibrillators that deliver electric shock based on a single parameter, patient impedance. The Board countered that under 37 C.F.R. § 41.200(b), “a claim shall be given its broadest reasonable

construction in light of the application or patent in which it appears”, and thus rejected Philips’ motions which construed Owen’s claim terms using definitions from its ’751 specification.

Consequently, the Board found in favor of the Owen application for priority, upon which Philips filed suit in the U.S. District Court for the Western District of Washington. Ultimately, the district court dismissed the complaint with prejudice, affirming all of the Board’s decisions because they were “grounded in the application of the Board’s own procedures and regulations.” Philips appealed, arguing in part that the district court improperly dismissed its claim that the Board erroneously applied § 41.200(b). Specifically, Philips contended that the Board and court should interpret claims in light of the original disclosure when challenging the written description of a competing application, and not in light of the “application . . . in which it appears.” The Federal Circuit agreed, finding that, despite substantial deference to an agency’s own interpretation of its rules, the Board as well as the district court erred in applying § 41.200(b) as it conflicted with its holdings in *Agilent*—namely, that “when a party challenges written description support for an interference count or the copied claim in an interference, the originating disclosure provides the meaning of the pertinent claim language,” and thus § 41.200(b) does not apply to a written description challenge.

In limiting the applicability of the PTO rule, the court further expounded that the agency has no substantive rulemaking authority as the PTO is only authorized to promulgate regulations directed to the conduct of its own proceedings. Thus, the ruling underscores the significance of judicial authority as precedent binds the PTO in the application of its rules.

FUJIFILM CORP. V. BENUN

605 F.3d 1366 (Fed. Cir. 2010)

In applying the Supreme Court’s decision in *Quanta v. LG Electronics*, the U.S. Court of Appeals for the Federal Circuit in *Fujifilm* found that *Quanta* did not create a “strict” patent exhaustion standard which would eliminate the territoriality requirement underlying the first sale of a patented product. Conventionally, under the doctrine of exhaustion, the first unrestricted sale of a patented item territorially within the United States extinguishes the patent owner’s rights over that particular item.

In *Quanta*, LG licensed Intel to make, use, or sell combination products relating to their patents covering microprocessor systems that write or read memory unit data. Intel subsequently sold its chips to Quanta to combine with non-Intel hardware so that LG’s patents were practiced. LG then

asserted a claim of patent infringement against Quanta. However, the Supreme Court held that “Intel’s chips substantially embodied the patented invention and their unconditional, authorized sale by Intel thereby exhausted LG’s patents,” thus precluding any infringement claims.

In *Fujifilm*, defendant Benun sought to appeal a district court ruling that entered judgment against the company for infringing Fuji’s single-use camera patents based on Benun’s sale of refurbished single-use cameras. In its appeal, Benun contended, in part, that foreign sales of Fuji’s technology invoked the doctrine of exhaustion since the Supreme Court’s failure to recite the territoriality requirement in its *Quanta* ruling effectively eliminated it by omission, thus precluding a finding for infringement. In making this assertion, the defendant relied on text in footnote six of *Quanta*, stating:

LGE suggests that the Intel Products would not infringe its patents if they were sold overseas, used as replacement parts, or engineered so that use with non-Intel products would disable their patented features. But [United States v. Univis Lens Co., 316 U.S. 241 (1942)] teaches that the question is whether the product is ‘capable of use only in practicing the patent,’ not whether those uses are infringing. Univis at 249. Whether outside the country or functioning as replacement parts, the Intel Products would still be *practicing* the patent, even if not infringing it. *Fujifilm Corp. v. Benun*, 605 F.3d 1366, 1371–72.

Benun relies upon the phrase “[w]hether outside the country” to assert that the sale and repackaging of Fuji’s disposable cameras abroad satisfied the first sale doctrine. However, the court asserted that according to *Univis*, such sales only amounted to a practicing use of their patented device since “an infringing use must occur in the country where the patent is enforceable.” Namely, if Benun had refurbished and resold cameras originally sold in the United States, then exhaustion would have applied, but since defendants had obtained these cameras abroad, their sale in the United States constituted infringement. Thus, the defendant’s view of strict exhaustion is untenable as the footnote in *Quanta* “supports, rather than undermines, the exhaustion doctrine’s territoriality requirement.”

MUSICAL ALBUMS AS “COMPILATIONS”: A LIMITATION ON DAMAGES OR A TROJAN HORSE SET TO AMBUSH TERMINATION RIGHTS?

Wyatt J. Glynn[†]

Under the Copyright Act of 1976, “compilations” receive rather unique treatment. First, courts may limit the amount of damages that an author of a “compilation” can recover for infringement.¹ Should the copyright holder of a “compilation” opt for an award of statutory damages, courts will award only one statutory damages amount for the entire compilation rather than an award for each work that it comprises, even if the works contained therein are independent and separately registered.² Additionally, a compilation is one of only a few types of works that can assume “work made for hire” status if commissioned as a “work made for hire.”³ The designation as a “work made for hire” is particularly relevant for termination of transfers available under the Copyright Act.⁴

Generally speaking, an author has the opportunity to reclaim the copyright in his or her work by terminating a transfer previously made to another.⁵ “Works made for hire,” however, are not subject to termination of transfers.⁶ Therefore, a creator of a “compilation” constituting a “work made for hire” has no right to terminate that transfer.

In *Bryant v. Media Right Productions*, a 2010 case concerning statutory damages for the alleged infringement of the copyrights in two musical albums, the Second Circuit held that albums are compilations.⁷ The court found that the songs that made up the album were “preexisting materials”

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1. *See* 17 U.S.C. § 504(c)(1) (2006).

2. *See* *Bryant v. Media Right Prods., Inc.*, 603 F.3d 135, 141 (2d Cir. 2010); H.R. REP. NO. 94-1476, at 162 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659.

3. *See* 17 U.S.C. § 101 (2006) (defining “work made for hire”).

4. *See* 17 U.S.C. § 203 (2006).

5. *See id.* (providing that authors may terminate a past transfer of copyright subject to certain procedures).

6. *See id.*

7. *Bryant*, 603 F.3d at 141.

that were selected and arranged in an original way, to result in a compilation.⁸ Thus, the plaintiffs in *Bryant* were only able to recover a single statutory damage award for infringement of their copyright in the album.⁹

Although the holding in *Bryant* addressed statutory damages for “compilations,” it may have other consequences beyond those intended by the court. In *Bryant*, the Second Circuit followed the language of the Act in deciding that albums are “compilations” for the purposes of determining statutory damage awards,¹⁰ but the court failed to acknowledge that doing so could also mean that albums would now be considered works made for hire. Musicians could begin losing the ability to terminate transfers of their music, in direct conflict with Congress’s purpose behind the termination-of-transfer and work-made-for-hire doctrines. One issue with the Second Circuit’s holding in *Bryant* is that the legislative history of the Copyright Act gives reason to question labeling an album as a “compilation.”¹¹ Further, the court failed to acknowledge the termination issue lurking in the shadows, which it should have done given the consequences of its holding.

I. *BRYANT V. MEDIA RIGHT PRODUCTIONS*

This Part will examine the *Bryant* case itself. It will start with a description of the facts and procedural history and then move on to the Second Circuit opinion.

A. FACTS AND PROCEDURAL HISTORY

Anne Bryant and Ellen Bernfeld (“Plaintiffs”) are songwriters who jointly own a record label, Gloryvision Ltd.¹² Plaintiffs created and produced two albums, *Songs for Dogs* and *Songs for Cats* (the “Albums”).¹³ They registered both Albums with the U.S. Copyright Office, and separately registered at least some of the twenty songs from the Albums.¹⁴

Media Right entered into an agreement with the Plaintiffs, authorizing Media Right to market the Albums in exchange for a share of the proceeds from any sales.¹⁵ The agreement did not give Media Right permission to

8. *Id.* at 140–41; see 17 U.S.C. § 101 (defining “compilation”).

9. *Bryant*, 603 F.3d at 140–42.

10. *Id.* at 140.

11. See *infra* Part III.

12. *Bryant*, 603 F.3d at 138.

13. *Id.*

14. *Id.*

15. *Id.*

make copies of the Albums,¹⁶ but stated that Plaintiffs would provide more copies of the album if Media Right so required.¹⁷

Media Right had previously entered into an agreement with Orchard (“Orchard Agreement”), where Orchard was to distribute albums on Media Right’s behalf—including Plaintiffs’ Albums.¹⁸ Media Right informed Bernfeld that Orchard would be the company actually distributing the music,¹⁹ but not that Media Right had granted Orchard the authority in the Orchard Agreement to distribute and exploit the albums via the Internet.²⁰

Initially, Orchard only sold physical copies of the recordings, but later began making digital copies of the Albums to sell through internet-based retailers.²¹ Orchard never informed Media Right or Plaintiffs that it was selling digital copies of the Albums or individual songs from them.²² In total, Orchard generated \$12.14 in revenues from sales of physical copies of the Albums, and \$578.91 from digital downloads—of which Plaintiffs were entitled to \$331.06.²³ Though Orchard had paid Media Right its share of the revenues from sales of the Albums, Plaintiffs never received the payments owed due to an accounting oversight by Media Right.²⁴

When Plaintiffs discovered that Orchard made digital copies of the Albums available online, Plaintiffs filed a complaint for direct and contributory copyright infringement against Orchard and Media Right.²⁵ Plaintiffs sought statutory damages under § 504 of the Copyright Act instead of actual damages, which would have been \$331.06.²⁶

The U.S. District Court for the Southern District of New York held that both Orchard and Media Right had committed direct copyright infringement when they made and sold digital copies of the Albums and individual songs.²⁷ The district court also held that the albums were compilations, which are considered one work for the purpose of computing statutory damages under the Copyright Act, and thus the infringers were only liable for one award of

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*

20. *See id.*

21. *Id.* at 138.

22. *Id.* at 139.

23. *Id.*

24. *Id.*

25. *Id.* at 138.

26. *Id.* at 139.

27. *Id.*

statutory damages per album.²⁸ The district court awarded Plaintiffs the statutory minimum of \$200 per Album from Orchard—who had proven its infringement was innocent—and \$1000 per Album from Media Right—whose infringement was neither innocent nor willful—for a total of \$2400.²⁹ Plaintiffs appealed both holdings: (1) that the Albums were compilations for purposes of the Copyright Act and (2) the monetary damage amounts.³⁰

B. THE SECOND CIRCUIT'S ANALYSIS

On appeal, the Second Circuit held that albums are compilations under the Copyright Act.³¹ The court first looked at the plain language of the Copyright Act.³² The court noted that a “compilation” is defined in the Act as “a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.”³³ The court also mentioned that compilations include collective works, which are defined as works “in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective work.”³⁴ The court next examined the Conference Report that accompanied the Copyright Act to state that a compilation results “*regardless of whether . . . the individual items in the material have been or ever could have been subject to copyright.*”³⁵

The Second Circuit held that “an album falls within the Act’s expansive definition of [a] compilation” because “[a]n album is a collection of preexisting materials—songs—that are selected and arranged by the author in a way that results in an original work of authorship—the album.”³⁶ The court then concluded that “[b]ased on a plain reading of the statute . . . infringement of an album should result in only one statutory damage award,” and whether each song may have received a separate copyright is irrelevant to this analysis.³⁷ The court dedicated in total, two

28. *Id.*

29. *Id.*

30. *Id.*

31. *Id.* at 142.

32. *Id.* at 140.

33. *Id.* (citing 17 U.S.C. § 101 (2006)).

34. *Id.*

35. *Id.* (emphasis in original) (citing H.R. REP. NO. 94-1476, at 162 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659).

36. *Id.* at 140–41.

37. *Id.* at 141.

paragraphs to the issue of what the legislature meant when they coined the term “compilation.”³⁸

Though the court’s legislative and statutory analysis was not very thorough, the Second Circuit had previously decided in *Twin Peaks* and *WB Music Corp. v. RTV Communication. Group, Inc.* that the classification of works as “compilations” for purposes of statutory damages under § 504(c)(1)’s one-award restriction³⁹ hinged on whether the copyright holder “issued its works separately, or together as a unit.”⁴⁰ In *Twin Peaks*, the defendant printed eight teleplays from the television series “Twin Peaks” in one book.⁴¹ The plaintiff production company issued each episode in weekly installments.⁴² The court determined that the plaintiff was entitled to a separate award of statutory damages for each of the teleplays “because the *plaintiff* has issued the works separately, as independent television episodes.”⁴³ In *Bryant*, the court concluded that, to follow *Twin Peaks*, a single damages award per Album was appropriate because the *plaintiff*, not the defendants, had issued the songs as an Album.⁴⁴

In *WB Music Corp.*,⁴⁵ the plaintiff had separately issued thirteen songs, which the defendant then issued as a single sequence of songs in album form.⁴⁶ The Second Circuit held that the plaintiff could collect a separate statutory damage for each song because there was no evidence “that any of the separately copyrighted works were included in a compilation authorized by the plaintiff.”⁴⁷ But the *Bryant* court distinguished the result in *WB Music Corp.* from its own facts, noting that in *Bryant* “it is the copyright holders who issued their works as ‘compilations.’”⁴⁸

38. *See id.* at 140–41.

39. *Twin Peaks Prods., Inc. v. Publ’ns. Int’l Ltd.*, 996 F.2d 1366, 1381 (2d Cir. 1993) (holding that episodes of a television series with a shared plot were not a “compilation” if issued separately); *WB Music Corp. v. RTV Commc’n. Grp., Inc.*, 445 F.3d 538, 541 (2d Cir. 2006) (ruling in favor of the plaintiffs that the infringed works were not part of a “compilation” because “there is no evidence [] that any of the separately copyrighted works were included in a compilation authorized by the copyright owners.”).

40. *Bryant*, 603 F.3d at 141.

41. 996 F.2d at 1381.

42. *Id.*

43. *Bryant*, 603 F.3d at 141 (emphasis in original) (citing *Twin Peaks*, 996 F.2d at 1381).

44. *See id.*

45. *WB Music Corp. v. RTV Commc’n. Grp., Inc.*, 445 F.3d 538 (2d Cir. 2006).

46. *Bryant*, 603 F.3d at 141 (citing *WB Music Corp.*, 445 F.3d at 541).

47. *Id.* at 141 (quoting *WB Music Corp.*, 445 F.3d at 541).

48. *Id.* at 141.

The Second Circuit upheld the finding of intent that Orchard was an innocent infringer.⁴⁹ The court held that Orchard reasonably relied on its agreement with Media Right, which stated not only that Orchard had permission to distribute the Albums by digital download, but also that following the Orchard-Media Right agreement would not infringe any copyrights.⁵⁰ The district court ordered Orchard to pay two hundred dollars per album.⁵¹

The Second Circuit then addressed appellant's argument that Media Right willfully infringed their copyrights. The court noted that a copyright holder must show that the infringer "had knowledge that its conduct represented infringement or . . . recklessly disregarded the possibility" for a claim of willful infringement to stand.⁵² Because Plaintiffs did not prove that Media Right and its president acted willfully, the court held that it was not error for the District Court to find that Media Right's infringement was not willful, and ordered Media Right to pay one thousand dollars per album in damages.⁵³ Because courts enjoy wide discretion in determining the amount of statutory damages,⁵⁴ and considering the factors that courts apply when "determining the amount of statutory damages to award for copyright infringement,"⁵⁵ the Second Circuit held that the amount of damages awarded was not in error.⁵⁶

49. *Id.* at 139.

50. *Id.* at 143.

51. *Id.* at 139. Where the plaintiff elects for statutory damages and the court finds that the infringer was innocent, the award of damages may be reduced to an amount not less than two-hundred dollars. *See* 17 U.S.C. § 504(c)(2) (2006).

52. *Bryant*, 603 F.3d at 143 (citing *Twin Peaks Prods., Inc. v. Publ'ns. Int'l Ltd.*, 996 F.2d 1366, 1382 (2d Cir. 1993)).

53. *Id.* at 139. Where a plaintiff elects for statutory damages, the infringer, with respect to any one work, is liable for a sum of not less than \$750 or more than \$30,000 as the court finds just. *See* § 504(c)(1).

54. *Bryant*, 603 F.3d at 143 (citing *Fitzgerald Pbl'g Co. v. Baylor Pbl'g Co.*, 807 F.2d 1110, 1116 (2d Cir. 1986)).

55. The factors include: (1) the infringer's state of mind; (2) the expenses saved, and profits earned, by the infringer; (3) the revenue lost by the copyright holder; (4) the deterrent effect on the infringer and third parties; (5) the infringer's cooperation in providing evidence concerning the value of the infringing material; and (6) the conduct and attitude of the parties. *Id.* at 144 (citing *N.A.S. Import, Corp. v. Chenson Enters., Inc.*, 968 F.2d 250, 252–53 (2d Cir. 1993)).

56. *Id.* at 144.

II. THE COPYRIGHT ACT OF 1976

To evaluate the Second Circuit’s holding regarding “compilations” damage awards and any potential ramifications, one must understand certain provisions of the Copyright Act. The subsections addressing damages,⁵⁷ compilations,⁵⁸ collective works,⁵⁹ termination of transfers,⁶⁰ and works made for hire⁶¹ are of particular relevance. And where the plain language of the Copyright Act leaves any ambiguity, the legislative history of the Act can provide further clarification.

A. STATUTORY DAMAGES

Section 504 of the Copyright Act gives copyright holders the right to seek either actual damages⁶² or an award of statutory damages.⁶³ Should a copyright holder elect to recover statutory damages, the infringer(s) is liable for an award not less than \$750 or more than \$30,000.⁶⁴ Courts may reduce the award to as low as \$200 for “innocent infringement,” should the infringer prove that she was not aware and had no reason to believe that her acts constituted infringement.⁶⁵ In the event that the copyright owner is able to prove that the infringer acted willfully, the court has the discretion to increase the award of statutory damages to a sum of not more than \$150,000.⁶⁶ If the work being infringed is a compilation, all the parts of a compilation constitute one work for the purposes of awarding statutory damages.⁶⁷

B. COMPILATIONS AND COLLECTIVE WORKS

The plain language of the Copyright Act gives a rather broad, if not somewhat vague, explanation as to what types of work fall under the definition of “compilation.” Section 101 of the Copyright Act defines a

57. *See* § 504.

58. *See* §§ 101, 103 (defining “compilation”).

59. *See* § 101 (defining “collective work”).

60. *See* § 203 (defining “terminations of transfers”).

61. *See* § 101 (defining “work made for hire”).

62. Copyright owner has to prove the infringer’s gross revenue, and the infringer is required to prove her deductible expenses. *See* § 504(b).

63. *See* § 504(c).

64. § 504(c)(1).

65. *See* § 504(c)(2).

66. *Id.*

67. An example may help to clarify: if an author had arranged a compilation that was comprised of twelve different works, the copyright holder would not be able to collect a statutory award for each of the twelve works, but rather would get one award for the compilation as a whole. *See* § 504(c)(1).

compilation as “a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship. The term ‘compilation’ also includes collective works.”⁶⁸

House Report 94-1476 (“House Report”) accompanying the Act expands upon the statutory definition:

copyright in a “new version” covers only the material added by the later author, and has no effect one way or the other on the copyright or public domain status of the preexisting material . . . a “compilation” results from a process of selecting, bringing together, organizing, and arranging previously existing material of all kinds, regardless of whether the individual items in the material have been or ever could have been subject to copyright.⁶⁹

Additionally, § 103 of the Copyright Act echoes that the copyright protection in a compilation “extends only to the material contributed by the author . . . as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material.”⁷⁰

There are three points that can be taken from the discussion above: (1) compilations are created by the collection and assembly of materials; (2) a compilation can receive copyright protection whether it is composed of copyrighted or uncopyrighted material; and (3) the protection afforded to an author of a compilation extends not to the preexisting materials used to create it, but rather to the creativity that went into the selection, coordination, and arrangement of the materials in an original way.⁷¹

In discussing “compilations” it also necessary to point out that the Copyright Act treats “collective works” as compilations.⁷² A collective work, is defined as: [A] work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole.⁷³ The House Report also lists symposia and discrete writings of the same authors as further examples of “collective works.”⁷⁴

68. § 101 (defining “compilation”).

69. H.R. REP. NO. 94-1476, at 57 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659.

70. § 103(b); *see also* H.R. REP. NO. 94-1476, at 57 (“[C]opyright in a ‘new version’ covers only the material added by the later author, and has no effect one way or the other on the copyright or public domain status of the preexisting material.”).

71. *See* § 101 (defining “compilation”); *see also* H.R. REP. NO. 94-1476, at 57.

72. § 101 (defining “compilation”).

73. *Id.* (defining “collective work”).

74. H.R. REP. NO. 94-1476, at 122.

C. WORKS MADE FOR HIRE AND TERMINATION-OF-TRANSFERS

Section 203 of the Copyright Act specifies that an author who has transferred the rights to his or her copyrighted work⁷⁵ may, after thirty-five years from the date of execution of the grant,⁷⁶ terminate the assignment of the copyright notwithstanding *any* agreement to the contrary.⁷⁷ The rationale behind the termination-of-transfer right was to provide a safeguard for authors against unremunerative transfers, given their frequently disadvantaged bargaining position.⁷⁸ “Works made for hire,” however, are exempt from this termination right.⁷⁹ The Copyright 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 for hire.⁸⁰

For a creator to fall under the first prong of the “work made for hire” definition, courts consider whether the creator is an employee under general agency law.⁸¹ In order for a musical album to be considered a “work made

75. Created on or after January 1, 1978. § 203(a).

76. § 203(a)(3).

77. § 203(a)(5).

78. H. REP. NO. 94-1476, at 124.

79. § 203(a).

80. § 101 (defining “work made for hire”). The statute goes on further to describe “supplementary works” and “instructional text” as follows:

[A] “supplementary work” is a work prepared for publication as a secondary adjunct to a work by another author for the purpose of introducing, concluding, illustrating, explaining, revising, commenting upon, or assisting in the use of the other work, such as forewords, afterwords, pictorial illustrations, maps, charts, tables, editorial notes, musical arrangements, answer material for tests, bibliographies, appendixes, and indexes, and an “instructional text” is a literary, pictorial, or graphic work prepared for publication and with the purpose of use in systematic instructional activities.

Id.

81. *See* Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 751–52 (1989).

Among the other factors relevant to this inquiry are the skill required; the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the

for hire” it therefore would have to be created by an employee in the scope of his or her employment, or it would have to be commissioned as one of the enumerated groups of works under the second prong, with an agreement stating that the album will be treated as a “work made for hire.”⁸²

D. SOUND RECORDINGS AND ALBUMS

“Sound recordings” and “albums” are not synonymous. The Copyright Act defines “sound recording” as “works that result from the fixation of a series of musical, spoken, or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes, or other phonorecords, in which they are embodied.”⁸³ An album, at least in the context of the *Bryant* opinion, is defined as a work that results from the fixation of only music works.⁸⁴ While an album fits the definition of a “sound recording,” the fact that a fixation of spoken or “other” sounds would qualify as a “sound recording” means that not all “sound recordings” are albums.

III. DISCUSSION

It is rather complicated to analyze the validity of the Second Circuit’s decision that albums are “compilations.” “Compilations,” which include “collective works,”⁸⁵ are limited as to statutory damages awards for infringement.⁸⁶ And any work deemed to be a “collective work” or “compilation” can be considered a “work made for hire,”⁸⁷ which is not subject to termination of transfer.⁸⁸ Therefore, the Second Circuit’s ruling goes beyond the sole issue of damages. Because none of these discrete issues exist in a vacuum, one must look beyond the definition of a “compilation” to determine what exactly Congress intended when it included that term in the Copyright Act.

hired party; the extent of the hired party’s discretion over when and how long to work; the method of payment; the hired party’s role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party. *Id.*

82. *See* § 101 (defining “work made for hire”).

83. § 101 (defining “sound recording”).

84. *See Bryant v. Media Right Prods., Inc.*, 603 F.3d 135, 137 (2d Cir. 2010).

85. *See* § 101 (defining “compilation”).

86. *See* § 504(c)(1).

87. *See id.* (defining “work made for hire”).

88. § 203(a).

This analysis of the Second Circuit’s decision on whether an album is a “compilation” will take three steps. First, one examines the Second Circuit’s analysis of the statutory definition of both “compilations” and “collective works” under the Copyright Act. Second, one should turn to the legislative history that discusses “compilations” and “collective works” to see if there is any clear indication of whether an album fits into either of these categories. Third, because “compilations” can be “works made for hire,”⁸⁹ and because “works for hire” are not subject to termination of transfers,⁹⁰ the statutory language and legislative history surrounding “works made for hire” and termination of transfers should also be examined. Each of these steps will be discussed below.

A. THE SECOND CIRCUIT’S PLAIN LANGUAGE APPROACH

This part will examine the Second Circuit’s interpretation of the language of the Copyright Act. It will start with the Court’s analysis of the term “compilation” under the Copyright Act and then address how the court mentioned that an album could also be a “collective work,” but failed to discuss whether an album actually is a “collective work.”

1. *The Second Circuit Holds that Albums Are “Compilations” Under the Statutory Language.*

The Copyright Act defines a “compilation” as “a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.”⁹¹ The Second Circuit defined “preexisting” by applying the statutory rule of construction that gives preference to the ordinary meaning of terms.⁹² The *Bryant* court understood the statutory definition of compilation—“a work formed by the collection of preexisting materials”⁹³—to mean that a compilation could constitute a collection of *any* preexisting material. In other words, the court observed that songs on an album necessarily predate the album—literally speaking, songs must be authored before an album can be made—and therefore an album falls within the statutory definition.

89. § 101 (defining “work made for hire”).

90. *See* § 203(a).

91. *See* § 101 (defining “compilation”).

92. *Johnson v. United States*, 529 U.S. 694, 707 n.9 (2000).

93. § 101 (defining “compilation”).

But applying straightforward principles of statutory interpretation to define the plain meaning of “preexisting” provides an unsatisfactory definition of “compilation.” Holding albums as “compilations” affects their eligibility for status as a “work for hire”⁹⁴ and the author’s right to terminate any grant of transfer.⁹⁵ Given that the classification of albums as “compilations” has an effect greater than just limiting statutory damages,⁹⁶ the Second Circuit also should have considered other relevant sections of the Copyright Act. The court then would at least be aware of the larger consequences. And this should have caused the Second Circuit to move beyond the plain meaning of a “compilation” to analyze whether an album should be eligible as a “work made for hire,” and thus potentially be barred from termination of transfers.

2. *The Second Circuit Failed to Determine Whether an Album Also Qualifies as a “Collective Work.”*

Though the *Bryant* Court did not explicitly state that albums are also “collective works,” the Court did make a passing reference that compilations include “collective works.”⁹⁷ This analysis next addresses whether albums might also fit under the category of “collective works.” The Copyright Act defines a “collective work” as a work in which a number of contributions, that are separate and independent works in themselves, are assembled into a collective whole.⁹⁸ The examples given by the Act include periodicals, anthologies, or encyclopedias.⁹⁹

At first glance, the plain language of the Copyright Act suggests that albums could also be “compilations” in the form of “collective works.” But the statutory definition of “collective works” raises two questions: (1) are an album’s songs separate and independent works in themselves—and if so, are *all* album’s songs separate and independent works in themselves—and (2) are albums analogous to the examples provided in § 101 of the Copyright Act?

The existence of concept albums proves that not all album’s songs are separate and independent works. Copyright scholar David Nimmer defines a concept album as “an album containing a continuous ‘story line’ (e.g., The Who’s “Tommy”), which would seem no more a collective work than a novel

94. See § 101 (defining “work made for hire”).

95. See § 203(a).

96. See 35 U.S.C. § 504(c)(1) (2006).

97. *Bryant v. Media Right Prods.*, 603 F.3d 135, 140 (2d Cir. 2010).

98. § 101 (defining “collective work”).

99. *Id.* (defining “collective work”).

consisting of various chapters.”¹⁰⁰ An example is “American Idiot” from the popular punk-rock trio Greenday, whose songs work to tell a cohesive story of a protagonist named “Jesus of Suburbia.” While the individual songs that constitute these albums may be “independent” in that listeners can enjoy them in isolation, the songs on each record are hardly separate and independent when looking at the cohesive story told throughout the album.

The fact that anyone can go on iTunes and buy songs individually off of albums presents a relatively strong case that the individual songs on many, if not most, albums are separate and independent works with independent and separable value outside of the context of a collective whole. But it is important to remember that the *Bryant* Court broadly ruled without qualification that all albums are “compilations,” not just the particular albums at issue in the case.¹⁰¹ While a literal reading of the statutory definition of “collective work” may suggest that some albums might qualify as a “collective work,” some albums should also fall outside of the purview of this category, yet in *Bryant*, the Second Circuit made no exceptions.¹⁰²

As to the second question—whether an album is analogous to the examples of “collective works” provided in the Copyright Act—a quick comparison between the two hints that albums are not all that similar. The definition of a “collective work” includes periodical issues, anthologies, and encyclopedias as examples, and mentions that these works are ones that involve a “number of contributions.”¹⁰³

Periodicals and encyclopedias generally involve a large number of separate authors working individually on their own separate pieces. Many albums involve multiple authors. But those authors—the musicians—typically work together on the songs as joint authors; it isn’t as though albums usually involve one musician writing and recording one song, with another writing and recording another song. The typical periodical or encyclopedia does not have many contributors working as joint authors on each piece, like on an album. Most albums also involve far fewer authors than a periodical or encyclopedia.

Trying to differentiate an album from an “anthology” is more problematic. Webster’s dictionary defines an “anthology” as “1: a published

100. 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 5.03 (Matthew Bender, Rev. Ed. 2010).

101. *Bryant*, 603 F.3d at 140.

102. *See generally Bryant*, 603 F.3d 135 (making no distinction between different types of albums, instead ruling that all albums are compilations).

103. § 101 (defining “collective work”).

collection of writings (such as poems or short stories) by different authors, example: an anthology of American poetry; 2: a collection of works of art or music, example: The band will be releasing an anthology of their earlier albums.”¹⁰⁴ The colloquial use of the term “anthology” is reserved for collections of materials either from different authors or works of the same author that span a certain time. Most people would not refer the release of an artist’s album containing all new material as an “anthology.” This understanding thus tracks the examples listed by the dictionary definition of “anthology.”

An album could be considered an “anthology,” however, under an extremely literal reading of the dictionary definition—that an album is technically a collection of music.¹⁰⁵ This interpretation of “anthology” is not consonant with any of the examples provided in the dictionary definition, or the vernacular use of the term, however, there is nothing to indicate that the list of examples provided is exhaustive. It follows that there is room for argument that an album technically fits under the definition of an “anthology,” and therefore is a collective work. However, it is a weak argument at best.

3. *Summary*

The statutory definition of “compilations” suggests that an album would be a “compilation” because the songs, under a very literal reading, pre-exist the album. And in most cases¹⁰⁶ courts could consider the songs that make up an album separate and independent works that are assembled into a collective whole.¹⁰⁷ Thus courts might consider albums “collective works.” But the examples of “collective works” Congress provided in the Copyright Act seem to encompass works with a formation qualitatively different than an album. And while an album may fit into very literal readings of the definitions of “compilations” or “collective works,” both definitions are rather broad and vague. Further, trying to apply plain meaning to the Copyright Act is often difficult given its tendency to be ambiguous and complicated.¹⁰⁸ While the statutory language gives some indication as to whether an album is a “compilation” or “collective work,” the guidance it

104. *Anthology Definition*, MERRIAM-WEBSTER’S DICTIONARY, <http://www.merriam-webster.com/dictionary/anthology> (last visited December 22, 2010).

105. *See id.*

106. Excluding “theme” or “concept” albums. *See* NIMMER, *supra* note 100, at § 5.03.

107. *See* § 101 (defining “collective work”).

108. Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 CORNELL L. REV. 857, 881 (1987).

provides, and the analysis of these terms by the court, is unsatisfactory at best.

B. LEGISLATIVE HISTORY INDICATES THAT THE SECOND CIRCUIT’S APPROACH IS FLAWED

Though the definitions of “compilations” and “collective works” in the statute itself are rather vague, the legislative history helps to expand on the types of works Congress envisioned would fit into either of the categories. While the legislative history fails to provide any exact answers as to whether an album is a “compilation” or “collective work,” it does contain relevant discussions that the Second Circuit should have taken into account when deciding that albums are “compilations.”

1. *“Compilations” According to the Legislative History*

The conversations addressing “compilations” during the discussions and comments on the drafted bill were rather scant.¹⁰⁹ Most of the discussions centered on potential consequences if a compiler created a compilation in which some of the preexisting works used were used unlawfully.¹¹⁰ The House Report that accompanied and explained the bill also discussed “compilations,” but the emphasis of the report was (1) to distinguish “compilations” from “derivative works,” (2) to explain what protection a compilation unlawfully employing preexisting works receives, and (3) to stress that “copyright in a [compilation] covers only the material added by the later author, and has no effect one way or the other on the copyright or public domain status of the preexisting material.”¹¹¹

Part of the problem is that the conversations about “compilations” are mostly in the abstract; explicit examples of “compilations” are scarce. But the legislative history does supply some concrete examples of “compilations,” even providing some examples of compilations taking the form of sound recordings. The examples in the report include sound recordings of birdcalls or sounds of racecar engines,¹¹² a sound recording comprised of a collection

109. See H. COMM. ON THE JUDICIARY, 88TH CONG., 1ST SESS., COPYRIGHT LAW REVISION PART 3: DISCUSSION AND COMMENTS ON REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 65 (1963) [hereinafter COPYRIGHT LAW REVISION].

110. See *id.* at 66–71.

111. H.R. REP. NO. 94-1476, at 57 (1976).

112. See S. REP. NO. 94-473, at 54 (1975).

of classical sonatas from the public domain,¹¹³ and a teacher recording various literary materials, either from the public domain or with authorized use, for teaching purposes.¹¹⁴

This language suggests that compilations can take the form of a sound recording, but none of the examples listed have the same creative process as a typical musical album. Birdcalls and sounds of racecars are not copyrightable musical works.¹¹⁵ Concertos and sonatas from over two hundred and fifty years ago have fallen into the public domain and no longer have copyright protection as musical works.¹¹⁶ A teacher given authorization to record someone else's literary work is quite different from artists writing their own material and releasing it for the first time. While these examples given during the discussions of the bill do show that sound recordings can be compilations, they also little to clarify whether courts should consider a conventional album—typically where musicians are acting as joint authors collectively create and release new material—a “compilation.” All the examples of sound recordings taking the form of “compilations” listed in the legislative history seem to lack the creative essence of an album.

2. “Collective Works” as Understood by the Legislative History

Though the legislative history explaining “collective works” is slightly more illuminating than the discussions about “compilations,” there is still no clear indication of whether Congress contemplated albums as “collective works” under the Copyright Act. As noted, *supra*, the songs on most albums do appear to fit the criteria of “separate and independent” works.¹¹⁷ However, the examples of “collective works” offered in this section create ambiguity when trying to determine if albums would fit in this group.

The examples of “collective works” that legislators gave in the House Report include “periodical issues, anthologies, symposia, and collections of the discrete writings of the same authors.”¹¹⁸ The only new examples in this report, compared with the statutory language itself, are symposia and “collections of the discrete writings of the same authors.”¹¹⁹ But symposia,

113. Referring to a collection of concertos and sonatas from the Baroque-era composer Vivaldi. COPYRIGHT LAW REVISION, *supra* note 109, at 76 (statement of Edward A. Sargoy, American Bar Association).

114. *See id.*

115. *See* 17 U.S.C. § 102 (2006).

116. *See* COPYRIGHT LAW REVISION, *supra* note 109.

117. *See supra* Section III.A.2.

118. H.R. REP. NO. 94-1476, at 122 (1976).

119. *See* § 101 (defining “collective work”).

with many different speakers typically acting as distinct authors,¹²⁰ do not seem very similar to albums.

The example of “collections of the discrete writings of the same authors,” on the other hand, is somewhat more cryptic. It is unclear from the pluralization of “authors” whether Congress meant that the collections they were referring to needed more than one author providing discrete writings or if they were referring to any number of collections that showcased the discrete writings of a single author. It is quite possible that Congress failed to devote much thought and attention to the wording of that phrase, and thus trying to decode this phrase may be a futile exercise in semantics. But considering that there are other portions of the legislative history indicating that Congress intended the inclusion of the term “collective works” in the Copyright Act to address the problem of termination of transfers for works that have multiple independent contractor authors working on independent parts of a larger work,¹²¹ it would make more sense to adopt the interpretation that Congress intended this phrase to refer to more than one author.

In addition to providing several examples of works that would generally be considered “collective works,” Congress also produced several examples of works that would *not* qualify as “collective works.” A “composition consisting of words and music, a work published with illustrations or front matter, or three one-act plays, *where relatively few separate elements have been brought together*” do not fall into the category of “collective works.”¹²² The question then becomes, what counts as “relatively few separate elements?” Is an album more analogous to three one-act plays put together in a performance, or to a periodical or anthology? This language is fodder for a spirited debate, but little more. While ostensibly trying to provide guidance, time after time Congress continued to muddy the waters.

To complicate matters even further, the Register of Copyrights, in his first Supplementary Report delivered to Congress explaining the proposed bill, stated that “integrated works such as the usual motion picture, sound recording, dramatico-musical work” fall outside the definition of “collective works.”¹²³ The rest of the paragraph that this quote is from was copied,

120. As opposed to joint authors.

121. *See infra* Section III.C.

122. H.R. REP. NO. 94-1476, at 122 (emphasis added).

123. SUPPLEMENTARY REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: 1965 REVISION BILL, 89TH CONG., 1ST SESS., COPYRIGHT LAW REVISION PART 6, at 69.

essentially verbatim, and placed into the House Report, yet this particular sentence is left out.¹²⁴ And there is no discussion in the legislative history about its removal.¹²⁵ It is unclear if the statement was disagreed with, or if it simply got lost in the shuffle.

3. Summary

As with the actual statutory language, any guidance that the legislative history provides about whether an album is a “compilation” or “collective work” leaves much to be desired. Examples provided by the legislative history suggest that compilations can take the form of certain sound recordings. However, those examples given do not quite parallel a typical music album. Whether or not an album qualifies as a “collective work” is also unclear. The examples of “collective works” seem to have a common theme in that the works involve multiple authors working independently of one another, not a group of authors working jointly on all the independent pieces that make up the whole. But, there is nothing in the legislative history that explicitly precludes a “collective work” from being compiled of works from one person or a group of joint authors. Further, it is unclear whether there is a minimum threshold as to the number of pieces needed to move into the realm of “collective works.” It is not explicitly clear whether courts should consider albums “compilations” or “collective works” according to the legislative history of the Copyright Act. However, the legislative history contains language that questions whether albums are actually “compilations,” and the Second Circuit neglected to address any of these issues.

C. THE LEGISLATIVE HISTORY DISCUSSION OF “WORKS MADE FOR HIRE” AND TERMINATION OF TRANSFERS CREATES DOUBT AS TO WHETHER ALBUMS SHOULD BE CONSIDERED COMPILATIONS

The Copyright Act allows authors to terminate a grant of a transfer or license of copyright after thirty-five years, notwithstanding any agreement to the contrary, so long as the correct procedural steps are taken.¹²⁶ However, this right to termination does not apply to “works made for hire.”¹²⁷ Thus, the term of art “works made for hire” assumed a great deal of importance in

124. Compare *id.*, with H.R. REP. NO. 94-1476, at 122.

125. See H. COMM. ON THE JUDICIARY, 88TH CONG., 1ST SESS., COPYRIGHT LAW REVISION PARTS 1–4: DISCUSSION AND COMMENTS ON REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW.

126. See 17 U.S.C. § 203(a) (2006).

127. See *id.*

the bill’s development.¹²⁸ The discussions resulted in a “carefully balanced compromise” that sought to “draw a statutory line between those works written on special order or commission that should be considered as ‘works made for hire,’ and those that should not.”¹²⁹ Because both “compilations” and “contributions to collective works” are categories of works¹³⁰ that can be “works for hire,”¹³¹ examining the development of termination rights and the “work made for hire” exception can shed some light on whether an album was a work that Congress contemplated as a “work made for hire,” and thus, if an album should qualify as a “compilation” or “collective work.”

The right to terminate transfers was placed in the Copyright Act in order to protect authors against unremunerative transfers, “resulting in part from the impossibility of determining a work’s value until it has been exploited.”¹³² There was also a concern that publishers were able to strong-arm authors into signing away their copyrights forever, presenting take-it-or-leave-it contracts where authors were unable to bargain for more limited grants.¹³³ While Congress and certain industry representatives thought that authors needed termination rights in order to protect themselves, the book publishing and motion picture industries strongly opposed the proposed termination provision.¹³⁴

1. *Economic Risk and Compensation*

The two major industries that launched attacks against the termination provision were the book-publishing and motion-picture industries. One argument shared by both groups was that they assume considerable economic risks and losses in developing and exploiting new works, which original authors do not share.¹³⁵ In the discussions between industry representatives it was noted that many types of works, such as translations, introductions, reference books, and those works that go into encyclopedias—including the maps and pictures—are traditionally bought on a lump-sum basis, and compensation is not based on royalties.¹³⁶ Most books

128. H.R. REP. NO. 94-1476, at 125.

129. *Id.* at 121.

130. Sound recordings are conspicuously absent from the list of works that can be “works for hire.” *See* § 101 (defining “work made for hire”).

131. *See id.*

132. H.R. REP. NO. 94-1476, at 124.

133. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 286.

134. *Id.* at 277–300.

135. *Id.* at 277.

136. *See Id.* at 298.

other than encyclopedias—and those books that fit in special categories eligible for “works made for hire” status—are published on a royalty basis.¹³⁷

It is also notable that Congress included motion pictures, contributions to collective works (i.e., contributions to an encyclopedia), translations, atlases, and supplementary works (which include introductions) as categories of works that can be “works for hire” if commissioned or specially ordered as such.¹³⁸ Literary works, whose authors are typically compensated on a royalty basis, are conspicuously absent from this list.¹³⁹ This seems to indicate that at least one factor that Congress weighed when determining the “work made for hire” categories is how the author is typically compensated.¹⁴⁰

The music-publishing industry made economic arguments as well. The representative for the National Music Publishers Association (“NMPA”) argued that much as the movie industry takes huge economic risks, so too do music publishers.¹⁴¹ The argument was based on the idea that few songs from any one publisher are actually going to be commercial successes.¹⁴² The NMPA argued that if you take away the popular standards from publishers through termination rights, then those publishers would lose the income that allows them to exploit new compositions.¹⁴³ But even though the representative for music publishers voiced concerns about the economic harms of termination rights for music, neither “musical compositions” nor “sound recordings” explicitly made the list of “works made for hire.”¹⁴⁴ Encyclopedias—as collective works—and movies, on the other hand, did.¹⁴⁵

2. *Number of Contributors to a Work*

An additional concern shared by both the book-publishing and the motion-picture industries was that termination could severely shorten the life of works requiring a large number of contributors for their production.¹⁴⁶

137. *Id.* at 295.

138. 17 U.S.C. § 101 (2006) (defining “work made for hire”).

139. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 295.

140. If compensation is something that Congress considered in determining what works will be “works for hire,” it is frustrating that there is no mention this in the legislative history. However, this is of little surprise considering that Congress, admitting its limited substantive expertise, delegated industry representatives with the task of negotiating for and forming much of the substance of the Copyright Act. *See* Litman, *supra* note 108, at 880.

141. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 283.

142. *Id.*

143. *See Id.* at 283.

144. *See* 17 U.S.C. § 101 (2006) (defining “work made for hire”).

145. *Id.* (defining “work made for hire”).

146. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 297.

There were worries that the collective efforts of the many individual contributors would be difficult to segregate and identify.¹⁴⁷ One can imagine that the transaction costs involved in trying to renew transfers for thousands of contributors to an encyclopedia could easily shelve the work after thirty-five years. This concern resulted in a general understanding, at least between some industry representatives from both sides, that creators of movies, encyclopedias, and other reference books cannot hire every contributor as a full-time employee in order to protect the publisher’s ownership of those contributions, and thus it was suggested that termination rights should not apply to such works.¹⁴⁸ Frustratingly enough, instead of discussing this point further it was recommended that discussions on this matter be explored outside the meeting.¹⁴⁹ While it is impossible to know with any certainty whether the number of contributors of a work had any sway on the drafters of the Copyright Act, the fact that many of the works that made it on the list of “works for hire” generally involve a large number of contributors suggests that this was a concern in mind when Congress adopted the definition of “works made for hire.”

3. *Applying the Termination of Transfer and “Works for Hire” Rationales to an “Album.”*

During the discussion and comments on the 1964 Revision Bill, Irwin Karp, of the Authors League of America, argued that thousands of authors of music have never been able to “protect themselves adequately in making a grant of rights for a reasonably limited period of time.”¹⁵⁰ This indicates that musicians fit into the category of authors that Congress feared had unequal bargaining power and needed the protection of the termination provision.¹⁵¹ The question then becomes whether an album’s characteristics are such that courts should consider an album a “work made for hire.”

Addressing the economic and compensation arguments, albums do generally involve some up-front risks, including signing bonuses to artists and recording costs.¹⁵² However, the money that record companies pay up-

147. *Id.* at 340.

148. *See Id.* at 297.

149. *Id.*

150. H. COMM. ON THE JUDICIARY, 88TH CONG., 1ST SESS., COPYRIGHT LAW REVISION PART 5: DISCUSSION AND COMMENTS ON REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 155.

151. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 286.

152. DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 100–02 (4th ed. 2000).

front is not a lump-sum payment to the artist(s), but is rather an advance against the proceeds of the album.¹⁵³ Artists generally receive royalties, but do not see any profit from an album until all monies the record company advanced—even for albums they have previously released—have been recouped.¹⁵⁴ Thus concerns regarding the economic risks associated with lump-sum payments for contributors¹⁵⁵ are mitigated in the context of musical albums when compared with movies and reference books.

The issue of numerous contributors making termination difficult on certain industries is slightly more complicated in the context of an album. An album created by a five-piece band, whose members are all working as joint authors, seems a far cry from an encyclopedia that required submissions from thousands of independent contributors. By comparison, it should be reasonably easy to track down all the members of a band should the record company hope to renegotiate the transfer of the copyright.

The possibility of complications increase when the production of an album likely includes a producer and a mixing engineer, and possibly even studio musicians—who may or may not be salaried employees of the record company or the band. However, not every album employs a bevy of actors. For example, the plaintiffs in *Bryant* wrote and produced the album by themselves.¹⁵⁶ Though it would be difficult to trace the ownership of many albums, for others it would not. But this did not stop the Second Circuit from ruling without qualification that albums, as a whole, are “compilations.”¹⁵⁷

It is ambiguous whether most albums have qualities that force courts to label them as “works for hire.” On the one hand, the number of contributors can vary widely and there are considerable financial risks involved

153. *Id.*

154. An example may help. All standard record contracts have worked in what is called “cross-collateralization,” which works as follows: Assume that a band is given a \$50,000 advance for its first album, and the record only earned back \$20,000. This first record would have \$30,000 in unrecouped funds. Now, assume that the same band was given another \$50,000 advance for their second album, and the record earned \$60,000. This second record would have a \$10,000 profit. However, with cross-collateralization, the \$10,000 in profit from the second album would not be shared with the band, but would rather be applied to the \$30,000 in unrecouped funds for the first album, leaving the band with a current total of \$20,000 in unrecouped funds moving forward for the next album(s). PASSMAN, *supra* note 152, at 103–04.

155. *See supra* Section III.C.1.

156. *Bryant v. Media Right Prods.*, 603 F.3d 138 (2d Cir. 2010).

157. *Id.* at 140.

considering the likelihood of a song’s profitability¹⁵⁸ and musical artists’ advances.¹⁵⁹ This might suggest that an album should be a “work for hire.”¹⁶⁰ On the other hand, Congress openly acknowledged that authors of music have not been able to protect themselves against agreements requiring wholesale relinquishments of their rights.¹⁶¹ And the economic risk that a record company takes on with each album is greatly mitigated by record contracts that require repayment of any costs and advances.¹⁶²

Taking this into consideration, it does not seem that termination rights in albums would create problems or inequities to the same degree that allowing termination of transfers for motion pictures, encyclopedias, and other reference books would. But in the end there is no conclusive proof that Congress did not intend albums to be “works for hire.” Rather, the arguments discussing what works should qualify as “works for hire” merely tip the scales in favor of albums generally *not* being “works for hire,” and only arguably so.

The Copyright Office’s circulars seem to support this inference, though. The Copyright Office states that “[g]enerally speaking, for a *new* sound recording to be a work made for hire, it must be made by an employee within his or her scope of employment.”¹⁶³ While a musical arrangement written by a salaried musical arranger at a music company or a sound recording created by a salaried staff engineers of a record company would be considered a “work for hire,”¹⁶⁴ the Copyright Office states that the typical album—containing newly released material from musicians who are not employees of their record companies¹⁶⁵—does not fall into the “work for hire” category.

4. “*Serious Music*” Not Eligible as a “*Work For Hire*”?

The discussions and comments on the termination provision¹⁶⁶ were not the only pieces of legislative history to touch on what works should and should not qualify as “works for hire.” In fact, in his first Supplementary Report Abraham Kaminstein, the former Register of Copyrights, stated that

158. *See supra* Section III.C.1.

159. *See supra* Section III.C.1.

160. *See supra* Section III.C.1-III.C.2.

161. *See* COPYRIGHT LAW REVISION, *supra* note 109, at 286.

162. *See supra* text accompanying note 154.

163. U.S. Copyright Office, Circular 56, *Copyright Registration for Sound Recordings*, at 3 (rev. July 2009) (emphasis added).

164. U.S. Copyright Office, Circular 9, *Works Made for Hire Under the 1976 Copyright Act*, at 2 (rev. Apr. 2010).

165. *See supra* Section III.A.

166. *See supra* Section III.C.1-III.C.2.

“[i]t is generally conceded that there are many works, such as serious music and choreography, that are written ‘on special order or commission’ but that should not be regarded as ‘works made for hire.’”¹⁶⁷ In the midst of all the uncertainty surrounding whether an album should qualify as a “work for hire,” this statement could provide much needed clarity. If music written on special order or commission should not be regarded as a “work made for hire,” then an album of music should not either. However, the problem here lies in the Register’s choice of words, specifically that he stated *serious* music should not be regarded as a “work made for hire.”

The Register’s use of the term “serious music” is perplexing. “Serious music,” while used loosely as an aesthetic judgment, lacks any objective, definitive meaning.¹⁶⁸ Various pieces in academic journals have described “serious music” as anything from works that would be commonly qualify as classical music¹⁶⁹ to opera and symphonic music,¹⁷⁰ but there is no generally accepted definition.¹⁷¹ The term “serious music” is seen in other places in the legislative history of the Copyright Act to refer to classical music, but only as distinguished from “popular music”¹⁷² or as a synonym for “classical” music,¹⁷³ and it only appears in the context of the discussions around compulsory licenses for music and jukeboxes.

There is no explanation in the Register’s first Supplementary Report clarifying what exactly Kaminstein intended when he used the term “serious music,” nor does the context give any clues.¹⁷⁴ There was a second Draft

167. H. COMM. ON THE JUDICIARY, 98TH CONG., COPYRIGHT LAW REVISION, PART 6: SUPPLEMENTARY REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: 1965 REVISION BILL 67 (Comm. Print 1965).

168. One will not find a subject heading for “serious music” in a music dictionary. *See* THE NEW GROVE DICTIONARY OF MUSIC AND MUSICIANS (2d ed. 2001).

169. *See, e.g.*, T.W. Adorno, *A Social Critique of Radio Music*, 7 KENYON REV. 217 (1945) (referring to a Beethoven symphony).

170. Janet P. Gilbert & Mary R. Beal, *Preferences of Elderly Individuals for Selected Music Education Experiences*, 30 J. RES. MUSIC EDUC. 247, 250 (1982).

171. *See supra* text accompanying note 168.

172. *See Copyright Law Revision—CATV*: Before the Subcomm. on Patents, Trademarks, and Copyrights, 98th Cong., 2d Sess. 234 (1966) (statement of Herman Finkelstein, General Counsel, ASCAP).

173. *See Copyright Law Revision*. Hearing before the Subcomm. on Courts, Civil Liberties and the Administration of Justice Hearings (PART 2) 982 (1975) (statement of Michael Connor, Wall Street Journal).

174. *See generally* H. COMM. ON THE JUDICIARY, 98TH CONG., COPYRIGHT LAW REVISION, PART 6: SUPPLEMENTARY REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: 1965 REVISION BILL (Comm. Print 1965).

Supplementary Report of the Register of Copyrights in 1975, from then-current Register Barbara Ringer.¹⁷⁵ This draft essentially parrots Kaminstein’s comment about “serious music,” but states that “serious composers” are “not intended to be treated as ‘employees’ under the carefully-negotiated definition [of ‘works for hire].’”¹⁷⁶ The phrasing is different, but the point is essentially the same. Though the second report does not explain what Ringer or Kaminstein meant when they said “serious music,” a separate section in the report indicates that “serious music” is something separate from “popular music,” but explains no further than this.¹⁷⁷

From the portions of the legislative history that mention “serious music” and the two Supplemental Register’s Reports, it is extremely difficult to come to any conclusion about the term’s meaning. It is possible that that “serious music” was supposed to be equated with “classical music.”¹⁷⁸ But if this were the case, it would seem odd and without reason that certain styles of music should have the benefit of termination while other styles, such as “popular” music, may not. There are possible explanations for what Kaminstein or Ringer intended with “serious music,” but to put forth other suggestions would just be wild speculation. It is discouraging that this statement from the Register, with just a little bit of explanation, could have shed a considerable amount of light on the question of whether an album should be regarded as a “work for hire,” and thus whether an album should be regarded as a “compilation.” But as it stands, it is one more example of the legislative history creating even more uncertainty.¹⁷⁹

D. IS THE SECOND CIRCUIT’S RULING THAT ALBUMS ARE
COMPILATIONS CORRECT?

While it is difficult to definitively state that the Second Circuit came to the wrong conclusion in determining that all albums are “compilations,”¹⁸⁰ it is safe to say that the court failed to consider the termination-of-transfers issue lurking in background, as it should have. It is possible that the court simply thought that holding that albums are “compilations” would only affect the amount of statutory damages that a plaintiff could collect for an

175. See THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW 1975 REVISION BILL, OCTOBER–DECEMBER 1975 (DRAFT): SECOND SUPPLEMENTARY REPORT.

176. *Id.* at 100.

177. *Id.* at 90.

178. See *supra* text accompanying note 173.

179. See *supra* Section III.A–III.B.

180. *Bryant v. Media Right Prods.*, 603 F.3d 135, 140 (2d Cir. 2010).

infringement action.¹⁸¹ But because “compilations” are eligible to be “works made for hire,”¹⁸² the Second Circuit’s holding on damages could actually have a profound effect on termination rights,¹⁸³ which the court never acknowledged.

And it is not likely that a ruling such as this will only affect a select few. Almost every standard record contract contains boilerplate language stating that the works produced by performers are works made for hire.¹⁸⁴ While it was unclear if these “work made for hire” provisions in record contracts had any legal force,¹⁸⁵ the Second Circuit, focusing solely on an issue of statutory damages, settled the question by ruling that albums are “compilations.”¹⁸⁶

It is uncertain whether the Second Circuit would have concluded that albums are “compilations” had they looked at the discussions about the termination-of-transfers provision and the “works made for hire” exception. However, the legislative history does hint in favor of finding that musical works—and by extension albums—were not what Congress was talking about when it created the category of “works made for hire.”¹⁸⁷ Because Congress understood musicians to need the same protection from unequal bargaining power as authors of literary works, termination rights were ostensibly included to extend protections to authors of musical and literary works alike.¹⁸⁸ And while publishers of all sorts opposed the termination provision, including music publishers,¹⁸⁹ only works commissioned by the encyclopedia and reference book publishers and the movie industry are clearly reflected in the enumerated categories of works eligible for “works

181. It is easy to see how a court that was not well-versed in copyright law—and was only dealing with “compilations” in the context of damages—could be oblivious to the fact that the term “compilation” is also included in the category of “works made for hire,” as neither the definition of “compilation” nor statutory damages provision of the Copyright Act indicates as much. *See* 17 U.S.C. §§ 101, 504(c)(1) (2006).

182. If the work is specially ordered or commissioned and there is a written agreement that they will be treated as a “work made for hire.” *See* § 101 (defining “work made for hire”).

183. *See* § 203(a).

184. *Sound Recordings as Works Made for Hire*: Before the Subcomm. on Courts and Intellectual Property, 106th Cong., 2d Sess. (May 25, 2000) (statement of Marybeth Peters, Register of Copyrights).

185. The ambiguity lied in the fact that “sound recordings” are conspicuously absent from the list of works eligible for “work for hire” status. *See* § 101 (defining “work made for hire”).

186. *See id.* (defining “work made for hire”).

187. *See supra* Section III.C.3.

188. *See supra* text accompanying notes 132–33.

189. *See supra* Sections III.C.1 and III.C.2.

made for hire” status.¹⁹⁰ The aforementioned parts of the legislative history present a relatively strong foundation for an argument that courts should not regard musical works, and therefore albums, as “works made for hire.” Accepting this interpretation of the legislative history to be true, if “compilations” can be “works made for hire,” and albums should not be regarded as “works made for hire,” it follows that an album should not be considered a “compilation.”

Admittedly this is only one interpretation of how courts should view albums in relation to “works made for hire,” though the legislative history supports this as a workable interpretation. Regardless of whether this is the correct interpretation of what the legislature had in mind when the Copyright Act was drafted, having reviewed the discussions that were carried on through the process, one cannot help but wonder if this information would have changed the conclusion of the Second Circuit. It is entirely possible that they would have still reached the same verdict. But even if they would have, the problem lies in the fact that the court did not address the “work for hire” and termination-of-transfer issues, which are inextricably linked to its decision. The Second Circuit precluded the possibility of termination for many musicians without even acknowledging the fact.

E. THE FUTURE IMPLICATIONS OF THE *BRYANT* DECISION

Moving forward, this decision has two important consequences. First, any copyright holder seeking statutory damages for the infringement of an album will have a significantly lower allowable minimum amount of damages. Second, musicians that have transferred the rights in their albums to record companies will almost certainly lose their termination rights.

1. *Reducing the Allowable Minimum Damages*

The facts of the *Bryant* case apply to lowering damage award minimums. With damages being awarded on a per-album basis, the court awarded Plaintiffs \$2,400.¹⁹¹ Breaking this figure down, Orchard paid \$200 per album as an innocent infringer¹⁹² and Media Right paid \$1000 per album.¹⁹³ Had Plaintiffs’ argument prevailed—that they were entitled to statutory damages for *each* song on the Album¹⁹⁴—the court likely would have awarded Plaintiffs a sum far in excess of \$2,400. Because there were two albums

190. See § 101 (defining “work made for hire”).

191. See *Bryant v. Media Right Prods.*, 603 F.3d 135, 139 (2d Cir. 2010).

192. This is the statutory minimum allowed for innocent infringement. See § 504(c)(2).

193. See *Bryant*, 603 F.3d at 139.

194. *Id.* at 140.

infringed, each with ten songs, Orchard would have been liable for twenty separate infringements at \$200 each, making their total liability \$4,000. The minimum amount that the court could have ordered Media Right to pay as a non-innocent infringer was \$750,¹⁹⁵ putting Media Rights minimum liability for the twenty infringements at \$15,000. If the court ordered both parties to pay the statutory minimums per infringement, the total award to Plaintiffs would have been \$19,000. It is easy to see that classifying an album as a “compilation” has a profound effect on the minimum amount of damages that can be awarded as opposed to awarding damages on a per song basis: \$19,000 is a far cry from \$2,400.

Though it may seem that limiting albums to a single damage award significantly reduces damages for infringement—as the Second Circuit has now lowered the damages floor for these works—it should be noted that courts have broad discretion in setting the amount of statutory damages.¹⁹⁶ Courts have the power to raise damages to \$30,000 for infringement,¹⁹⁷ and as high as \$150,000 per work if the owner proves the infringement was willful.¹⁹⁸ And in the *Bryant* case, it may not have seemed fair that the infringers would be liable for no less than \$19,000 in damages when the actual damages Plaintiffs proved were only \$331.06,¹⁹⁹ thus prompting a judge to think that one damages award per album would be more equitable. However, when one factors in the cost of attorneys fees, especially considering that the trial court ruling was appealed, the sum of \$19,000 certainly seems more reasonable.

2. *Effect on Termination of Transfers*

The other important consequence stemming from the Second Circuit’s ruling that albums are “compilations” is that the court’s holding likely precludes most musicians from being able to terminate transfers to the material on albums. Though the Copyright Act allows authors to terminate the grants of rights to their copyrighted material, as discussed above, this termination right does not apply to “works made for hire.”²⁰⁰ As “compilations” are one of the works eligible for “work made for hire”

195. See § 504(c)(1). For the sake of argument, the statutory minimum of \$750 per infringement is used here instead of the \$1,000 per infringement that Media Right was actually found to be liable for. See *Bryant*, 603 F.3d at 139.

196. *Fitzgerald Pbl’g Co. v. Baylor Pbl’g Co.*, 807 F.2d 1110, 1116 (2d Cir. 1986).

197. See § 504(c)(1).

198. § 504(c)(2).

199. See *Bryant*, 603 F.3d at 139.

200. § 203(a).

status,²⁰¹ this means that albums, as “compilations,” can be ineligible for termination. Though a musician would have to sign an agreement stating that the album be treated as a “work made for hire” in order for it to truly assume “work for hire” status,²⁰² most recording contracts do include such language.²⁰³ So while the *Bryant* decision seems like a straightforward ruling affecting only the amount of statutory damages that can be awarded for an album, in reality it also opened up an entirely new can of worms in the area of termination rights due to the term “compilation” being used in sections of the Act relating to both issues. And the Second Circuit, at least from the *Bryant* opinion, seems to be wholly unaware of this potentially significant termination issue.²⁰⁴

IV. CONCLUSION

The *Bryant* Court limited the minimum amount of damages courts may award for an album. The ruling that albums are “compilations” also has an effect on musicians’ right to terminate transfers. What is less clear is whether the Second Circuit was correct in ruling that albums actually are “compilations.” Albums seem to fit within the rather broad statutory definition of “compilations,” but the references made to compilations and collective works in the legislative history accompanying the Copyright Act do not seem completely analogous to an album that a band would typically release. Further, the legislative history discussing termination of transfers and “works for hire” mentions that musicians are in need of protection against unremunerative transfers. And albums do not seem to share many important characteristics with those works that made it into the list of “works for hire.”

At a minimum, the legislative history raises some questions about whether an album should be considered a “compilation.” It is unfortunate that the Second Circuit neglected to delve deeper into the legislative history and confront these questions, but this lack of analysis is especially troublesome considering the termination issue lurking in the background. Because holding that an album is a “compilation” will likely eliminate many musicians’ right to terminate, the termination issue is something that the court should have acknowledged and addressed.

201. See § 101 (defining “work made for hire”).

202. See *id.* (defining “work made for hire”).

203. See *supra* note 184.

204. See generally *Bryant*, 603 F.3d 135 (the Second Circuit never mentions the termination-of-transfer issue in the *Bryant* opinion).

VIACOM V. YOUTUBE—ALL EYES BLIND: THE LIMITS OF THE DMCA IN A WEB 2.0 WORLD

Amir Hassanabadi[†]

One billion dollars¹: that is what media giant Viacom demanded in damages in its lawsuit against YouTube and its parent company Google alleging copyright infringement over Viacom clips uploaded to YouTube.² For its part, Google spent more than \$100 million in pre-trial legal fees to defend itself against Viacom.³ Congress enacted the Digital Millennium Copyright Act (DMCA) over a decade ago unaware of such a future conflict.⁴ Congress did not divine YouTube—a website that encourages users to “Broadcast Yourself,”⁵ has a video of a dog riding a skateboard as one of its main attractions,⁶ and enthralls more viewers than most cable channels.⁷ Congress was blind to the future technology, change, and costs of our new digital age. *Viacom v. YouTube* is but a prelude to future conflicts—an example of a coming wave of lawsuits and hamstrung legal judgments caused by an aging DMCA and related statutory provisions that are slipping into irrelevancy. Though YouTube won the day, the strained reasoning of the court may leave the service vulnerable on appeal. The legal analysis in *Viacom*

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1. This figure is close to the \$1.65 billion Google paid to purchase YouTube. Complaint for Declaratory and Injunctive Relief and Damages at 8, *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 07-2103).

2. Complaint for Declaratory and Injunctive Relief and Damages at 5, *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 07-2103).

3. Erick Schonfeld, *Google Spent \$100 Million Defending Against Viacom’s \$1 Billion Lawsuit*, TECHCRUNCH (Nov. 30, 2010, 5:46 PM), <http://techcrunch.com/2010/07/15/google-viacom-100-million-lawsuit>.

4. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) [hereinafter *DMCA*].

5. YOUTUBE, <http://www.youtube.com>, (last visited Feb. 1, 2009).

6. This video has more than 14 million views. *Skateboarding Dog*, YOUTUBE (Jan. 24, 2011, 1:44 AM), <http://www.youtube.com/watch?v=CQzUsTFqtW0>.

7. Leena Rao, *ComScore: Facebook Passes Yahoo to Become the Second Largest Video Site in the U.S.*, TECHCRUNCH (Oct. 27, 2010, 12:03 PM), <http://techcrunch.com/2010/09/30/comscore-facebook-passes-yahoo-to-become-the-second-largest-video-site-in-the-u-s/>.

v. YouTube demonstrates that the DMCA is unprepared to handle the demands of today, and more importantly, the uncertainties of tomorrow.

Hyperbole was widespread on both sides of the lawsuit. Attorneys for YouTube argued that a Viacom victory would be a blow to free expression on the Internet.⁸ YouTube argued that its services had connected politicians to their constituents, allowed reporters to bring news from far-off war zones, and provided tools to protesters to fight repressive regimes.⁹ The liberation of peoples, after all, was more important than the liberation of business cycles. For its part, Viacom stoked fears that if YouTube continued allowing users to upload copyrighted content with reckless abandon, studio after studio would collapse in Hollywood.¹⁰ It was not fair, Viacom argued, for copyright owners to have the burden of policing YouTube's site for copyright infringement.¹¹ Echoing the concerns of many copyright owners, Viacom refused to continue playing a game of "whac-a-mole"—using DMCA takedown notices to remove content only to see it pop up somewhere else.¹²

In response to thousands of pieces of evidence, the court provided a meager thirty page opinion, half of it directly quoting legislative history, and almost none of it touching on important factual issues raised by both sides.¹³ The court granted summary judgment to YouTube, holding that YouTube was protected by the DMCA's safe harbor provision.¹⁴ According to the court, YouTube removed content whenever it had "actual knowledge" or

8. Michael H. Rubin, Partner, Wilson Sonsini Goodrich & Rosati, *YouTube, A Look Back at Viacom v. YouTube & Beyond*, Remarks at the University of California Berkeley School of Law (Aug. 26, 2010).

9. Memorandum of Law in Support of Defendants' Motion for Summary Judgment at 1–2, *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 07-2103).

10. Alex Pham, *Viacom, Google Trade Accusations Over YouTube*, L.A. TIMES, Nov. 11, 2010, *available at* <http://articles.latimes.com/2010/mar/19/business/la-fi-ct-viature19-2010mar19>.

11. Memorandum of Law in Support of Viacom's Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 28, *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 07-2103) ("Defendants refused to prevent illegal uploading and imposed the entire burden on Viacom and the other studios to search YouTube 24/7 for infringing clips while Defendants reaped the profits.").

12. Nate Anderson, *Rightsholders Tire of Takedown Whac-A-Mole, Seek Gov't Help*, ARS TECHNICA (Jan. 31, 2011, 9:14 PM), <http://arstechnica.com/tech-policy/news/2010/05/rightsholders-tire-of-takedown-whac-a-mole-seek-govt-help.ars>.

13. *See Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010).

14. *Id.* at 529.

was “aware of facts and circumstances from which infringing activity [was] apparent” under § 512(c). YouTube was not liable for the infringement of its users because in responding to takedown notices with these actions, YouTube met the statutory requirements for safe harbor protection.

In some corners, the verdict was celebrated. Commentator Mike Masnick of *Tech Dirt* called it “a huge victory for common sense and the proper application of liability.”¹⁵ Farhad Manjoo of *Slate*, who originally sided with Viacom, changed his mind shortly before the ruling and said he wanted to “upload a video apology to YouTube.”¹⁶ Kent Walker, the Vice President and General Counsel of Google, hailed it as “an important victory not just for us, but also for the billions of people around the world who use the web to communicate and share experiences with each other.”¹⁷

Viacom, by contrast, called the decision “fundamentally flawed.”¹⁸ Its many supporters were dismayed. The American Federation of Musicians warned that “YouTube is more than a widespread infringer of copyrights; it [is] a catalyst and engine for copyright infringement on a global scale, unleashing a Pandora’s box of illegal activity that will continue to threaten the output of America’s creative industries for years to come.”¹⁹ Viacom has since hired superstar attorney Theodore Olson of *Bush v. Gore* and *Perry v. Schwarzenegger* fame to handle their appeal, which they filed in December of 2010.²⁰ Microsoft, the MPAA, the DGA, SAG, Electronic Arts, CBS, and the International Intellectual Property Institute have all filed amicus briefs in support of Viacom’s appeal.²¹

15. Mike Masnick, *Huge Victory: Court Rules for YouTube Against Viacom*, TECHDIRT (Oct. 26, 2010, 2:21 PM), <http://www.techdirt.com/articles/20100623/1333269937.shtml>.

16. Farhad Manjoo, *Police Your Own Damn Copyrights*, SLATE (Oct. 27, 2010, 11:03 AM), <http://www.slate.com/id/2258086/pagenum/all/#p2>.

17. Kent Walker, *YouTube Wins Case Against Viacom*, BROADCASTING OURSELVES ;): THE OFFICIAL YOUTUBE BLOG (Oct. 27, 2010, 10:57 AM), <http://youtube-global.blogspot.com/2010/06/youtube-wins-case-against-viacom.html>.

18. Miguel Helft, *Judge Sides with Google in Viacom Video Suit*, N.Y. TIMES, Oct. 27, 2010, http://www.nytimes.com/2010/06/24/technology/24google.html?_r=1.

19. Brief for American Federation of Musicians et al. as Amici Curiae Supporting Plaintiffs, *Viacom v. YouTube* at 17, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 10-3342).

20. Eriq Gardner, *Viacom Hires Superstar Lawyer to Handle YouTube Appeal*, HOLLYWOOD REPORTER (Oct. 27, 2010, 10:48 AM), <http://www.hollywoodreporter.com/blogs/thr-esq/viacom-hires-superstar-lawyer-handle-31587>.

21. Eriq Gardner, *Viacom Friends Back Appeal of YouTube Decision*, HOLLYWOOD REPORTER (Dec. 14, 2010, 4:04 PM), <http://www.hollywoodreporter.com/blogs/thr-esq/viacom-friends-appeal-youtube-decision-58856>.

While not nearly as dire as Viacom and its supporters contend, the decision in *Viacom v. YouTube* makes clear that the DMCA is slipping into irrelevancy and may not be able to accurately hit the moving target of issues raised in the evolving Internet landscape. Pressed against the dual concerns of looming and massive statutory damages and the DMCA's inability to predict Web 2.0 technologies,²² the court took a sledgehammer to the delicate issues at stake, rather than using the scalpel those issues deserved. The court ignored instances of specific knowledge and dismissed evidence of possibly overwhelming amounts of infringement. In choosing DMCA takedown notices over content filtering as the method of choice for "red flag" notification, the court chose to enforce a blunt instrument rather than an elegant tool.

This Article makes three arguments. First, there was a genuine issue of material fact as to whether YouTube was entitled to the § 512(c) safe harbor. Summary judgment was not appropriate as a matter of law, and the case should have gone to a jury. Second, the opinion strongly suggests that the only way for a "red flag" to be triggered is through a DMCA takedown notice. The consequence of this decision, then, is a notice and takedown *only* regime. Third, because of the possibility of heavy statutory damages, the DMCA's inability to foresee the advent of content filtering, and the desire to achieve the social policies inherent in the DMCA, the court had little choice but to read the "red flag" test as narrowly as possible.

Part I of this Note will trace the development of the DMCA. It follows the DMCA from its inception, to the reasoning behind the safe harbor provision, to the mechanics of the safe harbor and red flag knowledge standards, to the challenges the DMCA faces in a Web 2.0 world. Part I concludes with an analysis of the pertinent case history. Part II focuses on *Viacom v. YouTube*—tracing the roots of the case, summarizing the arguments and most persuasive evidence brought up by Viacom and YouTube, and providing the court's eventual holding and reasoning. Part III of this Note argues that summary judgment should not have been granted, that the consequence of the decision is a strict notice and takedown regime, and that the decision results from a DMCA that is unsustainable in a Web 2.0 world.

22. A network of websites and service providers that thrive on user participation and content.

I. BACKGROUND

A. NEW WORLD, NEW RULES—ENTER THE DMCA

Copyright law in the United States safeguards “original works of authorship fixed in any tangible medium of expression.”²³ The law affords several rights to copyright owners, including the exclusive right to “make” and “distribute” reproductions of the work.²⁴ New innovations, ranging from the printing press to the VCR, have frequently challenged such rights.²⁵ Congress repeatedly revised the Copyright Act in an attempt to catch up with the march of technology—most notably in 1976.²⁶ At the close of the twentieth century, however, computer technology became an increasingly prevalent factor in the American way of life. These changes extended beyond the imagination of members of Congress in 1976.²⁷

By 1996, Microsoft’s “revolutionary operating system,” Windows 95, had ushered in widespread personal computer use throughout the nation.²⁸ Many Americans were logging onto the Internet for the first time through dial up connections provided by services like America Online (AOL).²⁹ That year, industry introduced the DVD to trade show audiences.³⁰ Legal issues began to form as the Internet and CD-ripping computers began to challenge established business models and norms.³¹ This technology allowed the copying and digital sharing over the Internet of movies, music, and television shows—contemporary cornerstones of tangible mediums of expression.

As a result of this sweeping digital revolution, American copyright law went through “perhaps the most tumultuous period of its three hundred year existence.”³² In 1996, the World Intellectual Property Organization (WIPO)³³

23. 17 U.S.C. § 102 (2006).

24. *See id.*

25. Kevin C. Hormann, Comment, *The Death of the DMCA? How Viacom v. YouTube May Define the Future of Digital Content*, 46 HOUS. L. REV. 1345, 1349–50 (2009).

26. Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (1976) (current version at 17 U.S.C. § 102 (2006)).

27. Pamela Samuelson et al., *The Copyright Principles Project: Directions for Reform*, 25 BERKELEY TECH. L.J. 1, 2 (2010).

28. Aaron Freedman, *The DMCA: 10 Years of the Good, Bad, and Ugly*, MACUSER (Dec. 15, 2010, 3:18 AM), http://www.macuser.com/legal/the_dmca_10_years_of_the_good.php.

29. *Id.*

30. *Id.*

31. *Id.*

32. Peter S. Menell, *In Search of Copyright's Lost Ark: Interpreting the Right to Distribute in the Internet Age 2* (Berkeley Olin Program in Law & Econ., Working Paper No. 1602022, 2010).

33. A “specialized agency of the United Nations . . . dedicated to developing a balanced and accessible international intellectual property system.” *What is WIPO?*, WORLD

passed two important treaties: the WIPO Copyright Treaty (WCT)³⁴ and the WIPO Performances and Phonograms Treaty (WPPT).³⁵ Taken together, these two treaties created a structure of international rules governing digital media.³⁶ By 1997, WIPO required every member state, including the United States, to adopt these two treaties into their domestic legal structure.³⁷ Thus, it became Congress' task to change U.S. copyright law to include the WCT and WPPT.³⁸ This was the impetus for creating the DMCA and signing it into law in 1998.³⁹

However, Congress did not pass the DMCA solely to satisfy America's commitment to WIPO—Congress also made several additions to the law beyond those addressed by the WCT and WPPT. One of the main additions is the second portion of DMCA Title I, which involves anti-circumvention rules that aim to prohibit consumers from thwarting copy protection technology.⁴⁰ This rule was meant to help ameliorate Hollywood's fears of copyright infringement.⁴¹ The other main addition, codified in Title II, is the safe harbor provision that affords Online Service Providers (OSPs)⁴² immunity from copyright infringement liability.⁴³

INTELLECTUAL PROPERTY ORGANIZATION (Dec. 16, 2010, 6:35 PM), http://www.wipo.int/about-wipo/en/what_is_wipo.html.

34. Governing "the production and distribution rights of computer programs and databases." Freedman, *supra* note 28.

35. Governing "the production and distribution rights of performers and the makers of audio-only devices." *Id.*

36. *Id.*

37. *Id.*

38. *Id.*

39. *See* DMCA.

40. *See* David Kravets, *10 Years Later, Misunderstood DMCA is the Law That Saved the Web*, WIRED (Dec. 15, 2010, 3:16 AM), <http://www.wired.com/threatlevel/2008/10/ten-years-later>.

41. *Id.*

42. It is important to note that in both legal scholarship and legal opinions handed down by various courts, the terms OSPs and ISPs are often used imprecisely or interchangeably. An Internet Service Provider (ISP) generally provides *access* to the Internet, sometimes by assigning a user an IP address. By contrast, an OSP generally provides Internet *services*, like e-mail. The confusion may have arisen because in the early days of the Internet, Internet companies would provide both OSP and ISP services. *See* Musetta Durkee, Note, *The Truth Can Catch the Lie: The Flawed Understanding of Online Spaces in In RE: Anonymous Online Speakers*, 26 BERKELEY TECH. L.J. 773, 773 (2011). YouTube will be considered as an OSP for this Article.

43. 17 U.S.C. § 512 (2006) ("A service provider's compliance with paragraph (2) shall not subject the service provider to liability for copyright infringement with respect to the material identified in the notice provided under subsection (c)(1)(C).").

1. *Purpose of the Safe Harbor Provision*

Before the passage of the DMCA, the judiciary began to recognize the vast potential for contributory and vicarious infringement claims against OSPs.⁴⁴ There was a growing awareness that OSPs had “become the favored targets of lawsuits by copyright owners.”⁴⁵ Acting as “intermediaries” in the structure of the Internet, OSPs began to attract attention for the copyright infringement of their users.⁴⁶ Because of their “deep pockets, easy identifiability, and potential ability to act as gatekeepers,” OSPs were in danger of being held “liable for infringing materials distributed by their subscribers.”⁴⁷ Congress enacted the safe harbor provision in part as a “direct response” to the judiciary’s recognition of several liability issues for OSPs.⁴⁸ In fact, much of the safe harbor provision—ruling out direct and secondary liability for “passive, automatic acts engaged in through a technological process initiated by another”⁴⁹—simply codified elements of existing court decisions.⁵⁰

The major content producing industries and the rapidly growing Internet giants of the future came together and urged Congress to settle on the grand bargain that became the safe harbor.⁵¹ These companies lobbied Congress to modify the DMCA to fulfill the dual purpose of both fostering investment in the Internet as well as protecting copyright owners and their intellectual property investments.

Congress listened to the arguments of these two factions and attempted to structure the law to satisfy both sides. Congress recognized that saddling service providers with potentially crippling levels of liability would discourage the growth of the Internet.⁵² Congress wanted to “provide greater certainty to service providers concerning their legal exposure for infringements that

44. Samuelson et al., *supra* note 27 at 44.

45. Eugene C. Kim, Note, *YouTube: Testing the Safe Harbors of Digital Copyright Law*, 17 S. CAL. INTERDISC. L.J. 139, 153 (2007).

46. Kravets, *supra* note 40.

47. See Kim, *supra* note 45, at 154.

48. Samuelson et al., *supra* note 27, at 44.

49. H.R. REP. NO. 105-551, pt. 2, at 49 (1998).

50. See *Religious Tech. Ctr. v. Netcom On-Line Commc’n Servs., Inc.*, 907 F. Supp. 1361, 1369 n.12 (N.D. Cal. 1995) (explaining that holding an OSP liable for a secondary transmission requires both actual knowledge of infringing conduct and volitional conduct to aid in the purpose of infringement).

51. Menell, *supra* note 32, at 2.

52. Peter S. Menell, *Intellectual Property Issues: Assessing the DMCA Safe Harbors: The Good, the Bad, and the Ugly*, MEDIA INSTITUTE (Sep. 14, 2010, 9:29 AM), http://www.media.institute.org/new_site/IPI/2010/090110.php.

may occur in the course of their activities.”⁵³ On the other hand, Congress worried that “the ease with which digital works can be copied and distributed worldwide virtually instantaneously” could cause copyright owners to resist making “their works readily available on the Internet.”⁵⁴ There was a need for “reasonable assurance[s]” to be made to copyright owners that they would “be protected against massive piracy.”⁵⁵ So Congress designed the safe harbor provision to provide “an efficient remedy for content owners who wish to protect their material without incurring substantial litigation fees.”⁵⁶

While taking the needs of the two competing industries in consideration, Congress created the safe harbor provision “almost as a counterpoint to copyright law.”⁵⁷ Copyright law is intended to “restrict the use of creative content,” but “the purpose of the safe harbors is to promote the means of sharing and distribution.”⁵⁸ Thus the “burden for policing the Internet for copyright infringement is primarily on the copyright owner, and . . . online service providers must only cooperate when necessary to eliminate copyright infringement.”⁵⁹ The safe harbor clause, then, was designed to protect OSPs from liability for unknowingly hosting infringing content while also providing copyright owners the means and the burden to exercise their exclusive rights to their content.⁶⁰

2. *The Mechanics of Safe Harbor*

The relevant safe harbor provision⁶¹ in the *Viacom v. YouTube* case can be found in 17 U.S.C. § 512(c)(1).⁶² It reads that a service provider shall not be liable for monetary relief if it:

53. *Ellison v. Roberston*, 357 F.3d 1072, 1076 (9th Cir. 2004) (referencing 17 U.S.C. § 501(a)) (citation omitted).

54. S. REP. NO. 105-190, at 8 (1998).

55. *Id.*

56. Hormann, *supra* note 25, at 1369.

57. *Id.* at 1373.

58. *Id.*

59. Brandon Brown, Note, *Fortifying the Safe Harbors: Reevaluating the DMCA in a Web 2.0 World*, 23 BERKELEY TECH. L.J. 437, 438 (2008).

60. It is also important to note that in 1999, Congress passed HR 1761, the Digital Theft Deterrence and Copyright Damages Improvement Act. GLOBAL LEGAL INFORMATION NETWORK (Jan. 31, 2011, 11:19 PM), <http://www.glin.gov/view.action?glinID=69433>. This law ramped up statutory damages for copyright infringement to a maximum of \$30,000 per infringement, and set a cap at \$150,000 for cases of willful infringement. *Id.* This will prove important in later analysis.

61. 17 U.S.C. § 512(c) (2006) is the relevant provision because it applies to “Information Residing on Systems or Networks at Direction of Users.” The court in *Viacom v. YouTube* designated YouTube as such a system.

- (A)(i) does not have actual knowledge that the material or an activity using the material on the system or network is infringing; (ii) in the absence of such actual knowledge, is not aware of facts or circumstances from which infringing activity is apparent; or (iii) upon obtaining such knowledge or awareness, acts expeditiously to remove, or disable access to, the material;
- (B) does not receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity; and
- (C) upon notification of claimed infringement . . . responds expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity.⁶³

The safe harbor provision requires OSPs “not to interfere with standard technical measures used by copyright holders to identify or protect copyrighted works.”⁶⁴ It also requires OSPs to “adopt and reasonably implement a policy of terminating in appropriate circumstances the accounts of subscribers who are repeat infringers.”⁶⁵ Furthermore, it imposes on OSPs a “notice and takedown” procedure that requires OSPs to remove infringing material upon formal notice from a copyright holder.⁶⁶ Service providers who satisfy all of the above conditions are “protected from liability for all monetary relief for direct, vicarious, and contributory infringement in circumstances in which the infringing or allegedly infringing content are [sic] contained in the system without the knowledge and involvement of the service provider.”⁶⁷

3. *The Knowledge Standard and Red Flags*

A key component of § 512(c) is the knowledge standard of § 512(c)(1)(A)(ii)—revoking immunity from liability if an OSP becomes “aware of facts or circumstances from which infringing activity is apparent.” This knowledge standard, according to Congress, is best understood as a “red flag” test.⁶⁸ According to Congress:

62. § 512(c). Another, almost identical provision appears in § 512(d), which refers to information location tools—arguably a feature of YouTube. Discussion of this clause and its legal ramifications on *Viacom v. YouTube* are beyond the scope of this Note.

63. § 512(c).

64. Kim, *supra* note 45, at 157–58.

65. Debra Weinstein, *Defining Expeditions: Uncharted Territory of the DMCA Safe Harbor Provision*, 26 CARDOZO ARTS & ENT. L.J. 589, 597–98 (2008).

66. Samuelson et al., *supra* note 27, at 20.

67. Weinstein, *supra* note 65, at 597.

68. H.R. REP. NO. 105-551, pt. 2, at 53 (1998).

The “red flag” test has both a subjective and an objective element. In determining whether the service provider was aware of a “red flag,” the subjective awareness of the service provider of the facts or circumstances in question must be determined. However, in deciding whether those facts or circumstances constitute a “red flag”—in other words, whether infringing activity would have been apparent to a reasonable person operating under the same or similar circumstances—an objective standard should be used.⁶⁹

The red flag test, then, has two parts that an OSP must meet. First, a court must find the OSP to be subjectively aware of the circumstances relating to the infringement. Second, a court must also find that the infringement would have been apparent to a reasonable person operating under similar circumstances as the OSP. Congress devised this two-part structure for the red flag test “to ensure that an OSP is not burdened with the duty to monitor its services or to affirmatively investigate circumstances indicating infringing activity.”⁷⁰

Furthermore, examples given in the Congressional committee report “make clear that the red flag must signal to the provider not just that the activity is occurring, but that the activity is infringing.”⁷¹ In the context of information location tools,⁷² the committee clarified that:

A directory provider would not be . . . aware merely because it saw one or more photographs of a celebrity at a site devoted to that person. The provider could not be expected . . . to determine whether the photograph was still protected by copyright or was in the public domain; if the photograph was still protected by copyright, whether the use was licensed; and if the use was not licensed, whether it was permitted under the fair use doctrine.⁷³

Congress stressed that knowledge of infringement could be ascertained even if the content owner does not give formal notice, stating that “copyright owners are not obligated to give notification of claimed infringement in order to enforce their rights.”⁷⁴ Congress also outlined that:

69. *Id.*

70. Liliانا Chang, *The Red Flag Test for Apparent Knowledge Under the DMCA § 512(c) Safe Harbors*, 28 CARDOZO ARTS & ENT. L.J. 195, 202 (2010).

71. R. Anthony Reese, *The Relationship Between the ISP Safe Harbors and the Ordinary Rules of Copyright Liability*, 32 COLUM. J.L. & ARTS 427, 434 (2009).

72. Red flag analysis under 17 U.S.C. § 512(c) is the same as under § 512(d).

73. H.R. REP. NO. 105-551, pt. 2, at 57–58 (1998).

74. *Id.* at 54.

Section 512 does not require the use of a notice and takedown procedure. A service provider wishing to benefit from the limitation on liability under subsection (c) must “take down” or disable access to infringing material residing on its system or network of which it has actual knowledge or that meets the “red flag” test, even if the copyright owner or its agent does not notify it of a claim of infringement.⁷⁵

This quote makes plain that a court may find red flag knowledge *independently* of a takedown notice.

4. *A Decade Is Forever in Tech Years—The Impact of the DMCA and the Challenges of Web 2.0*

Since its passage in 1998, the DMCA has been tethered to the promulgation of online and digital media.⁷⁶ DMCA anti-circumvention laws have been heralded as the “*sine qua non* for technologies like the DVD.”⁷⁷ Similarly, the various immunities for liability extended by the DMCA have been described as “absolutely crucial for giving us the Internet today”⁷⁸—without them, blogs, Myspace and AOL could not exist.⁷⁹ Other important technologies such as Digital Rights Management, the iPod, and iTunes may credit their existence, at least in part, to the DMCA.⁸⁰

While the DMCA has certainly had an impact on the digital ecosystem we live in today, it is inadequate to address many of the challenges posed by that ecosystem. Just eight months after the passing of the bill, Napster was born.⁸¹ Napster and its peer-to-peer system,⁸² like many other Internet inventions that followed, upended much of the “foresight” of Congress and the DMCA.⁸³ Some estimates found that within a year, users of Napster had likely “distributed more music than the entire record industry from its inception a century earlier.”⁸⁴ The music industry responded by systematically filing suit against users who were sharing on the peer-to-peer networks—

75. S. REP. NO. 105-190, at 45 (1998).

76. See Freedman, *supra* note 28.

77. Kravets, *supra* note 40.

78. *Id.* (quoting Fred von Lohmann of the Electronic Frontier Foundation).

79. *Id.* (“You could not run a blog without [the protections provided by the DMCA]. You couldn’t run MySpace, AOL”)

80. See Freedman, *supra* note 28.

81. Menell, *supra* note 32, at 2.

82. A Peer-to-Peer system is a network where computer systems can share files between systems within the network.

83. Menell, *supra* note 32, at 2.

84. *Id.*

with the noted effect of alienating its own customer base in an attempt to usher in a “digital enforcement age.”⁸⁵ The collapse of the recording industry followed.⁸⁶

Napster was only the beginning. Congress failed to foresee the rise of Web 2.0—a network of websites and service providers that thrive on user participation and content. This new Internet was developing in stark contrast to the operator driven architecture and function of the Internet in 1998. Services we take for granted today—photo sharing, search engines, blogs, e-commerce, video sharing, and social-networks—were at the time of the birth of the DMCA “unheard of, embryonic or not yet conceived.”⁸⁷ These are the Facebooks and YouTubes of the world—the present and future of the Internet.

Of course, Web 2.0 is no runaway train—service providers provide and control the software that facilitates user expression and content.⁸⁸ A particularly important technological breakthrough in the world of Web 2.0 has been the advent of content scanning tools. These tools use an audio or video “fingerprint” to identify and filter infringing works posted or distributed over the Internet. They have become “increasingly smart” and “capable of determining . . . how much of a copyrighted movie is contained in a given online file and even whether the file combines video or audio tracks from the movie with new material.”⁸⁹ Effective filtering technology is not cheap; YouTube and Google claim that their own fingerprinting technology, Content ID, is the product of “approximately 50,000 man hours of engineering time and millions of dollars of research and development costs.”⁹⁰ However, the technology can also be profitable—identified videos can be monetized through targeted advertisements.⁹¹

B. PERTINENT CASE HISTORY

Despite Congress’ lack of prescience in divining the advent of Web 2.0, Congress correctly predicted that service providers would find themselves in

85. *Id.*

86. *Id.*

87. Kravets, *supra* note 40.

88. Brown, *supra* note 59, at 441.

89. Samuelson et al., *supra* note 27, at 41.

90. Decl. of Salem at ¶¶ 8–12, [Viacom v. YouTube, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010)].

91. Claire Cain Miller, *YouTube Ads Turn Videos Into Revenue*, N.Y. TIMES, Oct. 26, 2010, *available at* http://www.nytimes.com/2010/09/03/technology/03youtube.html?_r=1&th&emc=th.

court for the actions of their users. The history of court cases regarding service providers in a Web 2.0 world exemplifies two issues that are pertinent to the decision in *Viacom v. YouTube*. The first issue is that courts have exhibited a “clear pattern of deference toward the service providers” when analyzing the “red flag” test.⁹² Activities that trigger a red flag and the burden on service providers to investigate such activities have both been whittled down over the years. According to some commentators, the courts have read the red flag to be “an immense crimson banner” before any further investigation is required for an OSP.⁹³ The second trend is that in some cases, particularly those involving peer-to-peer networks, inducing infringement will make OSPs liable for the acts of their users.

1. *Narrowing the Meaning of “Red Flags”*

Courts have taken a narrow interpretation of red flag knowledge in cases involving safe harbor protection. One of the first cases that sparked this trend was *Corbis Corp. v. Amazon.com*.⁹⁴ The plaintiff in that case owned copyrights to certain photographic images.⁹⁵ They alleged that the defendant OSP, Amazon, had directly and vicariously infringed copyrighted works because said works were uploaded to one of Amazon’s websites and then sold by independent vendors on the Amazon online storefront—without the copyright owner’s permission.⁹⁶

The district court found that the § 512(c) safe harbor applied and immunized Amazon from the infringement claims.⁹⁷ An OSP is precluded from safe harbor protection, according to the court, if the OSP has “deliberately proceed[ed] in the face of blatant factors of which it is aware” or if there is “evidence that [the] service provider ‘turned a blind eye to ‘red flags’ of obvious infringement.’”⁹⁸ According to the court, “general awareness that a particular type of item may be easily infringed” was not a red flag.⁹⁹ Rather, Amazon needed to have apparent knowledge of “specific instances of infringement.”¹⁰⁰ The court found that no such specific knowledge existed on the part of Amazon and granted partial summary judgment for the

92. Hormann, *supra* note 25, at 1366.

93. Jane C. Ginsburg, *Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs*, 50 ARIZ. L. REV. 577, 596 (2008).

94. *Corbis Corp. v. Amazon.com, Inc.*, 351 F. Supp. 2d 1090, 1108 (W.D. Wash. 2004).

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.* at 1108–09.

99. *Id.* at 1108.

100. *Id.*

defendants.¹⁰¹ The court held that the “the DMCA does not impose on OSPs the obligation to conduct an affirmative investigation into potential infringement on each website”—therefore Amazon did not have the burden to find these *specific instances of infringement* that would have made them liable.¹⁰²

Perfect 10, Inc. v. CCBill LLC, decided three years later, reached a similar result. In that case, the publisher of an adult magazine sued the defendant for providing services to websites that had posted stolen and unauthorized infringing content.¹⁰³ The copyright owners in the case alleged that the web host was “aware of facts or circumstances from which infringing activity was apparent” because hosted websites named “stolencebritypics.com” and “illegal.net” should have raised a red flag.¹⁰⁴ The court saw the situation differently, reasoning that “in the context of adult material, descriptors such as ‘illegal’ and ‘stolen’ might merely be attempts to make the material more enticing and appealing.”¹⁰⁵ Thus names of websites suggesting infringement was not enough to raise a red flag because further investigation was required to verify if there was actual infringement—a duty the court felt OSPs did not owe third parties.¹⁰⁶ The Ninth Circuit, however, refused to place an investigative burden on service providers to seek out infringed content when “facts and circumstances” hinted towards its existence.¹⁰⁷ Rather, the court argued, “DMCA notification procedures place the burden of policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—squarely on the owners of the copyright.”¹⁰⁸ The safe harbor provision then granted the defendant immunity from the vicarious infringement claims through the safe harbor provision.¹⁰⁹

101. *Id.*

102. See ROBERT P. MERGES, PETER S. MENELL, & MARK A. LEMLEY, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 680 (5th ed. 2010) (emphasis added).

103. *Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102, 1108 (9th Cir. 2007).

104. *Id.* at 1111.

105. Hormann, *supra* note 25, at 1368.

106. Many academics and commentators criticize the *Perfect 10* decision for holding that in some instances names of websites do not suggest infringement. See Liliana Chang, *The Red Flag Test for Apparent Knowledge Under the DMCA § 512(c) Safe Harbors*, 28 *CARDOZO ARTS & ENT. L.J.* 195, 209 (2010). Detractors of the court argue that such a view is in direct contradiction of legislative intent. *Id.* Indeed, Congress had explained in the often quoted House Report that “words such as ‘pirate,’ ‘bootleg,’ or slang terms in their URL” are obviously infringing, and that “safe harbor status for a provider that views such a site . . . would not be appropriate.” *Id.*

107. *Perfect 10*, 488 F.3d at 1114.

108. *Id.* at 1113.

109. *Id.* at 1118.

In *UMG Recordings, Inc. v. Veoh Networks*, the district court applied the *CCBill* holding to a video-sharing service provider, concluding that the § 512(c) safe harbor protection applied.¹¹⁰ The court further found that “UMG’s ‘evidence’ [fell] short of establishing actual knowledge within the meaning of the DMCA.”¹¹¹ The court made clear “that merely hosting user-contributed material capable of copyright protection [was not] enough to impute actual knowledge to a service provider” because such a theory would render the “DMCA’s notice-and-takedown provisions completely superfluous.”¹¹² Finally the court also stated that UMG did not meet the “high bar for finding ‘red flag’ knowledge” as evidenced in *CCBill*—though it never gave an example of what would meet such a high bar.¹¹³

The court rejected UMG’s argument that Veoh was “ineligible for the safe harbor because its founders, employees, and investors knew that widespread infringement was occurring on the Veoh system.” The court held that “there was no case holding that a provider’s general awareness of infringement, without more, is enough to preclude application of § 512(c).”¹¹⁴ Such general awareness was not enough to raise a red flag because it would be at odds with the safe harbor’s purpose of “facilitat[ing] the robust development and world-wide expansion of electronic commerce [and] communications . . . in the digital age.”¹¹⁵

2. *The Inducement Model*

Another set of cases act as important precedent for *Viacom v. YouTube*. These are *MGM Studios, Inc. v. Grokster, Ltd.* and *Columbia Pictures Industries, Inc. v. Fung*. These cases involved peer-to-peer (P2P) file sharing networks, which are not granted safe harbor immunity under DMCA § 512(c).¹¹⁶ The Supreme Court’s opinion in *Grokster* does not even mention the DMCA.¹¹⁷ However, these two cases were cornerstones of Viacom’s inducement

110. *UMG Recordings, Inc. v. Veoh Networks, Inc.*, 665 F. Supp. 2d 1099, 1108 (C.D. Cal. 2009).

111. *Id.* at 1109.

112. *Id.*

113. *Id.* at 1110.

114. *Id.* at 1111.

115. *Id.* (citing S. REP. NO. 105-190, at 1–2 (1998)); H.R. REP. NO. 105-551, pt. 2, at 21 (1998).

116. See 17 U.S.C. § 512 (c) (2006).

117. See *MGM Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

argument, wherein Viacom attempted to create an analogy between YouTube's uploading and site maintenance, and P2P file sharing networks.¹¹⁸

The Supreme Court ruled against Grokster in that landmark case.¹¹⁹ The case "addressed the more general law of contributory liability for copyright infringement, and its application to the particular subset of service providers."¹²⁰ Grokster was a P2P file-sharing network that was designed and advertised as the successor to Napster.¹²¹ The Supreme Court found that there was "overwhelming" evidence that the Grokster service was swamped with infringing content—a result of the defendant inducing users to upload infringing work.¹²² The Court then imported the inducement rule from patent law into copyright law, holding that "one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties."¹²³

Following the reasoning in *Grokster*, the defendant in *Columbia Pictures Industries, Inc. v. Fung* was denied safe harbor protection on evidence of " 'purposeful, culpable expression and conduct' aimed at promoting infringing uses of the websites."¹²⁴ Plaintiffs had brought suit claiming that the defendant had infringed on their copyrights by hosting a P2P file-sharing network. The defendant, Fung, raised a DMCA defense under § 512(d).¹²⁵ The court found that Fung had gone to great lengths to encourage the infringement—going so far as to give personal technical assistance on how to infringe certain works.¹²⁶ Because Fung had "personally engaged in a broad campaign of encouraging copyright infringement,"¹²⁷ he was liable "under theories of inducement, contributory infringement, and vicarious infringement."¹²⁸

118. Memorandum of Law in Support of Viacom's Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 24–29, *Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010) (No. 07-2103).

119. *See* *MGM Studios*, 545 U.S. at 919.

120. *Viacom*, 718 F. Supp. 2d at 518.

121. *MGM Studios*, 545 U.S. at 1.

122. *Id.* at 936–37.

123. *Id.*

124. *Columbia Pictures Indus., Inc. v. Fung*, No 06-5578, 2009 WL 6355911, at *9–10 (C.D. Cal. Dec. 21, 2009).

125. *Id.* at *15.

126. *Id.* at *11.

127. *Id.* at *12.

128. *Id.* at *1.

II. VIACOM V. YOUTUBE

Hot on the heels of the development of the DMCA, the rise of Web 2.0, and the court cases that shaped liability for OSPs came YouTube. YouTube is a website that hosts user-generated videos that can easily be uploaded and disseminated. Videos can be shared with friends, and even “embedded” into sections of other websites—all for free.¹²⁹ Much like the other Web 2.0 prodigy, Facebook, YouTube grew fast. YouTube was started in February 2005 in order to share videos from a dinner party.¹³⁰ Less than a year later, YouTube was streaming more than thirty million videos a day.¹³¹ By October 2006, tech giant Google purchased YouTube for \$1.65 billion in a stock-for-stock transaction.¹³² In 2007 alone, YouTube used as much bandwidth as the entirety of the Internet in the year 2000.¹³³ Today, YouTube has 146.3 million unique viewers a day—far surpassing viewership for any media company web portal.¹³⁴

YouTube’s size and success has brought with it both attention and derision, particularly from media powerhouse Viacom. Viacom owns a great number of television networks and movie studios, including Paramount Pictures, MTV, Comedy Central, and Nickelodeon.¹³⁵ Viacom has found much of its copyrighted content available on YouTube—clips of its most popular programming including *The Daily Show* and *The Colbert Report* are consistently on YouTube’s homepage top watched list.¹³⁶ Viacom has identified YouTube as a threat—stealing Viacom’s works and stymieing the development of Viacom’s own possible web content portals.

Attempts at reconciling the two parties failed. Viacom and YouTube had originally negotiated an agreement in 2006 that would have allowed for YouTube to host Viacom’s content on its site and split ad revenue through the site’s Content ID system.¹³⁷ But the deal eventually fell through when YouTube refused to pay Viacom’s demanded minimum payment guarantees that neared a billion dollars.¹³⁸ A frustrated Viacom next sent a takedown

129. Hormann, *supra* note 25, at 1354.

130. *See* Kim, *supra* note 45, at 142.

131. *See id.* at 141.

132. Press Release, Google, Google to Acquire YouTube for \$1.65 Billion in Stock (Oct. 9, 2006) (on file with author).

133. Hormann, *supra* note 25, at 1356.

134. Rao, *supra* note 7.

135. Kim, *supra* note 45, at 139.

136. *Id.* at 143.

137. *Id.* at 169.

138. *Id.* at 143.

notice demanding removal of more than a hundred thousand clips on YouTube.¹³⁹ Viacom subsequently filed suit against YouTube and Google, claiming they were “liable for the intentional infringement of thousands of Viacom’s copyrighted works” under theories of direct and vicarious infringement.¹⁴⁰

A. VIACOM’S ARGUMENT

Viacom based its legal argument on what it believed was an “indisputable fact”—that “tens of thousands of videos on YouTube, resulting in hundreds of millions of views, were taken unlawfully from Viacom’s copyrighted works without authorization.”¹⁴¹ In broad strokes, Viacom accused YouTube of “victimizing content owners.”¹⁴² Viacom alleged that the founders of YouTube had “single-mindedly focused on geometrically increasing the number of YouTube users to maximize its commercial value” and cast a “blind eye to . . . the huge number of unauthorized copyrighted works posted on the site” to achieve that end.¹⁴³ Viacom argued that Google and YouTube should be “liable for the rampant infringement they . . . fostered and profited from.”¹⁴⁴

Viacom painted a picture of a young YouTube focused on garnering as many views as possible in order to quickly sell the company. To achieve this end, Viacom asserted, “YouTube implemented a policy of maintaining access to infringing videos unless and until it received a ‘cease and desist’ demand from the copyright owner.”¹⁴⁵ Viacom argued that such a reading of the law would “render most of the statute enacted by Congress a nullity, for responding to takedown notices is only one of numerous preconditions to DMCA immunity.”¹⁴⁶

139. Michael Arrington, *Google Slammed by Viacom Takedown Notice Demand*, TECHCRUNCH (Dec. 21, 2010, 12:20 AM), <http://techcrunch.com/2007/02/02/gootube-slammed-by-viacom-takedown-demand>.

140. *See Viacom v. YouTube*, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010).

141. Memorandum of Law in Support of Viacom’s Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 1, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

142. *Id.*

143. *Id.*

144. *Id.*

145. Opening Brief for Plaintiffs-Appellants at 11, *Viacom*, 718 F. Supp. 2d 514 (No. 10-3270).

146. Memorandum of Law in Support of Viacom’s Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 3–4, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

More specifically, Viacom posited that YouTube did not qualify for the DMCA safe harbor provision § 512(c)(1)(A) because YouTube had “actual knowledge” and was “aware of facts or circumstances from which infringing activity [was] apparent,” but failed to “act expeditiously” to stop it.¹⁴⁷ Viacom claimed that YouTube was, at a minimum, liable for contributory infringement based on its general knowledge and willful blindness of the pervasive infringement on the site.¹⁴⁸ General knowledge, according to Viacom, was achieved through the staggering amount of infringing material on the site, particularly in the early days of YouTube. Viacom also asserted that YouTube attained specific knowledge of various infringing works. Willful blindness stemmed from YouTube’s refusal to use community flagging features and its selective application of content scanning technology. Ultimately,¹⁴⁹ Viacom moved for partial summary judgment, arguing that the defendants were not protected by the safe harbor provision.¹⁵⁰

1. *Viacom’s Evidence that YouTube Was Generally Aware of Facts or Circumstances from Which Infringement Was Apparent*

Viacom introduced evidence to support its claim that YouTube was generally aware of infringement. The evidence focused on estimates of the pervasiveness of infringement present on YouTube, particularly in its early days. For instance, Viacom presented an email from September 2005, wherein YouTube cofounders Steven Chen and Jawed Karim discussed the implications of removing material that was “obviously infringing.”¹⁵¹ They feared that the removal of the material would drop site traffic from “100,000 views a day down to about 20,000 views or maybe even lower.”¹⁵² That would mean that the founders of YouTube attributed eighty percent of the site’s views to copyrighted material.

Viacom also presented instant message conversations that took place in late February 2006 between YouTube co-founder Steve Chen and YouTube

147. *Id.* at 11.

148. Daniel S. Schechter and Colin B. Vandell, *Viacom v. YouTube: Safe Harbor Protection for Online Service Providers*, (Feb. 9, 2010, 3:30 PM), LATHAM & WATKINS CLIENT ALERT, available at http://www.lw.com/upload/pubContent/_pdf/pub3638_1.pdf.

149. Viacom made a number of other assertions and legal arguments that are outside the scope of this Note.

150. *Viacom*, 718 F. Supp. 2d at 516.

151. Decl. of Hohengarten ¶ 233 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 215, JK00007416, at JK00007416).

152. *Id.*

product manager Maryrose Dunton.¹⁵³ Dunton reported the results of a “little exercise” she performed wherein she “went through all the most viewed/most discussed/top favorites/top rated to try and figure out what percentage is or has copyrighted material.”¹⁵⁴ The number she reached “was over 70%.”¹⁵⁵ In another instant message conversation in March of 2006, Dunton relayed to a co-worker that “the truth of the matter is, probably 75-80% of our views come from copyrighted material.”¹⁵⁶

Other evidence included the work of Google’s due-diligence team that was assembled to analyze the percentage of professional content on YouTube’s site before the acquisition. Storm Duncan, managing director of Credit Suisse and part of Google’s YouTube acquisition due diligence team, assessed that 60 percent of the content on the site was premium or professional content.¹⁵⁷ In 2007, Credit Suisse estimated that only 10 percent of the video views of the premium content was authorized to be on YouTube.¹⁵⁸ Viacom argued that such pervasive infringement had to raise a red flag and signal that YouTube “*knew* of the infringing activity on its site and therefore had at least ‘aware[ness] of facts or circumstances from which infringing activity is apparent.’”¹⁵⁹

2. *Viacom’s Evidence that YouTube Was Aware of Specific Instances of Infringement*

Viacom also introduced evidence that YouTube employees—and even founders—became aware of *specific* infringing clips. For instance, in August of 2005, YouTube founders Jawed Karim and Chad Hurley agreed between each other to keep CNN space shuttle footage on the site.¹⁶⁰ In September of

153. Decl. of Hohengarten ¶ 205 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 193, GOO001-00507535, at GOO001- 00507539).

154. *Id.*

155. *Id.*

156. Decl. of Hohengarten ¶ 207 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 195, GOO001- 01931840, at GOO001-01931843).

157. Decl. of Hohengarten ¶ 320 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 289, CSSU 001863 at CSSU 001957); Decl. of Hohengarten ¶ 362 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 328 (Duncan 30(b)(6) Dep.) at 199:24-200:5, 207:25- 210:13).

158. Decl. of Hohengarten ¶ 323 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 292, CSSU 004069 at CSSU 004071).

159. Opening Brief for Plaintiffs-Appellants at 24–25, *Viacom*, 718 F. Supp. 2d 514 (No. 10-3270).

160. Viacom’s Reply to Defs.’ Counterstatement to Viacom’s Statement of Undisputed Facts in Support of Its Mot. for Partial Summary Judgment at 27, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103), stating that:

2005, according to Viacom, Jawed Karim explicitly told his employees to keep known clips from *Conan O'Brien* and *Jay Leno* up on the site.¹⁶¹ Viacom also introduced evidence of YouTube employees sharing playlist pages of material they believed to be infringed with their friends.¹⁶² Several other employees were found to be sharing YouTube links showcasing clips from various Viacom properties such as *The Daily Show*, *The Colbert Report*, and *South Park*.¹⁶³ YouTube founder Jawed Karim shared at least seven infringing videos with a friend.¹⁶⁴

On August 10, 2005, YouTube cofounder Jawed Karim responded to YouTube co-founder Chad Hurley . . . 'lets remove stuff like movies/tv shows. lets keep short news clips for now. we can become stricter over time, just not overnight. like the CNN space shuttle clip, I like. we can remove it once we're bigger and better known, but for now that clip is fine.' Steve Chen replied, 'sounds good.'

161. *Id.* at [pincite], stating that:

In a September 1, 2005 email to YouTube co-founder Steve Chen and all YouTube employees, YouTube co-founder Jawed Karim stated, 'well, we SHOULD take down any: 1) movies 2) TV shows. We should KEEP: 1) news clips 2) comedy clips (Conan, Leno, etc) 3) music videos. In the future, I'd also reject these last three but not yet.'

162. *Id.* at 75, stating that:

In a June 4, 2006 instant message conversation, YouTube product manager Matthew Liu (IM user name coda322) directed a friend to two YouTube profile playlist pages containing content that he recognized as infringing, stating, 'go watch some superman . . . dont show other people though . . . it can get taken off'; Liu's friend asked, 'why would it get taken off[?]' Liu responded, 'cuz its copyrighted . . . technically we shouldn't allow it . . . but we're not going to take it off until the person that holds the copyright . . . is like . . . you shouldnt have that . . . then we'll take it off.'

163. *Id.* at 80, stating that:

In an August 24, 2006 email to other YouTube employees, YouTube systems administrator Paul Blair provided a link to a Daily Show clip on YouTube. . . . In an October 13, 2006 email to other Google employees, Google Video Product Manager Hunter Walk provided a link to a Colbert Report clip on YouTube. . . . In a March 9, 2007 email to YouTube employees, a Google employee provided a link to a "Funny south park" video on YouTube. . . . In a March 23, 2007 email to other Google employees, a Google employee provided a link to a Daily Show clip on YouTube.

164. A series of messages from Jawed Karim were found during discovery. Decl. of Kohlman ¶ 318 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 52–58). He sent links to YouTube videos to his friends, with personal messages typed to the respondent. *Id.* Titles of the clips ranged from "Hahaha SNL makes fun of Paris," to "Will Arnett drops by the 1/13/2006 episode of Conan and talk about his favorite interview positions, the fate of his CBS show 'Invested Development,' his new sitcom, and much more. Plus, more L&O air

3. *Viacom's Evidence of Willful Blindness*

Viacom also suggested that YouTube had taken “affirmative steps to deprive itself of item-specific knowledge” in an effort to use the lack of such knowledge to qualify itself for DMCA safe harbor protection. Viacom pointed to a community-flagging feature that YouTube had initiated but abandoned. For a short period of time, YouTube allowed its users to flag videos that users identified as copyrighted work. YouTube swiftly abandoned the feature, explaining its removal was due to non-infringing content being flagged along with unlicensed copyrighted work.¹⁶⁵ Not so, according to Viacom: Viacom alleged that e-mails between Steven Chen and Jawed Karim made it clear that the decision to end the feature was motivated at least in part to avoid being served a notice that there was unlicensed material on the site—actively turning a blind eye to a possible red flag of infringement.¹⁶⁶

Viacom also called YouTube’s policies regarding video fingerprinting technology a form of turning a blind eye, and went so far as to accuse YouTube of “high-tech extortion.”¹⁶⁷ Viacom complained that “YouTube had the ability to forestall virtually all infringing activity during the upload process through the use of commercially available fingerprint filtering technology,” but refused to do so until 2007.¹⁶⁸ Furthermore, when YouTube began filtering, only select content partners who had revenue sharing

guitar!!!” to “Vice dumbass Dick Cheney shoots his friend in the face. Jon Stewart analyzes the event.” *Id.*

165. Defendant’s Opposition to Plaintiff’s Motions for Partial Summary Judgment at 19, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

166. Viacom’s Reply to Defendants’ Counterstatement to Viacom’s Statement of Undisputed Facts in Support of Its Motion for Partial Summary Judgment, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103), stating that:

On September 23, 2005, YouTube cofounder Chad Hurley emailed YouTube cofounders Steve Chen and Jawed Karim, stating: ‘can we remove the flagging link for ‘copyrighted’ today? we are starting to see complaints for this and basically if we don’t remove them we could be held liable for being served a notice. it’s actually better if we don’t have the link there at all because then the copyright holder is responsible for serving us notice of the material and not the users. anyways, it would be good if we could remove this asap.

167. Memorandum of Law in Support of Viacom’s Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 2, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

168. Opening Brief for Plaintiffs-Appellants at 45, *Viacom*, 718 F. Supp. 2d 514 (No. 10-3270).

agreements were afforded such protection.¹⁶⁹ Viacom, of course, was not one of those partners.¹⁷⁰ Unlike registered content partners of YouTube, Viacom did not receive the benefit of the Content ID system that would have significantly reduced infringement for more than a year after negotiations broke down.¹⁷¹

Viacom accused YouTube of actively keeping this technology away from anyone who was not a content partner.¹⁷² Viacom argued that it did not receive the benefit of the technology until May 2008—even though Viacom asked for it in February of 2007 after negotiations between the two companies broke down over content licensing deals.¹⁷³ Viacom did not receive notice of YouTube’s plan to afford them the Content ID protection until the first status conference between the parties in litigation.¹⁷⁴ According to Viacom, it was a “deliberate business decision not to broadly deploy these techniques and instead . . . hold content owners hostage to Defendants’ efforts to commercialize the site.”¹⁷⁵ In effect, YouTube had “consciously blinded itself to . . . specific knowledge of infringement by choosing to implement—but only selectively—commercially available digital fingerprint filtering technology.”¹⁷⁶

B. YOUTUBE’S DEFENSE

YouTube rejected all of Viacom’s assertions. It painted itself as a service that was not just in full compliance of the DMCA, but also in line with the legislative intent behind it. YouTube touted itself as service that achieved a “profound impact on culture, politics, and society in this country and around the world.”¹⁷⁷ YouTube was valuable to a global society because it gave

169. Memorandum of Law in Support of Viacom’s Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 2, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

170. *Id.*

171. *Id.*

172. Viacom’s Reply to Defendants’ Counterstatement to Viacom’s Statement of Undisputed Facts in Support of Its Motion for Partial Summary Judgment at Fact 296, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

173. *Id.*

174. *Id.* at Fact 314.

175. Memorandum of Law in Support of Viacom’s Motion for Partial Summary Judgment and Inapplicability of the Digital Millennium Copyright Act Safe Harbor Defense at 2, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

176. Opening Brief for Plaintiffs-Appellants at 37, *Viacom*, 718 F. Supp. 2d 514 (No. 10-3270).

177. Memorandum of Law in Support of Defendants’ Motion for Summary Judgment at 2, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

elected officials new ways to communicate with the American public, enabled reporting from conflicts around the globe, gave new means of exposure for rising artists, and even aided protestors in Iran in their struggle against the government.¹⁷⁸ These accomplishments were owed to the members of Congress who realized that Internet services would be valuable and revolutionary, and embedded safe harbor into the DMCA to protect services like YouTube.¹⁷⁹ YouTube claimed that Viacom's lawsuit sought to "undo" all of these triumphs.¹⁸⁰

YouTube defended its practice of waiting until receiving a takedown notice before removing content. According to YouTube, the "heart" of safe harbor provision was the notice-and-takedown procedure.¹⁸¹ Thus YouTube's practice of "refraining from proactive monitoring for potential infringement is not only consistent with the DMCA, it makes perfect sense."¹⁸² With the volume and complexity surrounding the rights associated with clips uploaded to YouTube, the burden was on the copyright holder, not the service provider, "to guess whether particular materials are or are not authorized."¹⁸³

YouTube objected to Viacom's accusation that it was "willfully blind" to the content on its site.¹⁸⁴ YouTube claimed that § 512(c)'s knowledge requirement did not impose on it the need for any further inquiry or investigation—only to remove specific material known to be infringing through DMCA takedown notice.¹⁸⁵ Such a reading of the DMCA, according to YouTube, was consistent with both case law and legislative intent.¹⁸⁶

YouTube also moved for summary judgment, claiming that it was clearly entitled to DMCA safe harbor protection. It argued that it met the threshold qualifications: functioning as a "service provider," having a registered DMCA agent and appropriate repeat-infringer policy, and accommodating standard technical measures.¹⁸⁷ YouTube also claimed that it did not have actual or specific knowledge of the alleged infringements and responded expeditiously

178. *Id.* at 2–3.

179. *Id.* at 3.

180. *Id.* at 2.

181. *Id.* at 3.

182. Defendant's Opposition to Plaintiff's Motions for Partial Summary Judgment at 35, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

183. *Id.*

184. *Id.* at 39.

185. *Id.*

186. *Id.* at 35.

187. Memorandum of Law in Support of Defendants' Motion for Summary Judgment at 22, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

to any takedown notices.¹⁸⁸ Thus, YouTube argued that it was entitled to protection under the DMCA's safe harbor clause, and was thereby immune from all allegations of liability.¹⁸⁹

1. *YouTube's Counter to Viacom's Evidence that YouTube Was Aware of Facts or Circumstances of Infringement*

YouTube attempted to debunk Viacom's evidence and assertions in two ways. The first was to challenge each piece of evidence that Viacom claimed proved that YouTube was aware of pervasive or even specific infringement.¹⁹⁰ More generally, YouTube made the argument that it was impossible for any observer to ascertain what percentage of material on the site was infringing because there was no way of knowing if the content was authorized by the owner or not.¹⁹¹

YouTube blamed Viacom for much of this problem. YouTube pointed to Viacom's confusing upload policy that included promotional uploads, stealth-marketing campaigns, and contradictory leave-up policies.¹⁹² YouTube argued that Viacom's "widespread use of YouTube to market and promote their content—uses that continued even in the midst of this litigation"—had defeated "any notion that the presence of [Viacom] material on YouTube

188. *Id.* at 21–27.

189. *Viacom*, 718 F. Supp. 2d at 516.

190. For example, counsel for YouTube argued that the e-mail conversation between Steven Chen and Jawid Karim was taken out of context and that "Viacom's selective excerpt . . . distorts its meaning." Viacom's Reply to Defendants' Counterstatement to Viacom's Statement of Undisputed Facts in Support of Its Motion for Partial Summary Judgment at 12, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103). In regard to the instant message confirmation of March 2006, counsel for YouTube "disputed that the document provides any evidence of the percentage of copyrighted or infringing videos available on YouTube." *Id.* In response to the 60 percent figure, Duncan testified that someone else provided him with this information, but he did not recall who provide this information. Schapiro Opp. Ex. 212 199:22-202:8, Sept. 18, 2009. In regard to the 10 percent projection, counsel for YouTube argued that the "projection concerned only one category of authorized videos that could be monetized and reflects Google's plan to monetize only videos on YouTube subject to individually negotiation content-partnership agreements." Decl. of Schapiro [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 212 144:5-145:9).

191. YouTube argued that "A number of other factors—including the obscurity of much of the content posted on YouTube; the complex array of licensing and co-ownership issues attending much professional content; and fair use—make it even more difficult for YouTube to determine whether a given video is illegitimate." Defendant's Opposition to Plaintiffs' Motions for Partial Summary Judgment at 36, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

192. Memorandum of Law in Support of Defendants' Motion for Summary Judgment at 48, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

create[d] a fact or circumstance from which infringing activity is apparent.”¹⁹³ YouTube argued that Viacom’s actions were important to the knowledge inquiry of the DMCA because it “significantly complicate[d] the task of distinguishing between authorized and unauthorized uploads” in two ways: “(1) the sheer number of authorized video clips that Viacom (and other media companies) ha[d] allowed to flood YouTube, and (2) the opaque manner in which those clips [were] frequently placed on YouTube.”¹⁹⁴

YouTube elaborated on the second point by presenting evidence that Viacom uploaded content to YouTube covertly, using an array of fake accounts and agents.¹⁹⁵ This was an effort to engage in “stealth marketing”—a technique that was designed to advertise to a savvy audience that disliked studio sponsored promotion by creating “the appearance of authentic grass-roots interest in the content being promoted.”¹⁹⁶ Viacom partook in a campaign of concealing its connection to many of the videos it was responsible for uploading.¹⁹⁷ The general goal of this campaign was to make the uploaded content appear as though a “fan had created it and posted it.”¹⁹⁸ Employees and agents would even go so far as to “rough up” the uploads with “time codes and other internal studio markings to make them seem illicit, even though the clips were actually part of a carefully crafted marketing initiative.”¹⁹⁹ Even major celebrities, like Andy Samberg, were involved in the purposeful leaking of material.²⁰⁰

Making it more difficult to ascertain whether content on YouTube was authorized were Viacom’s inconsistent and confusing upload and takedown policies. YouTube presented evidence that Viacom would “come up with new rules every few days—sometimes even changing the rules within the

193. *Id.* at 38.

194. *Id.*

195. *Id.* at 35.

196. *Id.* at 39.

197. Techniques included hiring an army of third-party marketing agents to upload clips on its behalf; creating and using YouTube accounts that lack any discernable connection to Viacom (such as “MysticalGirl8,” “Demansr,” “tesderiw,” “GossipGirl40,” “Snackboard,” and “Keithhn”); deliberately using email addresses that “can’t be traced to [Viacom]” when registering for YouTube accounts; having Viacom employees make special trips away from the company’s premises (to places like Kinko’s) to upload videos to YouTube from computers not traceable to Viacom; and altering its own videos to make them appear stolen, like “footage from the cutting room floor, so users feel they have found something unique.” *Id.* at 40.

198. *Id.* at 39.

199. *Id.*

200. Decl. of Rubin ¶ 226 [*Viacom*, 718 F. Supp. 2d 514] (referencing Ex. 25, VIA01987927 at VIA01987927).

same day.”²⁰¹ Viacom would even allow material from programs that were central in the case—*The Daily Show* and *The Colbert Report*—to be uploaded because “Jon Stewart and Stephen Colbert believed that their presence on YouTube was important for their ratings as well as for their relationship with their audience.”²⁰²

Acts like these, with different uploading guidelines given to different companies and agents, created a maelstrom of confusion within Viacom over what uploads were actually authorized. This was evidenced by Viacom’s confused and contradictory takedown notices, and clips dropped from the lawsuit. In fact, clips that Viacom initially included in its complaint, but subsequently dropped from the lawsuit, were posted by Viacom or one of its agents.²⁰³ YouTube concluded that Viacom’s uploading policy, “and the struggles of its own employees, agents, and lawyers to distinguish authorized from unauthorized clips,” were “fatal to Viacom’s claims about YouTube’s knowledge . . . of infringement.”²⁰⁴

C. COURT IS IN SESSION

In his thirty page opinion, Judge Stanton rejected most of Viacom’s arguments and granted summary judgment to YouTube. The court focused its analysis on whether or not YouTube was protected by the DMCA’s safe harbor provision. The court bifurcated Viacom’s principle safe harbor argument—that YouTube had “‘actual knowledge’ and [was] ‘aware of facts and circumstances from which infringing activity [was] apparent,’ but failed to ‘act expeditiously’ to stop it.”²⁰⁵ The court rejected the assertion that YouTube failed to stop the infringement expeditiously, instead pointing out that when YouTube “received specific notice that a particular item infringed a copyright, [it] swiftly removed it.”²⁰⁶ The court continued on to insist that all of the “clips in suit are off the YouTube website, most having been removed in response to DMCA takedown notices.”²⁰⁷

201. Memorandum of Law in Support of Defendants’ Motion for Summary Judgment at 39, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

202. *Id.* at 48.

203. Defendant’s Opposition to Plaintiffs’ Motions for Partial Summary Judgment at 5–6, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

204. *Id.* at 6.

205. *Viacom*, 718 F. Supp. 2d at 519.

206. *Id.*

207. *Id.*

The court then turned its attention to what it believed was the critical “red flag” question—whether the statutory phrases “‘actual knowledge’”²⁰⁸ of infringement and awareness of “facts or circumstances from which infringing activity is apparent”²⁰⁹ refer to either “a general awareness that there are infringements” or rather “actual or constructive knowledge of specific and identifiable infringements.”²¹⁰ The court concluded that the phrase referred to *actual and constructive knowledge*, not “mere knowledge of prevalence of such activity in general.”²¹¹

The court concluded that when a service provider takes down infringing material upon receipt of a takedown notice, it is given safe harbor protection under the DMCA, “even if otherwise he would be held as a contributory infringer under the general law.”²¹² Evidently, because YouTube removed material when it was given a takedown notice, it was protected “from liability for all monetary relief for direct, vicarious and contributory infringement.”²¹³

1. *A Legislative Approach to Safe Harbor Analysis*

The court referred to legislative history to explain its decision. Quoting broad swaths of excerpts from Committee Reports, the court concluded that the “tenor” of the reports along with an “instructive explanation of the need for specificity” made it clear that the legislation was intended to only hold service providers liable for infringing content about which the provider had specific knowledge.²¹⁴

The court believed that its conclusion was “consistent with an area of the law devoted to protection of distinctive individual works, not of libraries.”²¹⁵ The court read the legislative history as clearly putting the burden of finding infringing material on content providers, not service providers. The court agreed with YouTube and did not want to impose a “responsibility on service providers to discover which of their users’ postings infringe a copyright” because that “would contravene the structure and operation of the DMCA.”²¹⁶ The opinion leaned on prior case law to make this point,

208. 17 U.S.C. § 512(c) (2006).

209. *Id.*

210. *Viacom*, 718 F. Supp. 2d at 519.

211. *Id.* at 523.

212. *Id.* at 526.

213. *Id.*

214. *Id.* at 519.

215. *Id.*

216. *Id.* at 523.

quoting the court in *Perfect 10, Inc. v. CCBill LLC* that refused to “shift a substantial burden from the copyright owner to the provider.”²¹⁷

The court validated its decision by stressing that the current DMCA structure was adequate. The court made much of the fact that the infringing works identified in the lawsuit may have only constituted “a small fraction of millions of works posted by others on the service’s platform.”²¹⁸ The court felt that the current “DMCA notification regime works efficiently” because, within one business day, YouTube was able to remove all 100,000 videos that Viacom requested to be removed in a mass takedown.²¹⁹

2. Case Law Analysis of What Triggers a Red Flag

The court’s analysis of prior case law focused on the mechanics of the “red flag” test. In its discussion of cases like *CCBill LLC, UMG Records, Inc. v. Veob Networks, Inc.*, and *Corbis Corp. v. Amazon.com, Inc.*, the court came to the conclusion that “awareness of pervasive copyright-infringing, however flagrant and blatant, does not impose liability on the service provider. “It furnishes at most a statistical estimate of the chance any particular posting is infringing—and that is not a ‘red flag’ marking any particular work.”²²⁰ In other words, the court viewed case law to point towards a red flag test that can be triggered only by something more than “facts and circumstances” pointing to infringement.

The court relied on *CCBill* for the initial building block of this red flag analysis. The *CCBill* court had refused to place an investigative burden on service providers to seek out infringing content when “facts and circumstances” hinted towards its existence.²²¹ The opinion next quoted the district court in *UMG Records, Inc. v. Veob Networks, Inc.*, wherein the district court interpreted *CCBill*’s refusal to force ISPs to investigate “facts and circumstances” around infringement as a proclamation that those facts and circumstances cannot be identified as red flags.²²²

According to the court, the only time a red flag can be triggered is when there is specific knowledge of infringement. The court relied on *Corbis Corp.*, which found that Amazon would only have been notified by a red flag if it

217. *Id.* (quoting *Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102, 1113 (9th Cir. 2007)).

218. *Id.*

219. *Id.*

220. *Id.* at 524.

221. *Id.* at 522.

222. *Id.*

knew of infringement on a specific site, and not if it knew some sites were infringing in general.²²³

III. ANALYSIS

A. SUMMARY JUDGMENT SHOULD NOT HAVE BEEN GRANTED

Reflecting on the breadth of the Viacom and YouTube argument sections of this Note, it is clear that a copious amount of evidence was submitted to the court trying to prove whether or not YouTube had actual knowledge of infringement under DMCA § 512 (c). A reader would not be aware of such evidence when reading the opinion. The opinion glosses over or fails to mention most of the evidentiary back and forth between the parties. That is unfortunate because this argument between the parties raises a genuine issue of material fact relating to YouTube's knowledge of infringement.²²⁴ Summary judgment should not have been granted as a matter of law and the case should have gone to a jury.²²⁵

The opinion made clear that as a matter of law, the "mere knowledge of prevalence" of infringing activity was not enough to hold service providers like YouTube accountable for the infringement of its users.²²⁶ The court required specific knowledge of specific work as a matter of law.

The opinion, however, never mentioned that Viacom submitted evidence that the founders of YouTube and their employees became aware of specific infringing clips.²²⁷ The court may have been subtly referencing YouTube's defense to that accusation when it stated that a "provider cannot by inspection determine whether the use has been licensed by the owner, or whether its posting is a 'fair use' of the material."²²⁸ But the veracity of either side's claims on specific knowledge is not a question of law; it is a question of fact. A jury should have decided whether or not YouTube employees and

223. *Id.* at 523.

224. The plaintiffs have since agreed with this point. *See* Opening Brief for Plaintiffs-Appellants, *Viacom*, 718 F. Supp. 2d 514 (No. 10-3270).

225. Summary judgment "should be rendered if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c).

226. *Viacom*, 718 F. Supp. 2d at 523.

227. *Id.* at 516.

228. *Id.* at 524. YouTube made a similar argument in defense to Viacom's specific infringement claims. *See* Defendant's Opposition to Plaintiffs' Motions for Partial Summary Judgment at 36, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

founders were able to tell by inspection if the owner licensed the content in question.

The court also dismissed any statistical estimate of how much infringing material was present on YouTube. According to the court, such a number “furnishes at most a statistical estimate of the chance any particular posting is infringing—and that is not a ‘red flag’ marking any *particular* work.”²²⁹ The court stressed that the “the infringing works in suit may be a small fraction of millions of works posted by others on the service’s platform.”²³⁰

The court, however, underplayed *how much* of YouTube’s material could have been infringing, particularly in its early days. Viacom presented evidence that at one point YouTube relied on infringing material for 80 percent of its site traffic. YouTube brought forth evidence countering that claim. But the court never mentioned the conflict over such key evidence. The “tenor” of the legislative history does not posit that Congress thought that, as a matter of law, a website that is *overwhelmingly* full of infringing material should continue to operate under DMCA protection. This disagreement over the prevalence of massive amounts of infringement is of material fact to the case.

B. THE CONSEQUENCE OF THE COURT’S READING OF THE DMCA IS A NOTICE AND TAKEDOWN ONLY REGIME

The court’s opinion implies that red flag knowledge can only be triggered with a notice and takedown, despite the clear distinction made in the DMCA. Though the court admits that a service provider must remove content “if a service provider knows (from notice from the owner, *or* a “red flag”) of specific instances of infringement,”²³¹ any logical inference from the court’s holding suggests otherwise.

According to the court, awareness of “blatant” and “ubiquitous” infringement was not enough to trigger a red flag.²³² Despite arguments by Viacom and YouTube regarding the need for fingerprinting technologies, the court refused to place any such investigative duty on the service provider.²³³ And the court’s silence on the specific instances where YouTube employees and founders may have known about specific instances of infringement suggests that they too did not count as a red flag. The court simply provided no example of how one could possibly become “aware of facts or

229. *Viacom*, 718 F. Supp. 2d at 524 (emphasis added).

230. *Id.* at 524.

231. *Id.* at 525 (emphasis added).

232. *Id.* at 525, 528.

233. *See id.* at 529.

circumstances” that a specific item is infringing other than a notice from the true owner.

As the opinion itself suggests, this reading of the DMCA is inconsistent with legislative intent. As described earlier in this Note, Congress made clear that red flag knowledge is attainable *independently* of a takedown notice.²³⁴ Takedown notices were not meant to be the *only* way a service provider could become aware of red flags. The opinion makes Congress’ intent on this matter impossible to achieve.

This portion of the ruling has already fostered unfair practices as opportunist companies are already attempting to hide behind this new takedown only regime. One such company is called Grooveshark—described by some as the “ugly” consequence of the decision.²³⁵ Grooveshark scans a user’s folder and uploads it to its server, calling it user-generated content.²³⁶ It then streams unlicensed music files for free.²³⁷ It will only take down the music when served a takedown notice.²³⁸ Grooveshark believes that this practice is legal because it comports with the safe harbor provision as interpreted in the *Viacom* decision.²³⁹ Consequently Grooveshark has exasperated “whac-a-mole” costs and used them as leverage to “extract favorable licensing arrangements” from copyright owners.²⁴⁰ Thus, Grooveshark is one example of an attempt to use “the lower court decision in *Viacom v. YouTube* as an invitation to cannibalize and leverage.”²⁴¹ This troublesome development was certainly not Congress’ intent.

C. CAUGHT BETWEEN A ROCK AND A HARD PLACE—THE COURT HAD FEW CHOICES BECAUSE OF AN ANTIQUATED DMCA

The opinion seems to be a result of the court attempting to satisfy the spirit of the DMCA, without the proper means under the DMCA to do so. In the decision, the court repeatedly stressed that the purpose of the DMCA was to foster the development of the Internet. The court must have seen its stringent red flag standards as the only way to achieve this goal in the face of mounting pressure from ramped up statutory damages on one hand, and the limited tools offered to monitor websites under the DMCA on the other.

234. H.R. REP. NO. 105-551, pt. 2, at 57–58 (1998).

235. Menell, *supra* note 52.

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.*

241. *Id.*

If the court had not set its stringent standard for red flag knowledge, then it would have been pressed against the ramped up statutory damage range for copyright infringement, which allowed for Viacom's request of \$1.65 billion dollars in damages.²⁴² Surely, the court found this number unacceptable in the "absence of billion dollar harms."²⁴³ Academics have called this issue the unsaid "elephant in the room" in the case.²⁴⁴ To undercut this "elephant," the court returned again and again to legislative intent—Congress wanted to foster services like YouTube. In many ways, the statutory damages provisions make this impossible. Though the court never took up the subject, its decision comports with the logic that in a Web 2.0 world in which a massive number of clips can be uploaded instantaneously, these damage provisions do not make sense.

The only way to protect YouTube and other internet companies from such crippling liability was to limit acquired knowledge to the DMCA takedown notification system. The court stabbed YouTube's eyes, making them blind to all other possible ways of becoming aware of infringement in order to protect YouTube. The court venerated the DMCA notification system—praising it for working "efficiently."²⁴⁵ It complimented YouTube on taking down more than 100,000 videos in one business day after Viacom sent a mass takedown notice.²⁴⁶ Any lower standard for red flag knowledge would have put YouTube on the hook for billions in damages, which the court felt the safe harbor was designed to protect against.

Unfortunately, takedown notices are flawed and inefficient. Examples of abuse abound, including magicians who have successfully sent takedown notices of videos debunking their tricks²⁴⁷ and Twitter tweets unjustly removed due to DMCA takedown notices.²⁴⁸ In the *Viacom* case alone, Viacom erroneously sent takedown notices of *other* content owners' works, causing them to be removed and prompting annoyed copyright holders to

242. *Id.*

243. *Id.*

244. See Peter S. Menell, *Confronting the Elephant in the Room: Interpreting and Reforming Statutory Damages in the Internet Age* (Working Paper).

245. *Viacom v. YouTube*, 718 F. Supp. 2d 514, 524 (S.D.N.Y. 2010), *appeal docketed*, No. 10-3270 (2d Cir. Dec. 3, 2010).

246. *Id.*

247. Kravets, *supra* note 40.

248. Jacqui Cheng, *DMCA Abuse Extends to Twitter Posts*, ARS TECHNICA (Dec. 23, 2010, 3:15 PM), <http://arstechnica.com/tech-policy/news/2010/04/dmca-abuse-extends-to-twitter-posts.ars>.

complain about Viacom's "blatant abuse of the DMCA takedown statute."²⁴⁹ Courts, too, have noted this problem. The district court in *Design Furnishings, Inc. v. Zen Path LLC* recognized that the policy of immediately taking down material after receiving a takedown notice "essentially shift[s]" the burden off of copyright holders to prove copyright infringement.²⁵⁰ Rather, takedown regimes "allow anyone to effectively shut down" a site held by a service provider "simply by filing the notice."²⁵¹

It is clear that content filtering works more efficiently than a DMCA takedown only regime. Content filtering affords service providers actual knowledge that a work is appearing unlicensed, and gives content providers a fast, and often times profitable, way to identify infringing material. But there was no mention of filtering technology in the opinion. Most likely the court felt restrained by prior precedent set by *Perfect 10, Inc. v. CCBill LLC*, which, as explained earlier, essentially refused to place any investigative burden on service providers to seek out infringed content. And of course content filtering is not in the DMCA—for obvious reasons, Congress did not anticipate filtering technology.

The DMCA takedown system is a blunt instrument compared to the relatively elegant tool of content filtering. Indeed, YouTube's Content ID has essentially *solved* most future disputes between YouTube and content providers.²⁵² If the DMCA can be revised to have some kind of requirement for content filtering, courts would not have to cling to the takedown procedure as the only means to protect OSPs from crippling liability. This will force emerging companies to use filtering technology, and courts will not have to make hamstrung legal judgments to protect those companies from the mechanics of the DMCA.²⁵³

249. Memorandum of Law in Support of Defendants' Motion for Summary Judgment at 66, *Viacom*, 718 F. Supp. 2d 514 (No. 07-2103).

250. *Design Furnishings, Inc. v. Zen Path LLC*, CIV. 2:10-02765, 2010 WL 4321568, at *5 (E.D. Cal. Oct. 21, 2010).

251. *Id.*

252. Menell, *supra* note 52.

253. Many commentators have advised against such a requirement. See Brown, *supra* note 59, at 455; see also Hormann, *supra* note 25, at 1350. Others have tacitly accepted such a proposal. See Samuelson et al., *supra* note 27, at 41; see also Brett White, Note, *Viacom v. YouTube: A Proving Ground for DMCA Safe Harbors Against Secondary Liability*, 24 ST. JOHN'S J.L. COMM. 811, 847 (2010).

IV. CONCLUSION

The district court's decision is currently under review by the circuit court, and will undoubtedly be tested. In many ways the abrupt reasoning of the court, and its possible overreaching of the law to reach a just social result, may end up hurting YouTube in the end. It should be expected that the issues of specific infringement, pervasive knowledge of massive infringement, and DMCA takedown notices in lieu of other red flags will all come up in the appellate court's opinion. It should be expected that the appellate court will similarly brush up against the issues of statutory damages and the DMCA's silence on content filtering. If the reasoning of the district court is not strong enough to withstand scrutiny, YouTube may still be at risk. These problems suggest that the DMCA needs to be reformed to reflect the Web 2.0 digital landscape. Only then will hamstrung decisions like *Viacom v. YouTube* be a thing of the past. The DMCA has lasted more than a decade on the tools it provides to content owners and service providers. In order to survive the next decade, the DMCA may need to sharpen its knives.

THE COPYRIGHT MISUSE DOCTRINE'S ROLE IN OPEN AND CLOSED TECHNOLOGY PLATFORMS

Jonas P. Herrell[†]

As computers have evolved, the operating system has become a central component in the user experience. For many users, the operating system acts like a gateway that permits the users to interact with both the overarching applications and underlying hardware. Users choose their operating system for a multitude of reasons ranging from ease of use to market penetration to ability to interoperate with other platforms. In some cases, the operating system may come bundled (and locked) with the hardware. Consumers that opt for these types of closed platforms may have no choice in their operating systems because the underlying hardware ultimately drives their decision. Moreover, when the overarching operating system drives the decision, a closed platform will only provide a limited number of hardware configurations.

A platform owner who sells copyright-protected software bundled with hardware essentially locks up a user's choice of technology platforms. As a company becomes more entrenched in a market, the company has a greater ability (and incentive) to close off proprietary environments, usually through the use of boilerplate contracts.¹ By restricting a consumer's purchase of a technology to its post-combination product, the company raises market entry thresholds and pushes smaller innovators out of the market.²

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1. See ASHWIN VAN ROOIJEN, *THE SOFTWARE INTERFACE BETWEEN COPYRIGHT AND COMPETITION LAW: A LEGAL ANALYSIS OF INTEROPERABILITY IN COMPUTER PROGRAMS* 42 (2010) (discussing the incentives for a monopolist to foreclose competition in a secondary market by leveraging its current monopoly power).

2. See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85, 109–12 (2003) (discussing the various reasons why a platform monopolist would want to impose “two-level entry” on its potential competitors).

The recent *Apple, Inc. v. PsyStar Corp.* case highlights this trend in action.³ Apple combines its operating system, Mac OS X, with various hardware configurations that are then sold directly to the end user. Even though Apple distributes full copies of its operating system by itself, under the banner of an “upgrade,” it contractually precludes any user of the software from installing it—or any other copies of Mac OS X—on anything but Apple-branded hardware.⁴ The court ultimately decided that Apple’s use of a licensing agreement to ensure that its operating system was only installed on Apple-branded hardware was not a misuse of copyright.

This case illustrates the tension between property rights and public access rights—a finely-tuned equilibrium balanced at the intersection of copyright law and contract law. This Note will explain that courts should be mindful of this balance when dealing with copyright cases involving open or closed platforms. The copyright misuse doctrine renders a copyright unenforceable in situations where a copyright is used to “secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant.”⁵ Courts have been hesitant thus far in their adoption of copyright misuse.⁶

This Note will explain why courts should consider re-aligning the copyright misuse defense in light of the intellectual property rights spectrum. It first defines the concept of a platform in today’s high technology world and then weighs the differences between open and closed platforms.⁷ Part I argues that open platforms not only increase innovation, but are more in-tune with the doctrinal purposes of the respective intellectual property regimes. Next, Part II evaluates the creation and evolution of copyright misuse—a rarely-successful defense that should have greater bearing on future cases that require a balancing of the needs of public access against the property rights of platform owners.⁸ This includes a look at the origins of patent misuse and the entangled history of antitrust, patent misuse, and copyright misuse. Finally, Part III considers how a re-aligned copyright

3. See 673 F. Supp. 2d 931 (N.D. Cal. 2009).

4. See Complaint at Exh. 1, § 2.A, C, *Apple, Inc. v. PsyStar Corp.*, No. 08-CV-3251, (N.D. Cal. July 3, 2008), ECF No. 1; see also *infra* notes 199–200.

5. *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 977 (4th Cir. 1990) (citing *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 492 (1942)).

6. See Brett Frischmann & Dan Moylan, *The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and Its Application to Software*, 15 BERKELEY TECH. L.J. 865, 869 (2000).

7. See *infra* Part I.

8. See *infra* Part II.

misuse doctrine in today's technological world might restore both the balance between the intellectual property regimes and the balance between intellectual property creators and intellectual property consumers.⁹

I. TECHNOLOGY PLATFORMS

“Technology platform” roughly describes the combination of multiple technical components that make up the end-user computing environment. A technology platform essentially consists of three different tiers of technology, each dependent upon the lower tiers. The bottom tier is the hardware architecture, which includes all the different hardware components. The middle tier is the operating system, which controls the fundamental input and output operations necessary for an end user to utilize a computer, permitting applications to interface with the hardware.¹⁰ The top tier contains all of the platform's applications.¹¹ Applications are software tailored to suit one or more specific needs of the end user.

Earlier computers incorporated much of their functionality at the hardware level. As computers evolved, functionality shifted to the upper software layers, providing increased flexibility as hardware could be directed to complete any number of varying tasks.¹² This resulted in the technology industry shifting its focus toward the creation of generalized computing components while expanding the role of software and allowing it to exert greater control over the underlying hardware. Today, generic hardware can be used in many different contexts without the need to be tailored to each individual use.¹³

9. See *infra* Part III.

10. *United States v. Microsoft Corp.*, 253 F.3d 34, 53 (D.C. Cir. 2001) (finding that operating systems serve as a platform for software applications and have two distinct functions: allocate memory and control peripherals).

11. Dennis S. Karjala, *Copyright Protection of Operating Software, Copyright Misuse, and Antitrust*, 9 CORNELL J.L. & PUB. POL'Y 161, 169–70 (1999).

12. WILLIAM H. PAGE & JOHN E. LOPATKA, *THE MICROSOFT CASE: ANTITRUST, HIGH TECHNOLOGY, AND CONSUMER WELFARE* 88–89 (2007).

13. See Timothy F. Bresnahan, *New Modes of Competition, in* COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 155, 159 (Jeffrey A. Eisenach & Thomas M. Lenard eds. 1999) (defining a platform as “a shared, stable set of hardware, software, and networking technologies on which users build and run computer applications”). This shift has continued in the software space as well. Now, large portions of computer programs are generically written in smaller compartmentalized pieces so they can easily be re-used and re-purposed as needed. This programming methodology is referred to as Object Oriented Programming. See Keith Stephens & John P. Sumner, *Software Objects: A New Trend in Programming and Software Patents*, 12 SANTA CLARA COMPUTER & HIGH TECH. L.J. 1, 4 (1996).

In generalized hardware environments, one of the operating system's primary purposes is to facilitate interactions between applications and the underlying hardware. To do this, applications are designed and written for a specific operating system as the applications will need to utilize operating-system-specific commands.¹⁴ This allows applications to be written independently of the underlying hardware.¹⁵ The operating system then serves as a buffer between the hardware and the application to perform the necessary computations, receive inputs, and produce outputs.

The combination of the bottom two tiers—the hardware and the operating system—represents a distinct computing platform on which additional applications (or even operating system functionality) can be built. These two tiers provide the application tier, users, and developers with the majority of the computing functionality in a technology environment. Although there can be instances where applications are indeed considered part of a platform, this Note will generally use the term “platform” to refer to the attributes of the bottom tiers (unless otherwise specified) that combine to provide the functional environment upon which applications are written and operate.

Each tier within a platform involves products created by one or more parties. Due to the complexity of hardware architectures, there usually are a large number of parties in the bottom tier. A central party, called an Original Equipment Manufacturer (OEM), combines hardware components to create the “bare bones” of a computer. The operating system tier usually only involves a single party—either Apple or Microsoft in the majority of cases.¹⁶ Almost every OEM either installs Microsoft Windows or provides a copy of it with every computer they sell.¹⁷ Apple is in a unique position in that it

14. See VAN ROOIJEN, *supra* note 1, at 14–15 (explaining how Application Programming Interfaces (APIs) work).

15. See *id.* at 9.

16. See *Operating System Market Share*, NETMARKETSHARE, <http://marketshare.hitslink.com/operating-system-market-share.aspx?qprid=8> (last accessed Nov. 2010) (figuring market share of Windows and Mac OS at 90.81% and 5.03% respectively); *Top 5 Operating Systems from Nov to Dec 10*, STATCOUNTER: GLOBALSTATES (Dec. 2010), <http://gs.statcounter.com/#os-ww-monthly-201011-201012> (figuring market shares as follows: WinXP—50.67%, Win7—25.71%, WinVista—15.53%, Mac OS X—6.29%, Linux—0.76%, and Other—1.04%).

17. See Randal C. Picker, *Pursuing a Remedy in Microsoft: The Declining Need for Centralized Coordination in a Networked World*, 158 J. INSTITUTIONAL & THEORETICAL ECON. 113, 119–20 (2002). See generally Jonathan M. Barnett, *The Host's Dilemma: Strategic Forfeiture in Platform Markets for Informational Goods*, 124 HARV. L. REV. (forthcoming) (manuscript at 28), available at <http://law.bepress.com/usclwps/lewp/121> (discussing the evolution of Windows and its role in the personal computing ecosystem).

makes the operating system and also stands in the role of the OEM, installing its operating system on the computers it assembles. Since Apple maintains control over both of the bottom tiers of its platform, it can be considered a “closed platform.”¹⁸

A closed platform represents an environment where outside influence is only introduced with the operating system owner’s consent.¹⁹ This allows the platform owner to control the growth of the platform and the integration of the tiers in a manner consistent with an overarching objective. On the other hand, an open platform is an environment where the platform owner exerts minimal control beyond the technology it introduces. Instead, the platform owner and third parties both extend the platform’s functionality and architecture, and integrate the tiers within it.

A. CLOSED PLATFORMS

Closed platforms are rooted in a platform owner’s vision of the end product they want to market to the consumer. Rather than create only a piece of the architecture, the closed platform owner (“CPO”) will make most, if not all, of the decisions regarding the integration of the components. This type of vertical integration can occur when the CPO either creates all of the components it assembles into its final product, or purchases a number of components from the market that are then assembled with the components it makes.²⁰ The CPO—regardless as to how he acquires the various components—stands as the intermediary between the end consumer and all of the various manufacturers of high technology components.

Placing all of these decisions in the hands of a single entity creates many benefits. To begin, since a single entity is responsible for the integration of all of the technology tiers, the CPO can ensure that the tiers are optimally integrated, which can result in a smooth experience for the end user.²¹ The ability to control all of the technology tiers in the final product allows a CPO not only to actualize various synergies in the technology, but also to push the envelope in directions previously unforeseen in a market. This Section will discuss, *infra*, the benefits of closed platforms.

18. See Farrell & Weiser, *supra* note 2, at 92.

19. See David S. Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 NW. U. L. REV. COLLOQUY 285, 303–04 (2008) (discussing a number of “tightly integrated business software-hardware model[s]”).

20. Nicholas Economides, *Competition, Compatibility, and Vertical Integration in the Computing Industry*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY, *supra* note 13, at 209, 210–11.

21. *Id.* at 211.

1. *Paradigm-Changing Events*

Closed platforms are generally praised for their ability to bring about paradigm-changing events.²² A closed platform permits innovators to optimally commercialize their intellectual property since the innovator has the option to either protect and distribute the immediate intellectual property as a standalone good, or tie it to a much larger product.²³ By permitting extended levels of intellectual property commercialization, innovators can then make strategic decisions that optimize their return on investment in the initial intellectual property research and development. The additional freedom to commercialize innovation encourages entities to take on additional risks to try new things. If the new thing is successful, that entity can capture an entire new market, generating a large amount of revenue. This in turn encourages entities to expend greater amounts on research and development to maximize commercial returns. Thus, even when new paradigm-changing events do not occur, innovation still occurs rapidly through these expenditures.

2. *Encourages Larger Investment*

Closed platforms also encourage continued investment in a platform, even after it has been effectively commercialized.²⁴ If an innovator controls its environment, it has the ability to expand that environment and commercialize these expansions, without the threat of competition. Thus, firms are able to capture additional revenue from the incorporation of after-developed technologies into the closed platform. Where the after-developed technology is created by the CPO, he is able to capture not only the monies from that innovation's monopoly, but also the revenue from additional closed platform sales that are driven by the demand for the new innovation.

Closed platforms also encourage companies to invest in multiple tiers simultaneously in order to create a single dominant product instead of only investing in the technology components that have the highest profit-margins.²⁵ By tying the less profitable technology to the more profitable technology, the CPO is able to innovate in both spaces and recoup its sunk

22. See VAN ROOIJEN, *supra* note 1, at 32 (suggesting that closed platforms stimulate competition for the entire market, rather than part of it, leading to breakthrough innovation).

23. See Farrell & Weiser, *supra* note 2, at 99.

24. See VAN ROOIJEN, *supra* note 1, at 34–35 (finding that a firm must innovate significantly to maintain its monopoly position in a market to prevent other firms from entering that market).

25. See *id.* at 40.

costs. This results in a net gain of innovation as research and development occurs that would not otherwise have but for the closed platform model.

Finally, closed platforms encourage competition at the environment level, which users most closely identify with. A CPO has an incentive to continue investing in its entire platform in order to maintain or increase its market position by improving that platform, thereby retaining or attracting additional users. Otherwise, the same motivation that spurred the creation of a dominant closed platform will drive competitors to create competing closed platforms. If the dominant CPO does not continue innovating within its environment, the new market entrants will be able to capture market share by creating platforms incorporating after-developed innovations that are absent from the CPO's existing closed platform.²⁶

3. *Better Integration Within Platform*

Another argument for closed platforms is they facilitate platform innovation focused on seamlessly integrating the platform's tiers.²⁷ Vertical integration between the platform's tiers allows a CPO to thoroughly test the interoperability of its components and to fine tune their interactions. Once optimized, the closed platform does not permit new entrants into the environment—or if it does, it will be on the CPO's terms—ensuring a greater degree of stability after dissemination to end users.²⁸

Additionally, since only a single entity controls the integration of the platform, the coordination costs that are usually present in open platforms are diminished.²⁹ Likewise, the transaction costs are also reduced since a single entity influences or controls the manufacturing, marketing, distribution, and licensing, allowing that entity to realize various economies of scale.³⁰

The cell phone industry is ripe with examples of successful closed platforms that highlight the benefits of integration. For years, innovation in cell phones was stagnant due to the power that the mobile

26. *See id.* at 32.

27. *See id.* at 30; Farrell & Weiser, *supra* note 2, at 99 (discussing how component integration promotes platform-sponsored quality control and interoperability).

28. *See* Michael L. Katz & Carl Shapiro, *Antitrust in Software Markets*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY, *supra* note 13, at 29, 68 (discussing how vertically-integrated products promote quality assurance in that product).

29. *See* VAN ROOIJEN, *supra* note 1, at 41.

30. *See id.* at 41.

telecommunication industry asserted over device manufacturers.³¹ This allowed companies like Motorola to produce a single dominant product, such as the Razr, and only incrementally update that product as time passed.³² However, the entry of the proprietary iPhone forced the market to make significant and dramatic changes in a small amount of time in order to compete. One of the much-hailed benefits of the iPhone was its closed platform that prevented mobile carriers from interfering with and tailoring the phone's software prior to distribution.

Even in the aftermarket, the distribution of digital content to Apple's iPhone device is seamlessly integrated with the device itself—and the Apple environment at large—through the iTunes application, instead of through a one-off distribution method for digital media utilized by each individual wireless carrier. Aftermarket control over the iPhone device and the subsequent content distribution allowed Apple to create a streamlined product with minimal integration issues between each component involved in the product's use. Indeed, the iPhone's closed platform helped to facilitate a successful international roll-out since most of the phone's functions were not dependent on third parties. Apple's success with its closed environment has garnered the attention of other companies seeking to emulate that same success.³³

4. *Simplifies Consumer Choice*

Another reason why closed platforms may enhance the user experience is that a consumer may be inundated with component choices in an open platform such that he is unable to adequately sort through his options and select components that satisfy his needs.³⁴ A closed platform, on the other

31. See Atanu Lahiri, Rajiv M. Dewan & Marshall L. Freimer, *The Disruptive Effect of Open Platforms on Markets for Wireless Services*, 43rd Hawaii International Conference on System Sciences, at 1 (2010), available at <http://icceexplore.icce.org/stamp/stamp.jsp?tp=&arnumber=5428571>.

32. See Scott D. Anthony, *Motorola's Bet on the Razr's Edge*, WORKING KNOWLEDGE FOR BUS. LEADERS: HARV. BUS. SCH. (Sept. 12, 2005), <http://hbswk.hbs.edu/archive/4992.html>; Anders Bylund, *Foolish Forecast: RAZR-Thin Earnings for Motorola*, MOTLEY FOOL (July 17, 2007), <http://www.fool.com/investing/general/2007/07/17/motorola-forecast.aspx>.

33. See, e.g., John Letzing, *Oracle CEO Likens New Approach to Apple's*, MARKETWATCH (Sept. 22, 2010), <http://www.marketwatch.com/story/oracle-ceo-links-new-approach-to-apples-2010-09-22>.

34. See, e.g., Jack Wallen, *Is Too Much Choice Getting in the Way of Linux' Acceptance?*, TECHREPUBLIC (Aug. 10, 2009), <http://www.techrepublic.com/blog/opensource/is-too-much-choice-getting-in-the-way-of-linux-acceptance/841>. However, a superior open platform should be able to still capture greater market share when competing with an inferior closed platform, assuming similar expenditures by the platform owners, because

hand, allows that consumer to make choices at the macro level so that he only needs to concern himself with a limited number of options. The end result is that consumers make choices that more adequately align with their needs.³⁵

Although innovation in the closed platform sphere certainly causes a short-term benefit to that market and to society, it is still unclear whether the long-term effects of such closed environments outweigh the immediate gains. Closed environments, as building blocks for future innovations, are only accessible to a limited subset of individuals who can leverage that momentum.³⁶ This can lead to decreased innovative results downstream—once a device reaches its tipping point, only minimal amounts of innovation are necessary to maintain that market position.³⁷ However, it is more certain that good products will generally win out in the long run. A CPO that relies on legal doctrines alone to maintain his position and prevent superior products from competing will lose eventually, not because open platforms are better, but rather because good platforms are better.³⁸

B. OPEN PLATFORMS

Open platforms encourage third party entry within each of the platform's tiers. This flexibility permits market entry by a diverse set of parties with the scope of entry ranging from individual innovators within a technology within a single tier, to paradigm-changing innovations that not only shift the direction of technology within a tier, but also cause ripple-effect innovations

informed consumers should be able to tip the market in favor of the superior product. *See* STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY 58, 239 (1999).

35. Janusz A. Ordover & Robert D. Willig, *Access and Bundling in High-Technology Markets*, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY, *supra* note 13, at 103, 111 (finding that closed systems make sense in situations where consumers do not value choice and the closed system creates efficiencies).

36. A closed environment also necessitates continued efforts to maintain the closed environment's status as closed. This wasted effort, which could have been focused on increasing the environment's speed, reliability, and performance, is instead spent on issues relating to the further expansion of the closed platform and the issues inherent to it. JUNG WOOK CHO, INNOVATION AND COMPETITION IN THE DIGITAL NETWORK ECONOMY: A LEGAL AND ECONOMIC ASSESSMENT ON MULTI-TYING PRACTICE AND NETWORK EFFECTS 179–80 (2007).

37. *Id.* at 178 (“[A] dominant company can arbitrarily control the direction and pace for program development regardless of the consumer demand and welfare.”).

38. *See* LIEBOWITZ & MARGOLIS, *supra* note 34, at 239–40; *see generally* David S. Evans & Michael Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. ON REG. 37 (2005) (finding that tying products is generally pro-competitive, not anticompetitive).

across other tiers.³⁹ Additionally, open platforms allow users to adopt new technologies containing new innovations quickly as they only need to substitute or add the technology within a given tier, instead of replacing the platform. Open platforms also afford the consumer the opportunity to make informed decisions about the technologies included in the platform instead of the limited number of available options in a closed platform.⁴⁰

With the diverse pool of innovators in the market, and the ability for users to self-select the types of technologies they wish to incorporate into their environments, open platforms facilitate a number of innovative objectives in a decentralized setting. The open platform not only stimulates expected innovation, but also unexpected innovative events.⁴¹ Finally, open platforms proportionally compensate an innovator in exchange for the

39. For instance, Intel and AMD recently announced a major shift in the Central Processing Unit (CPU) / Graphics Processing Unit (GPU) architecture. After years of separation on different components, the GPU will be integrated into the CPU such that all of the calculations typically done by two discrete pieces of hardware will run on a single piece of silicon in an effort to eliminate the communication bottleneck that typically exists between the two. It is anticipated that this integration will increase performance for GPU-heavy operations, such as video rendering. See Don Clark, *Intel, AMD to Unveil Combination Chips*, WALL ST. J., Dec. 27, 2010, at B3.

40. See, e.g., *infra* note 41 and accompanying text.

41. For instance, the PhysX Physics Processing Unit (PPU) was a dedicated piece of hardware designed to perform the massive volume of calculations needed to create realistic environments that mimic real-world scenarios. See Alexey Stepin & Anton Shilov, *AGEIA PhysX Physics Accelerator Review*, X-BIT LABS (June 23, 2006 11:18am), <http://www.xbitlabs.com/articles/video/display/ageia-physx.html>. AGEIA initially released the PhysX PPU as a standalone component to complement a computer's GPU and CPU. *Id.* The technology permitted virtual environments to take a major step forward in their ability to simulate real world environments. *Id.* The new technology was subsequently incorporated into software applications. *Id.* Although individual Windows users could adopt this technology, Apple users could not because Apple made the choice not to include it in their platform. See, e.g., *Ageia PhysX PCI-Express*, APPLE DISCUSSIONS (Sep. 18, 2007), <http://discussions.info.apple.com/message.jspa?messageID=5382140> (discussing the PhysX PPU, Apple's decision not to include it as an option, and whether the users were going to purchase a dedicated Windows platform so they could leverage the new technology). However, adoption of the PPU technology as a hardware option soon became unnecessary. NVIDIA subsequently purchased AGEIA and began to incorporate the PPU into its line of GPU cards. NVIDIA also wrote firmware so many of the PhysX calculations could run directly on NVIDIA's newly-released Computer Unified Device Architecture (CUDA) GPU architecture. With the release of the PhysX engine software, the technology became accessible to gaming consoles, which were previously released before the PhysX PPU was on the market. See Tom Krazit *Nvidia to Acquire Ageia for the PhysX Chip*, CNET NEWS (Feb. 4, 2008), http://news.cnet.com/8301-13579_3-9864532-37.html; Michael McWhertor, *PlayStation 3 Gets Free PhysX from Nvidia*, KOTAKU (Mar. 17, 2009), <http://kotaku.com/5172843/playstation-3-gets-free-physx-from-nvidia>.

innovation. This Section will address, *infra*, the benefits of open platforms, including market adoption, market entry, increased flexibility, decentralized advancements, and correlative valuing of technology.

1. Market Adoption

A closed environment, in which the software and hardware are tied together, only permits market penetration based on sales of the device as a whole, rather than at the software or hardware tier. When the software is not tied to the hardware, and can be distributed for multiple hardware configurations, market penetration at the software level occurs more quickly. For example, Apple began to distribute its mobile operating system, iOS, before Google released its mobile operating system, Android. Yet Android's installed user base has grown much larger than iOS's.⁴² Part of Android's success can be attributed to its openness, which not only allows distribution on a variety of hardware configurations, but also permits developers—without needing to obtain consent from Google—to extend Android's functionality through applications.⁴³ This permits a consumer to choose Android based on the merits of the software alone, and if chosen, match Android up with a hardware configuration that suits the consumer's needs. In a closed environment, if a consumer wants the functionality of either the closed platform's hardware or the closed platform's software, the consumer is locked into buying the platform as a whole, without regard to the other tiers which did not drive the consumer's decision.

An open platform—as compared with a closed platform—also has a decreased likelihood that users will manifest “socially excessive reluctance to switch to a superior new standard when important network externalities are present in the current one.”⁴⁴ In an open platform, users can adopt new technologies incrementally as they are released, allowing users to incorporate newer technologies into an existing platform without having to forgo the existing platform's network effects. This will decrease the time needed to

42. See Seth Weintraub, *Android Continues to Muscle Out U.S. Competitors*, FORTUNE (Nov. 1, 2010), <http://tech.fortune.cnn.com/2010/11/01/npd-android-continues-to-outpace-blackberry-and-ios-in-q3> (noting that Google's Android operating system controlled the same market share as Apple's iOS and RIM's BBOS combined).

43. *Compare with* Jonas Herrell, Digital Distribution in an Electronic Marketplace (May 15, 2010) (unpublished manuscript) (on file with author) (discussing the amount of control that Apple has over third-party developers in its environment, and contemplating whether this level of supervision may expose Apple to vicarious liability).

44. See Joseph Farrell & Garth Saloner, *Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation*, 76 AM. ECON. REV. 940, 940 (1986) (describing the effects of excess inertia).

embrace the next technology, leading to quicker adoption periods at the market level.⁴⁵ To adopt subsequent innovations of a closed platform, however, would require the “locked-in” user to adopt an entire new platform containing the technology and to spend a larger amount of time learning about it.⁴⁶ This higher cost and higher time expenditure may lead to slower adoption rates for new technologies in closed platforms in a majority of situations.

2. *Encourages Market Entry*

Additionally, open platforms encourage more parties to enter and build onto the platform.⁴⁷ If businesses begin to shift to distribution of closed platforms, market entry will become more expensive. The commercialization and distribution of new innovation for a given tier will require the innovator to either create the requisite tiers to fully commoditize the product or license those tiers from an existing market entrant.⁴⁸

Consider a scenario where closed platforms become the accepted optimal business strategy, and to compete, a new market entrant needs to market an entire platform. If a new entrant wants to commoditize its technological innovation, it would need to license technologies in other tiers in order to create a product that could be sold on the market.⁴⁹ However, there would be little rationale for an existing CPO to license his proprietary technology as that license would only enable competition for the CPO where it did not

45. See VAN ROOIJEN, *supra* note 1, at 27–28.

46. Thus, even to adopt a favorable innovation by replacing the closed environment with one of like kind, the user would still need to adopt the additional innovations that had been subsequently added since his last purchase. See *id.* at 27.

47. See Chris Johnson, Note, *Leveraging Technology to Deliver Legal Services*, 23 HARV. J. L. & TECH. 259, 278 (2009); Robert P. Merges, *IP Rights and Technological Platforms* 5 (Berkeley Ctr. for Law & Tech., Working Paper No. 64, 2008), available at <http://repositories.cdlib.org/bclt/lts/64/> (noting that a freely disseminated open standard has a better chance of adoption).

48. See Katz & Shapiro, *supra* note 28, at 70–71 (describing the difficulties that new entrants face in “two-level entry” situations); see also Randal C. Picker, *Unbundling Scope-of-Permission Goods: When Should We Invest in Reducing Entry Barriers?*, 72 U. CHI. L. REV. 189, 192 (2005) (“[A] larger product scope may erect an entry barrier to competitors as the scope and scale of their entry is altered.”).

49. If end users only had access to closed platforms, a new technology that becomes available to end users is of no use to them because it could not be used with any of the available closed platforms without the CPO’s permission. Thus, the new entrant would be unable to commercialize its innovation directly (outside of licensing it to CPOs) and would be required to make a vertically-integrated product that could stand on its own.

previously exist.⁵⁰ Short of a license agreement that allows the CPO to obtain monopoly rents from the new entrant's sales, it would not make sense for the CPO to license a technology that would decrease his market share.⁵¹ On the other hand, an open platform allows parties that have innovated in either a software or hardware tier to commercialize that innovation within that tier.

For example, assume Microsoft decides to change its business model to a closed platform similar to that of Apple's.⁵² In what is essentially a duopoly, only a tiny minority of operating systems would serve as the means of entry into the hardware market outside of agreements with either Microsoft or Apple.⁵³ Entry into the hardware market would become severely constrained, shifting much of the bargaining power to Microsoft and Apple. This would also restrict innovation on much broader basis because if Apple or Microsoft vetoes a proposed hardware standard and does not incorporate the innovation into their respective platforms, society as a whole misses out on the innovation.⁵⁴

50. See Katz & Shapiro, *supra* note 28, at 48 (discussing how “the integration of a firm with a monopoly in one product into a complementary product market can make entry into the latter market more difficult”). In fact, this would further disadvantage the licensor since the new market entrant would have the ability to incorporate the new technology into its platform.

51. See, e.g., Bresnahan, *supra* note 13, at 167 (“[A] firm in one layer has every incentive to attempt to grab the rents of a firm in another layer.”).

52. And in many ways, it already has. Compare the Apple iPod and the Microsoft Zune. Also, Microsoft is now opening up brick-and-mortar stores, similar to those operated by Apple, due to the Apple stores' success. See *Despite Recession, Microsoft Starts Plans to Open Stores*, N.Y. TIMES, Nov. 3, 2009, available at <http://www.nytimes.com/2009/02/13/business/worldbusiness/13iht-soft.1.20169583.html>.

53. See *supra* note 16 and accompanying text.

54. VAN ROOIJEN, *supra* note 1, at 39 & n.187 (describing how the owner of an operating system could completely foreclose a secondary market—including a hardware market where the operating system is bundled or tied to the hardware). This threat looms larger when considering the now-dominant Blu-ray technology. When Blu-ray first emerged as a competitor to the HD-DVD standard, Microsoft backed HD-DVD, not Blu-ray. See Press Release, Microsoft Corp. & Intel Corp., Microsoft and Intel Back HD DVD as Next-Generation High-Definition DVD Format of Choice (Sept. 26, 2005), available at <http://www.microsoft.com/presspass/press/2005/sep05/09-26HDDVDPromotionGroupPR.mspx>. Meanwhile, Apple backed neither Blu-ray or HD-DVD as it continued to focus on digital distribution. See *infra* notes 211–213 and accompanying text. Thus, if both the Mac and Windows platforms were closed, and neither supported Blu-ray, there is a strong likelihood that Blu-ray would not currently be the standard for high-definition physical media.

3. *Greater Flexibility*

Along those same lines, an open platform facilitates greater downstream flexibility, as it permits consumers to piece together an end solution tailored to meet their needs.⁵⁵ It also permits ongoing flexibility regarding the platform's use. If an innovation in one tier encourages the consumer to purchase that product, the open platform would permit a user to substitute or add that component without regard to the platform's other components.⁵⁶

The ongoing flexibility of an open platform permits consumers to capture innovation occurring in a given tier without having to give up any of the perceived benefits of a different tier. Thus, consumers will experience less "lock-in." Consumers will subsequently reward the instant innovators in the market because they have the flexibility to adopt technologies as needed.

4. *Decentralized Knowledge Gathering/ Sharing*

One of the strongest advantages of open platforms stems from the power of decentralized research and knowledge gathering.⁵⁷ Closed platforms harness their power from having a smaller, but focused, think-tank that designs and implements end-to-end solutions.⁵⁸ However, the lessons from the internet age have highlighted the benefits of having a wide variety of tinkerers, each operating independently or in communities, in order to best achieve various functions and operations.⁵⁹ Thus, an open platform permits broader community engagement within the platform to try different things. With this type of decentralized research and knowledge gathering, innovation occurs at a greater pace.⁶⁰ While some may argue that the types of innovation

55. CHO, *supra* note 36, at 178 (noting how an untied operating system would enable consumers to design a system tailored to their preferences and needs).

56. PAGE & LOPATKA, *supra* note 12, at 89 ("One might even define the operating system as a snapshot of many of the most common consumer uses for computers at any given moment.").

57. See JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* 17–18 (2008). *But see* Alexander Wolfe, *Too Many Linux Distros Make For Open Source Mess*, INFORMATIONWEEK (July 18, 2007, 11:09 AM), http://www.informationweek.com/blog/main/archives/2007/07/too_many_linux.html (describing how the decentralized development of the linux platform has resulted in 359 different distributions, creating a "forking mess").

58. See Randal C. Picker, *Regulating Network Industries: A Look at Intel*, 23 HARV. J.L. & PUB. POL'Y 159, 181–82 (1999).

59. See Farrell & Weiser, *supra* note 2, at 91; Picker, *supra* note 58, at 181–82.

60. See Bresnahan, *supra* note 13, at 167 (finding that divided technical leadership in differing technical tiers results in more sources of invention and fewer bottlenecks to bringing inventions to the market); see also Farrell & Weiser, *supra* note 2, at 93 (discussing

that occur in a decentralized community are outweighed by the paradigm-changing effects of focused research in a proprietary firm,⁶¹ that argument compares the one big step forward against the smaller, but important, steps achieved by individual tinkerers. Over time, the aggregate of the smaller innovations will surpass the ginormous innovative event by the proprietary firm.⁶²

5. *Accurate Valuation of Innovation*

The limited copyright monopoly was never meant to extend to products outside the realm of copyright law.⁶³ By constraining copyright rights to the *copyrighted* work, the financial reward stems directly from that creativity and correlates proportionally with the tangible fixation of the creation. Thus, a company that creates a new application or operating system should be rewarded for that application or operating system, and not because it is tied to a different innovator's product.

When a company bundles its creation with other products outside of the copyrighted work, the company leverages the copyright for commercial gain in a manner not contemplated by the copyright balance.⁶⁴ The de-bundling of the tiers allows consumers to evaluate and value each tier independent from another.⁶⁵ Open platforms enable consumers to appropriately award financial

how innovation occurs at a more rapid pace in a modular environment compared with an integrated structure).

61. See *supra* Section I.A.

62. Bresnahan, *supra* note 13, at 172–73 (finding that a vertically-disintegrated structure is preferable because of the ability to attract different sources of innovation in a given tier, increasing the probability of “potential epochal competitive incidents”).

63. See Aaron Xavier Fellmeth, *Copyright Misuse and the Limits of the Intellectual Property Monopoly*, 6 J. INTEL. PROP. L. 1, 37 (1998) (explaining that the Copyright Act only grants the monopoly rights over the specific work).

64. See Kathleen K. Olson, *Preserving The Copyright Balance: Statutory and Constitutional Preemption of Contract-Based Claims*, 11 COMM. L. & POL'Y 83 (2006) (discussing how copyright owners in the digital age are abandoning the copyright regime and the balance contained within it for a system governed by private contract). *But see* Picker, *supra* note 58, at 180 (explaining that the goal of copyright law is not to confer monopoly rights, but rather to create a set of meaningful property rights). The copyright balance strives to find an equilibrium between creating a set of property rights that incentivizes the creation of new creative works with the desire to disseminate the works, and information, such that society can learn from them. See *Olson, supra*, at 84; see also *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (“[Copyright] is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.”).

65. Economides, *supra* note 20, at 214 (“[P]rices may be higher under vertical integration if a dominant firm resorts to anti-competitive practices such as (i) raising rivals’

benefits for innovation occurring in one tier that is achieved independent from the other tiers.

Furthermore, an open platform allows consumers to balance the costs of the different technologies within a tier in order to come up with a solution tailored to their functional needs. Consumers only pay for the innovative technologies needed to achieve that solution. Thus, segregating the hardware from the software would permit consumers to value each independently in order to allocate funds based on their needs. Although this may be detrimental to a company that innovates heavily in one tier with plans to exact rents from other tiers through tying, this would allow each respective innovation to garner the rewards contemplated by copyright policies.

More importantly, this would ensure competition within each tier of a platform.⁶⁶ Since success in a single tier would only garner monopoly revenues associated with that tier, competition within each tier would cause each of the participants to continue investing within that tier since they would be unable to rely on their market position in a different tier to dominate the immediate tier.⁶⁷ Thus, an open platform would mean continued innovation in each of the tiers, all to the benefit of the other tiers and other open platforms, as well as consumers and society.

In cases where value is added by actualizing the synergy between two tiers, a company could innovate in the integration space and would be appropriately rewarded.⁶⁸ Thus, if consumers value the service that Apple provides in carefully matching and fine-tuning its software and hardware

costs; (ii) *imposing contracts with certain exclusivity requirements*; (iii) imposing some anti-competitive form of price discrimination.” (emphasis added).

66. See VAN ROOIJEN, *supra* note 1, at 37.

67. See *id.* at 38; Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575, 1623–25 (2002).

68. A good example of this is would be OEMs that piece together hardware components and potentially install the operating system and additional applications. OEMs that do this job better than others would presumably attract more customers. Dell quickly became known as a top laptop and desktop brand because of its ability to integrate the various tiers into a top-notch product. Its subsequent fall could be explained by its change in focus from creating a best-in-kind product to maximizing its profit margins, which inevitably meant cutting corners. See LEE A. SAGE, WINNING THE INNOVATION RACE 8 (2000); Paul Carton, *Forecasting the PC Market's Future: The Rise of HP, The Fall of Dell*, SEEKING ALPHA (Mar. 28, 2007), <http://seekingalpha.com/article/30913-forecasting-the-pc-market-s-future-the-rise-of-hp-the-fall-of-dell>; Michael Palma, *PC Market Share Viewpoint: Acer Rises and Dell Dives*, VENTURE OUTSOURCE (Mar. 9, 2010), <http://www.ventureoutsource.com/contract-manufacturing/trends-observations/pc-market-share-viewpoint-acer-rises-and-dell-dives>.

pairings, Apple will still be able to collect the same revenues.⁶⁹ Besides, if there is an appropriate mechanism for this type of valuation, it is the protections offered by trademark law.⁷⁰ Where consumers do not value that synergy at the premium that a company charges, it would be inappropriate to permit that company to use copyright law to create a closed platform and obtain that same price.

Some argue that bundling copyrighted and uncopyrighted products allows the owner to effectively commercialize its intellectual property.⁷¹ However, this argument focuses heavily on the economics behind the optimal commercialization of copyrighted goods. Copyright law never intended to grant the right to optimally commercialize a creative work.⁷² Indeed, if that was the goal of copyright, provisions such as § 109 and § 117 would not exist as these rights would belong solely to the monopolist who could commercialize them as he deemed fit.⁷³ Instead, copyright only grants certain property rights to the owner, while retaining certain access rights for the public.⁷⁴ This balance seeks to achieve not only the continued creation of

69. See Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1361 (1987) (explaining how a company could use brand recognition to its benefit).

70. See Deborah R. Gerhardt, *Consumer Investment in Trademark*, 88 N.C. L. REV. 427, 449–50 (2010) (discussing how consumers use the informational attributes of the marks associated with a trademarked good); Mark A. Lemley & David McGowan, *Could Java Change Everything? The Competitive Propriety of a Proprietary Standard*, 43 ANTITRUST BULL. 715, 761–65 (1998) (discussing trademark's role in a platform intellectual property protection); Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534, 609 (2003) (discussing trademark issues that arise when a third party does not have authorization to use a standard, but does so anyway); Lauren Fisher Kellner, Comment, *Trade Dress Protection for Computer User Interface "Look and Feel,"* 61 U. CHI. L. REV. 1011, 1035 (1994) (discussing how trademark law could protect user interfaces).

71. U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION, at ch. 5 (2007) [hereinafter DOJ IP REPORT], available at <http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf>.

72. Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 485–87 (1996) (discussing the conflicts of the copyright balance that inevitably lead to the sub-optimal commercialization level of an intellectual property work). Indeed, a recent Ninth Circuit decision recognized that permitting a company's extension of its copyright rights through contract "would allow software copyright owners far greater rights than Congress has generally conferred on copyright owners." *MDY Indus., LLC v. Blizzard Entm't, Inc.*, 629 F.3d 928, 941 (9th Cir. 2010).

73. Sections 109 and 117 of the Copyright Act deal with the first sale doctrine and the limitations on exclusive rights in computer programs, respectively.

74. See Picker, *supra* note 58, at 180 (explaining that the goal of copyright law is not to confer monopoly rights, but rather to create a set of meaningful property rights).

new works, but also society's ability to utilize and learn from those created works.

As discussed, *supra*, there are a number of benefits to open platforms.⁷⁵ Open platforms encourage a diverse community to work within the platform whereas closed platforms further the interests and vision of the CPO. Copyright law was intended to have some exclusionary effects, but the end goal was to incentivize the creation of a vast array of original works. Closed platforms, if left unchecked, have the potential to hinder this goal.

II. THE COPYRIGHT MISUSE DOCTRINE

It was originally unclear as to whether copyright, patent, or a *sui generis* regime was necessary to protect innovators' rights in software. This was subsequently resolved by permitting software owners to protect their creations through a combination of patents and copyrights.⁷⁶ Copyright was extended to software to protect the creativity and artistic nature involved with programming, preventing the unauthorized copying and running of software. Patent was extended to software to protect the functional elements that result from the running of the code, preventing the re-writing of software functionality in a different manner or programming language that ultimately achieves a similar result.

Under copyright law, an author's exclusive rights are laid out in 17 U.S.C. § 106.⁷⁷ Within the existing exclusive rights, there is no right permitting the copyright owner to control how a copyrighted work is enjoyed in the privacy of a consumer's own home.⁷⁸ Instead, if a copyright owner wishes to control

75. *See supra* Section I.B.

76. FINAL REPORT OF THE NAT'L COMM'N ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 12 (1980) [hereinafter CONTU]. Software is also covered by trade dress, trademark, and trade secret law.

77. The statutory exclusive rights include the right to:

- (1) to reproduce the copyrighted work in copies . . . ;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies . . . of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) . . . to perform the copyrighted work publicly;
- (5) . . . to display the copyrighted work publicly; and
- (6) . . . to perform the copyrighted work publicly by means of a digital audio transmission.

17 U.S.C. § 106 (2006).

78. *But see* MDY Indus., LLC v. Blizzard Entm't, Inc., 629 F.3d 928, 947 (9th Cir. 2010) (“[C]opyright owners [have] an independent right to enforce the prohibition against circumvention of effective technological access controls.”).

the private use of the copyrighted work beyond the initial sale, the copyright owner must use alternative means of protection, such as a licensing agreement or terms of use.⁷⁹ This applies where the copyright author wishes to protect a work's functional features outside the scope of copyright protection.⁸⁰ However, where the contract extends its copyright rights beyond those contemplated by copyright law—by way of a contract—the copyright owner runs the risk that a court will find that the copyright owner misused his copyright.

Copyright misuse shares many ties to patent misuse, including its origins⁸¹ as a judicially-created doctrine.⁸² After patent misuse took hold in the courts and was later codified,⁸³ it was extended to copyright.⁸⁴ Copyright misuse occurs when a copyright holder extends the monopoly power conferred by their copyright to areas outside of the limited monopoly.⁸⁵ Upon a finding of copyright misuse, the copyright in question becomes unenforceable until such point that the copyright owner has ceased the conduct that led to the finding of misuse.⁸⁶ While courts increasingly encounter the copyright misuse defense, the proper evaluation method remains unclear.⁸⁷

79. However, “the intersection of copyright and contract law” is still “an area of law that is not yet well developed.” *Sun Microsystems, Inc. v. Microsoft Corp.*, 188 F.3d 1115, 1122 (9th Cir. 1999).

80. 17 U.S.C. § 102(b).

81. *See* *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 514 (1917). Indeed, the policies behind the grants of patents and copyrights are similar so it would be natural that the misuse evaluations share similar bonds. *See generally* THE FEDERALIST NO. 43 (James Madison) (“The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.”).

82. *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 493–94 (1942) (establishing the patent misuse doctrine).

83. *See* THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 13 (1988).

84. *See* *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970 (4th Cir. 1990).

85. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1026 (9th Cir. 2001).

86. *See* *Lasercomb*, 911 F.2d at 979. Once the conduct that was the reasoning behind the misuse has ceased, the copyright regains its validity and becomes enforceable once again. *Id.* at 979 n.22.

87. *See, e.g.*, *MDY Indus., LLC v. Blizzard Entm't, Inc.*, 629 F.3d 928, 941 (9th Cir. 2010) (“[T]he contours of [copyright misuse] are still being defined.”); DOJ IP REPORT, *supra* note 71, at 111–12; Todd C. Adelmann, Note, *Are Your Bits Worn Out? The DMCA, Replacement Parts, and Forced Repeat Software Purchases*, 8 J. ON TELECOMM. & HIGH TECH. L. 185, 208 (2010) (finding that the copyright misuse doctrine has not been fully developed).

One manifestation of the copyright misuse defense involves allegations that the copyright owner tied a product protected by copyright to an unprotected product.⁸⁸ Tying and bundling are important in technology industries because they facilitate the commodification of intellectual property. Thus, for some technologies, the ability to tie the intellectual property to the tangible good becomes necessary.⁸⁹ In other cases, it would merely be in a company's best interest to do so.⁹⁰

The common tying situation can involve issues of both antitrust and misuse.⁹¹ While tying goods that are protected by intellectual property to goods that are not was once thought to be per se illegal,⁹² the realization of the potential economic benefits of tying no longer trigger an automatic finding of illegality.⁹³ Instead, the proper approach is to apply the rule of reason, at least in the antitrust context.⁹⁴ However, some courts continue to rely on antitrust principles in the misuse context, noting that "apart from the conventional applications of the [patent misuse] doctrine [the court has]

88. Ilan Charnelle, *The Justification and Scope of the Copyright Misuse Doctrine and its Independence of the Antitrust Laws*, 9 UCLA ENT. L. REV. 167, 175 (2002); Ramsey Hanna, Note, *Misusing Antitrust: The Search for Functional Copyright Misuse Standards*, 46 STAN. L. REV. 401, 411 (1994). Tying occurs where:

Software program B is tied to program A if firm M refuses to sell program A (the "tying" good) unless the customer also purchases program B (the "tied" good) from firm M. . . . [T]here is [also] a requirement to purchase all of good B from firm M in order to be able to buy any of good A.

Katz & Shapiro, *supra* note 28, at 66. Whereas bundling occurs where "the price of the two programs sold together as a package is less than the sum of their individual-purchase prices." *Id.* at 67. However, due to software's low marginal costs and the complementary attributes of many of the components, the two doctrines tend to overlap. *See id.* (discussing how courts tend to confuse the two).

89. THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 7 (1988).

90. *See, e.g.*, Menell, *supra* note 69, at 1361 (explaining how an owner of an operating system might want to tie it to hardware in order to increase consumer lock-in, to discourage competing firms from entering the market, and to sustain its dominant position).

91. *See* Robert H. Lande & Sturgis M. Sobin, *Reverse Engineering of Computer Software and U.S. Antitrust Law*, 9 HARV. J.L. & TECH. 237, 250 (1996).

92. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984).

93. *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006), *abrogating* *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1917), *Int'l Salt Co. v. United States*, 332 U.S. 392 (1947), *United States v. Loew's Inc.*, 371 U.S. 38 (1962), *Jefferson Parish Hosp.*, 466 U.S. 2; DOJ IP REPORT, *supra* note 71, at 114.

94. 134 Cong. Rec. H10,648 (Oct. 20, 1988) (noting that the rule of reason analysis is appropriate unless the tie-in of a patented product involves a staple); DOJ IP REPORT, *supra* note 71, at 114.

found no cases where standards different from those of antitrust law were actually applied to yield different results.”⁹⁵

To provide background for copyright misuse, this Part will first review the doctrine of patent misuse. This will help establish the underlying policy considerations that are present in both the patent and copyright misuse doctrines. After reviewing the patent misuse’s origins, this Part will discuss the evolution of the copyright misuse doctrine and its application in the courts. Finally, this Part will identify and highlight the differences between the two misuse doctrines.

A. PATENT MISUSE

Misuse was initially a spin-off from antitrust-related inquiries that involved property protected by patents. Initially, courts tried to funnel the issues into either intellectual property- or antitrust-based evaluations.⁹⁶ However, even when using an intellectual property approach, courts still turned to antitrust-like principles to assist in the evaluation of how patent owners were utilizing not only the patent, but also the conditions that the patent’s use was predicated on. When a patentee’s power extended beyond the patent grant and accumulated revenue not contemplated by the invention, courts did not enforce the patents for public policy reasons.⁹⁷

Findings of non-infringement based on public policy gave way to the doctrine of patent misuse in the 1942 Supreme Court case, *Morton Salt Co. v. G.S. Suppiger Co.*, in which the Court found that it was illegal for a patent owner to tie a patented invention to a non-patented article.⁹⁸ The Court decided that:

[T]he public policy which includes inventions within the granted monopoly *excludes from it all that is not embraced in the invention*. It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.⁹⁹

95. *USM Corp. v. SPS Techs., Inc.*, 694 F.2d 505, 512 (7th Cir. 1982) (Posner, J.) (finding that evaluating misuse issues under antitrust principles is the proper approach). Antitrust’s role in misuse situations is further addressed in Section III.B.2, *supra*.

96. *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908) (copyright); *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912), *overruled by* *Motion Picture Patents Co. v. Universal Film Mfg Co.*, 243 U.S. 502 (1917) (patent).

97. *Motion Picture Patents*, 243 U.S. at 519.

98. *Morton Salt*, 314 U.S. at 493.

99. *Id.* at 492 (emphasis added).

In that regard, the Court created a per se misuse defense in situations where the patent owner tied the patented object to another product.¹⁰⁰ Thus, *Morton Salt* established one of the three common situations in which patent misuse is found.¹⁰¹ These types of per se findings of misuse were typical in the earlier cases. However, as the doctrine further developed, the concept of per se misuse findings eventually gave way to more contextual evaluations as courts began to understand the complexities of intellectual property commodification and intellectual property-based markets.¹⁰²

The initial trend away from per se misuse findings in tying situations illustrates how courts understood it was more appropriate to apply antitrust-based evaluations in cases involving marketplace behavior.¹⁰³ Over time, antitrust adapted to the unique circumstances that intellectual property created: owners have a government-issued monopoly and markets involving these monopolies operate slightly different than typical markets.¹⁰⁴ However, in cases where the inquiries are unique to the operation of patent laws, courts continued to rely upon the doctrine of patent misuse to curb abuses of patent protections by patent owners.¹⁰⁵ As courts began to differentiate between antitrust and patent inquiries, the misuse doctrine further developed whereby patent misuse could occur in situations that were not antitrust

100. *See, e.g.*, *Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 641 (1947) (“The requirement that a licensee under a patent use an unpatented material or device with the patent might violate the antitrust laws but for the attempted protection of the patent.” (citing *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661, 667 (1944))).

101. The traditional three types of patent misuse occur when the patent owner: “(1) requir[es] the purchase of unpatented goods for use with patented apparatus or processes, (2) prohibit[s] production or sale of competing goods, and (3) condition[s] the granting of a license under one patent upon the acceptance of another and different license.” 6 DONALD S. CHISUM, CHISUM ON PATENTS, § 19.04[3] (Matthew Bender & Co. ed., 2011).

102. *See, e.g.*, *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 140–41 (1969), *on remand*, 418 F.2d 21 (7th Cir. 1969), *rev’d*, 401 U.S. 321 (1971) (differentiating patent misuse and antitrust abuses).

103. *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 213–15 (1980) (finding that the pre-1988 version of the codified patent misuse statute did not categorize control over an unpatented non-staple item that is only useful in practicing a patented process as misuse).

104. *See* U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 3–4 (1995), *available at* <http://www.usdoj.gov/atr/public/guidelines/0558.htm>; DOJ IP REPORT, *supra* note 71, at 107–11. *Compare* *U.S. Gypsum Co. v. Nat’l Gypsum Co.*, 352 U.S. 457 (1957) (patent misuse) *with* *United States v. U.S. Gypsum Co.* 333 U.S. 364 (1948) (antitrust).

105. *Brulotte v. Thys Co.*, 379 U.S. 29, 33–34 (1964) (extending license payments beyond the life of the patent is misuse); *Zenith Radio*, 395 U.S. at 136–39 (finding misuse where licensing is based on a percentage of the licensee’s total sales without regard to actual use of the patent).

violations, nor contained anticompetitive effects, but were still impermissible extensions of the patent owner's rights.¹⁰⁶ For instance, a licensing agreement that requires payments beyond the life of a patent violates neither antitrust or competition laws.¹⁰⁷ Yet, the license agreement continues to grant monopoly powers to the patent owner beyond the patent's—and the accompanying monopoly's—life. Leveraging a patent's monopoly powers to enlarge its rights (or in this case, its duration) is patent misuse.¹⁰⁸

Congress eventually codified patent misuse under 35 U.S.C. § 271(d)(4)–(5), but limited § 271(d)(5) to situations involving tying where the patent owner has market power. The Patent Misuse Reform Act of 1988¹⁰⁹ was a compromise between the Senate and House bills.¹¹⁰ The Senate's version of the bill paralleled Judge Posner's view of misuse in *USM Corp. v. SPS Technologies, Inc.*,¹¹¹ to the extent that patent misuse standards paralleled those of antitrust laws.¹¹² In fact, the Senate's version went so far as to articulate that a patent owner could not be guilty of patent misuse *unless* the conduct also constituted an antitrust violation.¹¹³ The House's version, on the other hand, attempted to identify and categorize acts that would and would not constitute misuse.¹¹⁴ The compromise between the two legislative bodies dropped the antitrust threshold from the legislation. In the end, the codified portions of the patent misuse doctrine only dealt with situations involving refusals to license¹¹⁵ and tying arrangements.¹¹⁶

106. *See* *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661, 666–67 (1944) (differentiating the operations of patent law from antitrust). Unlike abuses of antitrust, patent misuse can be cured, at which point the patent owner can reassert their rights. *See, e.g., U.S. Gypsum*, 352 U.S. at 465 (resolving whether the prior misuse had been cured).

107. *See Brulotte*, 379 U.S. at 38 n.3 (Harlan, J., dissenting).

108. *See id.* at 33 (majority opinion).

109. Pub. L. No. 100-703, 102 Stat. 4674 (1988).

110. H.R. 4972, 100th Cong. (1988) (enacted); Intellectual Property Antitrust Protection Act of 1988, S. 438, 100th Cong. (1988).

111. *USM Corp. v. SPS Tech., Inc.*, 694 F.2d 505, 512 (7th Cir. 1982) (Posner, J.) (“Our law is not rich in alternative concepts of monopolistic abuse; and it is rather late in the day to try to develop one without in the process subjecting the rights of patent holders to debilitating uncertainty.”).

112. S. 438; *see also* THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 14, 16 (1988) (finding that Title II of the Act provides that “conduct shall only be found to be misuse when the conduct violates the antitrust laws”); 6 CHISUM, *supra* note 101, § 19.04[1][f] & n.29.

113. 134 Cong. Rec. S32,471 (daily ed. Oct. 21, 1988).

114. H.R. 4972; 134 Cong. Rec. H32,295 (daily ed. Oct. 20, 1988).

115. 35 U.S.C. § 271(d)(4) (2006).

116. *Id.* § 271(d)(5).

Thus, the Supreme Court's initial conception of patent misuse was not only subsequently constrained by later decisions,¹¹⁷ but also constrained the legislature's codification.¹¹⁸ However, the codification illustrates an important point. Even though Congress recognized a broader variety of patent misuse existed, the legislative history indicates that the patent misuse codification addressed only instances of "alleged anticompetitive extensions of the owner's patent rights."¹¹⁹ This means that patent misuse's codification did not solidify the boundaries of the patent misuse doctrine.

So while codification identified some of patent misuse's attributes, patent misuse is still a fluid doctrine that permits courts to evaluate the circumstances of the misuse under a vague and flexible framework.¹²⁰ Comparatively, as patent misuse's evolution had come full circle to codification, the doctrine of copyright misuse was just appearing in the limelight.

B. COPYRIGHT MISUSE

The doctrine of copyright misuse is similar to the pre-codification version of patent misuse. Copyright misuse was first successfully used in *Lasercomb America, Inc. v. Reynolds*.¹²¹ In *Lasercomb*, the plaintiffs wrote a computer-assisted-design and computer-assisted-manufacture software application that allowed a user to create a digital template for a steel rule die

117. See, e.g., *A.I. Root Co. v. Computer/Dynamics, Inc.*, 806 F.2d 673 (6th Cir. 1986); *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336 (9th Cir. 1984). *But see* *United States v. Lowe's Inc.*, 371 U.S. 38, 45–46 (1962) (finding that the seller's economic power is presumed in cases involving patents or copyrights, thus a valid patent in a tying arrangement would have anticompetitive consequences).

118. The current statutory text states that:

No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having . . . (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

35 U.S.C. § 271(d) (2006).

119. THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 13 (1988). *But see id.* ("[Patent misuse] may also be found where the patent owner's conduct has not violated the antitrust laws, *has no demonstrated anticompetitive effect*, and has not even injured the infringing party who raises misuse as a defense." (emphasis added)).

120. See 6 CHISUM, *supra* note 101, § 19.04[3].

121. 911 F.2d 970 (4th Cir. 1990).

and then direct its mechanical creation.¹²² The defendants purchased four licenses to use the software and circumvented the software's technical protection measures in order to use the software on additional computers. The defendants then created and marketed a similar software application that was almost an exact copy of the plaintiff's.¹²³

The defendants were unquestionably guilty of copyright infringement. However, the defendants asserted a copyright misuse defense premised on the anticompetitive effects of the software licensing agreement.¹²⁴ The agreement prohibited the defendant company and its employees from entering the plaintiff's market for a period of ninety-nine years.

After evaluating the historic origins of intellectual property policies and patent misuse, the Fourth Circuit decided that since copyright and patent law both further parallel public interests, the misuse defense should be equally available in the copyright regime.¹²⁵ The court also noted the similarities between copyright misuse and antitrust violations, but distinguished the two, focusing copyright misuse on activities that violate the public policy underlying the copyright grant.¹²⁶ The court eventually found that the plaintiff misused its copyright when it tried to control competition in an area¹²⁷ outside of the copyright.¹²⁸

122. *Id.* at 971.

123. *Id.*

124. The pertinent contractual provisions were:

D. Licensee agrees during the term of this Agreement that it will not permit or suffer its directors, officers and employees, directly or indirectly, to write, develop, produce or sell computer assisted die making software.

E. Licensee agrees during the term of this Agreement and for one (1) year after the termination of this Agreement, that it will not write, develop, produce or sell or assist others in the writing, developing, producing or selling computer assisted die making software, directly or indirectly without Lasercomb's prior written consent. Any such activity undertaken without Lasercomb's written consent shall nullify any warranties or agreements of Lasercomb set forth herein.

Id. at 973.

125. *Id.* at 976.

126. *Id.* at 978 (discussing *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488 (1942), not 35 U.S.C. § 271(d)(4)–(5) (2006)).

127. The area the court was referring to was “the *idea* of computer-assisted die manufacture.” *Id.* at 978 (emphasis added). Compare with 17 U.S.C. § 102(b) (2006) (categorically excluding “idea[s], procedure[s], process[es], system[s], method[s] of operation, concept[s], principle[s], [and] discover[ies]” from copyrightable subject matter).

128. *Lasercomb*, 911 F.2d at 979.

Today, the common approach is to evaluate whether the misuse thwarts the underlying policies of copyright law.¹²⁹ This flexible analysis is fact-intensive, and looks to whether the copyright owner used their copyright “to secure an exclusive right or limited monopoly not granted by the [Copyright] Office and which is contrary to public policy to grant.”¹³⁰ Copyright seeks to balance a number of objectives while trying to achieve the maximal level of output. That said, “[t]he primary purpose of copyright is not to reward the author, but is rather to secure ‘the general benefits derived by the public from the labors of authors.’”¹³¹ Two presumptions underlie this policy.¹³² First, society benefits from the creation of new works. Second, granting a limited monopoly is necessary in order to incentivize the creation of such works.

In keeping with this overarching purpose of copyright law, copyright misuse can occur in the absence of an antitrust violation. This permits instances of copyright misuse where the copyright owner does not have market power.¹³³

Copyright misuse is relevant in cases involving: the tying of copyrighted material to another product, anticompetitive licensing agreements or contracts,¹³⁴ mandatory blanket licenses, and refusals to license competitors in order to dominate a market different from that of the copyrighted material.¹³⁵

With regard to open platforms, copyright misuse is important in cases concerning tying arrangements. Unlike anticompetitive licensing agreements, these types of contractual tying arrangements do not prohibit the independent creation of compatible software solutions.¹³⁶ Instead, the contract and copyright are combined to extend uncopyrighted technologies

129. See, e.g., *Alcatel USA, Inc. v. DGI Techs., Inc. (DGI II)*, 166 F.3d 772, 793 (5th Cir. 1999); *Practice Mgmt. Info. Corp. v. Am. Med. Ass’n*, 121 F.3d 516, 520–21 (9th Cir. 1997).

130. *Altera Corp. v. Clear Logic, Inc.*, 424 F.3d 1079, 1090 (9th Cir. 2005).

131. 1 MELVILLE B. NIMMER & DAVID NIMMER, *NIMMER ON COPYRIGHT* § 1.03 (Matthew Bender & Co. ed., rev. ed. 2010) (internal citation omitted).

132. *Id.* § 1.03.

133. Note, *Clarifying the Copyright Misuse Defense: The Role of Antitrust Standards and First Amendment Values*, 104 HARV. L. REV. 1289, 1308 (1991).

134. In software cases involving anticompetitive licensing agreements, copyright misuse has been found in instances where the license agreement prohibits the consumer from using a competing product. See, e.g., *Practice Mgmt. Info.*, 121 F.3d at 521 (finding misuse where an agreement that requires the customer to exclusively use the copyrighted system and prohibits the customer from using any other).

135. Fellmeth, *supra* note 63, at 24. Compare with text accompanying *supra* note 101.

136. *DGI II*, 166 F.3d at 793.

patent-like protections. For instance, in *Alcatel*, the copyright owner, DSC (later Alcatel USA, Inc.), produced an unpatented microprocessor card that ran its software.¹³⁷ When a competitor created a competing microprocessor card and connected it to a customer's environment running DSC's software, a copy of the software was loaded into the competing card's memory, which was not authorized by the licensing agreement.¹³⁸ The Fifth Circuit found this licensing agreement to be an impermissible extension of DSC's copyright as the licensing provisions effectively prevented competitors from developing similar cards that were outside the scope of copyright.¹³⁹

A minority of courts still rely heavily on antitrust principles to evaluate whether the copyright holder's conduct is anticompetitive.¹⁴⁰ This can be an intricate task because antitrust seeks to identify the competitive effects given a party's conduct and market position. However, this conflicts with the fundamental nature of copyright, which grants a monopoly for a limited duration and permits its owner to exclude others. Even the Seventh Circuit has begun to question its reliance on antitrust principles in copyright misuse evaluations.¹⁴¹

C. DISTINGUISHING THE MISUSE DOCTRINES

Like patent misuse, copyright misuse is also a product of the courts, yet only the former is codified. But that is not to say that Congress did not foresee the copyright misuse defense's genesis. During the codification of the patent misuse doctrine, the concept of copyright misuse was actually

137. *See* DSC Commc'ns Corp. v. DGI Techs., Inc. (*DGI I*), 81 F.3d 597, 601 (5th Cir. 1996).

138. *See DGI II*, 166 F.3d at 794.

139. *See id.* at 794. The Fifth Circuit was not swayed by the fact that the competitor acted with unclean hands to acquire a copy of DSC's software, firmware, and manuals. *Id.* But *see* Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 846–47 (Fed. Cir. 1992) (finding that an infringer's unclean hands prevented the assertion of the copyright misuse defense).

140. *See, e.g.*, Saturday Evening Post Co. v. Rumbleseat Press, Inc., 816 F.2d 1191 (7th Cir. 1987) (Posner, J.); *see also* THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 13 (1988) (“The second branch of the misuse doctrine, to which [the 35 U.S.C. § 271(d)] legislation is addressed, has its root in judicial interpretations that find misuse present because of alleged anticompetitive extensions of the owner's patent rights.”).

141. *See* Assessment Techs. of Wis. v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003) (Posner, J.) (articulating some of the benefits of finding copyright misuse outside of the antitrust context, such as when a copyright owner tries to extend a software copyright's power over underlying and uncopyrightable data).

discussed.¹⁴² In the twenty-one page Senate Report that accompanied the patent misuse reform legislation, the word “copyright” is mentioned sixty-seven times.¹⁴³ The Senate version of the bill included a provision addressing the presumption of market power and copyrights.¹⁴⁴ This provision, however, was never passed.¹⁴⁵ The doctrine of copyright misuse was thus never codified even though misuse in the copyright context was identified and considered by the legislature.

The fact that patent misuse is codified while copyright misuse is not codified is important when determining the boundaries of the copyright misuse doctrine.¹⁴⁶ Congress had an opportunity to codify copyright misuse with language similar to that of patent misuse, but it did not. Although copyright misuse had not officially been recognized by the courts at this point in time, it had appeared in Supreme Court dicta.¹⁴⁷ Copyright misuse is therefore better analogized to the pre-codification patent misuse doctrine rather than the post-codification patent misuse doctrine. Thus, a proper misuse evaluation would focus on whether a copyright’s term or scope has been extended “rather than merely the nature of the economic transaction involved.”¹⁴⁸

As for the codified patent misuse language, codification altered the evaluation of tying arrangements. The codification both articulated that tying arrangements involving patented products could not be per se misuse, and raised the threshold such that patent misuse could only be found in situations where the patent owner had market power that was used in a manner that

142. See, e.g., S. REP. NO. 100-492, at 5 (“The presumption of market power in antitrust cases involving patents *or copyrights* may inhibit the development and dissemination of technology.” (emphasis added)); *id.* at 9 (“The Supreme Court formulated the presumption of market power in antitrust cases involving patented *and copyrighted* products.” (emphasis added)).

143. See *id.*; see also *id.* at 8 (citing statement by Ronald T. Reiling) (referring to “[t]he current misuse doctrines” in the plural).

144. S. 438, 100th Cong. (1988).

145. 134 Cong. Rec. H32,294 (daily ed. Oct. 20, 1988) (explaining that the bill only deals with patent misuse).

146. See Kenneth J. Burchfiel, *Patent Misuse and Antitrust Reform: “Blessed be the Tie?”* 4 HARV. J.L. & TECH. 1, 22 (1991).

147. See *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 494 (1942); see also *United States v. Paramount Pictures*, 334 U.S. 131, 156–57 (1948); Frischmann & Moylan, *supra* note 6, at 884 (suggesting that *Paramount Pictures*’ citation to *Morton Salt* indicated that the Supreme Court thought that copyright misuse had a role to play in maintaining the scope of intellectual property rights).

148. 134 Cong. Rec. H32,295 n.3 (daily ed. Oct. 20, 1988).

had substantial anticompetitive impact on the tie-in product's market.¹⁴⁹ Strict adherence to this post-codification patent misuse threshold would be inappropriate in the copyright misuse context.

There are also fundamental differences between the two intellectual property regimes.¹⁵⁰ A strong patent exhaustion defense permits a consumer to exert control over both the tying and tied product after purchase, and bars attempts to control a patented good after the initial sale, including the disposal of it.¹⁵¹ This is not the case with software. Most copies of software will be distributed with license agreements that only extend the consumer a license (and not ownership), rendering the first sale doctrine inapplicable. Thus, patent misuse is not essential to the public's strong access rights, whereas the copyright misuse doctrine would need re-alignment in order to protect public access rights in copyrighted works that have been otherwise diminished in the digital age.

Accordingly, it would seem that the threshold to find patent misuse would be higher.¹⁵² To even obtain a patent, an inventor must go through a rigorous patent prosecution process that subsequently entitles the patent holder to more rights than a copyright holder.¹⁵³ It follows that the broader rights enable the patent owner to exert greater leeway over the commercialization of the product, whereas leveraging a copyright for expanded rights should be more suspect due to the uncertainty of the

149. 134 Cong. Rec. S32,471 (daily ed. Oct. 21, 1988).

150. In the patent regime, a typical licensing situation may involve different stakeholders depending on the invention in question. For example, consider a DVD player company that licenses a patent that decodes H.264 video so it can incorporate the technology into its player. That DVD player is then sold to the consumer and the H.264 patent owner is prevented from controlling the downstream consumer through the use of its patent. Patents usually involve these types of intra-market licensing between manufacturers. This would seem to decrease the likelihood of misuse due to the presence of normal business negotiations dictating the terms of agreement. Patent licensing of this sort requires going to the source. Thus, the licensing of patents usually occurs between the owner and a corporation that will incorporate that patent into a product. This permits the even-handed negotiation of terms. Copyright licensing, on the other hand, does not due to the ubiquitous use of boilerplate contracts and the nature of copyrighted goods. In this case, the consumer will be bound to the terms without any sort of negotiation with the copyright owner. *See* RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* § 4.9 (7th ed. 2007) (noting that form contracts in consumer transactions tend to be one-sided and disfavor the consumer).

151. *See* *Adams v. Burke*, 84 U.S. 453, 456–57 (1873).

152. *See* Toshiko Takenaka, *Extending the New Patent Misuse Limitation to Copyright: Lasercomb America, Inc. v. Reynolds*, 5 *SOFTWARE L.J.* 739, 765 (1992).

153. Kathryn Judge, Note, *Rethinking Copyright Misuse*, 57 *STAN. L. REV.* 901, 909–10 (2004).

underlying copyright's validity.¹⁵⁴ So while there are a number of lessons that copyright misuse can learn from patent misuse, it would be unfitting to transpose patent misuse's higher thresholds onto copyright misuse. But where patent misuse does recognize certain practices as misuse—such as circumventing the exhaustion defense, then the copyright misuse doctrine should as well.

The doctrine of copyright misuse has evolved to the point that it is now well positioned to limit the extension of software copyrights through the use of contracts. As discussed in Part III, *infra*, copyright misuse may help courts balance the needs of copyright owners against the public's access to open platforms.

III. COPYRIGHT MISUSE AND THE OPEN PLATFORM

Copyright-backed contracts have the power to close platforms, which can promote paradigm-shifting innovation or interfere with market flexibility and diversity. Careful review by the judiciary is needed¹⁵⁵ to guarantee that copyright—which balances public access against private property rights—is not overly extended by contract into monopolies beyond those contemplated by copyright,¹⁵⁶ while still permitting companies to effectively commercialize their intellectual property.

This Part will discuss how copyright misuse has the power to open up platforms to outside innovation of all kinds without overburdening the ability of companies to vertically integrate their platforms. It begins by examining a recent case, *Apple v. PsyStar*, in which a third party attempted to open up a closed platform. This Part then evaluates why other legal doctrines have not succeeded in balancing copyright and contract. Finally, this Part argues that a re-alignment of the intellectual property regimes in the digital age may

154. *Cf.* Takenaka, *supra* note 152, at 765 (arguing that since the rights conferred by copyright are not as complete as those conferred by patent, it does not make sense that patent misuse would have more limitations). Furthermore, the rights under a copyright last substantially longer than the rights under a patent. Thus, if copyright misuse does occur, it could continue to occur for a much longer duration than any potential patent misuse.

155. Considering that Congress' only interaction with the misuse doctrines has been to drastically limit patent misuse, it is reasonable to assume that the courts, and not Congress, would need to be the branch of government that leverages copyright misuse to prohibit closing platforms through contract.

156. DOUGLAS E. PHILLIPS, *THE SOFTWARE LICENSE UNVEILED: HOW LEGISLATION BY LICENSE CONTROLS SOFTWARE ACCESS* 103 (2009) (“If software providers will not make changes on their own [to their End User License Agreements], consideration should be given to enacting legislation requiring that license terms be readable.”).

provide a role for copyright misuse, so long as it does not adversely impact innovation in the platform market.

A. THE PSYSTAR CASE

*Apple v. PsyStar*¹⁵⁷ was a prominent test for the copyright misuse defense against closed platforms. Apple manufactures a line of personal computers, including such products as the Mac Pro, iMac, Mac mini, MacBook, MacBook Air, and MacBook Pro.¹⁵⁸ Apple combines both its hardware¹⁵⁹ and software into a final product before it is sold to the end consumer. Apple has generally kept its manufacturing process shrouded, but various teardowns of its released products reveal that its hardware consists of both Apple and third-party components. Generally, many of the important components are made by manufacturers other than Apple.¹⁶⁰

For the purposes of this Note, Apple has two different operating systems: Mac OS X and iOS. Mac OS X is the operating system that is loaded onto Apple's general computing products, such as the MacBook and iMac. iOS is Apple's mobile operating system that is loaded onto small device products, such as the iPhone and iPad.

Before Apple products are sold, Apple installs its operating system onto the product. Unlike Apple products running iOS, where it is not currently feasible to purchase individual components of that platform, Apple's Mac OS X is different. When Apple releases the next iteration of Mac OS X, existing users have the option to purchase Mac OS X *upgrades* on physical media.¹⁶¹ However, the upgrade discs—which are widely available on the

157. 673 F. Supp. 2d 931 (N.D. Cal. 2009).

158. See *Apple Store*, APPLE, INC., <http://store.apple.com/us> (last visited Dec. 28, 2010).

159. Most of the hardware components in a final Apple product are not, in fact, Apple's, but rather made by third parties. See *infra* note 160 and accompanying text.

160. Take for instance, a 2010 iteration of Apple's Macbook Pro, model #A1342. Its CPU is made by Intel. Its GPU is an integrated GeForce graphics chipset made by NVIDIA. See *MacBook Unibody Model A1342 Mid 2010 Teardown*, IFIXIT, <http://www.ifixit.com/Teardown/MacBook-Unibody-Model-A1342-Mid-2010-Teardown/2931/1> (last visited Sept. 26, 2010). The hard drive is made by Hitachi. *Id.* The optical disc drive is made by Panasonic. *Id.* While teardowns usually do not reveal the manufacturer of the Random Access Memory (RAM), it was most likely from one of the major industry producers, including such companies as Hynix, Micron, Samsung, Elpida, IBM, and Nanya. While this specific teardown of this model may not be the same as others, it is representative of how third party components comprise the foundation for Apple's systems.

161. *Mac OS X 10.6 Snow Leopard*, APPLE STORE (U.S.), http://store.apple.com/us/product/MAC_OS_X_SNGL (last visited Sept. 9, 2010) (charging \$29 for the "upgrade" disc). However, Apple may not be distributing its software through its physical stores much longer. See Arnold Kim, *Apple to Eliminate Retail Box Software Inventory*, MACRUMORS (Feb. 7,

open market—actually contain the full Mac OS X operating system and have the ability to perform a fresh installation on a computer with no prior versions of Mac OS X.¹⁶²

Apple protects Mac OS X through the use of copyrights.¹⁶³ Apple also binds the end user to its Mac OS X License Agreement (“OS X Agreement”) before the end user may use the operating system. The OS X Agreement states that Mac OS X is “licensed, not sold” to the end consumer.¹⁶⁴ Furthermore, the OS X Agreement restricts the installation of a copy of Mac OS X to a single “Apple-labeled” computer at a time.¹⁶⁵ It also prohibits the inverse: Mac OS X cannot be installed on “any non-Apple-labeled computer.”¹⁶⁶ The *PsyStar* court eloquently summarized Apple’s terms as “contractually preclud[ing users] from utilizing Mac OS X on any computer hardware system that [i]s not an Apple computer system.”¹⁶⁷

The OS X Agreement permits the end-user to create a single backup copy provided that the copy is only used with Apple hardware and it is not copied, modified, or redistributed.¹⁶⁸ Beyond the backup copy, end-users may

2011), <http://www.macrumors.com/2011/02/07/apple-to-eliminate-retail-box-software-inventory/>.

162. See, e.g., Adam Pash, *How to Build a Hackintosh with Snow Leopard, Start to Finish*, LIFEHACKER (Sept. 3, 2009), <http://lifehacker.com/5351485/how-to-build-a-hackintosh-with-snow-leopard-start-to-finish> (explaining the steps needed to perform a fresh installation without the help of modified Apple files). This would allow someone to create an Apple computer for under \$1,000 that would be similar to most of Apple’s models, except those costing more than \$3,000. *Id.*

163. The copyrights are TX4-669-971 (Mac OS); TX5-401-457 (Mac OS X); TX6-849-489 (Mac OS X Leopard); TX6-973-319 (Mac OS X Snow Leopard). See Complaint ¶ 24, *Apple, Inc. v. PsyStar Corp.*, 673 F. Supp. 2d 931 (N.D. Cal. 2009) (No. 08-CV-3251), ECF No. 1 [hereinafter “Apple Complaint”].

164. See Apple Complaint, *supra* note 163, at Exh. 1, § 1, [hereinafter “Mac OS X License Agreement”]; see also *Software License Agreement for Mac OS X – Single Use License*, APPLE, INC., <http://store.apple.com/Catalog/US/Images/MacOSX.htm> (last visited Feb. 5, 2011).

165. See Mac OS X License Agreement, *supra* note 164, § 2.A, C. However, Apple operating systems are only permitted to run on the model of Apple computer that the software was provided with. See *id.* § 3. Thus, an end user would not be permitted to purchase an iPod and transfer the iOS to a MacBook.

166. See *id.* § 2.A.

167. *Apple, Inc. v. PsyStar Corp.*, 673 F. Supp. 2d 931, 934 (N.D. Cal. 2009).

168. Compare Mac OS X License Agreement, *supra* note 164, § 2.C (“You may make one copy of the Apple Software (excluding the Boot ROM code and other Apple firmware that is embedded or otherwise contained in Apple-labeled hardware) in machine-readable form for backup purposes only; provided that the backup copy must include all copyright or other proprietary notices contained on the original.”) with 17 U.S.C. § 117(a) (2006) (“[I]t is not an infringement for the owner of a copy of a computer program to make or authorize the

not “copy, decompile, reverse engineer, disassemble, modify or create derivative works” of Mac OS X.¹⁶⁹ The OS X Agreement also has a transfer provision that permits an end-user to make one permanent transfer of all of the license rights to another party so long as that third party agrees to be bound by the OS X Agreement.¹⁷⁰

When Apple first launched, its initial market penetration brought the Macintosh into the spotlight, and attracted the attention of many parties that wanted to tap into its success. One method was to create a similar platform that ran all or part of the Macintosh platform. These configurations became known as “clones.”¹⁷¹ Apple initially tried to protect its platform from the cloners through litigation.¹⁷² Over time, Apple opened up its platform in an effort to further increase its market share.¹⁷³ From 1994 till 1998, Apple licensed its Mac OS 7 operating system to hardware manufacturers, who in turn paid Apple a royalty fee for each computer sold.¹⁷⁴ However, once Apple moved to the next iteration of its operating system, Mac OS 8, it stopped licensing its operating system to cloners, drawing the era of legal cloning to a close.¹⁷⁵ It is quite notable that Apple’s low point in its dip into market irrelevance and its decision to close its platform occurred at roughly the same time.¹⁷⁶ As evidenced in recent years, Apple’s closed platform

making of another copy or adaptation of that computer program provided: . . . (2) that such new copy or adaptation is for archival purposes only . . .”).

169. See Mac OS X License Agreement, *supra* note 164, § 2.F.

170. Compare *id.* § 3 (permitting the transfer of Apple Software in limited circumstances), with 17 U.S.C. § 109 (“[T]he owner of a particular copy . . . lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy . . .”).

171. See generally *The Macintosh Clones*, LOW END MAC, <http://lowendmac.com/clones/index.shtml> (last visited Sept. 26, 2010) (listing a number of the pre-2000 clone manufacturers and models).

172. See, e.g., *Apple Computer, Inc. v. Formula Int’l Inc.*, 725 F.2d 521 (9th Cir. 1984); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983).

173. See Jim Davis, *Apple, Cloners Still at Odds*, CNET NEWS (July 22, 1997), http://news.cnet.com/Apple-cloners-still-at-odds/2100-1001_3-201706.html (“Clone vendors are key to the success of the Mac, as evidenced by their ability to take an increasingly larger share of the market.”).

174. See Dan Knight, *Apple Squeezes Mac Clones Out of the Market*, LOW END MAC (Aug. 30, 2007), <http://lowendmac.com/musings/mm07/0830.html>; Rik Myslewski, *Reliving the Clone Wars*, PCWORLD (May 23, 2008), http://www.pcworld.com/article/146273/reliving_the_clone_wars.html.

175. See Davis, *supra* note 173; Myslewski, *supra* note 174.

176. Myslewski, *supra* note 174 (describing Apple’s low-point where Steve Jobs, after assuming a key role as an advisor to Apple’s board and becoming a member of the executive management team, purchased Power Computing and began to take steps to phase the cloners out with the release of Mac OS 8).

helped not only to turn the company around, but also to surpass Microsoft in overall market cap.¹⁷⁷

During Apple's growth, it migrated its platform from the PowerPC architecture to the Intel x86 architecture¹⁷⁸ in an effort to increase performance and interoperability.¹⁷⁹ However, the move also re-opened the door for cloners to reverse engineer Mac OS X to run on non-Apple hardware because the Intel x86 architecture was widely available, unlike the PowerPC.

PsyStar hacked Apple's latest operating system, Mac OS X, to install it on alternate hardware configurations based on the Intel x86 architecture. PsyStar then sold computers with pre-installed copies of the hacked Mac OS X, which were bundled with legitimately-purchased Mac OS X upgrade discs, to consumers at lower prices than Apple's offerings.¹⁸⁰ PsyStar called these products OpenMac and OpenPro, which are comparable to Apple's Mac and Mac Pro products.¹⁸¹

To accomplish this task, PsyStar purchased a copy of Mac OS X and installed it on a legitimate Mac mini.¹⁸² Then PsyStar copied the Mac mini's data, including the installed version of Mac OS X, onto a non-Apple computer ("PC") that would later become PsyStar's "imaging station."¹⁸³ Once the operating system information was on the PC, PsyStar (1) replaced the Mac OS X bootloader¹⁸⁴ with a different bootloader to enable an unauthorized copy of Mac OS X to run on PsyStar's computers, (2) disabled

177. Sam Gustin, *Apple's Market Cap Takes Lead over Microsoft*, DAILYFINANCE (May 26, 2010), <http://www.dailyfinance.com/story/apple-now-bigger-than-microsoft-in-sign-of-the-times/19492931>.

178. Press Release, Apple, Inc., *Apple to Use Intel Microprocessors Beginning in 2006* (June 6, 2005), available at <http://www.apple.com/pr/library/2005/jun/06intel.html>.

179. See Anand Lal Shimpi, *Apple Makes the Switch: iMac G5 vs. iMac Core Duo*, ANANDTECH, INC. (Jan. 30, 2006 11:26 PM), <http://www.anandtech.com/show/1936>.

180. See PSYSTAR CORP., <http://web.archive.org/web/20080730163542/http://www.psystar.com/> (internet archive copy – July 30, 2008); see also text accompanying *supra* note 162.

181. See *Apple, Inc. v. PsyStar Corp.*, 673 F. Supp. 2d 931, 934 (N.D. Cal. 2009).

182. See *id.*

183. See *id.* See generally *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 445–46, 457 (2007) (discussing how equipment manufacturers use imaging systems and golden master versions of operating systems to mass produce computers).

184. A bootloader is a piece of software that runs when a computer first boots up. The bootloader's job is to locate various portions of the operating system and load them into the computer's memory so the operating system can function. See *Apple*, 673 F. Supp. 2d at 934.

and removed certain Apple kernel extension files,¹⁸⁵ and (3) added non-Apple kernel extensions and modified other Mac OS X kernel extension files.¹⁸⁶ This permitted the PsyStar's Mac OS X version to run on non-Apple hardware. At this point, the modified version became the "master copy" that permitted PsyStar to efficiently push the installation to a large volume of hardware configurations.¹⁸⁷

1. *The PsyStar Lawsuit*

Apple sued PsyStar in the Northern District of California alleging (1) copyright infringement, (2) contributory infringement, (3) DMCA violations, (4) trademark infringement, (5) trademark dilution, (6) trade dress infringement, (7) breach of contract, (8) induced breach of contract, (9) state unfair competition under California law, and (10) common law unfair competition.¹⁸⁸ In response to the copyright claims, PsyStar argued that it was protected under fair use (§ 107), first sale (§ 109), and the essential step doctrine (§ 117).¹⁸⁹ PsyStar also asserted a copyright misuse counterclaim, which was analyzed as a defense.¹⁹⁰ This Note focuses solely on that copyright misuse analysis.

185. Kernel extensions are a technical protection measure, which Apple uses with Mac OS X to validate that it is indeed running on Apple hardware. *The Anatomy of a Kernel Extension*, APPLE—MAC OS X REFERENCE LIBRARY, http://developer.apple.com/library/mac/#documentation/Darwin/Conceptual/KEXTConcept/KEXTConceptAnatomy/kext_anatomy.html#//apple_ref/doc/uid/20002364-CIHJBCID (last visited Dec. 28, 2010). When a kernel extension detects that the operating system is not running on Apple hardware, the system will enter a state called "kernel panic" which causes the system to crash. See *Technical Note TN2063: Understanding and Debugging Kernel Panics*, APPLE—MAC OS X REFERENCE LIBRARY, <http://developer.apple.com/library/mac/#technotes/tn2002/tn2063.html> (last visited Dec. 28, 2010); see also *Mac OS X Kernel Panic FAQ* (Jan. 29, 2010), <http://www.index-site.com/kernelpanic.html>.

186. See *Apple*, 673 F. Supp. 2d at 938.

187. See *supra* note 183.

188. See *Apple*, 673 F. Supp. 2d at 934–35, 939, 942.

189. See *id.* at 935–37.

190. See *Apple, Inc. v. PsyStar Corp.*, No. 08-CV-3251, 2009 WL 303046, at *2 (N.D. Cal. Feb. 6, 2009). The court noted that while other courts in the Ninth Circuit did not permit copyright misuse counterclaims, it respectfully disagreed. *Id.* at *3 (distinguishing *Altera Corp. v. Clear Logic, Inc.*, 424 F.3d 1079 (9th Cir. 2005)). However, the court's copyright misuse analysis in its summary judgment order referred to copyright misuse as a defense. See *Apple*, 673 F. Supp. 2d at 939. When pled as a defense, copyright misuse only bars enforcement of a copyright against the immediate defendant, whereas a copyright misuse counterclaim would bar enforcement of a copyright against other potential defendants. See *Apple*, 2009 WL 303046, at *2.

After finding that PsyStar was guilty of copyright infringement, the court turned to the validity of PsyStar's copyright misuse defense.¹⁹¹ PsyStar's pertinent copyright misuse argument¹⁹² alleged that Apple used its copyright in Mac OS X to tie it to Apple hardware.¹⁹³ The court referred to PsyStar's earlier antitrust allegations and the analysis leading to their subsequent dismissal, even though it acknowledged that "a defendant in a copyright infringement suit need not prove an antitrust violation to prevail on a copyright misuse defense."¹⁹⁴ The court's analysis then turned to whether Apple's copyright was used "in a manner violative of the public policy embodied in the grant of a copyright."¹⁹⁵

The court narrowly construed the Fourth Circuit's definition to apply to the copyright law regime in its entirety rather than the specific copyright in question.¹⁹⁶ The court subsequently found: "Apple has not prohibited purchasers of Mac OS X from *using* competitor's products. Rather, Apple has simply prohibited purchasers from using Mac OS X *on* competitor's products."¹⁹⁷ The court essentially focused on whether OS X Agreement's terms could be considered unduly restrictive, and thus, copyright misuse. Since the boundaries of copyright misuse have not been set, the court did not categorize the OS X Agreement as overreaching, causing PsyStar's copyright misuse defense to fail.¹⁹⁸

2. *Apple v. PsyStar Analysis*

The district court focused too heavily on the anticompetitive effects, but even in that regard its analysis fell short. The court looked specifically for

191. *See Apple*, 673 F. Supp. 2d at 939.

192. PsyStar also argued that "Apple misused its copyrights by continuing to prosecute allegedly 'invalid' copyright infringement and DMCA claims against PsyStar." Since the court had already found that PsyStar had infringed Apple's copyrights, this argument was easily dismissed. *Id.*

193. *Id.* ("Apple cannot extend its exclusive rights to control the computers on which Apple's customers run Mac OS X.")

194. *Id.*

195. *Id.* (citing *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 978 (4th Cir. 1990)).

196. *See id.* ("Apple has not prohibited others from independently developing and using their own operating systems. Thus, Apple did not violate the public policy underlying copyright law or engage in copyright misuse."). However, the evaluation should focus on the specific copyright in question and the policy inherent in the grant of that specific copyright. *See Lasercomb*, 911 F.2d at 978 (finding the proper evaluation looks to "whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright").

197. *Apple*, 673 F. Supp. 2d at 940.

198. *See id.*

prohibitive terms in the OS X Agreement, namely those that enforced some sort of lock-in to the technology or precluded the use of alternative products.

When it came time to determine the scope of the market, the court overlooked the value of interoperability. Windows and Mac OS X are already barely substitutes for one another. They become even less so as users accumulate software for only one of the operating systems. If customers want to achieve optimal interoperability (while complying with the respective EULAs), they only have a single vendor choice for a dual-booting computer that runs either operating system. Customers can only procure such a dual-boot machine by purchasing an Apple computer and then subsequently installing Windows on it.¹⁹⁹

The inverse of this scenario is not true—users, due to the OS X Agreement, cannot purchase a Windows machine and subsequently install Mac OS X without being in violation of Apple’s terms.²⁰⁰ Thus, Apple is the sole manufacturer of a platform that permits dual-installation of both operating systems. Apple’s position in the market, then, allows it to indirectly prevent the distribution of dual-boot platforms unless they are purchased from Apple.²⁰¹ The ability to execute this strategy stems directly from Apple’s use of its software copyright.

Turning to the proper focus of copyright misuse, the *PyStar* court used the *Lasercomb* standard that has become ubiquitous in copyright misuse cases: it is copyright misuse to use a copyright “to secure an exclusive right or limited monopoly not granted by the [Copyright] Office and which is contrary to public policy to grant.”²⁰² Considering that the standard turns on whether conduct is violative of copyright’s public policy, the scope of “public policy” seems to be important. The *PyStar* court cites to *Altera* for the standard’s language,²⁰³ but stops there. Digging deeper, *Altera* cites the

199. Not only does Apple permit simultaneous installation of both Mac OS X and Windows on its machines, Apple also distributes a tool to facilitate it. See Press Release, Apple Inc., Apple Introduces Boot Camp: Public Beta Software Enables Intel-based Macs to Run Windows XP (Apr. 5, 2006), available at <http://www.apple.com/pr/library/2006/apr/05bootcamp.html>.

200. See *Apple VP Says Mac OS X Won’t Run on Other PCs*, APPLE INSIDER (June 8, 2005), http://www.appleinsider.com/articles/05/06/08/apple_vp_says_mac_os_x_wont_run_on_other_pcs.html (“We will not allow running Mac OS X on anything other than an Apple Mac.”) (quoting Phil Schiller, Apple Vice President, World Wide Developers Conference, June 2005).

201. See also *infra* note 208.

202. *Apple*, 673 F. Supp. 2d at 939 (citing *Altera Corp. v Clear Logic, Inc.* 424 F.3d 1079, 1090 (9th Cir. 2005)).

203. *Id.*

language from *Alcatel*, which in turn cites the language from *Lasercomb*, the first copyright misuse case, which in turn cites the language from *Morton Salt*.²⁰⁴ The following sentence in *Morton Salt*—appearing in *Lasercomb* but not *Alcatel* and its progeny—helps to frame the public policy scope inquiry: “the public policy which includes inventions within the granted monopoly *excludes* from it *all that is not embraced in the invention*.”²⁰⁵

Although *Morton Salt* concerned patents, the underlying reasoning reflected that an extension of the patent right over subject matter excluded from the patent regime (and instant invention) would constitute misuse. Thus, it would follow, that where enforcement of a copyright is extended to subject matter squarely within the scope of § 102(b), the conduct should constitute misuse. In Apple’s case, it uses a contract whose enforcement is based upon the copyright in the software, requiring its consumers to run Apple’s software on Apple’s hardware. This operational control involves subject matter that is firmly outside the scope of copyright because it concerns a “method of operation,” namely the use of a copyrighted work on a “system.”²⁰⁶ Accordingly, this could be construed as misuse under the *Morton Salt*’s reasoning.

The court, on the other hand, summed up its analysis by finding that “Apple’s agreement simply attempts to *control the use* of Apple’s own software—an area that is the *focus* of the copyright.”²⁰⁷ However, § 106 does not contemplate an exclusive right to *control the use* of a copyright owner’s software.²⁰⁸ Since copyright does not grant a right to control software’s usage, the only way to procure that type of control would be through a contract that expands an owner’s § 106 rights.²⁰⁹

204. See *Altera*, 424 F.3d at 1090; *DGI II*, 166 F.3d at 792 (*Alcatel*); *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 976 (4th Cir. 1990); *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 492 (1942)). For more information concerning these cases, see also *supra* Section II.B.

205. See *Morton Salt*, 314 U.S. at 492 (emphasis added).

206. 17 U.S.C. § 102(b) (2006).

207. *Apple*, 673 F. Supp. 2d at 940 (first emphasis added).

208. See *Sony Computer Entm’t v. Connectix Corp.*, 203 F.3d 596, 607 (9th Cir. 2000) (“Sony understandably seeks control over the market for devices that play games Sony produces or licenses. The copyright law, however, does not confer such a monopoly.”); see also *supra* notes 77–80 and accompanying text. Likewise, Apple seeks to control the market for computers and devices that run Apple’s operating system.

209. See *Chamberlain Grp., Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1201 (Fed Cir. 2004) (noting that where a company leverages its copyright and the DMCA into after-market monopolies, it violates both antitrust laws and the doctrine of copyright misuse). A structured alternative to copyright-backed contracts to obtain the desired rights would be

The court also seemed to overlook an important fact that might have supported a finding of misuse: Apple was volitionally distributing full versions of its operating system into the marketplace.²¹⁰ To compound the issue, Apple only sells a limited number of configurations while PsyStar quickly incorporated new technologies into its platform. For instance, PsyStar released a platform containing a Blu-ray drive *and* the NVIDIA 9800GT GPU before Apple offered either of the technologies in its platform.²¹¹ More than two years later, Apple still has not incorporated the Blu-ray format and has no plans to do so in the future.²¹² However, Apple's stance on the issue is that Blu-ray is nothing more than a temporary medium. Instead, Apple believes the future lies with downloadable formats, support for which is thoroughly implemented in its platform.²¹³ Thus, Apple's control over its platform deprives its current users of one of today's standard formats.²¹⁴ Ironically, had Apple electronically distributed its Mac OS X upgrade to existing Apple owners instead of selling physical upgrade discs, the upgrade could have been limited to customers with verified Apple-hardware configurations, circumventing PsyStar's business model.²¹⁵

copyright reform through Congress. See Jessica Litman, *Real Copyright Reform*, 96 IOWA L. REV. 1, 26 (2010).

210. Thus, Apple made the choice to distribute its operating system apart from its tied product. Granted, its operating system was protected by technical protection measures (and thus, the DMCA) as well as a contract limiting the operating system's use—both of which PsyStar breached—but that analysis is outside the scope of a copyright misuse analysis. See also *supra* note 188 and accompanying text.

211. See Jonny Evans, *PsyStar Beats Apple to Blu-ray on OS X Computer*, IT WORLD (Oct. 29, 2008), <http://www.itworld.com/hardware/56947/psystar-beats-apple-blu-ray-os-x-computer>. At that time, Blu-ray had recently won its format war with HD-DVD, and the 9800GT GPU was one of the highest-end graphics cards on the market.

212. See Arnold Kim, *Steve Jobs Suggests Blu-ray Not Coming to Mac Anytime Soon*, MACRUMORS (June 30, 2010), <http://www.macrumors.com/2010/06/30/steve-jobs-suggests-blu-ray-not-coming-to-mac-anytime-soon/>.

213. See *id.*

214. At the same time, Apple also stimulates innovation in the diskless computing environment as well as the streaming media industry.

215. There are also legal implications to the two sales models. Digital distribution is directly contemplated by copyright law that extends the exclusive right to distribution to a copyright owner. On the other hand, sales of physical copies that are locked through code and contract (rather than distributed to eligible consumers) extends Apple's control of its software past the point of purchase, into consumers' homes and the private use of the software, which is not a right embodied in current copyright law. However, the recent *MDY* decision indicates that the DMCA may grant copyright owners this type of control through the right to enforce circumvention prohibitions. See *MDY Indus. v. Blizzard Entm't, Inc.*, 629 F.3d 928, 944, 952 (9th Cir. 2010). But a number of commentators have speculated that this decision will not stand the test of time. See, e.g., Comments by Eric Goldman, *Ninth*

After evaluating the policies of both copyright law and copyright misuse, the *PsyStar* court arrived at the wrong conclusion in this case. The misuse defense should not be viewed inside a vacuum, but rather in light of the circumstances. In this case, Apple distributed its copyrighted work to PsyStar on the open marketplace, at which point in time, PsyStar compensated Apple for the copyrighted work. If PsyStar resold the copies of Mac OS X that it bought, this conduct would have been acceptable.²¹⁶ The challenged conduct is rooted in PsyStar's installation of the copyrighted work on hardware (that is uncopyrightable—by definition) and distribution of the line of OpenMacs. The difference between the scenarios is the introduction of uncopyrightable hardware in the end product. It is questionable whether the underlying principles of copyright are furthered where the re-distribution of a copyrighted work by itself is *not* copyright infringement, but the re-distribution of that same copyrighted work bundled with a product—that is not even within the scope of copyright law—is copyright infringement. Put another way, *the sales transaction without hardware was legal, but the sales transaction with hardware was copyright infringement*. On its face, this would seem to extend a copyright beyond the creative work to subject matter expressly outside of copyright law. This extension is what copyright misuse seeks to prevent.

B. DISRUPTIONS TO THE INTELLECTUAL PROPERTY BALANCE

Apple v. PsyStar illustrates how the other intellectual property regimes have come up short in the digital age to protect consumer access rights. This Section will discuss their shortcomings and why copyright misuse may play an important role in restoring balance. It argues that existing legal protections may not be equipped to handle current software practices in tandem with contractual agreements. Specifically, with recent software contract jurisprudence, many doctrines like the essential step defense (§ 117) and first sale (§ 109) are no longer applicable, necessitating a re-aligned role for copyright misuse to facilitate open platforms and the access rights contemplated by copyright law.

Circuit's Mixed Opinion in Gilder/WoW Bot Case—MDY Industries v. Blizzard, TECH. & MKTG. L. BLOG (Dec. 21, 2010), http://blog.ericgoldman.org/archives/2010/12/messy_follow_up.htm (“I’d be more upset about this opinion if I actually believed it. . . . I have no reason to think this opinion will stick any more than the dozens of other implicitly reversed Internet law opinions from the Ninth Circuit over the past 15 years.”).

216. See *supra* note 170 and accompanying text.

1. *Contracts*

For most, if not all, software developers and distributors, copyright and patent protection is not enough, leading to the prevalence of contracts in the industry. These contracts are commonly known as End User License Agreements (“EULAs”).²¹⁷ When a user loads software, EULAs are usually presented to the user, sometimes for the second time.²¹⁸ At this point, the user can either choose to agree to the EULA, or he is forced to discontinue use of the software.²¹⁹

Although some courts have speculated that the use of such contracts is necessary to efficiently commercialize software,²²⁰ EULAs can effectively operate as an extension of the software owner’s copyright rights. When a copyright owner conditions the use of the copyrighted good on a EULA, the terms function like a *sui generis* version of copyright law. Most EULAs will contain a provision that declares that any breach of the terms, regardless of the materiality, will terminate the agreement.²²¹ If a user breaches any of the terms, the EULA is effectively revoked,²²² and the continued use of the software becomes unauthorized, entitling the software owner to statutory

217. When consumers purchase software in a brick-and-mortar store, these terms are usually included in the inside of the packaging. Sometimes the outside packaging includes the terms, or simply refers to the terms on the inside.

218. For users that engage in digital distribution mediums, this might be the first time they are presented with the terms if they were not included as a clickthrough agreement before the user initially downloaded the software. Indeed, many updates to software that occur after purchase will be unilaterally sent (or “pushed”) to current users of the software, installing only after the user re-confirms assent to the terms, or assents to any new or modified terms.

219. Additionally, many terms of agreement also contain a provision that operates to automatically terminate any granted license in the event that a user breaches any of the terms of the agreement. PHILLIPS, *supra* note 156, at 36.

220. *See, e.g., ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1454–55 (7th Cir. 1996).

221. *See, e.g., John R. Ackermann, Toward Open Source Hardware*, 34 U. DAYTON L. REV. 183, app. § 1.5 (2009); Mac OS X License Agreement, *supra* note 164, § 5 (“Your rights under this License will terminate automatically without notice from Apple if you fail to comply with *any* term(s) of this License.” (emphasis added)).

222. *See* Lothar Determann, *Dangerous Liaisons—Software Combinations as Derivative Works? Distribution, Installation, and Execution of Linked Programs Under Copyright Law, Commercial Licenses, and the GPL*, 21 BERKELEY TECH. L.J. 1421, 1478–79 & n.218 (2006). However, a recent Ninth Circuit decision takes a step back from the proposition that any breach would terminate a license, causing copyright infringement. *See MDY Indus. v. Blizzard Entm’t, Inc.*, 629 F.3d 928, 941 (9th Cir. 2010) (“Were we to hold otherwise, Blizzard—or any software copyright holder—could designate any disfavored conduct during software use as copyright infringement, by purporting to condition the license on the player’s abstention from the disfavored conduct.”).

damages for the infringement. Thus, a breach of a trivial EULA term could elevate the conduct to copyright infringement.²²³

EULAs not only permit a platform owner the ability to modify their statutory rights over the platform, they also drastically reduce a copy owner's or a licensee's access rights under copyright law. The access protections afforded under copyright turn on whether the consumer is the owner of a software copy, or merely a licensee of the copy.²²⁴ An owner of a copy may have the full statutory arsenal of copyright law to protect how he uses a platform. A licensee of a copy, on the other hand, will only have those rights that the owner carved out of the owner's copyright and authorized the licensee to use. Anything beyond the limited license may also violate it, causing the consumer to infringe the copyright, even if that use is outside of copyright's express boundaries. Thus, whether a consumer is an owner or a licensee of the software may determine whether the purchaser has rights under § 109 and § 117.²²⁵

Courts are still trying to determine the proper method to evaluate whether the terms of agreement make a purchaser an owner or a licensee. Recently, a Ninth Circuit panel in *Vernor v. Autodesk, Inc.* found that a purchaser of software is a licensee “where the copyright owner (1) specifies that the user is granted a license; (2) significantly restricts the user's ability to

223. *MDY*, 629 F.3d at 939 (“[I]f the licensee acts outside the scope of the license, the licensor may sue for copyright infringement.”). *But see* *Sun Microsystems, Inc. v. Microsoft Corp.*, 188 F.3d 1115, 1121 (9th Cir. 1999) (“[A] ‘copyright owner who grants a nonexclusive license to use his copyrighted material waives his right to sue the licensee for copyright infringement’ and can sue only for breach of contract.” (citing *Graham v. James*, 144 F.3d 229, 236 (2d Cir. 1998))). The Ninth Circuit reconciled the differences by explaining that a breach of a condition (that limits the license's scope) constitutes copyright infringement where a breach of a covenant (that consists of the rest of the license terms) would be actionable under state contract law. *See MDY*, 629 F.3d at 939.

224. This determination occurs at two different levels. First, ownership may concern the actual medium in which the software currently resides, e.g. the DVD or USB flash drive. A purchaser of software will usually become the owner of this medium, assuming the terms of agreement don't dictate otherwise. Second, ownership may concern the software that resides on the medium, and the authorization for that software that was purchased. For efficiency purposes, a company may distribute multiple “versions” of software that are all the same version, but pieces of the software may be subsequently locked through technical protection measures that only permit access to the pieces the user has purchased.

225. *PHILLIPS*, *supra* note 156, at 25 (“By providing that a software copy is licensed, not sold, [a] EULA invokes Section 109(d) and defeats the first sale doctrine of Section 109(a), which otherwise would permit [a] buyer of a copy to resell it.”); *CONTU*, *supra* note 76, at 12 (suggesting that § 117's “owner of a copy” language be replaced with “rightful possessor of a copy”).

transfer the software; and (3) imposes notable use restrictions.”²²⁶ A purchaser can be classified as a licensee even though the purchaser “never agree[s] to the [software owner’s] terms, open[s] a sealed software packet, or install[s] the . . . software.”²²⁷

Where a purchaser is merely a licensee under the new *Vernor* test, § 109 does not apply because the explicit language of § 109 only applies to “the owner of a particular copy.”²²⁸ Thus, where copyrighted material is disseminated to consumers only on a license basis, § 109 of copyright law becomes inoperable.²²⁹

The same result occurs with § 117. The “essential step” in § 117 permits users to load a legitimately purchased copy of software into their computer’s memory in order to use it.²³⁰ However, where the users are merely licensees of the software, some courts have decided that § 117 does not apply and the loading of the software into a computer’s memory is infringement *unless* the license explicitly grants the user the right to do so.²³¹

Even beyond the owner/licensee issue, EULAs still constrain otherwise lawful uses under copyright law. If a purchaser is the rightful owner to a copy of software, it follows that § 109 permits the owner to re-sell that copy.²³² Some courts find that the EULA adds “an additional element” negating a pre-emption issue that would preclude EULAs from prohibiting this

226. *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1111 (9th Cir. 2010). *But see* Brian Carver, *Why License Agreements Do Not Control Copy Ownership: First Sales and Essential Copies*, 25 BERKELEY TECH. L. J. 1887, 1930–39 (2010) (suggesting that the proper evaluation of whether a purchaser of software is a licensee should focus on whether the purchaser is entitled to perpetual possession of the software).

227. *Vernor*, 621 F.3d at 1005. The purchaser in *Vernor* was a licensee (without agreeing to the terms) because the initial possessor of the software agreed to the terms—i.e. the prior possessor could not convey ownership. *Id.* at 1116.

228. 17 U.S.C. § 109(a) (2006).

229. *See* *Adobe Sys., Inc. v. Kornrumpf*, No. C 10-02769 CW, 2011 WL 181375, at *4–5 (N.D. Cal. Jan. 19, 2011).

230. 17 U.S.C. § 117 (2006) (“[I]t is not an infringement for the *owner of a copy* of a computer program to make or authorize the making of another copy . . . of that computer program provided: (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program . . .” (emphasis added)). *See generally* Aaron Perzanowski, *Fixing RAM Copies*, 104 NW. L. REV. 1067 (2010) (discussing the copyright infringement analysis as it pertains to copyrighted material that is loaded into the random access memory of computers).

231. *MDY Indus. v. Blizzard Entm’t, Inc.*, 629 F.3d 928, 938 (9th Cir. 2010).

232. To simplify the argument, assume the software was opened and retained, thereby agreeing to the enclosed terms, but never installed on a computer, negating the possibility that additional copies of the software reside on a computer.

behavior.²³³ However, this ignores the realities of EULAs, which apply to every consumer, effectively preventing the operation of § 109 and offsetting the balance between an owner's rights and the public's access rights.²³⁴

Regardless, given the Ninth Circuit's low threshold to grant licenses instead of ownership in distributed software, it is foreseeable that most software companies will only license its software instead of selling copies.²³⁵ Combined with the power of EULAs, CPOs have the ability to continue to disrupt the copyright balance in favor of extended property rights for themselves.

In order to curb these practices and ensure platforms are not closed off through the use of copyright-backed contracts, courts should carefully examine contracts that offset the access rights in copyright to determine whether there has been a misuse of copyright, or merely an extension of protections to an otherwise efficient, vertically-integrated product. This will ensure that future use of EULAs comport with the policies of copyright. Furthermore, the threat of misuse will help to ensure that EULAs are written to specifically apply to the application or operating system tier (i.e. tiers that would otherwise be protected by copyright) within a platform. Where a EULA is used in a manner that extends copyright-like protections and remedies to hardware, copyright misuse would prevent the extension of copyright law to protect the hardware. Thus, a CPO would then need to rely on contractual remedies to resolve breaches stemming from that CPO's extended property rights, and not those contemplated by copyright law.

2. *Antitrust*

Antitrust, as it is currently situated, has the capacity to regulate the standard market behavior and abuses of parties in the technology industry. Expanding antitrust to cover the particularities at the intersection of intellectual property and technology neglects some of the fundamental policies behind copyright law since antitrust currently does not attempt to balance the rights of both property owners and the public.²³⁶ Therefore, a re-

233. See Mark Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111, 147 (1999).

234. See *id.* at 148–49.

235. See PHILLIPS, *supra* note 156, at 7 (“Most if not all proprietary end user software licenses contain terms that define the transaction as a license rather than a sale.”).

236. See Lemley & McGowan, *supra* note 70, at 773 (“[W]here antitrust could create an open standard only by altering the fundamental rules of intellectual property law, there may be good reasons outside of competition policy to leave intellectual property rights in place.”).

aligned copyright misuse doctrine is better situated to address the initiatives of CPOs and preserve the balance between public and private rights.

Antitrust law seeks to limit anticompetitive and monopolistic behavior that restrains trade.²³⁷ This policy decision favors free and open trade.²³⁸ While antitrust and the misuse doctrines may overlap, they are not dependent upon each other. Instead, they share more of a symbiotic relationship. Where an antitrust violation occurs involving a product covered by a patent or copyright, that conduct will also constitute misuse. The inverse, however, is not true: even if an antitrust violation is not found, misuse can still occur.²³⁹

Although both the regimes of antitrust and intellectual property seek to enhance public welfare, the regimes utilize different strategies.²⁴⁰ Antitrust looks to the markets and uses negative reinforcement to ensure fair competition between the entities that disseminate products. On the other hand, copyright uses positive reinforcement—through the grant of a monopoly—to incentivize the creation of creative works. Yet antitrust relies on copyright to define appropriate market segmentations and market power, and some misuse analyses, in turn, look to antitrust. The circular references prevent either regime from defining the boundaries of what constitutes legal and illegal behavior based on the underlying policies of the regime.²⁴¹

In cases of tying, antitrust and misuse focus on different things. Where misuse identifies a product protected by copyright and determines how its owner uses copyright to include the tied product, antitrust evaluates market realities of both products and their combined effect.²⁴² Antitrust law is best-suited to the task of determining the fairness, in an economically optimal environment, of commercializing copyrighted works and evaluating the

237. 1 JULIAN O. VON KALINOWSKI ET AL., ANTITRUST LAWS AND TRADE REGULATION § 1.02 (Matthew Bender & Co. ed., 2d ed. 2010).

238. *Id.*

239. *See, e.g.*, Hensley Equip. Co. v. Esco Corp., 383 F.2d 252, 261–62 n.19 (5th Cir. 1967) (“[A] case of misuse not sufficient to constitute a violation of the antitrust laws requires careful synthesis of the policies represented by the patent and the antitrust laws.”).

240. Charnelle, *supra* note 88, at 195; Economides, *supra* note 20, at 214 (“In general, antitrust law is not useful or effective (i) in promoting a faster pace of innovation; (ii) in securing higher quality of services; (iii) in securing more variety of service; and (iv) in designing product features and product compatibility.”).

241. Hanna, *supra* note 88, at 418.

242. *See Senza-Gel Corp. v. Seiffhart*, 803 F.2d 661, 670–71 n.14 (Fed. Cir. 1986) (“The law of patent misuse in licensing . . . need look only to the nature of the claimed invention as the basis for determining whether a product is a necessary concomitant of the invention or an entirely separate product. The law of antitrust violation, tailored for situations that may or may not involve a patent, looks to a consumer demand test for determining product separability.”).

various market externalities at issue. This is probably the reason why so many courts have confused the principles and applications of the two bodies of law.²⁴³

Part of the confusion stems from copyright's use of monopolies, since antitrust jurisprudence exists to evaluate a monopoly owner's behavior within a market.²⁴⁴ Although the origins of the copyright misuse defense dates back to an antitrust case,²⁴⁵ continued reliance on antitrust law is unnecessary for the copyright misuse doctrine at this point.²⁴⁶ Instead, courts should limit their antitrust analyses to issues involving antitrust allegations and should focus on the distinct policies of copyright law in cases involving misuse allegations.

Where an owner leverages his copyright monopoly to gain additional exclusive rights, anticompetitive effects should not be required. Antitrust already measures and regulates anticompetitive behavior. A misuse doctrine that evaluates and penalizes the same behavior would be redundant.²⁴⁷ Rather, misuse should look to the copyright grants and their boundaries.

However, antitrust's ability to identify pertinent markets for a given copyrighted product may assist in evaluating instances in which a copyright owner uses his grant of rights in one market to gain an advantage in another.²⁴⁸ As illustrated by the Microsoft and Internet Explorer litigation,

243. See, e.g., LUCIE M.C.R. GUIBAULT, COPYRIGHT LIMITATIONS AND CONTRACTS: AN ANALYSIS OF THE CONTRACTUAL OVERRIDABILITY OF LIMITATIONS ON COPYRIGHT 190 (2002) ("The doctrine of misuse has its origin not in property, tort, or contract law, but rather in antitrust law and in the equitable doctrine of 'unclean hands.'").

244. Karjala, *supra* note 11, at 186; see also EDWARD F. O'CONNOR, INTELLECTUAL PROPERTY LAW AND LITIGATION: PRACTICAL AND IRREVERENT INSIGHTS 36 (2009) ("[T]he mere fact that one has a patent or copyright in a particular product does not mean that that person or entity has monopoly power vis-à-vis competitive products.").

245. *Morton Salt Co. v. G.S. Suppiger*, 314 U.S. 488, 492 (1942).

246. See, e.g., THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 12 (1988) ("[Eliminating the presumption of a patented good's market power] will require only that courts evaluate practices involving intellectual property rights under the same antitrust principles that are applied to practices involving other forms of property.").

247. See also Karjala, *supra* note 11, at 187-91 (describing how antitrust could serve to help fashion remedies where copyright misuse is found); Hanna, *supra* note 88, at 418 ("Antitrust doctrine does not provide the tools necessary to judge whether a particular mode of exploitation exceeds the permissible bound of the statutory copyright monopoly conferred.").

248. See, e.g., PAGE & LOPATKA, *supra* note 12, at 85 ("[A] market for Intel-compatible PC operating systems existed apart from other platforms . . ."). But see *id.*, at 100 (doubting the court's distinction because whether an operating system is Intel-compatible is irrelevant

antitrust can help determine that a web browser operates independently from an operating system.²⁴⁹ By delineating the markets and products, courts will be able to determine both the products which are eligible for copyright-protection and the products that seemingly have had copyright-like protections extended to them. With this knowledge, a court will be better equipped to perform a copyright misuse analysis.

C. RE-ALIGNING COPYRIGHT MISUSE WOULD FACILITATE OPEN PLATFORMS

With the failure of other legal doctrines to prevent the outgrowth of private contract rights in lieu of copyright rights, a re-aligned copyright misuse doctrine may be the necessary trigger to facilitate open platforms. If used to limit the encroachment on public-access provisions, such as § 107, § 109, and § 117, copyright's proper balance can be maintained. This would prevent software companies from bootstrapping their copyright rights to contracts in order to gain copyright-like protection over products outside of copyright's scope, such as hardware. Thus, a user who legitimately purchases a platform—or even a component within a platform's tier—would be able to use it as he deems fit.²⁵⁰

Preventing the over-extension of copyright through a re-aligned copyright misuse doctrine will harmonize the role of the intellectual property doctrines in the digital world. Instead of a system that permits private entities to determine the boundaries of intellectual property law through privatized agreements, it would be more appropriate to coordinate the goals of a technology with the respective intellectual property regimes.²⁵¹ The role of intellectual property in platform control (and the relationship between copyright and patents) is still unclear due to rapid technological developments governed by aging legal doctrines. In these cases, the principles underlying patent exhaustion and the pre-codification patent

to support the distinction that the Mac OS should be excluded due to the learning curve issue).

249. *See, e.g.*, *United States v. Microsoft Corp.*, 253 F.3d 34, 84–89 (D.C. Cir. 2001).

250. *Cf.* *Chamberlain Grp., Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1202 (Fed Cir. 2004) (“Consumers who purchase a product containing a copy of embedded software have the inherent legal right to use that copy of the software.”).

251. *See* 134 Cong. Rec. H32,294 & n.3 (daily ed. Oct. 20, 1988) (discussing the importance of balance in any intellectual property legislation); *see also* Dan Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1126–27 (2003); Frischmann & Moylan, *supra* note 6, at 875–76 (describing the need to coordinate the functions of antitrust, copyright, and patent in the software context).

misuse doctrine²⁵² should come to the forefront when evaluating copyright misuse due to the breadth of available jurisprudence. Courts should look to similarities between the doctrines regarding the expansion of rights, but also the fundamental differences between the two different intellectual property regimes.²⁵³

Compartmentalizing platform components (and their respective attributes) into the proper intellectual property regimes will allow them to operate as intended. Trademark, trade dress, DMCA, patent, and industry-specific copyright laws all provide specialized protections to CPOs, and are designed to elicit certain behavior.²⁵⁴ For instance, Apple strives to achieve an optimal user experience.²⁵⁵ Exhibiting brand loyalty, users return to Apple because of its highly integrated products with the “best support available.”²⁵⁶ This goal would seem to directly correlate with those of trademark and trade dress, *not* copyright law. If trademark and trade dress function as intended in this space, customers will return to Apple if they value the premium markup that Apple places on its service and platform. Using a copyright-backed contract to achieve these same goals would seem to circumvent the purposes of trademark in this instance.

A re-aligned copyright misuse doctrine would facilitate a re-evaluation of how entities currently utilize the existing intellectual property regimes. Entities using either copyright or patent exclusively in conjunction with a contract to expand their rights would need to re-align their goals and map them to the available legal protections. If the owner opts to use a contract to protect its products, then the remedy for such contractual breaches should lie within the contract, not copyright law that the copyright owner elected to

252. *See supra* Section II.A.

253. For instance, copyright protection emanates from the tangible thing in copyright whereas patent protection emanates from a concept that the tangible thing needs to fit into. Audio tape: Robert Merges & Randall Rader, Remarks During Patent Law Class at University of California – Berkeley School of Law, at 38:35 (Oct. 18, 2010) (on file with author). *See also supra* Section II.C.

254. *See, e.g.*, Arielle Singh, Note, *Agency Regulation in Copyright Law: Rulemaking Under the DMCA and Its Broader Implications*, 26 BERKELEY TECH. L.J. 527, 531–33 (2011) (describing the shift from a property-based regime to a tailored regulatory-based model in order to adequately protect, among other things, technological innovation).

255. *See* Answering Brief of Plaintiff-Appellee Apple, Inc. at 9–10, *Apple, Inc. v. PsyStar Corp.*, No. 10-15113 (9th Cir. July 8, 2010), ECF No. 16.

256. *Apple, Inc.’s Reply Brief in Support of its Motion for Summary Judgment* at 11, *Apple, Inc. v. PsyStar Corp.*, No. 08-CV-3251 (N.D. Cal. Oct. 29, 2009), ECF No. 200; *see also* Menell, *supra* note 69, at 1361 (discussing the benefits of brand recognition).

contract around.²⁵⁷ This would re-align copyright to function as intended and to protect the creative work, not whatever products the copyright owner can tie to it. Thus, infringement would only be found when one of the § 106 exclusive rights is implicated.

IV. CONCLUSION

Closed and open platforms each offer a myriad of pros and cons to users and rightsholders. When weighing a case involving a platform, courts should keep in mind that their judgment must carefully balance copyright policy: public access rights necessarily conflict with private property rights.

For this reason, the misuse doctrine may require invigoration in order to provide some balance to copyright in the face of increasingly prevalent closed platform systems. Some uses of a copyright may extend too far beyond copyright principles; in those cases, misuse should apply. The *PsyStar* court had the opportunity to finely balance these copyright and contract issues, but it failed to consider all of the rights involved.

257. However, courts are not eager to find copyright misuse whenever a company uses a contract to expand its copyright rights. *See, e.g.*, *Triad Sys. Corp. v. Se. Express Co.* 64 F.3d 1330, 1337 (9th Cir. 1995).

HOW TO CIRCUMVENT TECHNOLOGICAL PROTECTION MEASURES WITHOUT VIOLATING THE DMCA: AN EXAMINATION OF TECHNOLOGICAL PROTECTION MEASURES UNDER CURRENT LEGAL STANDARDS

Ryan Imahashi[†]

In *MGE UPS Systems, Inc. v. GE Consumer and Industrial Inc. (MGE I)*, the Fifth Circuit initially dismissed a circumvention claim by stressing that the Digital Millennium Copyright Act (DMCA) only protects “copyrighted material against infringement of a right that the Copyright Act protects, not from mere use or viewing.”¹ Under this holding, circumventing a technological protection measure (TPM) only violates the DMCA if the TPM is circumvented to infringe a right protected by the Copyright Act. This narrow interpretation of the anti-circumvention provision caused a panic among copyright owners concerned about protecting against digital piracy.²

The Fifth Circuit has since amended its *MGE I* decision to omit this discussion of the DMCA and decided the case on other grounds.³ Nevertheless, the initial decision illustrates the problem with the current judicial interpretations of the anti-circumvention clause. Under 17 U.S.C. § 1201(a)(1)(A), “No person shall circumvent a technological measure that *effectively controls access* to a work protected under [the Copyright Act].”⁴ Since courts do not agree on the legal standard to apply in anti-circumvention

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1. *MGE UPS Sys., Inc. v. GE Consumer & Indus., Inc.*, No. 08-10521, 2010 WL 2820006, at *3 (5th Cir. July 20, 2010), *withdrawn*, 2010 WL 3769210 (5th Cir. Sept. 29, 2010).

2. See Brief for Recording Industry Association of America, Entertainment Software Association, Business Software Alliance and Software and Information Industry Association as Amici Curiae Supporting Respondents, *MGE I*, No. 08-10521 (U.S. July 20, 2010), 2010 WL 2820006; Brief for Motion Picture Association of America Inc. as Amici Curiae Supporting Respondents, *MGE I*, No. 08-10521 (U.S. July 20, 2010), 2010 WL 2820006.

3. *MGE UPS Sys., Inc. v. GE Consumer and Indus., Inc. (MGE II)*, No. 08-10521, 2010 WL 3769210 (2010).

4. 17 U.S.C. § 1201(a)(1)(A) (2006) (emphasis added).

cases,⁵ it is unclear to many copyright owners whether their TPMs “effectively control access”⁶ under the various legal standards.

This Note surveys the range of TPMs on the market and offers guidance on how the various legal standards currently used by courts to interpret the DMCA may apply to efforts to circumvent these TPMs. Part I provides an overview of the DMCA and TPMs. Part II then describes and categorizes the various legal standards that courts have used to decide anti-circumvention cases. Part III undertakes a technical examination of the most common technological measures used to protect copyrighted material. Based on these technical specifications, Part IV analyzes how each legal standard may be applied to the technological measures and assesses which are likely to constitute valid TPMs under each test.

I. OVERVIEW OF THE DMCA AND TECHNOLOGICAL PROTECTION MEASURES

In 1998, Congress enacted the “anti-circumvention” provisions of the DMCA, codified in § 1201 of the Copyright Act, to stop copyright infringers from defeating anti-piracy protections added to copyrighted works as well as to ban devices intended for that purpose.⁷ Congress was responding to copyright owners’ concerns that their works would be pirated in the networked digital world despite any protection measures they implemented.⁸ Section 1201 prohibits two distinct things: (1) *acts* of circumvention and (2) the *trafficking* of tools and technologies used for circumvention.⁹

The prohibition against *acts* of circumvention prohibits the actual act of circumventing a TPM used by copyrighted owners to control access to their works.¹⁰ For example, a user’s act of circumventing the encryption on a DVD movie to make a copy for a friend would be an act of circumvention.¹¹

5. Compare *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff’d*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001), with *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004).

6. 17 U.S.C. § 1201(a)(1)(A).

7. 17 U.S.C. § 1201; see 144 Cong. Rec. H7093, H7094–95 (Aug. 4, 1998); S. REP. NO. 105-90, at 29 (1998); H.R. REP. NO. 105-551, pt. 1, at 18 (1998); H.R. REP. NO. 105-551, pt. 2, at 38 (1998).

8. See JESSICA LITMAN, DIGITAL COPYRIGHT: PROTECTING INTELLECTUAL PROPERTY ON THE INTERNET 89–150 (2000).

9. See 17 U.S.C. § 1201.

10. 17 U.S.C. § 1201(a)(1).

11. See, e.g., *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1104–05 (N.D. Cal. 2004); *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 346 (S.D.N.Y. 2000), *aff’d*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

The prohibition against *trafficking* tools used for circumvention prohibits the manufacture, sale, distribution, or trafficking of tools and technologies that make circumvention possible.¹² For example, creating and marketing a program that allowed users to circumvent the encryption on DVD movies would be trafficking a tool used for circumvention.¹³

Even though the two prohibitions are distinct, the statutory language of the access and trafficking provisions are essentially the same. The access provision, “[n]o person shall circumvent a *technological measure that effectively controls access to a work protected under this title*,”¹⁴ has the same essential elements as the trafficking provision, “[n]o person shall . . . traffic in any technology . . . for the purpose of circumventing a *technological measure that effectively controls access to a work protected under this title*.”¹⁵ Consequently, this Note will discuss violations of the anti-circumvention statute in general.

However, this Note will not discuss the copy control circumvention provision of the DMCA. The copy control circumvention provision prohibits “circumventing protection afforded by a technological measure that effectively protects a right of the copyright owner under this title.”¹⁶ Some of the tests discussed in Section II.B and II.C, *infra*, seem to read similar limitations into the anti-circumvention provisions, even though the wording of the statute does not require that the TPM “effectively protect[] a right of the copyright owner.”¹⁷ The issue of whether these judicial interpretations of the anti-circumvention provisions of the DMCA are correct is beyond the scope of this Note. Instead, this Note will focus only on how courts have interpreted the anti-circumvention act.

While the DMCA provides definitions for “circumvent[ing] a technological measure” and “effectively control[ling] access to a work,” it does not provide an explicit definition of a TPM.¹⁸ Both the prohibitions against acts of circumvention and trafficking tools of circumvention pertain to “circumventing a technological measure that effectively controls access to a work.”¹⁹ But courts have struggled to agree on what exactly qualifies as a

12. See 17 U.S.C. §§ 1201(a)(2), (b).

13. See 321 Studios 307, F. Supp. 2d at 1104–05; Reimerdes, 111 F. Supp. 2d at 317–19.

14. 17 U.S.C. § 1201(a)(1)(A) (emphasis added).

15. *Id.* (emphasis added).

16. 17 U.S.C. § 1201(b)(1)(A).

17. *Id.*

18. See 17 U.S.C. § 1201(a)(3).

19. 17 U.S.C. § 1201(a)(1)(A).

TPM.²⁰ Technology and circumvention techniques continue to evolve, and copyright owners employ a wide range of technological measures that are designed to prevent piracy in one form or another. Consequently, courts are forced to grapple with technically complex protection measures to determine if circumvention would amount to a violation of the DMCA.

However, not all technological measures are designed to prevent piracy. Companies also use technological measures to prevent competition and, in some instances, try to use the DMCA to maintain their monopolies.²¹ For example, a garage door manufacturer sought to use the DMCA to prevent third-party garage door openers from allegedly “circumvent[ing]” its rolling code protection measure.²² Using the anti-circumvention statute in this way stifles free speech, prevents competition, and threatens legitimate scientific research.²³ In resolving these disputes, courts have struggled to arrive at the results most in line with the legislative intent of the DMCA, without imposing liability where the technological measure was not actually designed to prevent piracy.²⁴ This effort by courts has produced a few distinct tests for determining when circumvention of a TPM actually violates the DMCA.

II. CURRENT LEGAL STANDARDS FOR TECHNOLOGICAL PROTECTION MEASURES

The cases that have decided whether a TPM is covered by the DMCA can be roughly split into distinct categories based on their use of four different tests: the Literal Interpretation Test, the Nexus Test, the Other Access Point Test, and the Permission or TPM Test. For a TPM to qualify under the text of the statute, it must be a technological measure that

20. Compare *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001), with *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004).

21. See *Davidson & Assocs. v. Jung*, 422 F.3d 630, 633 (8th Cir. 2005) (trying to prevent compatibility of third party game servers); *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 546 (6th Cir. 2004) (trying to prevent compatibility of third party printer ink cartridges); *Chamberlain*, 381 F.3d at 1204 (trying to prevent compatibility of third party garage door openers).

22. See *Chamberlain*, 381 F.3d at 1204 (noting that rolling code refers to code that changes at regular intervals).

23. See Fred Von Lohmann, *Unintended Consequences: 12 Years Under the DMCA*, 1–2 (2010).

24. Compare *Davidson*, 422 F.3d at 633 (holding that a competing game server did violate the DMCA), with *Lexmark*, 387 F.3d at 546 (holding that an ink cartridge competitor did not violate the DMCA), and *Chamberlain*, 381 F.3d at 1204 (holding that a garage door opener competitor did not violate the DMCA).

“effectively controls access” to a copyrighted work.²⁵ The DMCA explicitly states that “a technological measure ‘effectively controls access to a work’ if the measure, in the ordinary course of operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.”²⁶

A. LITERAL INTERPRETATION TEST

Courts adopting the broadest interpretation of the DMCA use the plain meaning of the text to impose liability on a circumventor of any TPM that “effectively controls access” to a copyrighted work.²⁷ This interpretation has been endorsed in the widest range of cases.²⁸

For example, in *Universal City Studios, Inc. v. Reimerdes*, the court held that Content Scramble System (CSS) encryption, used to encrypt DVDs, was a valid TPM that effectively controls access to the work because “[o]ne cannot gain *access* to a CSS-protected work on a DVD without application of the three keys that are required by the software.”²⁹ Since licensing arrangements carefully control access to these keys, obtaining one without permission amounts to an act of circumvention in violation of the DMCA.³⁰

The Literal Interpretation test only requires that the TPM controls “access” to the copyrighted work in the ordinary course of its operation

25. See 17 U.S.C. § 1201(a)(1)(A) (2006).

26. 17 U.S.C. § 1201(a)(3)(B).

27. *Id.*

28. See *Coxcom, Inc. v. Chaffee*, 536 F.3d 101 (1st Cir. 2008) (holding that the filter used to block pay-per-view cable charges was a violation of the DMCA); *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 346 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001) (holding that marketing DeCSS was a violation of the DMCA); *MDY Indus., LLC v. Blizzard Entm't, Inc.*, 616 F. Supp. 2d 958, 975 (D. Ariz. 2009) (holding that the bot used in *World of Warcraft* designed to avoid detection by the scanners used to detect bots was a violation of the DMCA); *Sony Computer Entm't Am., Inc. v. Divineo, Inc.*, 457 F. Supp. 2d 957, 968 (N.D. Cal. 2006) (holding that the manufacturer of mod chips that circumvented the authentication check on a video game console to allow for the playing of unauthorized games was liable under the DMCA trafficking provision); *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085, 1104–05 (N.D. Cal. 2004) (holding that decrypting DVDs was a violation of the DMCA); *Pearl Inv., LLC v. Standard I/O, Inc.*, 257 F. Supp. 2d 326, 350 (D. Maine 2003) (holding that the circumvention of the encrypted and password-protected VPN was likely a violation of the DMCA); *Realnetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127311, at *6 (W.D. Wash. Jan. 18, 2000) (holding that the circumvention of a secret handshake was a violation of the DMCA); see also 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 12A.03 (Matthew Bender, Rev. Ed. 2010).

29. *Reimerdes*, 111 F. Supp. 2d at 371 (emphasis added).

30. *Id.* at 308.

through the “application of information, a process, or a treatment.”³¹ This broad interpretation of the anti-circumvention provisions of the DMCA does not distinguish between different types of access.³² Nimmer endorses such an expansive interpretation because the Copyright Act includes two separate violations: one that “effectively controls access to a work” and another that “protects a right of a copyright owner under [the Copyright Act].”³³ The separation of these two violations implies that circumventing access is sufficient to violate the “effectively controls access” part.³⁴ Consequently, under the broadest interpretation of the anti-circumvention provisions in the DMCA, the TPM only needs to effectively control *access* to a copyrighted work in the ordinary course of events.³⁵

B. NEXUS TEST

Other courts have created the “Nexus Test” to evaluate whether a TPM falls under the DMCA, which seemingly reads an extra requirement into the statute.³⁶ Not only does the potential violator need to circumvent the TPM to *access* the work, he must also violate one of the *rights* of the copyright holder to be liable under the DMCA.³⁷

For example, in *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*, Chamberlain marketed a garage door opener that used a rolling code (code that changes at set intervals) to protect against intruders stealing the transmission frequency.³⁸ The rolling code also had the effect of preventing third party garage door opener manufacturers from competing since they did not know the rolling code algorithm.³⁹ Skylink figured out a clever way to

31. 17 U.S.C. § 1201(a)(3)(B).

32. For example, the test does not distinguish between read access, write access, or copy access.

33. 17 U.S.C. § 1201(a)(2)(A), (b)(1)(A); NIMMER, *supra* note 28, § 12A.03.

34. 17 U.S.C. § 1201(b)(1)(A); NIMMER, *supra* note 28, § 12A.03.

35. *See Reimerdes*, 111 F. Supp. 2d at 317–19.

36. *See MGE I*, No. 08-10521, 2010 WL 2820006, at *3 (5th Cir. July 20, 2010) (holding that hacking the program to circumvent the dongle check was not a violation of the DMCA), *withdrawn*, 2010 WL 3769210 (5th Cir. Sept. 29, 2010); *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004) (holding that circumvention of the rolling code garage door opener was not a violation of the DMCA); *Ticketmaster L.L.C. v. RMG Techs., Inc.*, 507 F. Supp. 2d 1096, 1111–12 (C.D. Cal. 2007) (holding that the mechanism use to regulate ticket sales sufficiently controlled access to the copyright-protected website so there was a violation of the DMCA); *DirectTV Inc. v. Little*, No. CV-03-2407-RMW, 2004 WL 1811153, at *6 (N.D. Cal. Aug. 12, 2004) (holding that no factual disputes relating to the right of a copyright holder are disputed).

37. *See Chamberlain*, 381 F.3d at 1197.

38. *Id.* at 1183.

39. *Id.* at 1184–85.

open Chamberlain rolling code doors by transmitting two frequencies at once.⁴⁰ Chamberlain sued Skylink, claiming that the rolling code was a TPM and Skylink violated the DMCA by circumventing the rolling code protection to “access” the underlying copyrighted computer program that opened the garage door.⁴¹ The Federal Circuit held that the anti-circumvention act “prohibits only forms of access that bear a reasonable relationship to the protections that the Copyright Act otherwise affords copyright owners.”⁴² The court added that “[w]hile such a rule of reason may create some uncertainty and consume some judicial resources, it is the only meaningful reading of the statute.”⁴³ Therefore, Skylink did not violate the DMCA since “Chamberlain neither alleged copyright infringement *nor explained how the access provided by [Skylink’s transmitter] facilitates the infringement of any right that the Copyright Act protects.*”⁴⁴

In applying the Nexus Test set out in *Chamberlain*, the Fifth Circuit in *MGE I* recognized that “[t]he owner’s technological measure must protect the copyrighted material against an infringement of a right that the Copyright Act protects, *not from mere use or viewing.*”⁴⁵ In that case, plaintiff MGE alleged that GE circumvented a TPM by modifying the MGE-copyrighted software to skip the check for a valid dongle that was normally required before the program could run. The Fifth Circuit found that MGE placed “no encryption or other form of protection on the software itself to prevent copyright violations,” and thus “[b]ecause the dongle does not protect against copyright violations, the mere fact that the dongle itself is circumvented does not give rise to a circumvention violation within the meaning of the DMCA.”⁴⁶ The dongle protection system merely prevents initial access to the software, and does not prevent the software from being freely read and copied on the computer.⁴⁷ Therefore, the court held that GE did not violate the DMCA under the Nexus Test.

In summary, to prove a violation of the DMCA under the Nexus Test, the copyright holder must show that: (1) a technological measure was circumvented to “access” a copyrighted work *and* (2) the access to the

40. *Id.*

41. *Id.* at 1185.

42. *Id.* at 1202–03.

43. *Id.*

44. *Id.* at 1204.

45. *MGE I*, No. 08-10521, 2010 WL 2820006, at *3 (2010) (emphasis added) (citing *Chamberlain*, 381 F.3d at 1204).

46. *Id.* at *3.

47. *Id.*

copyrighted work bears a reasonable relationship to the protections of the Copyright Act.⁴⁸

C. NARROWER STANDARDS: “OTHER ACCESS POINT” AND “PERMISSION OR TPM” TESTS

Other courts have read two different limitations into the anti-circumvention statute that are distinct from the Nexus Test.

In *Lexmark International, Inc. v. Static Control Components, Inc.*, the Sixth Circuit set forth the “Other Access Point Test.”⁴⁹ Under this test, if there is another point of access to a copyrighted work, circumvention of a TPM to that copyrighted work is not a violation of the DMCA.⁵⁰ The defendant in *Lexmark International* manufactured third-party print cartridges for use with Lexmark printers that circumvented the device’s printer verification that Lexmark manufactured the cartridges.⁵¹ The court found that purchase of a Lexmark printer allows the user “access” to the programs loaded on the printer memory “with or without the benefit of the authentication sequence, and the data from the program may be translated into readable source code after which copies may be freely distributed.”⁵² The court held that the DMCA does not apply where the work is otherwise accessible:

Just as one would not say that a lock on the back door of a house ‘controls access’ to a house whose front door does not contain a lock and just as one would not say that a lock on any door of a house ‘controls access’ to the house after its purchaser receives the key to the lock, it does not make sense to say that this provision of the DMCA applies to otherwise-readily-accessible copyrighted works.⁵³

In this case, since the consumers were able to access the programs after their purchase, the defendant’s circumvention of the technological measure was immaterial.⁵⁴

The Southern District of New York court set forth the “Permission or TPM” test in *I.M.S. Inquiry Management Systems, Ltd. v. Berkshire Information*

48. *Chamberlain*, 381 F.3d at 1202–03.

49. *See Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 546 (6th Cir. 2004).

50. *See id.*

51. *Id.* at 546.

52. *Id.*

53. *Id.* at 547.

54. *Id.*

*Systems, Inc.*⁵⁵ In order to violate the DMCA under the “Permission or TPM Test,” a circumventor must bypass the TPM through “some alternate avenue of access not sponsored by the copyright owner (like a skeleton key, or neutralizing device).”⁵⁶ Alternatively, if the circumventor obtains access to the copyrighted material through a copyright owner-sponsored method, even if that access is illegally obtained, the circumventor is merely bypassing *permission* of the copyright owner and does not violate the DMCA.⁵⁷ The *I.M.S.* defendant stole usernames and passwords to the plaintiff’s system and used them to download copyrighted material from the Internet.⁵⁸ The court found that password protection was a valid TPM, but the defendant did not circumvent this TPM because it did not avoid or bypass the password check.⁵⁹ Instead, “[m]ore precisely and accurately, what the defendant avoided and bypassed was *permission* to engage and move through the technological measure from the measure’s author.”⁶⁰ Since the defendant used passwords “intentionally issued by the plaintiff to another entity,” the TPM was not circumvented.⁶¹

Courts have taken a variety of approaches to their analysis of whether a given TPM is covered under the anti-circumvention provisions of the DMCA. Table 1 summarizes which courts have adopted the four legal tests.

55. *See* *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 523 (S.D.N.Y. 2004).

56. *Id.* at 533.

57. *Id.* at 533–34.

58. *Id.* at 523.

59. *Id.* at 532.

60. *Id.*

61. *Id.* at 532–33.

Table 1: DMCA Anti-Circumvention Decisions Classified by Legal Standard

Literal Interpretation Test	1st Circuit ⁶² S.D.N.Y. affirmed by 2nd Circuit ⁶³ N.D. Cal. ⁶⁴ D. Arizona ⁶⁵ D. Maine ⁶⁶ W.D. Wash. ⁶⁷
Nexus Test	Federal Circuit ⁶⁸ 5th Circuit (withdrawn) ⁶⁹ C.D. Cal. ⁷⁰ N.D. Cal. ⁷¹
Other Access Point Test	6th Circuit ⁷²
Permission or TPM Test	S.D.N.Y. ⁷³

III. COMMON TECHNOLOGICAL PROTECTION MEASURES

This Part will provide a high level overview of some of the most common TPMs used by copyright holders. The technical details provided for each TPM provide necessary background for the later discussion, *infra* Part

62. *Coxcom, Inc. v. Chaffee*, 536 F.3d 101 (1st Cir. 2008).

63. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

64. *Sony Computer Entm't Am., Inc.*, 457 F. Supp. 2d 957 (N.D. Cal. 2006); *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F. Supp. 2d 1085 (N.D. Cal. 2004).

65. *MDY Indus., LLC v. Blizzard Entm't, Inc.*, 616 F. Supp. 2d (D. Ariz. 2009).

66. *Pearl Inv., LLC v. Standard I/O, Inc.*, 257 F. Supp. 2d 326 (D. Maine 2003).

67. *Realnetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

68. *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178 (Fed. Cir. 2004); *Storage Tech. Corp. v. Custom Hardware Eng'g & Consulting, Inc.*, 431 F.3d 1307 (Fed. Cir. 2005).

69. *MGE I*, No. 08-10521, 2010 WL 2820006, at *3 (5th Cir. July 20, 2010), *withdrawn*, 2010 WL 3769210 (5th Cir. Sept. 29, 2010). Since this case was decided on other grounds, the initial opinion that used the Nexus Test was withdrawn.

70. *Ticketmaster LLC v. RMG Techs., Inc.*, 507 F. Supp. 2d 1096 (C.D. Cal. 2007).

71. *DirectTV Inc. v. Little*, No. CV-03-2407-RMW, 2004 WL 1811153 (N.D. Cal. Aug. 12, 2004).

72. *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

73. *I.M.S. Inquiry Mgmt. Sys., LTD. V. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 523 (S.D.N.Y. 2004).

IV, of how courts' varied legal interpretations of the DMCA might be applied to each measure.

A. PASSWORD PROTECTION

Password protection is the most common and well-known TPM. Passwords are used to control access to all kinds of copyrighted works, from high-priced software to personal emails. Exactly what kind of access a password protects depends on where the copyrighted work is stored.

If the copyrighted work is stored on a hard drive, the password prompt will typically be invoked whenever the processing unit is trying to read the file.⁷⁴ For example, this situation could apply to a document stored on a user's hard drive. The user will not be able to view the data without either entering the password or circumventing the password prompt.⁷⁵ However, this password prompt provides no protection against copying the file. A user can still copy the file to any other location, although the copy will still prompt the user for a password when it is opened. To bypass the password prompt, a circumventor will simply use an application that does not check for password protection or hack the application to not prompt for a password. Alternatively, the circumventor can also just use a "brute force attack," meaning that he can keep guessing passwords until he determines the correct one. If the copyrighted work is stored on external media, the password prompt will typically be invoked when the external media is attached to the computer.⁷⁶ A software program that cannot be installed on a user's computer unless a key or password is entered is an example of a password-protected work stored on external media. Conceptually, the accessibility of the file and list of potential attacks are the same as if the file were stored on the user's computer.⁷⁷

If the copyrighted work is stored in a remote location over the Internet, the password prompt will appear when the remote location is first accessed. For example, a web-based email account would fall into this category. The user will not be able to access the copyrighted material without a proper password. In other words, none of the copyrighted work will be transmitted to the user unless a proper password is inputted.⁷⁸ This prevents the user

74. See MATT BISHOP, *COMPUTER SECURITY: ART AND SCIENCE* 310–22 (2003); Daniel V. Klein, "Foiling the Cracker": *A Survey of, and Improvements to, Password Security*, Proceedings of the 14th DoE Computer Security Group (1991) 1–2.

75. See Klein, *supra* note 74, at 2.

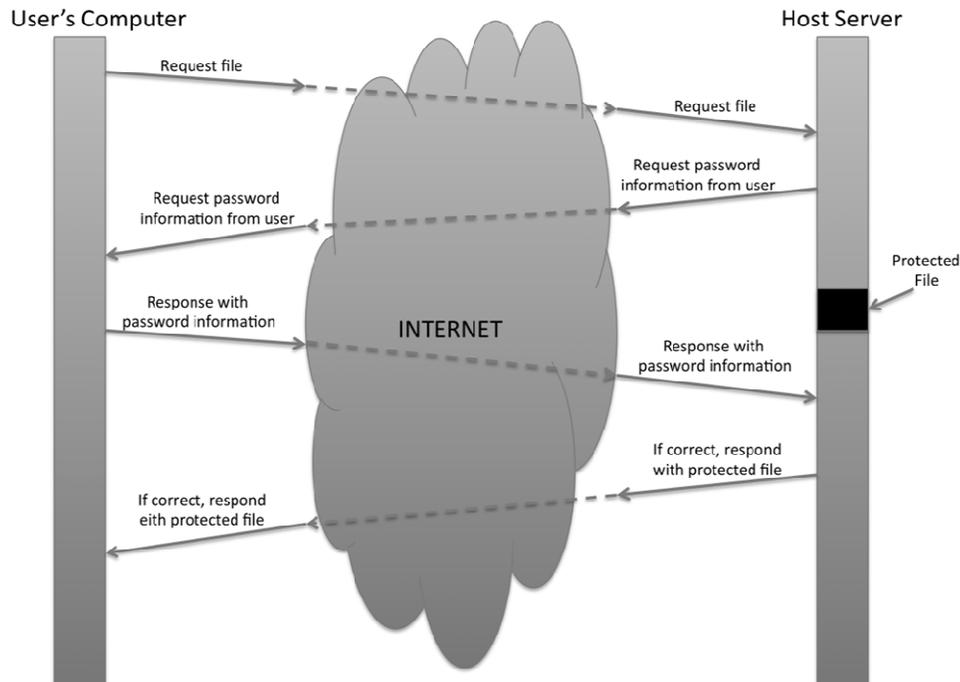
76. See *id.*

77. BISHOP, *supra* note 74, at 310–22.

78. See Klein, *supra* note 74, at 2.

from accessing the copyrighted work, but also prevents any form of copying of the work. The typical way to circumvent this type of password protection is to obtain the user's password illegally or guess the user's password using a brute force attack.⁷⁹ Figure 1 diagrams how this process works, starting with the user requesting the file through the Internet and ending with the protected file being transferred to the user if the password is correct.

Figure 1: Password-Protected File Stored in a Remote Location



B. DONGLES

Dongles are USB keys that are equipped with security information and attached to the computers of software customers to protect the software from being exploited.⁸⁰ The software is designed to run only if it finds the corresponding dongle is physically attached to the user's computer.⁸¹ The protected software will be installed on the user's computer in two pieces: (1) the protected software portion; and (2) the dongle application programming interface (API), which can be thought of as the unprotected portion of the

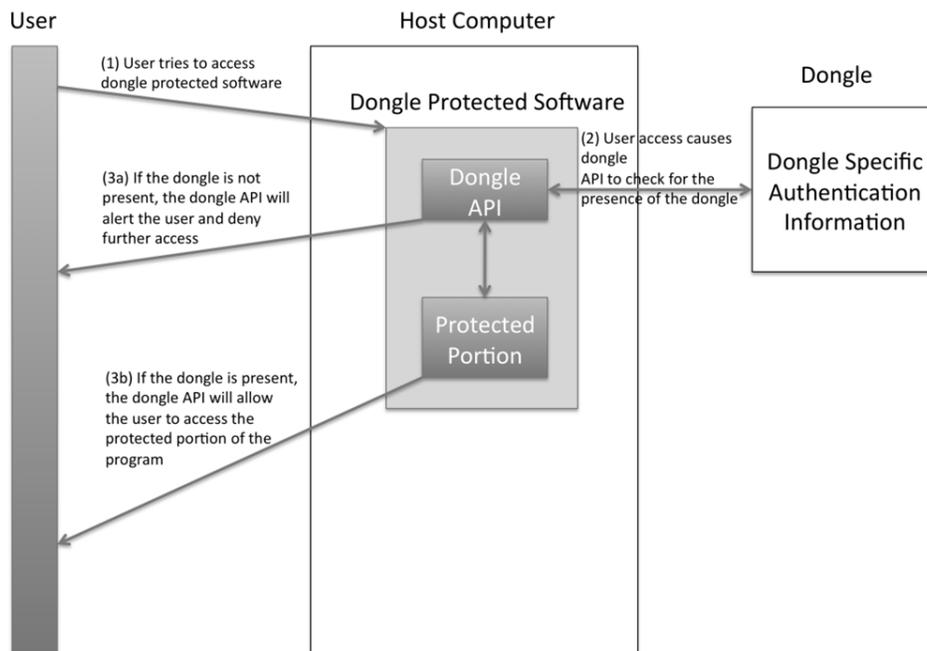
79. BISHOP, *supra* note 74, at 310–22.

80. Ugo Piazzalunga et. al, *Security Strength Measurement for Dongle-Protected Software*, IEEE Security & Privacy, November/December 2007, at 32.

81. *Id.*

software.⁸² When the protected program is launched, the unprotected API will be the first application launched. The API will not permit access to the protected code unless the dongle is plugged into the user's computer.⁸³ Dongles successfully prevent the protected code from being run on the computer because the dongle API must successfully detect the presence of a dongle before the protected code is triggered. However, even though the dongle API will prevent the code from being run if the dongle is not present, a dongle does not prevent the protected code from being copied. Even the protected portion of the code is just stored on the user's computer and the program can be freely copied using other applications. Figure 2 shows the conceptual separation between the dongle API and the protected portion of the code.

Figure 2: Dongle-Protected Software Authentication System



The typical way to circumvent the dongle check is to hack the dongle API code. The hacked dongle API will just bypass the actual check for the dongle and start the protected program as if the dongle were present.⁸⁴ This

82. *Id.*

83. *Id.*

84. *See MGE I*, No. 08-10521, 2010 WL 2820006, at *3 (2010).

will allow the user to access the protected software without having the dongle plugged in.

C. ENCRYPTION

As there are many different forms of encryption, this discussion focuses on the encryption technique behind the best-known example of an encrypted copyrighted work, the DVD.⁸⁵ The content scrambling system (CSS) algorithm encrypts each DVD, which prevents reading by unlicensed players. The encrypted DVD is unusable and unplayable to any user unless the content is first decrypted. DVDs actually use several layers of encryption to prevent unlicensed players from reading the copyrighted material on the disc.⁸⁶ The video content of every DVD is encrypted with a unique title key that is stored directly on the disk.⁸⁷ Then the title key is encrypted on the DVD using player keys that are assigned to licensed manufacturers of DVD players.⁸⁸ Each player key is assigned to manufacturers after they agree to the licensing terms. The title keys encrypted by all of the different player keys are stored in the “Media Key Block” (“MKB”) portion of the disk.⁸⁹ Once the title key is decrypted by the player using the assigned player key, this title key is sent through a pre-defined function known by a licensed DVD player. This function is known as a hash function, and is irreversible so that a circumventor cannot calculate the title key from the correct hash value stored on the DVD.⁹⁰ The result of this hash function is then compared to the correct hash key on the DVD to make sure the player obtained the correct title key.⁹¹ Only then can the title key be used to decrypt the content of the DVD. Copyright holders can control the copying of the DVD because any manufacturer that licenses CSS must agree to disallow copying on their player.⁹² Also, there is nothing to prevent the entire encrypted disk from being copied using an unlicensed DVD player that can read the data on the computer; however, the copy will also be encrypted.⁹³ Figure 3 shows how this DVD decryption process works.

85. BISHOP, *supra* note 74, at 215–71.

86. L. Jean Camp, *DRM: Doesn't Really Mean Digital Copyright Management*, IEEE Internet Computing, May 2003, at 78.

87. *Id.*

88. *Id.*

89. *Id.*

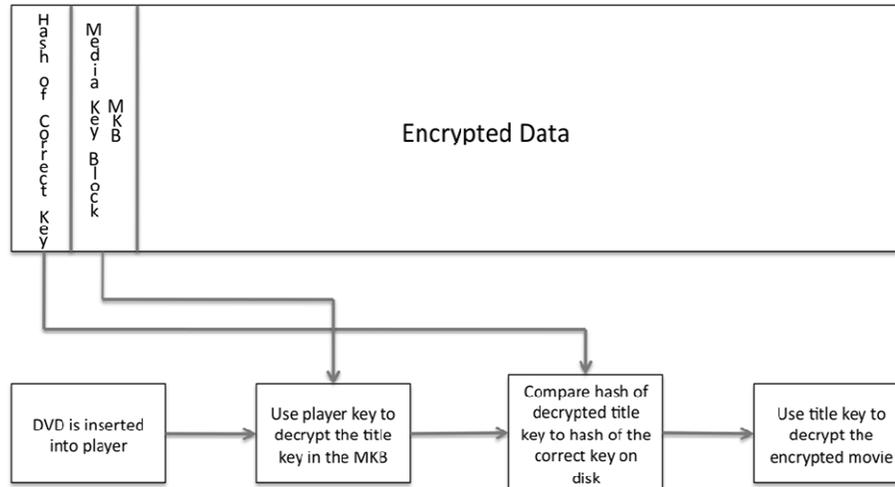
90. MARK ALLEN WEISS, *DATA STRUCTURES & ALGORITHM ANALYSIS IN C++* 181–84 (1999).

91. Camp, *supra* note 86, at 78; *see* WEISS, *supra* note 90, at 181–84.

92. Camp, *supra* note 86, at 78.

93. *Id.*

Figure 3: Normal Decryption Process of a DVD Movie



Controlling the decryption key is the most important part of controlling the encrypted copyrighted work. DVDs control their keys using licensing, but keys can also be stored on dongles or controlled over the Internet. Circumventing encryption almost always involves discovering the decryption keys. DeCSS is an algorithm that broke the encryption on DVDs by stealing a valid player key to extract the title key.⁹⁴ However, encryption can also always be broken by a brute force attack. With the speed of today's computers, it is possible to try every possible decryption key to a DVD relatively quickly.⁹⁵

D. REGION CODING

In addition to encryption, region coding is also used on DVDs. The region coding system prevents people from playing foreign DVDs on their DVD players.⁹⁶ In order to take advantage of price differentiation in the global economy, DVD manufacturers added a region coding flag to DVDs

94. The Openlaw DVD/DECSS Forum Frequently Asked Questions (FAQ) List, <http://cyber.law.harvard.edu/openlaw/DVD/dvd-discuss-faq.html> (last visited Nov. 19, 2010).

95. Matthew Becker & Ahmed Desoky, *A Study of the DVD Content Scrambling System (CSS) Algorithm*, Proceedings of the Fourth IEEE Int'l Symposium on Signal Processing and Information Technology (2004).

96. Qixiang Sun, *The DMCA Anti-Circumvention Provisions and the Region Coding System: Are Multi-Zone DVD Players Illegal After the Chamberlain and Lexmark Cases?*, 2005 J.L. TECH. & POL'Y 317, 317–18 (2005).

that indicates which region the disk was purchased in.⁹⁷ DVD players then check for the existence of this flag and refuse to play it if it is not from an authorized region. Regional coding does not utilize encryption; this is merely a flag that gets checked when the DVD is loaded.⁹⁸

The region code check can be easily circumvented by either purchasing a multi-zone DVD player or modifying a DVD player to skip the region code check.

E. ONLINE MOVIE RENTAL PROTECTION

iTunes and other online providers now allow users to “rent” movies over the Internet for a limited period of time by using a technical protection measure. After the time of the rental, the movie will automatically delete itself from the user’s computer. For iTunes, a rented movie will be automatically deleted thirty days after it is downloaded, or twenty-four hours after the user starts watching it.⁹⁹ This effect is done with the Moving Picture Expert Group Rights Expression Language (MPEG REL).¹⁰⁰ MPEG REL is a standardized rights expression language that enables the controlled distribution of and access to digital content.¹⁰¹ It works by associating an XML header, extra metadata, with each file that will be controlled by MPEG REL.¹⁰² The header contains a standardized definition of the rights associated with the file for the user. Each copyrighted file is still stored as data on the user’s computer, but with a MPEG REL header attached. This means the data can still be copied and accessed from other applications. Furthermore, copying is explicitly allowed during the rental period so a user can watch the movie on other devices. Additionally, the addition of the MPEG REL header does not allow the file to just delete itself. The deletion of the file after it has expired relies on another application, such as iTunes, to actively delete the file.

Mechanism for online movie rental protection can be circumvented using a few different methods. An early circumvention technique to extend the length of movie rentals has since been fixed, but it makes an interesting

97. *Id.*

98. *Id.*

99. *iTunes Store: Movie Rental Frequently Asked Questions*, APPLE.COM, http://support.apple.com/kb/HT1657?viewlocale=en_US (last visited November 18, 2010).

100. Xin Wang et al., *The MPEG-21 Rights Expression Language And Rights Data Dictionary*, 7 IEEE Transactions on Multimedia 408, 408–09 (June 2005).

101. *Id.*

102. *Id.*

circumvention example.¹⁰³ Before renting a movie, the circumventor would set his computer clock ahead by about twenty years. He would subsequently rent the movie and start viewing it and then set his clock back to today's date. This made the rental period last for twenty years instead of the typical thirty days.¹⁰⁴

F. SECRET HANDSHAKES

The *RealNetworks, Inc. v. Streambox, Inc.* case involved the use of a “secret handshake” between the RealNetworks servers and their user application to play music streamed from the servers.¹⁰⁵ In order to prevent copying of copyrighted music, RealNetworks set up a secret handshake protocol between an authorized user application and the server so that music could only be streamed directly to the authorized user application that did not allow copying.¹⁰⁶

There are a number of different “secret handshake” protocols, but most of them involve a challenge response sequence to authenticate the user. First, the user will initiate the connection and identify itself to the server. Then the server will send a challenge message to the user consisting of a random number.¹⁰⁷ The user will have to put the random number through a predefined hash function and send the result back to the server.¹⁰⁸ The server will compare the user's response with its own hash calculation. If the two values match then the user will be authenticated.¹⁰⁹ Without completing the secret handshake, the user will not be able to view or copy the copyrighted work. The data is stored on the server and will not be sent if the secret handshake protocol fails. Figure 4 shows how this secret handshake works.

103. See Matt Buchanan, *Confirmed: Change Your System Time, Watch Your iTunes Rentals Forever*, GIZMODO.COM (Jan. 17, 2008, 10:30 AM), <http://gizmodo.com/345964/confirmed-you-can-keep-your-itunes-movie-rentals-for-eternity-but-it-aint-easy>.

104. *Id.*

105. *Realnetworks, Inc. v. Streambox, Inc.*, No. 2:99CV02070, 2000 WL 127311, *2–3 (W.D. Wash. Jan. 18, 2000).

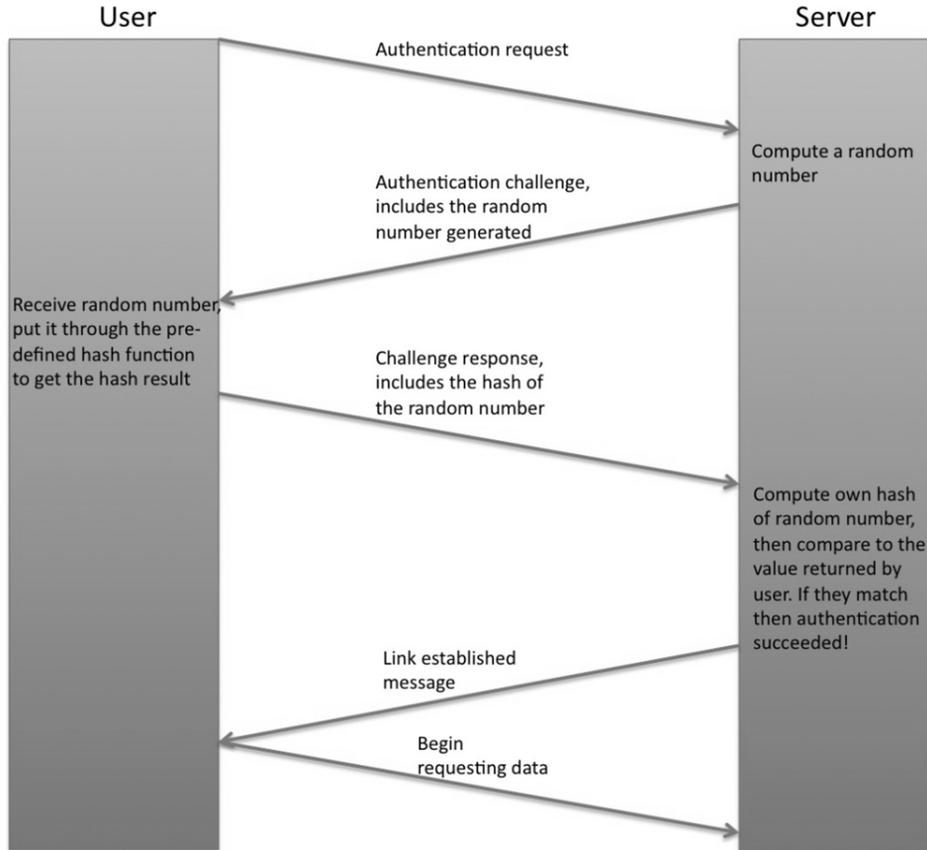
106. *Id.* at *2–3.

107. BISHOP, *supra* note 74, at 324–28; D.W. DAVIES & W.L. PRICE, SECURITY FOR COMPUTER NETWORKS: AN INTRODUCTION TO DATA SECURITY IN TELEPROCESSING AND ELECTRONIC FUNDS TRANSFER 185 (2nd ed. 1989).

108. DAVIES, *supra* note 107, at 185.

109. *Id.*

Figure 4: Challenge Response Secret Handshake Protocol



There are many ways to circumvent a handshake protocol. The defendant in the *RealNetworks* case created his own user application that mimicked the handshake protocol of the authentic user application, which requires knowing the hash function that is used by the server.¹¹⁰ The easiest way to circumvent a secret handshake is a man-in-the-middle attack.¹¹¹ The circumventor will open up a connection with the server and the client and pretend to be the other with each. When the server challenges the client, the circumventor will receive the challenge from the server and forward it on to the client. The client will then send the correct response to the circumventor, who will forward it to the server.¹¹² At this point, the server will open up a connection directly with the circumventor and stream copyrighted data right

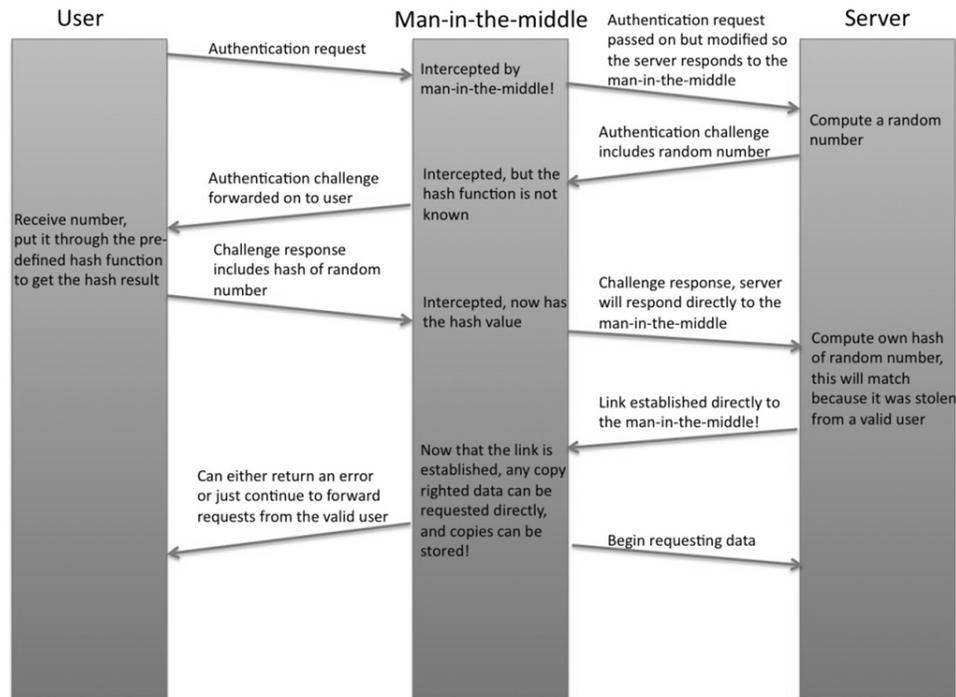
110. *RealNetworks*, 2000 WL at *4-5.

111. BISHOP, *supra* note 74, at 324-28; N. Asokan et al., *Man-in-the-Middle in Tunneled Authentication Protocols*, 3364 LECTURE NOTES IN COMPUTER SCIENCE 28, 28-29 (2005).

112. BISHOP, *supra* note 74, at 324-28; Asokan, *supra* note 111, at 28.

to the circumventor. This will allow the circumventor direct access to the copyrighted material rather than through the authorized user application that prevents copying.¹¹³ Figure 5 shows the how a typical man-in-the-middle attack works.

Figure 5: Challenge Response Protocol Circumvented by Man-in-the-Middle Attack



G. WATERMARKING AND ANALOG COPY PROTECTION

Watermarks and Analog Copy Protections (ACP) both work by adding a signal to the output of an audiovisual copyrighted work.¹¹⁴ It is important to note that neither process actually prevents copying or viewing of the copyrighted work. Both processes merely add extra data to the copyrighted work to discourage or track unauthorized copies.

113. See *RealNetworks*, 2000 WL at *4–5.

114. Maurice Maes et al., *Digital Watermarking DVD Video Copy Protection: What Issues Play a Role in Designing an Effective System?*, IEEE Signal Processing Magazine (2000), at 2; A. Eskicioglu & E. Delp, *An Overview of Multimedia Content Protection in Consumer Electronics Devices*, 16 SIGNAL PROCESSING: IMAGE COMMUNICATION 681, 682–83 (2001).

Watermarking adds an undetectable signal, called a watermark, to the work.¹¹⁵ This means all of the copies will include this undetectable watermark as well.¹¹⁶ These watermarks are typically designed to be unique for every legal copy. This means that whenever an illegal copy is found it can be traced back to a single legal source to identify the copyright infringer.¹¹⁷ Depending on the type of watermarking technique used, there are a variety of different ways to remove the watermark in any copies to prevent identification of the infringer.¹¹⁸

ACP works by adding a signal to the outgoing stream of digital media, like DVDs, which makes it impossible for a viewer to watch an analog copy.¹¹⁹ ACP does not prevent copying of the underlying work; it merely adds an extra layer of data to make analog copies unusable.¹²⁰ Even though an analog copy will be unwatchable in analog, there are devices that digitize the analog video, which removes the extra ACP data and allows for clear viewing.¹²¹

IV. CLASSIFICATION OF THE TPMS BASED ON VARIOUS LEGAL STANDARDS OF CIRCUMVENTION

This Part will classify the TPMS that were discussed in Part III, *supra*, based on the four legal standards discussed in Part II, *supra*. For analytical purposes, each of the following Sections assume that the technological measure being analyzed is the only measure utilized to control access to the copyrighted work. In practice, however, multiple measures are typically employed to protect a single work. For example, encryption and region coding protect DVD movies, and dongles are often used as the storage location for an encryption key.

A. PASSWORD PROTECTION

This Section analyzes a circumventor's effort to bypass the password check by obtaining a valid password either through brute-force guessing or

115. Maes et al., *supra* note 114, at 2–4.

116. *Id.*

117. *Id.*

118. *See id.*; see also JT Smith, *Felton SDMI Presentation: No Cops, but Lingering Questions about the DMCA*, LINUX.COM (August 16, 2001, 8:00 AM), <http://www.linux.com/archive/feed/15591>.

119. Eskicioglu & Delp, *supra* note 114, at 682.

120. *Id.*

121. Nate Anderson, *Digitalizing Video Might Violate the DMCA*, ARS TECHNICA (Aug. 16, 2006), <http://arstechnica.com/old/content/2006/08/7517.ars>.

stealing an authorized user's password. It is also possible to use a hack to bypass the password check if the application is installed locally, but this circumvention technique is similar to the dongle hack described in Section IV.B., *infra*.

1. *Literal Interpretation Test*

Since under this legal standard the TPM only needs to effectively control *access* to a copyrighted work,¹²² circumvention of the password check by illegally obtaining a valid password is likely a violation of the anti-circumvention statute. The password check is a technological measure that “effectively controls access to a work” because it requires the application of information, the password, to gain access to the work.¹²³ Just as use of an illegally obtained player key to read a DVD was a violation of the DMCA in *Reimerdes*, use of an illegally obtained password is a violation of the DMCA under the Literal Interpretation Test.¹²⁴

2. *Nexus Test*

According to the Nexus test, the copyright holder must show that: (1) a technological measure was circumvented to “access” a copyrighted work *and* (2) the access to the copyrighted work bears a reasonable relationship to the protections of the Copyright Act.¹²⁵ The first prong of the test was just analyzed in Section IV.A.1., *supra*, so the remaining issue is whether the access bears a reasonable relationship to the protections of the Copyright Act. Just like the dongle in *MGE I*, the password prompt merely prevents initial access to the copyrighted work.¹²⁶ If the work is stored locally, it can be freely copied or distributed without the consumer being prompted for a password. Furthermore, if the data is stored on removable media, the entire contents of the media can be copied locally without entering a password. This is because it is the accessing application that checks to see if the password is required. Since the file is available locally, a circumventor can simply copy the file without accessing the application that checks for a password. As in *Chamberlain*, where the rolling code did not protect any of

122. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

123. *See* 17 U.S.C. § 1201(a)(3)(B) (2006).

124. *See Reimerdes*, 111 F. Supp. 2d at 317–19.

125. *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

126. *See MGE I*, No. 08-10521, 2010 WL 2820006 (5th Cir. July 20, 2010) *withdrawn* 2010 WL 3769210 (5th Cir. Sept. 29, 2010).

the copyright holder's rights, the password prompt does not prevent copying or distribution at all.¹²⁷

However, if the copyrighted work is stored remotely, the work cannot be copied or distributed without the password because it is not stored on the user's computer. Unlike when the protected file is stored locally, remote storage prevents copying and distribution without a valid password. Therefore, circumventing password protection likely only violates the DMCA under the Nexus Test if the copyrighted work is stored in a remote location, instead of locally or on any accessible removable media.

3. *Other Access Point Test*

Although the password prompt prevents access to the copyrighted work through normal access, there are many other access points to the work, regardless of whether it is stored locally or on external media. Just as in *Lexmark* where the code on the print cartridge was freely accessible to the user, here, the works can be copied and distributed directly by the user without need for a password.¹²⁸ Therefore, this will probably not constitute violation of the DMCA. However, if the work is stored remotely, the only means of accessing the work is through the password prompt. Circumventing password protection on data stored remotely likely constitutes a violation of the DMCA under the Other Access Point Test.

4. *Permission or TPM Test*

The Permission or TPM Test relies on the distinction between circumventing the permission to access the work versus circumventing the actual TPM. If a circumventor uses a copyright holder-sanctioned method of accessing the work, then only the permission is being circumvented and there is no violation of the DMCA. Here, the circumventor is using a valid, but illegally obtained, password. This is the exact scenario in *I.M.S. Inquiry Management Systems*,¹²⁹ in which the court held that illegally obtaining an otherwise legitimate user's password is not a violation of the DMCA.¹³⁰

127. See *Chamberlain*, 381 F.3d at 1203–04.

128. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

129. *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532–33 (S.D.N.Y. 2004).

130. See discussion, *supra*, Section IV.C.

B. DONGLES

This Section analyzes the circumvention method of hacking the dongle API program such that the program always returns that a valid dongle is present.

1. *Literal Interpretation Test*

Since under this legal standard the TPM only needs to effectively control access to a copyrighted work,¹³¹ circumvention of the dongle by hacking the dongle API to always return that a valid dongle is present will likely constitute a violation of the DMCA. The use of a dongle to restrict access to a software program is a technological measure that “effectively controls access to a work” because the measure requires checking for a dongle implemented by the dongle API before a user can gain access.¹³² Similar to *Reimerdes*, where the unauthorized use of a player key to obtain access to the copyrighted work was a violation of the DMCA, unauthorized hacking of the dongle API likely violates the DMCA.¹³³

2. *Nexus Test*

The first prong of the Nexus Test was analyzed in the previous Section IV.B.I, so the remaining issue is whether the access bears a reasonable relationship to the protections of the Copyright Act. Since the program initiating the dongle check is stored locally, it can easily be copied or accessed through other means. This is the exact scenario set forth in *MGE I*, where circumventing the dongle did not constitute a violation of the DMCA under the Nexus Test because the dongle merely prevented initial access and did not protect against copyright violations.¹³⁴

3. *Other Access Point Test*

Even though the dongle check prevents access to the copyrighted software program through normal access to the program, there are other ways to access the program since the work is stored locally on the machine. The program can be freely copied without triggering the dongle check. Just as the *Lexmark* user had another point of access in his permission to access the copyrighted work on his printer after purchase, the dongle protection

131. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

132. *See* 17 U.S.C. § 1201(a)(3)(B) (2006).

133. *See* *Universal City Studios*, 111 F. Supp. 2d at 317–19.

134. *See* *MGE I*, No. 08-10521, 2010 WL 2820006, *3 (2010).

measure allows other access points to the copyrighted work.¹³⁵ Consequently, circumventing the dongle check is likely not a violation of the DMCA based on the Other Access Point Test.

4. *Permission or TPM Test*

If the dongle was stolen from someone else and used, this would be equivalent to stealing someone's password. Under *I.M.S.*, that would probably not violate the DMCA.¹³⁶ However, hacking the unprotected part of the code to circumvent the dongle check modifies the dongle API to provide an alternative access point not sanctioned by the copyright holder.¹³⁷ Consequently, the circumvention of the dongle check is probably a violation of the DMCA.

C. ENCRYPTION

This Section analyzes the use of a basic brute force attack to find the correct decryption key. This means that in order to circumvent the encryption, an attacker will try all possible keys until he finds the correct one. Once he has the correct key, he can decrypt and read the protected content.¹³⁸

1. *Literal Interpretation Test*

Since under this legal standard the TPM only needs to effectively control *access* to a copyrighted work, circumventing the encryption by trying all of the possible decryption keys will constitute a violation of the DMCA.¹³⁹ A similar issue was decided in *Reimerdes*, where DeCSS was held to violate the DMCA because it bypassed CSS by using an illegally obtained player key.¹⁴⁰ The key could just as easily have been determined using a brute force attack.

135. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

136. See *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532–33 (S.D.N.Y. 2004).

137. See *id.*

138. The DeCSS algorithm decrypts DVDs by illegally obtaining a valid player key, so it does not need to run a brute force attack to extract a valid key. See The Openlaw DVD/DECSS Forum Frequently Asked Questions (FAQ) List, <http://cyber.law.harvard.edu/openlaw/DVD/dvd-discuss-faq.html> (last visited Nov. 19, 2010).

139. See *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

140. *Id.*

2. *Nexus Test*

As the first prong of the test was analyzed in the previous Section IV.C.2, the remaining issue is whether the access bears a reasonable relationship to the protections of the Copyright Act.¹⁴¹ Even though the copyrighted work is encrypted, that protection measure does not prevent the copying of the encrypted work. Since it is not clear whether copying the encrypted version of a work is a copying under the Copyright Act, liability under the Nexus Test would depend on a court's interpretation of "reproduce the copyrighted work."¹⁴² It is unclear whether a reproduction can be made of a work that is still encrypted.¹⁴³

If copying an encrypted work does not constitute making a copy within the protections of the Copyright Act, then encryption is not reasonably related to a right of the copyright holder. Just like in *Chamberlain*, where the rolling code did not protect any of the copyright holder's rights, the protection provided by encryption is not reasonably related to the protections of the Copyright Act.¹⁴⁴ Therefore, there is probably no violation of the DMCA. Conversely, if copying an encrypted file is considered making a copy under the Copyright Act, decrypting the encryption likely amounts to a violation of the DMCA under the Nexus Test.¹⁴⁵

3. *Other Access Point Test*

The only way to access an encrypted copyrighted work is to decrypt it. Unlike *Lexmark*, where the user was able to access the unencrypted copyrighted work freely, there are no other points of access to an encrypted work without decrypting it first.¹⁴⁶ As a result, circumventing the encryption TPM likely constitutes a violation of the DMCA under the Other Access Point Test.

141. *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

142. 17 U.S.C. § 106(1) (2006).

143. *See, e.g.*, 321 Studios v. Metro Goldwyn Mayer Studios, Inc., 308 F. Supp. 2d 1085, 1098 (N.D. Cal. 2004) (noting that copying the work while it is still encrypted can be done, but is "not particularly useful").

144. *See Chamberlain, Inc.*, 381 F.3d at 1203.

145. This seems to be the likely result based on *MGE I*, where the court implied that the result would be different if the software protected by the dongle was encrypted as well. *MGE I*, No. 08-10521, 2010 WL 2820006, *7 (5th Cir. July 20, 2010) *withdrawn* 2010 WL 3769210 (5th Cir. Sept. 29, 2010).

146. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

4. *Permission or TPM Test*

Since a brute force attack to break encryption involves trying all of the possible keys until the circumventor finds the correct key, the circumventor is actually using the copyright holder's sanctioned method of accessing the content.¹⁴⁷ Just like using an illegally obtained but valid password in *I.M.S.* was not a violation of the DMCA,¹⁴⁸ using a valid decryption key identified in a brute force attack only bypasses the permission and not the technological measure. The circumventor's search for the one correct decryption key is analogous to the one password that will allow access. As a result, decryption is probably not a violation of the DMCA under the Permission or TPM Test.

D. REGION CODING

Region coding is usually used in conjunction with encryption in the context of DVDs, but this Section considers region coding in isolation. The circumvention technique analyzed is a region-free DVD player that simply ignores the region bit coded in disks.

1. *Literal Interpretation Test*

Region coding is merely a bit that the copyright holder depends on the player manufacturer to check before a user can play a disc. The copyright owner can refuse to license players that do not check that bit. Similar to *Reimerdes*, where circumventing the encryption on a DVD required the application of a key to decrypt the file, circumventing the region coding requires the application of the region code bit to access the file.¹⁴⁹ Consequently, bypassing this bit probably amounts to a violation of the DMCA under the Literal Interpretation Test.

147. There are other forms of circumvention that would violate the DMCA under the Permission or TPM Test. For example, in DVDs, player keys are the copyright-holder-sanctioned means of decrypting the movie, but the actual content is encrypted by the title key. If a title key is obtained without using a player key, this would amount to a circumvention under the DMCA. This illustrates the weird result that liability under this test depends not only on what TPM is circumvented, but how it is circumvented. *See generally* The Openlaw DVD/DECSS Forum Frequently Asked Questions (FAQ) List, <http://cyber.law.harvard.edu/openlaw/DVD/dvd-discuss-faq.html>, *supra* note 94; Matthew Becker & Ahmed Desoky, *supra* note 95.

148. *See* *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532–33 (S.D.N.Y. 2004).

149. *See* *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

2. *Nexus Test*

The first prong of the Nexus Test was analyzed in Section IV.D.I, *supra*, so the only issue remaining is whether the access bears a reasonable relationship to the protections of the Copyright Act. Just like in *MGE* where the copyrighted work could still be copied and accessed, region coding merely prevents initial access but does not encrypt the actual work.¹⁵⁰ The region-coding bit does not protect any copyright holder right because exploiting regional markets is not protected in the Copyright Act.¹⁵¹ Consequently, there is probably no liability under the Nexus Test.¹⁵²

3. *Other Access Point Test*

Since Region Coding only prevents access by requiring licensed players to check for the region-coding bit, there are many other ways to access the copyrighted work. Without encryption, the region-coding bit does not prevent a user from accessing the work by another means, similar to a user's ability to access the printer code in *Lexmark*.¹⁵³ As a result, there is probably no violation of the DMCA under the Other Access Point Test.

4. *Permission or TPM Test*

A user that circumvents the region-coding check by using a region-free player is only circumventing the permission control on the copyrighted work. As the *I.M.S.* court found that the unauthorized user of a valid password only circumvents the permission, the use of an authorized copy in an unauthorized region only circumvents the permission and not any TPM.¹⁵⁴ Consequently, circumventing the region-coding bit is likely not a violation of the DMCA under the Permission or TPM test.

E. ONLINE MOVIE RENTAL PROTECTION

This Section analyzes the circumvention of online movie rental protection by using the clock manipulation trick to extend the length of the allotted movie playback period.

150. See *MGE UPS Sys., Inc. v. GE Consumer and Indus., Inc.*, No. 08-10521, 2010 WL 2820006, *7 (5th Cir. July 20, 2010) *withdrawn* 2010 WL 3769210 (5th Cir. Sept. 29, 2010).

151. See 17 U.S.C. § 106 (2006).

152. See *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

153. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

154. See *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532–33 (S.D.N.Y. 2004).

1. *Literal Interpretation Test*

Since under this legal standard the TPM only needs to effectively control access to a copyrighted work,¹⁵⁵ manipulating the movie protection to allow access after the rental should have expired would likely create liability under the DMCA. Here, the MPEG REL is a technological measure that “effectively controls access to a work”¹⁵⁶ because it requires the application of information, the expiration date, to gain access to the work. Just as the *Reimerdes* court found that encryption protection was illegally circumvented to obtain access to the movie,¹⁵⁷ extending the expiration date of a movie rental allows the user to obtain access to the movie longer than legally allowed. The information in this case is illegally modified instead of illegally obtained as it is in *Reimerdes*,¹⁵⁸ but the result is probably the same. Circumventing MPEG REL protection for online movie rentals by extending the rental time is likely a violation of the DMCA under the Literal Interpretation Test.

2. *Nexus Test*

As the first prong of the Nexus Test was analyzed in Section 4.E.2, *supra*, the remaining issue is whether the access bears a reasonable relationship to the protections of the Copyright Act.¹⁵⁹ MPEG REL can be used to prevent copying, but online movie rentals explicitly allow copying for the rental period so the viewer can watch the movie on different devices.¹⁶⁰ Therefore, the access does not bear a reasonable relationship to the protection of the Copyright Act during the correct subscription period. However, after the movie rental expires, the movie is supposed to be deleted from the user’s computer and all devices containing copies.¹⁶¹ After the content is deleted, access of any kind is no longer allowed. The rights of the copyright holder should be protected during that period. Unlike in *Chamberlain* where the copyright holder allowed access to the user indefinitely, extending the rental term exposes the copyright holder to copying and distribution when it should

155. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff’d*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

156. 17 U.S.C. § 1201(a)(3)(B).

157. *See Reimerdes*, 111 F. Supp. 2d at 317–19 .

158. *See id.*

159. *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

160. *iTunes Store: Movie Rental Frequently Asked Questions*, *supra* note 99.

161. *Id.*

be disallowed.¹⁶² Therefore, circumvention of MPEG REL probably amounts to a violation of the DMCA.

3. *Other Access Point Test*

Once a movie is rented and downloaded to the viewer's computer, it can be accessed just like any other block of data stored on the user's computer. The MPEG REL TPM does not prevent access through other means during the correct length of the rental. However, once the rental expires, it is supposed to be deleted from the user's computer and any other device it was copied to. As a result, extending the length of the rental period allows access to the file when there should not be any access points. Unlike in *Lexmark* where the approved access to the copyrighted file was indefinite, here, the approved access to the file expires after a limited time.¹⁶³ Therefore, circumvention of MPEG REL probably violates the DMCA under the Other Access Point Test.

4. *Permission or TPM Test*

Since the DMCA only "targets the circumvention of digital walls guarding copyrighted material," merely extending the expiration date of a rental movie probably does not violate the Permission or TPM Test.¹⁶⁴ Similar to the *I.M.S.* court's finding that stealing a password only bypasses the permission to access the copyrighted work, changing the expiration date merely extends the permission to access the copyrighted work.¹⁶⁵ Manipulating online movie control protection likely does not create DMCA liability under the Permission or TPM Test.

F. SECRET HANDSHAKES

This Section analyzes the circumvention of the secret handshake using a man-in-the-middle attack as described in Section III.F.

162. *See* Chamberlain Group, Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1203 (Fed. Cir. 2004).

163. *See* Lexmark Int'l, Inc. v. Static Control Components, Inc., 387 F.3d 522, 547 (6th Cir. 2004).

164. *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532 (S.D.N.Y. 2004).

165. *See id.*

1. *Literal Interpretation Test*

Since under this legal standard the TPM only needs to effectively control access to a copyrighted work,¹⁶⁶ circumvention using the man-in-the-middle attack will probably violate the DMCA under the Literal Interpretation Test. The challenge-response handshake protocol acts just like password authentication over the Internet. None of the copyrighted data will be streamed to the client until the client correctly responds to the challenge by the server. This is the same basic process as requesting a password from the client, except that the server sends over a random number for the client to calculate the correct “password.” The secret handshake is a technological measure that “effectively controls access to a work” because it requires the application of information, the hash value of the server challenge, to gain access to the work.¹⁶⁷ Illegally setting up a secure communication with the server to intercept information is analogous to the activity in *Reimerdes*, in which the court found that the application of an illegally obtained key to access the copyrighted work violated the DMCA.¹⁶⁸ Therefore, circumvention of the secret handshake likely violates the DMCA under the Literal Interpretation Test.

2. *Nexus Test*

The first prong of the Nexus Test was already analyzed in the previous Section IV.F.1. The remaining issue is whether the access method, the secret handshake, bears a reasonable relationship to the protections of the Copyright Act.¹⁶⁹ Since the copyrighted works are all stored across the network, there would be no way to copy or distribute them without circumventing the secret handshake. Whereas in *Chamberlain* the rolling code did not protect the rights of the copyright holder for the locally stored computer program, here, the secret handshake actually protects all access to the remotely stored file so that it cannot be copied or distributed without circumventing the secret handshake.¹⁷⁰ Consequently, circumventing the secret handshake probably violates the DMCA under the Nexus Test.

166. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

167. *See* 17 U.S.C. § 1201(a)(3)(B) (2006).

168. *See Reimerdes*, 111 F. Supp. 2d at 317–19.

169. *See Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203 (Fed. Cir. 2004).

170. *See id.* at 1203–04.

3. *Other Access Point Test*

Since the copyrighted works are all stored remotely, there are no other access points to the copyrighted works without circumventing the secret handshake. Unlike in *Lexmark*, where the user had access to the copyrighted works on the printer, here, access is only permitted through a secure connection with the remote server that must be set up using the secret handshake.¹⁷¹ As a result, circumventing the secret handshake probably violates the DMCA under the Other Access Point Test as well.

4. *Permission or TPM Test*

Similar to the use of an illegally obtained password in *I.M.S.*, using the man-in-the-middle attack to illegally obtain a correct response to the server challenge circumvents the “permission to engage and move through the technological measure.”¹⁷² However, it does not circumvent the “digital walls guarding copyrighted material,” which are recognized under the DMCA.¹⁷³ Therefore, circumvention of the secret handshake likely does not violate the DMCA using the Permission or TPM test.

G. WATERMARKING AND ACP

This Section analyzes liability under the DMCA for removing the watermark data from a copy and digitizing an analog copy of a work with ACP to circumvent the protection.¹⁷⁴

1. *Literal Interpretation Test*

Under this legal standard, the TPM only needs to effectively control *access* to a copyrighted work.¹⁷⁵ However, neither watermarks nor ACP actually control access to the copyrighted work. Any copyrighted work with a digital watermark can still be accessed freely.¹⁷⁶ And ACP merely adds data to the copyrighted work so any copy made by an analog recording device will be

171. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

172. See *I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532 (S.D.N.Y. 2004).

173. See *id.*

174. Note that although this Section finds it unlikely that circumventing these protection measures violates the DMCA, it is still not unreasonable that circumvention may trigger DMCA suits. See JT Smith, *supra* note 118.

175. *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, *Universal City Studios, Inc. v. Corely*, 273 F.3d 429 (2d Cir. 2001).

176. Maurice Maes et al., *Digital Watermarking DVD Video Copy Protection: What Issues Play a Role in Designing an Effective System?*, IEEE Signal Processing Magazine (2000) at 2–4.

unwatchable.¹⁷⁷ Unlike the encryption scheme in *Reimerdes*, use of ACP or watermarking protection does not change the accessibility of all of the bits representing the copyrighted work.¹⁷⁸ Therefore, under the Literal Interpretation Test, circumventing watermarking or ACP probably does not constitute a violation of the DMCA because neither means of protection prevents access.

2. *Nexus Test*

Since access is not controlled by watermarking and ACP, circumvention is probably not a violation of the DMCA under the Nexus Test.¹⁷⁹

3. *Other Access Point Test*

Similarly, as works utilizing watermarking and ACP are freely accessible from any access point, circumventing these measures likely does not violate the DMCA under the Other Access Point Test.¹⁸⁰

4. *Permission or TPM Test*

Since watermarking and ACP do not need to be circumvented to gain access to the entire work, it is irrelevant whether the TPM or permission was actually circumvented.¹⁸¹ Therefore, there is probably no violation under the Permission or TPM Test.¹⁸²

A summary of the legal classifications for each TPM under the four legal standards is found in Table 2.

177. Eskicioglu & Delp, *supra* note 114, at 682.

178. *See Reimerdes*, 111 F. Supp. 2d at 317–19.

179. *See Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1203–04 (Fed. Cir. 2004).

180. *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 547 (6th Cir. 2004).

181. *See I.M.S. Inquiry Mgmt. Sys., Ltd. v. Berkshire Info. Sys., Inc.*, 307 F. Supp. 2d 521, 532 (S.D.N.Y. 2004).

182. Even though circumventing watermarking and ACP is likely not a circumvention under § 1201, § 1202 imposes liability for altering or removing “any copyright management information.” 17 U.S.C. § 1202(b)(1) (2006). Removing a watermark may be a violation under § 1202.

Table 2: Summary of TPMs Classified by Legal Standard

		Legal Standards			
		Literal Interpretation Test	Nexus Test	Other Access Point Test	Permission or TPM Test
T P M s	Password Protection	Very likely violation	Likely violation if work is stored remotely	Likely violation if work is stored remotely	S.D.N.Y. held no violation ¹⁸³
	Dongles	Very likely violation	5th Circuit withdrawn decision found no violation ¹⁸⁴	Very likely no violation	Likely violation
	Encryption	2nd Circuit affirmed violation ¹⁸⁵	Possible violation	Likely violation	Likely no violation
	Region Coding	Very likely violation	Likely no violation	Likely no violation	Likely no violation
	Online Movie Protection	Very likely violation	Very likely violation	Very likely violation	Likely no violation
	Secret Handshakes	Very likely violation	Likely violation	Likely violation	Likely no violation
	Watermarking and ACP	Very likely no violation	Very likely no violation	Very likely no violation	Very likely no violation

V. CONCLUSION

The exact legal standard that should be applied in anti-circumvention DMCA cases is still under debate. This Note provides a framework to show how some of the most common TPMs fit (or do not fit) the various legal tests used by courts. Further, this Note offers some guidance as to which TPMs can be clearly circumvented without violating the DMCA.

183. *I.M.S.*, 307 F. Supp. 2d at 532 (S.D.N.Y. 2004).

184. MGE, No. 08-10521, 2010 WL 2820006, *3 (5th Cir. July 20, 2010) *withdrawn* 2010 WL 3769210 (5th Cir. Sept. 29, 2010).

185. *See* Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 317–19 (S.D.N.Y. 2000), *aff'd*, Universal City Studios, Inc. v. Corely, 273 F.3d 429 (2d Cir. 2001).

Although the Literal Interpretation Test has been used in most anti-circumvention DMCA cases, it may not be the best test. While it does follow the plain language of the statute,¹⁸⁶ the result of the test does not always align with legislative intent.¹⁸⁷ The Electronic Frontier Foundation (EFF) is one of the most outspoken critics of an overly broad interpretation of the DMCA because it could stifle free speech, prevent competition, and threaten legitimate scientific research.¹⁸⁸ Courts have modified the Literal Interpretation Test where the copyright holder asserted a DMCA claim for improper purposes,¹⁸⁹ but such modification can cause higher burdens for legitimate anti-circumvention claims.¹⁹⁰

The Nexus Test, the Other Access Point Test, and the Permission or TPM Test described in this Note all seem ill-suited to cover all anti-circumvention claims because of the inconsistencies and ambiguities discussed in Part IV, *supra*.¹⁹¹ The Federal Circuit even recognized that “such a rule of reason may create some uncertainty and consume some judicial resources.”¹⁹²

The ideal test for determining whether the circumvention of a TPM constitutes a violation of the DMCA should consider the purpose for which the DMCA claim is being brought. Allowing DMCA claims to reinforce a monopoly would go against the legislative intent because “Congress did not intend to allow the DMCA to be used offensively [to create monopolies], but rather only sought to reach those who circumvented protective measures ‘for

186. See 17 U.S.C. § 1201; NIMMER, *supra* note 28, at § 12A.03.

187. See 17 U.S.C. § 1201; 17 U.S.C. § 1201; see also 144 Cong. Rec. H7093, H7094-95 (Aug. 4, 1998); S. REP. NO. 105-90, at 29 (1998); H.R. REP. NO. 105-551, pt. 1, at 18 (1998); H.R. REP. NO. 105-551, pt. 2, at 38 (1998). Cf. *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 546 (6th Cir. 2004) (trying to prevent compatibility of third party printer ink cartridges); *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1204 (Fed. Cir. 2004) (trying to prevent compatibility of third party garage door openers); *Davidson & Assocs. v. Jung*, 422 F.3d 630 (8th Cir. 2005) (trying to prevent compatibility of third party game servers).

188. See Fred Von Lohmann, *Unintended Consequences: 12 Years Under the DMCA*, 1–2 (2010).

189. See *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004); *Chamberlain*, 381 F.3d 1178 (Fed. Cir. 2004).

190. See MGE I, No. 08-10521, 2010 WL 2820006 (2010).

191. See discussion *supra* Section IV.A (discussing different results depending how the TPM is circumvented); *supra* Section IV.C.2 (discussing different results depending on if a copy of an encrypted work is a copy under the Copyright Act); *supra* Section IV.C.4 n. 147 (discussing different results depending on specific technical details of the encryption used); *supra* Section IV.G n. 174 (discussing potential DMCA liability even though access to the copyrighted work is not prevented by watermarking and ACP).

192. *Chamberlain*, 381 F.3d at 1202–03.

the purpose' of pirating works protected by the copyright statute."¹⁹³ For example, in *Lexmark*, where the DMCA claim was brought against a third party ink cartridge manufacturer to prevent competition, this purpose factor would weigh heavily against the copyright holder.¹⁹⁴ Conversely, in *Reimerdes*, where the copyright holder was trying to prevent his movies from being illegally copied, the purpose factor would weigh heavily in favor of the copyright holder.¹⁹⁵ Admittedly, adding a subjective component to any test potentially poses the problem of judicial discretion and inconsistent opinions. However, without a purpose factor, the DMCA may be used to prevent competition when it is interpreted too broadly¹⁹⁶ or it may ignore a valid circumvention claim when it is interpreted too narrowly.¹⁹⁷

APPENDIX I: TECHNICAL DEFINITIONS

Brute Force refers to a method of finding an unknown password or key by trial and error. Typically, a hacker will try every possible password or key until the correct one is found.¹⁹⁸

Copying in the digital technology field is simply the process of replicating the data stored in one location in another location.¹⁹⁹ Since all data is represented by a string of ones and zeroes, copying is just replicating that string of digits.

Hacking is the process of modifying the code of a program to change the way the program functions.²⁰⁰ For circumvention purposes, a program's code can be changed to no longer ask for a CD key, check for a dongle, or prompt the user for a password.

193. *Lexmark*, 387 F.3d at 552 (Merritt, C.J., concurring).

194. *See id.*

195. *See* Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 308–15 (S.D.N.Y. 2000).

196. *See, e.g.*, Davidson & Assocs. v. Jung, 422 F.3d 630, 633 (8th Cir. 2005) (construing the DMCA broadly to prevent competition to the copyright holder from a third party game server).

197. *See, e.g.*, MGE I, No. 08-10521, 2010 WL 2820006, *3 (2010) (construing the DMCA narrowly based on the *Chamberlain* Nexus Test such that there is no liability for circumvention of a dongle protecting the plaintiff's copyrighted software).

198. *Brute Force Definition*, DICTIONARY.COM, <http://dictionary.reference.com/browse/brute+force> (last visited Nov. 19, 2010).

199. BISHOP, *supra* note 74, at 860–61.

200. Robert J. Scigliimpiaglia, Jr., *Computer Hacking: A Global Offense*, 3 PACE INT'L L. REV. 1, 199 (1991).

Hash is a function that converts a bit string of any length into a single integer in an array.²⁰¹ Hashes are often used to verify that a bit string is correct or that it has not been changed. A hash function must be a one-way function, such that it is easy to compute the hash, but very hard to reverse the function to determine the original bit string from the hash.²⁰²

Encryption involves encoding the copyrighted work in such a way that it is a meaningless string of bits.²⁰³ Unlocking the encryption requires a key, which is a predefined number that is used to decrypt the copyrighted work.²⁰⁴

201. WEISS, *supra* note 90, at 181–84.

202. ALFRED J. MENEZES, PAUL C. VAN OORSCHOT, & SCOTT A. VANSTONE, HANDBOOK OF APPLIED CRYPTOGRAPHY 8 (1997).

203. BISHOP, *supra* note 74, at 217–18.

204. *Id.*

AGENCY REGULATION IN COPYRIGHT LAW: RULEMAKING UNDER THE DMCA AND ITS BROADER IMPLICATIONS

Arielle Singh[†]

On July 27, 2010, the Library of Congress and the U.S. Copyright Office issued the final rule¹ for the fourth round of the triennial rulemaking process under the Digital Millennium Copyright Act (“DMCA”).² The final rule creates new exemptions, which indicate that agency regulation could re-
inflexibility in both the DMCA specifically and copyright legislation generally. Although some scholars have criticized the triennial rulemaking process as too narrow,³ the latest round was broader than the first three rounds—particularly in the number, scope, and importance of the exemptions. If this expansion continues, together with modifications to the rulemaking process and with more authority vested in the Register of Copyrights and the Copyright Office,⁴ the DMCA triennial rulemaking

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1. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

2. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified as amended in scattered sections of 17 U.S.C.).

3. See, e.g., Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999) (addressing First Amendment concerns with an overbroad anticircumvention law and the need for a heightened standard in agency rulemaking); Woodrow Neal Hartzog, *Falling on Deaf Ears: Is the “Fail-Safe” Triennial Exemption Provision in the Digital Millennium Copyright Act Effective in Protecting Fair Use?*, 12 J. INTEL. PROP. L. 309, 314 (2005) (claiming the rulemaking proceeding “is barely more than a placebo mechanism that does very little to effectuate fair use in our digital society”); Bill D. Herman & Oscar H. Gandy, *Catch 1201: A Legislative History and Content Analysis of the DMCA Exemption Proceedings*, 24 CARDOZO ARTS & ENT. L.J. 121, 188 (2006) (stating that the rulemaking process shifted “the responsibility for ensuring fair use away from the courts and [gave] it to an obscure, relatively toothless rulemaking process”); Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anticircumvention Regulations Need to Be Revised*, 14 BERKELEY TECH. L.J. 519, 559–62 (1999) (emphasizing that the exemptions cannot extend to circumvention tools and are therefore too limited in scope).

4. Congress established the Copyright Office to perform “all administrative functions and duties” required under the Copyright Act. The Office is a part of the Library of Congress, and the Register of Copyrights, who heads the Copyright Office, and her

process could set a precedent for implementing greater agency involvement in an increasingly regulatory form of copyright law.

The rulemaking process is just one example of the regulatory approach to copyright law. The regulatory approach began with the Copyright Act of 1976,⁵ followed by a multitude of amendments and additions, thus evolving copyright from a simple “common law statute”⁶ to regulation-type legislation.⁷ Instead of granting authors general exclusive rights to their works and leaving the courts to interpret these rights, Congress enacted laws that are detailed, complex, and industry-specific. Because these copyright laws are specific, attempt to create immediate solutions for particular interest groups, and leave little room for judicial interpretation, they resemble regulatory laws.⁸ Furthermore, rapid technological advances often lead to more amendments, which induce greater legislative complexity.

The DMCA is a prime example of “regulatory copyright.”⁹ As David Nimmer wrote, the DMCA is “massive in scope and even more gargantuan in procedural complexity,” making it the “granddaddy of all distensions of copyright doctrine.”¹⁰ Unlike a “common law statute” approach—which for copyright is a property-based model—the DMCA controls *access* to the author’s property and prohibits trafficking in the circumvention tools used to access and copy copyrighted works. Additionally, the limitations and exemptions are specific about the type of work, users, and uses rather than allowing for a general prohibition of access for infringing uses of the work. Finally, the rulemaking process, by providing exemptions to the circumvention restrictions, infuses the DMCA with some agency oversight.

subordinates are under the “direction and supervisions” of the Librarian of Congress. 17 U.S.C. § 701 (2006).

5. Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (1976) (current version at 17 U.S.C. §§ 101–1332 (2006)).

6. Richard Posner, *The Decline of Law as an Autonomous Discipline: 1962–1987*, 100 HARV. L. REV. 761, 774–77 (1987) (using the term “common law statute” to apply to generally phrased statutes that leave more room for judicial interpretation).

7. See generally Joseph Liu, *Regulatory Copyright*, 83 N.C. L. REV. 84 (2004); Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63 (2002); David Nimmer, *Codifying Copyright Comprehensibly*, 51 UCLA L. REV. 1233 (2004). These three articles form the core of this Note’s analysis of copyright law as regulatory-type legislation.

8. See GUIDO CALABRESI, *A COMMON LAW FOR THE AGE OF STATUTES* 5 (1999).

9. Liu coined the term “regulatory copyright” to refer to copyright laws that are more reminiscent of laws in regulated industries, meaning they are “complex,” “context-specific,” dictate rights within a market, and reduce the power and influence of the courts. Liu, *supra* note 7, at 102–04. This term will be used throughout this Note.

10. Nimmer, *supra* note 7, at 1342.

Because the DMCA addresses an industry that is quickly evolving, and one of the flaws of regulatory-style legislation is its rigidity, the DMCA is in danger of being too inflexible. Lack of flexibility is harmful to the delicate balance between protection and access in copyright law. When Congress drafted the DMCA, it recognized that it could not predict the future technology landscape, and therefore, included the rulemaking process in the statutory scheme to create flexibility.¹¹ Some critics claim that the scope of the rulemaking process is too narrow to achieve this goal.¹² Yet, by acknowledging the positive gains in the most recent round of exemptions and by broadening the scope of the process and the Copyright Office's power, the rulemaking process could be the "fail-safe mechanism"¹³ Congress originally intended. This process, in turn, shows that agency involvement could be more beneficial in the broader context of copyright law.

In Part I, this Note outlines copyright's transition to a regulatory model, the reasons for this change, its benefits and harms, and the DMCA's fit within the regulatory scheme. Part II illustrates the mechanics of § 1201 and focuses on the rulemaking provision's notice-and-comment process. Part III analyzes the positive trend in each round's exemptions, criticisms of the DMCA rulemaking process, and proposals for addressing these criticisms in order to bolster expansion in round five. Part III also illustrates a potentially more effective version of the rulemaking process, which enables one to see how agency involvement in copyright law may be beneficial generally, especially if "regulatory copyright" is here to stay. Part IV then suggests expanding the Copyright Office's role in copyright law, due to the tension between regulatory copyright legislation and rapid technological advances as well as the Register's performance in the DMCA rulemaking process.

I. REGULATORY COPYRIGHT AND THE DMCA

Although it is just one in a string of amendments creating a regulatory structure for copyright law, the DMCA serves as the epitome of this legislative direction. This Part discusses the origins of regulatory copyright

11. H.R. REP. NO. 105-551, pt. 2, at 36 (1998).

12. *See, e.g.*, PAN LEE, DANIEL PARK, ALLEN WANG & JENNIFER URBAN, PUBLIC KNOWLEDGE REPORT 2: UPDATING 17 U.S.C. § 1201 FOR INNOVATORS, CREATORS, AND CONSUMERS IN THE DIGITAL AGE (Public Knowledge ed., 2010), *available at* <http://www.publicknowledge.org/cra/>; Fred Von Lohmann & Gwen Hinze, *DMCA Triennial Rulemaking: Failing the Digital Consumer*, ELEC. FRONTIER FOUND., 2 (Dec. 1, 2005), http://www EFF.org/IP/DMCA/copyrightoffice/DMCA_rulemaking_broken.pdf.

13. H.R. REP. NO. 105-551, at 36.

and its attributes in order to illuminate the DMCA's regulatory aspects and to place it in the context of this trend. The history of the shift in general copyright law and its positive and negative effects mirror the history and effects of the DMCA. In turn, using the DMCA and the rulemaking process as an example of regulatory copyright legislation provides advice and illustrates pitfalls in this general trend in copyright law.

A. COPYRIGHT'S EVOLUTION FROM A PROPERTY-BASED REGIME TO A REGULATORY REGIME

In its former iterations, from the British Statute of Anne in 1710,¹⁴ to the Copyright Act of 1790,¹⁵ to the 1909 Copyright Act,¹⁶ copyright followed a relatively simple property-based model. Creators of protected works had the right to exclude others from certain uses of their works. This fits the property theory, in which the right to exclude is just one stick in the “bundle of sticks.”¹⁷ While the scope of copyright protection broadened over the years—in part due to the expansion of the types of works protected¹⁸ and the duration of protection,¹⁹—the reduction in requirements such as notice²⁰ and registration²¹ made it simpler to obtain the right to exclude. The earlier copyright acts set the scope of the copyright entitlement but were “agnostic

14. Act for the Encouragement of Learning (Statue of Anne), 8 Ann., c. 19, § 1 (1710).

15. Copyright Act of May 31, 1790, ch. 15, 1 Stat. 124.

16. Copyright Act of Mar. 4, 1909, ch. 320, 35 Stat. 1075.

17. See generally Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730 (1996) (explaining “bundle of rights” property theories and what the Supreme Court has considered the most important stick: the right to exclude); see also 2 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND *2 (1766) (defining property as the “sole and despotic dominion which one man claims . . . in total exclusion of the right of any other individual of the universe”). Although many have rejected the “bundle of rights” theory, it is often used as the basis for analysis. Merrill, *supra*, at 738; see also Frank H. Easterbrook, *Intellectual Property is Still Property*, 13 HARV. J. L. & PUB. POL'Y 108, 113 (1990) (stating that, except in the rarest of cases, property rights should apply to intellectual property in the same way they apply to tangible property).

18. See 17 U.S.C. § 102(a) (2006) (listing eight categories of protectable works). This number has expanded since the 1790 act, which simply protected maps, charts, and books. See Copyright Act of May 31, 1790, § 1.

19. Duration has been extended several times from the initial fourteen-year term, plus fourteen-year extension, to the current life of the author, plus seventy years. See Copyright Act of May 31, 1790, § 1; 17 U.S.C. § 302.

20. See §§ 401–406 (making the notice requirement optional).

21. See § 408 (outlining the requirements for registration, but noting that “registration is not a condition to copyright protection”). Although registration was never a requirement for initial protection, it was required for renewal, pre-1964. See Copyright Act of Mar. 4, 1909, § 23.

about the details and the structure of the resulting market.”²² Courts developed limitations on an author’s property rights, which remained a part of common law until the latter part of the twentieth century.²³

Congress first codified most of these judge-made limitations in the Copyright Act of 1976. In an attempt to codify common law and address the needs of interest groups, Congress produced a dense document that was riddled with complexities.²⁴ Although the new Act’s intricacies resembled a regulatory model, copyright as a property-based regime still persisted within the Act.²⁵ Congress then created a true regulatory regime through a series of post-1976 amendments—particularly with the flurry of amendments between 1992 and 2002—that left the Copyright Act “bloated” in all major areas.²⁶ Amendments such as the Audio Home Recording Act of 1992,²⁷ the Digital Performance Rights in Sound Recording Act of 1995,²⁸ and the DMCA in 1998, as well as the institution of a Copyright Royalty Board,²⁹ the expansion

22. Liu, *supra* note 7, at 101.

23. Restrictions on copyright owners, such as the fair use and first sale doctrines, remained solely in the common law until codification in 1976. *See, e.g.*, *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908) (creating the first-sale doctrine); *Gyles v. Wilcox*, (1740) 26 Eng. Rep. 489 (Ch.) (establishing the “fair abridgment” doctrine which later evolved into the modern fair use doctrine).

24. *See generally* Jessica Litman, *Copyright, Compromise and Legislative History*, 72 CORNELL L. REV. 857, 861 (1987) (providing an overview of the process for creating the 1976 Act, including that “the language evolved through a process of negotiation among authors, publishers, and other parties with economic interests”).

25. Liu, *supra* note 7, at 98–102, 105; *see also* John Tehranian, *Fixing Copyright: Introduction: Infringement Nation: Copyright Reform and the Law/Norm Gap*, 2007 UTAH L. REV. 537, 548 (“With the passage of the 1976 Copyright Act . . . we radically altered our default regime from one of nonprotection to one of protection. . . . [V]irtually the entire universe of creative works created after 1978 is now subject to copyright protection. Any use of a creative work is now, as a default matter, viewed as an infringement.”); *cf.* Nimmer, *supra* note 7, at 1282 (stating that the 1976 Act was a “departure from the flexibility and pristine simplicity of a corpus of judge-made copyright law,” though it was the subsequent amendments that truly expanded the Act’s complexity).

26. Nimmer, *supra* note 7, at 1315; Pamela Samuelson, *Fixing Copyright: Preliminary Thoughts on Copyright Reform*, 2007 UTAH L. REV. 551, 557 (“[T]he current statutory framework is akin to an obese Frankensteinian monster.”); *see also* WILLIAM M. LANDES & RICHARD A. POSNER, *THE POLITICAL ECONOMY OF INTELLECTUAL PROPERTY LAW* 2–3 (2004) (stating that copyright law has more amendments and is lengthier than other areas of intellectual property law).

27. 17 U.S.C. §§ 1001–1010 (2006).

28. § 114.

29. The Board determines rates and terms for statutory licenses as well as distribution of the royalties. *See* Copyright Royalty and Distribution Reform Act of 2004, 17 U.S.C. § 801.

of rulemaking by the Copyright Office,³⁰ and the detailed and numerous exemptions within the new provisions, changed the laws surrounding the creation and protection of creative works to look more like a regulated industry than property law for intellectual goods. In fact, post-1976, Congress has addressed most new subject matters with statutory amendments, instead of leaving the courts to interpret the Copyright Act.³¹

These developments ushered in the regulatory model of modern copyright law. Gone is the “industry- and technology-neutral” code.³² Instead, the rules are “context-specific” with a “precise structure and allocation of rights” governing various individual markets.³³ And tailoring rights to specific markets means more complexity. Courts are no longer able to articulate a basic property entitlement—not only was case law codified, but Congress also attempted to pre-empt many potential copyright issues that would arise with fast-evolving technology by outlining specific, detailed rights and exceptions to those rights.³⁴

The DMCA is a prime example of regulatory legislation in copyright law because it deviates from a property-based model, is industry specific, and is complex in its allocation of rights. First, the Act does not create a property right in a particular work. Instead, it regulates access to a copyrighted work as well as the tools by which to obtain that access and to make copies. Second, Congress geared the Act’s provisions toward two particular industries—traditional content creators in the entertainment and record industries, and creators of technology—by providing protection for the former through restriction of the latter. Third, the Act is detailed in its limitations and exemptions. For example, there are seven exemptions, and most specify a

30. Beyond the DMCA rulemaking process, the Copyright Office conducted notice-and-comment processes: (1) for the “operation and revision” of § 111, § 112 statutory licenses, and § 119; (2) for a proposal to extend the scope of the § 115 compulsory license; and (3) to study the “phantom signal phenomenon” under § 111. *See* Rulemaking Proceedings, COPYRIGHT OFFICE, <http://copyright.gov/laws/rulemaking.html> (last visited on Feb. 7, 2011).

31. Samuelson, *supra* note 26, at 551–52. (“The only new subject matters added to the copyright realm since 1976 have arrived through statutory amendment, not through common law interpretation of the 1976 Act’s broad subject matter provision.”).

32. Liu, *supra* note 7, at 100.

33. *Id.* at 103–04. *See generally* Michael W. Carroll, *One Size Does Not Fit All: A Framework for Tailoring Intellectual Property Rights*, 70 OHIO ST. L.J. 1361 (2009) (advocating that specific copyright and patent rights are more economically beneficial).

34. Not only did the 1976 Act create “limitations,” but it made specific exemptions to those limitations. *See* Liu, *supra* note 7, at 105. For example, § 108 outlines what libraries and archives can and cannot copy instead of leaving this copyright exception to the fair use doctrine.

class of users, limit the uses, and provide stipulations for those uses.³⁵ Last, the DMCA's triennial rulemaking process, conducted by the Copyright Office and overseen by the Librarian of Congress, establishes some supervision of the Act.³⁶

1. *Reasons for the Shift to Regulatory Copyright Law*

Several factors have driven copyright's shift to this more complex model. The first was rapidly evolving technology, which both increased and diversified options for disseminating and copying copyrighted works.³⁷ Between 1976 and 1989, Congress considered over 400 bills to amend copyright laws, most of them related to new technologies.³⁸ In 1989, the Office of Technological Assessment concluded, "all copyright law, including the Copyright Act of 1976, proceeds on the assumption that effective and efficient copying is a large-scale, publicly visible, commercial activity."³⁹ Thus, with the technology revolution that followed the 1976 Act, not only were there new modes of expression and dissemination, but the trend also created the ability to "flawlessly, inexpensively, and instantaneously reproduce and distribute works of authorship."⁴⁰ Traditional content creators wanted additional protection and boldly lobbied for it.⁴¹

Beyond the need for protective measures, the technology revolution created new, extremely valuable markets, thus adding to the incentive to

35. *See, e.g.*, § 1201(d) (exempting "Non-profit Libraries, Archives, and Educational Institutions," by allowing access to protected works, but only to determine whether to purchase a copy, and imposing such limitations as retention "no longer than necessary" and qualification requirements for the libraries and archives).

36. § 1201(a)(1)(C). Although the DMCA vests the Librarian of Congress with the power to make exemptions under the rulemaking process, he is to do so at the recommendation of the Register of Copyrights, who is responsible for conducting the rulemaking proceedings. *Id.*

37. For a detailed explanation of the evolution in technology, which spurred the 1976 Act and subsequent amendments through 2002, see Menell, *supra* note 7, at 103–29.

38. OFFICE OF TECH. ASSESSMENT, U.S. CONG., COPYRIGHT AND HOME COPYING: TECHNOLOGY CHALLENGES THE LAW 3 (1989), available at http://govinfo.library.unt.edu/ota/Ota_2/DATA/1989/8910.PDF (finding rampant copying of music at home). Beyond copying, illegal dissemination has increased as well with websites such as YouTube and the prevalence of peer-to-peer file-sharing. *See Pornography, Technology and Process: Problems and Solutions on Peer-to-Peer Networks: Hearing Before the Comm. on the Judiciary*, 108th Cong. (2003) (statement of Marybeth Peters, Register of Copyrights, Copyright Office); Jessica Litman, *Sharing and Stealing*, 27 HASTINGS COMM. & ENT. L.J. 1, 2 (2004).

39. OFFICE OF TECH. ASSESSMENT, *supra* note 38, at 7.

40. Menell, *supra* note 7, at 64.

41. *See, e.g.*, *Hollywood Has a Setback in Controls for Digital Copyright*, N.Y. TIMES, June 5, 2002, at C4, available at <http://www.nytimes.com/2002/06/05/technology/05DIGI.html>.

adapt copyright laws. The entertainment industry wanted legislation that was beneficial for its bottom line.⁴² The internet explosion prompted content creators' interest in a "pay-per-use universe." Since this model is dependent on limiting user access, these creators wanted legal protection.⁴³

The economic incentive for protection resulted in "rent-seeking," political pressure, and eventually compromise in the form of lengthy legislation. Rent-seeking statutes often result from concentrated benefits and distributed costs,⁴⁴ which is applicable in this scenario; Hollywood benefits and users (i.e. the public) bear the costs. Entertainment groups can "cloak[] their rent-seeking objectives in public-regarding terms" to decrease opposition.⁴⁵ Copyright is amenable to this "cloaking" since the accepted goal of copyright is to promote creation for public benefit,⁴⁶ which can mask economic incentives.⁴⁷ But users have not been without allies. While the traditional content industry has been fighting for greater copyright protection, technologists and users have been advocating for limits to broad grants of protection.⁴⁸ The resulting compromise has created complex congressional amendments. Due to the complexity of the 1976 Act, copyright protection is prone to "rent-seeking" as interests of parties can be "hidden" within the twists and turns of the Act.⁴⁹ With an Act that can hide

42. See Jane C. Ginsburg, *Copyright Legislation for the "Digital Millennium,"* 23 COLUM.-VLA J.L. & ARTS 137, 142 (1999) (citing the "changing economies of exploitation of copyrighted works in the digital environment" as a reason for an expansive DMCA).

43. Jessica Litman, *Reforming Information Law in Copyright's Image,* 22 U. DAYTON L. REV. 587, 601 (1997) (noting the market change in the digital universe as opposed to a book, which could not "sprout wings and fly back" after one reading). The Register has noted a "pay-per-use universe" would be a positive effect of the DMCA, since it would allow users to access works cheaply. See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556, 64,563 (Oct. 27, 2000).

44. William N. Eskridge, *Politics Without Romance: Implications of Public Choice Theory for Statutory Interpretation,* 74 VA. L. REV. 275, 292 (1988).

45. See *id.*

46. See Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law,* 75 TEX. L. REV. 989, 993 (1997) ("Intellectual property rights are fundamentally about incentives to invent and create.").

47. Tim Wu, *Copyright's Communications Policy,* 103 MICH. L. REV. 278, 283-84 (2004) (claiming that "author centric theories of copyright" paint an incomplete picture and that copyrighting legislation has "much more to do with managing competition between industry rivals").

48. *Id.* at 343-44 (2004) (describing copyright's regulatory-type legislation to historically be a product of a battle between disseminators, but in the digital age, it became a battle between the disseminator and the user).

49. Liu, *supra* note 7, at 138.

“rent-seeking” amendments and a battle between two industries to create these amendments, the direct result is an increase in the complexity and regulatory nature of copyright law.

2. *The History of the DMCA*

The impetus behind the DMCA’s creation and its structure mirrors the reasoning for the overall shift in copyright law. This is evident in the DMCA’s legislative history. At the Diplomatic Conference held by the World Intellectual Property Association (“WIPO”) in 1996, 150 countries, including the United States, adopted the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty.⁵⁰ Countries enacted these treaties to ensure the protection of copyrighted material in the quickly evolving “digital environment . . . at a time when borderless digital means of dissemination were becoming increasingly popular.”⁵¹ The United States then implemented domestic legislation to bring U.S. copyright law into compliance with these treaties,⁵² resulting in the DMCA.⁵³

The DMCA departed from “regulating the use of information” to regulating “the devices or means by which the information [is] delivered or used by information consumers.”⁵⁴ Many opposed the bill due to this distinction: under the DMCA, liability arises “separate and independent from any act of copyright infringement” and without “any intent to promote infringement.”⁵⁵ Although members of the Commerce Committee agreed that such legislation must be approached with caution, they also felt the digital revolution had created a “unique threat” to copyright owners that required strong protection from the easier copying and dissemination that resulted from new devices.⁵⁶ Congress did not seem to consider whether any

50. These require parties to the treaties to afford “adequate legal protection and effective legal remedies against the circumvention of technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention.” World Intellectual Property Organization: Copyright Treaty art. 11, Dec. 20, 1996, 36 I.L.M. 65; World Intellectual Property Organization: Performances and Phonograms Treaty art. 18, Dec. 20, 1996, 36 I.L.M. 76.

51. H.R. REP. NO. 105-551, pt. 1, at 9 (1998).

52. *Id.* (requiring “two technological adjuncts” to the copyright law).

53. *Id.*

54. H.R. REP. NO. 105-551, pt. 2, at 24.

55. *Id.*

56. *Id.* at 24–25.

action needed to be taken, and instead, started with the assumption that copyright law had to be adapted for this digital revolution.⁵⁷

Despite the Commerce Committee referencing the need for the United States to comply with the WIPO treaties, the treaties were only one motivating factor for the DMCA.⁵⁸ In fact, the Act went far beyond the compliance requirements.⁵⁹ Instead, the DMCA's language closely resembled a suggested provision from the Clinton Administration's *Framework for Global Electronic Commerce*.⁶⁰ Backed by the entertainment industry, the initial DMCA provisions created a broad ban on technologies.⁶¹ Silicon Valley then entered the arena and limited this broad ban with exemptions such as interoperability and the elimination of requirements for designing technology to meet technological protection needs.⁶² Consequently, with Hollywood and Silicon Valley battling each other, simple provisions turned complex as Congress added limitations to please both sides.⁶³

B. THE BENEFITS AND CRITICISMS OF A REGULATORY STRUCTURE FOR COPYRIGHT LAW

A “regulatory” copyright model contains both positive and negative attributes. One benefit is regulatory copyright can tailor itself to the requirements of individual industries as different industries have varying

57. Nimmer, *supra* note 7, at 1375. Nimmer compares the legislators' assumption in enacting the DMCA to their earlier approach for addressing copyright protection for software. Congress formed the National Commission on New Technology Uses of Copyrighted Works (“CONTU”), in which the need for copyright to protect software was studied *before* Congress decided to amend the Copyright Act. CONTU advised Congress on the steps for adapting copyright law and advocated for fitting software into the existing framework. *See id.* at 1378–81.

58. For additional information on the legislative path to the DMCA, see Herman & Gandy, *supra* note 3, at 129–41.

59. *See* Samuelson, *supra* note 3, at 553 (claiming that a simple statute making it illegal to circumvent technological protection systems for purposes of engaging in or enabling copyright infringement would have been enough).

60. William J. Clinton & Albert Gore, A Framework for Global Electronic Commerce, July 1, 1997, <http://www.w3.org/TR/NOTE-framework-970706>; *see also* Samuelson, *supra* note 3 (providing an analysis of the similarities between the Framework and resulting legislation).

61. Samuelson, *supra* note 3, at 538.

62. *Id.* *But see* Wu, *supra* note 46, at 359–60 (stating that the anticircumvention provisions were the result of a battle between the concentrated content industry and the “scattered” consumers).

63. *See* Menell, *supra* note 7, at 162–91 (noting that both sides supported the DMCA, but its ineffectiveness “forced a wedge between the content and technology sectors”); Samuelson, *supra* note 3 (providing a detailed description of the battle between Hollywood and Silicon Valley in the creation of the DMCA).

needs.⁶⁴ This avoids incurring “uniformity costs.” Detailed exemptions, licenses, and set royalty rates can also provide “greater clarity to the regulated parties” and may cure market failures in some industries.⁶⁵ Clearly defined laws also reduce legal uncertainty because creators and users of content do not have to predict how a court will rule *ex post*, which is critical with constantly evolving technologies.⁶⁶ Though one might assume that the courts can react more quickly than Congress in adapting to new technologies, the legislature has proven to be equally fast or faster in determining a new technology’s copyright status in some cases.⁶⁷

Post-1976 amendments have also instituted broader agency involvement. Agencies can be more effective at rulemaking than legislators, due to fewer constraints by the political process and their use of “open, reasoned, and incremental”⁶⁸ procedures. And though agencies can be particularly susceptible to private interests,⁶⁹ they are arguably less so because bureaucrats are appointed, not elected. Their decisions do not reflect concerns about answering to constituents or garnering reelection funds. The Copyright Office appears to have successfully avoided susceptibility to private interests. Because it has remained industry-neutral, the Copyright Office’s increased involvement in copyright lawmaking is another positive aspect of regulatory copyright legislation.⁷⁰

Despite these benefits, some scholars regret the shift—or at least the way the laws have been drafted and enacted. David Nimmer has argued that legislation should embody four characteristics: (1) coherency, (2) transparency, (3) a basis in reality, and (4) breadth, and that the Copyright Act of 1976 and subsequent legislation do not reflect these traits.⁷¹ For

64. Carroll, *supra* note 33, at 1366 (believing it is better to tailor laws than to create open legislation with “flexible” standards).

65. Liu, *supra* note 7, at 133. For clear exemptions, see 17 U.S.C. §§ 108–122 (2006), as a comparison to fair use under § 107.

66. Ben Depoorter, *Technology and Uncertainty: The Shaping Effect on Copyright Law*, 157 U. PA. L. REV. 1830, 1846 (2009).

67. *Id.* at 1842–43 tbl.1 (showing, for example, that it took the court four years to enjoin Grokster and eight years to rule on the VCR, while it took Congress six years to legislate for DAT tapes and eight years for the audio cassette); Nimmer, *supra* note 7, at 1377 n.792 (noting the *Red Baron* and *Napster* decisions).

68. Eskridge, *supra* note 44, at 308.

69. Under public choice theory, asymmetrical laws that are subject to agency control lead to “agency capture,” in which one interest group comes to control the agency. *Id.* at 289.

70. *See infra* Section IV.C.

71. Nimmer, *supra* note 7, at 1270–83; *see also id.* at 1282 (“I for one regret this departure from the flexibility and pristine simplicity of a corpus of judge-made copyright law

example, many recent acts have provisions that may conflict with one another,⁷² but the complexity of the industry-specific legislation makes it difficult to identify these specific conflicts. Complexity also makes copyright laws hard to understand, resulting in poor guidance, particularly for private citizens.⁷³ This leads to uncertainty for the courts, for authors, and for users, and results in economic inefficiency due to a decrease in market transactions and the creation of derivative works.⁷⁴ This complexity also contributes to a lack of transparency, because hidden agendas can be interwoven into the Act, along with provisions that do not contribute to copyright's policy goals.⁷⁵ In addition, Congress may not have the detailed knowledge about market structures necessary to make intricate rules for individual industries,⁷⁶ and Congress may not be the best predictor of trends in technology.⁷⁷

One of the greatest disadvantages of detailed provisions is the lack of breadth and the resulting lack of flexibility. With detailed provisions, not only are the rules set, but they usurp the role of the courts. In certain instances, Congress may be able to react more quickly than the courts. Yet, a simpler property rights structure could be more responsive to the market, particularly

implanted on a statutory base consisting of general principles. This has now been replaced with a body of detailed rules reminiscent of the Internal Revenue Service.”)

72. For instance, the DMCA provides exceptions to the prohibition against circumvention, but not all of these exceptions include exemptions for the tools with which to circumvent. *See, e.g.*, 17 U.S.C. § 1201(d)(4) (2006).

73. That laymen understand copyright laws has become even more crucial in the digital age due to the ease of infringement, the ease of detecting infringement, and the proliferation of user-generated content. *See* Tehranian, *supra* note 25, at 539–40 (stating that copyright law has become relevant to everyone because “we are all regular consumers and producers of copyrighted content”); *see also* Rebecca Tushnet, *I Put You There: User-Generated Content and Anticircumvention*, 12 VAND. J. ENT. & TECH. L. 889, 914–15 (2010) (illustrating the explosion of user-generated content and the need for such users to be involved in the modification of copyright law).

74. ROBERT COOTER & THOMAS ULEN, *LAW AND ECONOMICS* 125 (2d ed. 1997). This complexity also negates the benefit of notice and the avoidance of ex post court decisions that well-written regulatory-type laws can provide.

75. Liu, *supra* note 7, at 135–36.

76. *Id.* at 136–37 (stating that this lack of prescience is seen in the number of amendments and in the cases that arise in the courts).

77. The Congressional Office of Technology Assessment, which provided a basis for many technological debates in Congress, closed in 1995 and its services have not been replaced. *See* Warren E. Leary, *Congress's Science Agency Prepares to Close its Doors*, N.Y. TIMES (Sept. 24, 1995), available at <http://www.nytimes.com/1995/09/24/us/congress-s-science-agency-prepares-to-close-its-doors.html?>; OTA LEGACY, <http://www.princeton.edu/~ota/> (last visited on Dec. 20, 2010). The Copyright Office sometimes conducts research for the Librarian, but its resources are limited.

with the rapidity and unpredictability of new technology.⁷⁸ For laws that are codified in detail, the court does not have much room for interpretation when faced with new issues, and especially when these laws become obsolete.⁷⁹ Rent-seeking legislation is also more likely to become obsolete because legislators are less likely to update them.⁸⁰ And though not all problems are foreseeable, a lack of flexibility in copyright markets can be particularly dangerous since technology evolves rapidly. Even the most prescient lawmaker cannot predict the influence of future, unknown technologies.

1. *Criticisms of the DMCA's Structure*

Many scholars have criticized the DMCA, though these criticisms generally focus on the poor drafting of the DMCA's provisions rather than its regulatory structure. Nimmer's four principles of "good" legislation⁸¹ are not present in the DMCA. With regard to breadth, the DMCA has "no pretense of serving the commonweal generally."⁸² Lack of breadth, however, can be a criticism of regulatory legislation generally since regulations are usually both industry- and rule-specific. Second, the DMCA is not based in reality.⁸³ It did not regulate activities that existed in 1998, nor do those activities exist today.⁸⁴ Congress should have realized that intricate legislation to guide future, unknown events would be problematic,⁸⁵ and therefore, should have provided more breadth to the Act.⁸⁶

Critics also claim that the DMCA lacks coherence and transparency. The Act is not coherent because it is "subject to endless contradictions and

78. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* (3d ed. 1986) (preferring the efficiency of common law over legislation).

79. CALABRESI, *supra* note 8, at 5–7 ("Increasingly detailed codifications have left judges scrambling to make specific but obsolete laws functional.")

80. Eskridge, *supra* note 44, at 294.

81. See *supra* Section I.B.

82. Nimmer, *supra* note 7, at 1343. This lack of breadth refers to the interests it caters to, not to the subject, which is an expansive ban on access.

83. *Id.*; David Nimmer, *Back from the Future: A Proleptic Review of the Digital Millennium Copyright Act*, 16 BERKELEY TECH. L.J. 855, 858–59 (2001).

84. *Id.*

85. Samuelson argues that the Act should have been left open to review after its enactment because Congress was aware of potentially negative impacts of the legislation resulting from the debate between Hollywood and Silicon Valley, in addition to vocal criticisms from the academic community. Samuelson, *supra* note 3, at 522–25. While there *was* one study provision and a moratorium on the "act of circumvention provision," Samuelson stated that this was not enough. *Id.* at 557.

86. This supports Joseph Liu's assessment that the DMCA was not a good candidate for regulatory-type legislation. See Liu, *supra* note 7, at 142.

interpretive dead ends.”⁸⁷ For example, the DMCA allows the circumvention of protection measures for certain users and uses but does not always allow the requisite circumvention tools.⁸⁸ The lack of exemptions for tools also extends to the rulemaking process because the Library of Congress does not have the authority to exempt tools. Rulemaking is thus limited, unless the affected users know how to circumvent technological measures without legally marketed devices.⁸⁹ Some commentators claim these limitations render a number of the DMCA’s provisions “meaningless,”⁹⁰ thus causing incoherence and indefiniteness. These characteristics of the DMCA have led to attempts to protect non-creative works, such as garage door openers and ink cartridges,⁹¹ which is contrary to copyright’s policy goals. Because the DMCA directly affects the public, the consequences of the resulting legal uncertainty are magnified.

2. *The DMCA as a Poor Candidate for Regulatory Legislation*

While a regulatory model may be beneficial in some settings, it can be harmful in others; Joseph Liu identified characteristics of areas where regulatory legislation is most appropriate and concluded that digital copyright does not qualify.⁹² For example, a regulatory approach can be beneficial when there is “good data for a particular industry,” the main participants are “identifiable and well-represented,” and potential market failure can be clearly perceived.⁹³ Conversely, a regulatory approach may be too restrictive when there is “significant doubt over both technology and/or the future structure of the market”—when there are constant new developments and entrants.⁹⁴ Also, if there is not a strong potential for market failure, over-

87. Nimmer, *supra* note 7, at 1343.

88. For instance, the exemption for libraries, archives, and educational institutions does include an exemption for tools. *See* 17 U.S.C. § 1201(d) (2006). Meanwhile, other exemptions such as those for interoperability and encryption research do allow for the use of circumvention tools. *See* § 1201(f), (g)(4). While this may sometimes require exempted users to be technologically proficient to circumvent without legally available circumvention tools, many circumvention tools are easily available (for example, just conduct an internet search for “jailbreaking an iPhone”).

89. Samuelson, *supra* note 3, at 560–62.

90. *Id.* at 547.

91. *See* Chamberlain Group, Inc. v. Skylink Techs., Inc. 381 F.3d 1178 (Fed. Cir. 2004); Lexmark Int’l v. Static Control Components, 387 F.3d 522 (6th Cir. 2004).

92. Liu, *supra* note 7.

93. *Id.* at 140.

94. *Id.* at 140–42.

regulation can be harmful by interfering with the economic efficiency of a competitive market.⁹⁵

Digital copyright laws, such as the DMCA, fall into the latter category,⁹⁶ because the technology and the players are in constant flux and potential market failure has not been identified. Content creators, however, appear to be satisfied with protections afforded by the DMCA. In their push to quash triennial rulemaking exemptions, content industry members stated that the DMCA has “made a critical positive contribution” to protecting against a “digital cornucopia” in which there is an “unprecedented range of copyrighted materials” available to the public in digital formats.⁹⁷ But it is not clear that this legislative attempt to combat the proliferation of copyrighted digital content preempted any potential market failure. Without a definite need to correct market failure and with unforeseeable technological advances, it is hard to justify a regulatory approach. Nevertheless, the triennial rulemaking process aids in saving the DMCA from common pitfalls of a regulatory model by providing the DMCA with the flexibility to adapt to unforeseeable technologies.⁹⁸

C. POLICY BEHIND THE DMCA RULEMAKING PROCESS

The Commerce Committee proposed the rulemaking process to create flexibility within the DMCA⁹⁹ and to retain statutory fair use.¹⁰⁰ The Committee intended for this process to be the Act’s “fail-safe mechanism,” which was particularly important for regulatory-type legislation addressing a constantly evolving market and new technologies.¹⁰¹ The legislators chose a

95. *Id.*

96. *See id.* at 143–45.

97. Joint Reply Comments of the Ass’n of Am. Publishers et. al. at 4, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Docket No. RM 2005-11 (Feb. 2, 2006), *available at* http://www.copyright.gov/1201/2006/reply/11metalitz_AAP.pdf [hereinafter 2006 Joint Reply Comments].

98. For example, Congress may not have envisioned a “smartphone” in 1998, but the most recent round of rulemaking has ensured that users are not constrained by the DMCA’s prohibition against circumvention.

99. The proposal from the Judiciary Committee did not contain the rulemaking process. *See* H.R. REP. NO. 105-551, pt. 1 (1998).

100. *Id.* at pt. 2, at 37 (1998) (stating the goal of the process was the ensure that technological protection measures are not “adversely affecting the ability of individual users to make lawful uses of copyrighted works,” and “[t]he primary goal of the rulemaking proceeding is to assess whether the prevalence of these technological protections . . . is diminishing the ability of individuals to use these works in ways that are otherwise lawful”).

101. *Id.* at 36.

regulatory scheme for the exemption process, instead of a statutory scheme, so as to provide for “greater flexibility in enforcement.”¹⁰² The desire for flexibility defined the process: recurrence every three years, focus on “distinct, verifiable and measurable impacts,” consideration of “past or likely adverse impacts,” and the requirement of de novo review.¹⁰³

Beyond Congress’s stated intent, legislators often delegate authority to agencies, particularly when there are vocal, conflicting interests. This allows legislators to “claim to have done something constructive . . . by shifting political decisions to another branch.”¹⁰⁴ Since the DMCA has been the subject of pressure from both content creators and hardware/software manufacturers, Congress might wish to move the battleground for updating a controversial part of the statute into another forum. Furthermore, the “notice-and-comment” method seems appropriate. The Administrative Procedure Act establishes two types of rulemaking: “formal” and “notice-and-comment.”¹⁰⁵ Most agencies choose the latter because it is less cumbersome.¹⁰⁶ Given this general preference as well as rapid technological advances and the goal of flexibility, this notice-and-comment approach would appear to be the obvious form for the DMCA’s rulemaking process.

II. THE DMCA AND THE RULEMAKING PROCESS

Understanding the DMCA’s provisions, and particularly the rulemaking process, helps to illuminate the Act’s place within the regulatory copyright model. The DMCA triennial rulemaking process merits attention because it

102. *Id.*

103. *Id.* The original proposal in H.R. 2281, 105th Cong. (1998), was for the rulemaking to occur every two years.

104. Eskridge, *supra* note 44, at 312.

105. The Administrative Procedure Act (“APA”) establishes the guidelines for notice-and-comment rulemaking. 5 U.S.C. § 553 (2006). When Congress grants authority to an agency, Congress can supplement or override the APA’s procedural requirements, but the Commerce Committee chose not to when creating the DMCA rulemaking process. *See* H.R. REP. NO. 105-551, at 37.

106. *See* Anthony Gass, *Considering Copyright Rulemaking* (Working Paper, 2008) (on file with author). Gass notes, however, that the “notice-and-comment” process is far from streamlined. *Id.*; *see also* Mark Seidenfeld, *A Table of Requirements for Federal Administrative Rulemaking*, 27 FLA. ST. U. L. REV. 533, 533 (2000) (stating that when Congress adopted the APA, “the notice and comment requirement . . . was viewed as a variant on the legislative process that would allow agencies to adopt and amend rules quickly in response to changing circumstances,” but the process has since become more complex with the introduction of “statutorily mandated review of agency action,” the requirement of “extensive documentation of information” the agency relies on, “detailed explanation[s] of choices” the agency makes, and other considerations).

incorporates agency involvement into the DMCA, even if that involvement falls short of true oversight. More generally, in an area of law that is increasingly regulatory, the rulemaking process is still one of the few places that incorporates agency input. By outlining relevant sections of the DMCA, with a focus on the notice-and-comment procedure, this Part depicts how the Librarian of Congress and the Register of Copyrights implement agency regulation. This Part then shows the exemptions created by this process.

A. A BRIEF OVERVIEW OF SECTION 1201

Section 1201 of the DMCA contains three basic prohibitions. The main provision prevents access to a copyrighted work by prohibiting the circumvention of a technological protection measure (“TPM”) that “effectively controls access” to that work.¹⁰⁷ Circumvention means “to descramble a scrambled work, to decrypt an encrypted work or . . . to avoid, bypass, remove, deactivate, or impair a technological measure.”¹⁰⁸ A TPM “effectively controls access” if it “requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to a work.”¹⁰⁹ This provision essentially forbids the “electronic equivalent of breaking into a locked room in order to obtain a copy of a book.”¹¹⁰ Access control is akin to a copyright owner’s exclusive distribution right under the Copyright Act.¹¹¹

The next two provisions prohibit the manufacture, sale, and trafficking of devices or services used for circumventing a TPM.¹¹² The device or service must meet three requirements to qualify for prohibition: (1) it must have been “designed or produced” primarily to circumvent TPMs; (2) if it has a purpose other than to circumvent, that purpose must be limited; and (3) it must have been marketed with the circumvention purpose in mind.¹¹³ The first trafficking provision prohibits devices or services used to *access* a

107. 17 U.S.C. § 1201(a)(1)(A) (2006).

108. § 1201(a)(3)(A).

109. § 1201(a)(3)(B).

110. *Universal City Studios v. Reimerdes*, 111 F. Supp. 2d 294, 316 (S.D.N.Y. 2000). For example, if a copyright owner required a password to access a digital copy of his book, the password would be an access control measure. A person who does not know the password and uses software to discover it would be violating this provision of the DMCA.

111. Ginsburg, *supra* note 42, at 140; *see also* § 106(3).

112. § 1201(a)(2), (b)(1) (stating specifically that “[n]o person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof”).

113. § 1201(a)(2)(A)–(C), (b)(1)(A)–(C).

copyrighted work.¹¹⁴ The second trafficking ban refers to devices or services that aid in violating a copyright owner's exclusive right, such as copying a work, once access has already been achieved.¹¹⁵

In an attempt to maintain the constitutionally mandated balance in copyright law,¹¹⁶ the DMCA contains a "savings clause," several enumerated exemptions, and the triennial rulemaking process. Thus, a copyright owner does not receive universal protection against circumvention or against the creation and dissemination of tools that allow such circumvention. First, the savings clause mandates that "nothing . . . shall affect rights, remedies, limitations or defenses to copyright infringement, including fair use, under this title."¹¹⁷ Congress thus intended to import all of the limitations and defenses that protect users under the Copyright Act.¹¹⁸ The savings clause's effectiveness is questionable, however, because courts have not seemed to interpret the clause as providing significant limitations to copyright protection.¹¹⁹ In addition to this intended catch-all, the DMCA includes seven explicit exemptions: (1) a "shopping privilege" for libraries and schools, (2) certain law enforcement and government activities, (3) reverse engineering to determine and/or enable interoperability, (4) research to detect vulnerabilities in encryption technologies, (5) TPMs that prevent access by minors, (6) protection of personally identifying information, and (7) security testing.¹²⁰ Some of these exemptions only apply to accessing a work,¹²¹ while others include exemptions for circumvention tools.¹²² For

114. § 1201(a)(2). Continuing with the prior example, if the three requirements were met, the person who makes or sells the password-cracking software used to access the digital book would be in violation of this Section.

115. § 1201(b)(1). If a person has access to the author's digital book, but the author has applied a TPM that prevents the copying of that book, anyone who makes or sells a device to circumvent that TPM is in violation of the second trafficking ban. However, the person who has copied the digital book is not in violation of the DMCA because he has committed standard copyright infringement.

116. U.S. CONST. art. I, § 8, cl. 8 ("To promote the Progress of Science and the useful Arts . . .").

117. § 1201(c)(1).

118. H.R. REP. NO. 105-551, pt. 2 (1998).

119. *See, e.g.,* Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001) (holding that a fair use of a work does not require the law to allow circumvention to gain access to the "perfect form" of that work); *United States v. Elcom, Ltd.*, 203 F. Supp. 2d 1111 (N.D. Cal. 2002) (upholding fair use does not extend to circumvention tools).

120. § 1201(d)-(j).

121. *See* § 1201(d), (e), (i).

122. *See* § 1201(f), (g), (j).

other possible noninfringing uses not listed in § 1201, the triennial rulemaking process can create additional exemptions.

B. THE DMCA RULEMAKING PROCESS

Section 1201(a)(1)(C) of the DMCA creates the rulemaking process and establishes minimal guidelines for the Librarian of Congress and the Register of Copyrights.¹²³ The process, to be completed every three years, gives the Librarian the power to determine which classes of copyrighted works can or are likely within the next three years to have “noninfringing uses” that are prohibited under the broad access ban of § 1201(a)(1)(A).¹²⁴ The Librarian of Congress receives recommendations from the Register of Copyrights, and the Register in turn “consults with” the Assistant Secretary for Communications and Information,¹²⁵ overseer of the National Telecommunications and Information Administration (“NTIA”). Though the Copyright Office and the NTIA aid in the Librarian’s final decision, power ultimately vests in the Librarian, an executive appointee.¹²⁶

The rulemaking provision lists five factors for the Librarian to consider when creating exemptions. These first four factors are: (1) “availability for use of the copyrighted works,” (2) “availability . . . for nonprofit archival, preservation, and education purposes,” (3) impact of prohibiting circumvention on “criticism, comment, news reporting, teaching, scholarship, or research” of a copyrighted work, and (4) effect of prohibiting circumvention “on the market for or value of copyrighted works.”¹²⁷ The fifth factor is a catch-all, directing the Librarian to consider any other

123. The Register looks to the legislative history to further define the process. For example, she often cites to the Commerce Committee and House Manager Reports for clarification on the burden of proof and other issues. *See, e.g.*, Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Cong., Recommendation of the Register of Copyrights in RM 2008-8; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, at 9–12 (June 11, 2010), *available at* <http://www.copyright.gov/1201/> [hereinafter 2010 Memorandum].

124. § 1201(a)(1)(C).

125. *Id.* The NTIA is an agency in the U.S. Department of Commerce.

126. While the power is formally vested in the Librarian of Congress, the Librarian has authorized all of the exemptions proposed by the Register of Copyrights and has only included one additional exemption. *See* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,838–39 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

127. § 1201(a)(1)(C)(i)–(iv).

“appropriate” factors.¹²⁸ These factors resemble those in the copyright fair use doctrine.¹²⁹

The Copyright Office oversees the rulemaking process, which has taken between one and three years to complete.¹³⁰ First, the Register of Copyrights solicits public written comments via a Notice of Inquiry, to which all parties interested in exempting a class of works must respond.¹³¹ The Register then arranges the classes into groups and posts them on the Copyright Office’s website as a Notice of Proposed Rulemaking.¹³² Any interested parties can submit reply comments on the initial proposals.¹³³ The Copyright Office posts these replies on its website, and the Register conducts public hearings so participants can testify for or against the proposed classes of works.¹³⁴ Following the hearings, the Register can supplement the testimonies with written questions for the witnesses.¹³⁵ The Assistant Secretary for the NTIA proposes suggestions in meetings and memorializes his views in written letters.¹³⁶ The Register then reports her final decisions to the Librarian of Congress.¹³⁷ Finally, the Librarian approves or denies each exemption and publishes the final rule.¹³⁸ The Librarian has the option to publish an Interim Rule to extend the current exemptions if there is a delay in the rulemaking process.¹³⁹

128. § 1201(a)(1)(C)(v).

129. *See* § 107. The Librarian’s third factor: to consider the impact of “criticism, comment, news reporting,” is lifted word for word from § 107. The fourth factor for the Librarian’s consideration mirrors the fourth factor for statutory fair use.

130. The Copyright Office completed the first round in thirteen months compared to the most recent round which took two years and eight months. The process has become longer with each new round.

131. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,827.

132. *Id.* The Copyright Office first introduced this publication in the fourth round.

133. *Id.*

134. *Id.*

135. *Id.* The Copyright Office first followed up with written questions in the fourth round.

136. *Id.*

137. *Id.*

138. *Id.* In the most recent round of exemptions, the Register posted the “Notice of Inquiry” on October 6, 2008, and accepted comments until December 2, 2008. The Register received nineteen comments proposing twenty-five classes of works (which was consolidated into eleven classes, due to overlapping proposals). Parties could then comment on the posted comments between December 29, 2008 and February 2, 2009. The Librarian published the final rule on July 27, 2010, thus completing the process.

139. *See, e.g.*, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Interim Rule, 74 Fed. Reg. 55,138 (Oct. 27, 2009).

Several aspects of the rulemaking process limit its scope. The first limitation is that the “proponents of a class of works” for an exemption hold the burden of proof and must set forth a prima facie case. This prima facie case consists of three elements: (1) that there “has been or is likely to be a substantial adverse effect on noninfringing uses”; (2) that the alleged harm is “more likely than not”; and (3) that the prohibition on circumvention has or will likely cause the alleged harm within the next three years.¹⁴⁰ Because the harm must be “substantial,” the proponent must prove that his request is not a “de minimis” harm, meaning it cannot be “isolated” or a “mere inconvenience.”¹⁴¹ Moreover, proponents must submit prima facie evidence for each round of rulemaking since requests are considered *de novo*.¹⁴²

Another limitation is the scope of the exemptions, which must be for a “particular class” of works and must be decided on a case-by-case basis.¹⁴³ A class should neither be “too broad nor too narrow.”¹⁴⁴ While the starting point for defining a “class of works” is the list of categories in § 102 of the Copyright Act, the Register has determined that a category can be further refined by characteristics of the work, types of users, and types of uses.¹⁴⁵ The Register thus has several tools to ensure classes are narrow in scope.

140. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,826. The Register pulled this information from the Commerce Committee report. H.R. REP. NO. 105-551, pt. 2, at 36 (1998) (“The Committee also intends that the rulemaking proceeding should focus on distinct, verifiable, and measurable impacts; should not be based on *de minimis* impacts; and will solicit input to consider a broad range of evidence of past or likely adverse impacts.”).

141. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,826.

142. *Id.*

143. *Id.*

144. Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Cong., Recommendation of the Register of Copyrights in RM 2005-11; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, at 17 (Nov. 17, 2006) [hereinafter 2006 Memorandum].

145. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,827; 2006 Memorandum, *supra* note 144, at 17 (stating that a class must be *defined* by the characteristics of the work but can be “*refined* by reference to a particular type of user or use”). For example, in the first exemption for the most recent round, the class is defined and refined by all three characteristics. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,827–28. First, the exemption applies only to the § 102 category audiovisual works. *Id.* The class is further limited by a characteristic of the work: the DVD format. *Id.* From there, it is defined by types of users, such as “college and university professors,” as well as by types of uses: “noninfringing,” for “noncommercial videos,” and so on. *See infra* Section II.C. The Register’s willingness to further refine a work by use and user was developed in the third round. *See infra* Section III.A.3.

C. THE FOUR ROUNDS OF EXEMPTIONS

There have been four rulemaking proceedings.¹⁴⁶ Exemptions for each round have evolved by expanding and/or narrowing previously exempted classes, creating new ones, and eliminating others. Overall, the scope and number of exemptions have expanded, though to limited degree. The first round enacted two exemptions. One exemption allowed access to “compilations consisting of lists of websites blocked by filtering software applications.”¹⁴⁷ Software products that block certain websites create lists of those sites, which can be viewed as copyrightable compilations,¹⁴⁸ but this exemption allowed a person to decrypt TPMs protecting access to these lists for “comment or critici[sm].”¹⁴⁹ The Copyright Office deemed this a fair use.¹⁵⁰ The second exemption addressed the circumvention of access control mechanisms for “literary works, including computer programs and databases” that do not permit access because of “malfunction, damage, or obsolescence.”¹⁵¹ The “dongle,” a hardware lock that prevents access to software programs, served as the main evidence submitted for this exemption.¹⁵² The intent behind this exemption was to ensure that authorized users could access a work to which they are entitled and to make noninfringing uses of that work.¹⁵³

Published in 2003, the second round of exemptions expanded to include four classes of works, two of which were modified versions of the previous exemptions in 2000. The first class of exemptions altered the previous exemption for compilations of websites.¹⁵⁴ It expanded the term “lists of websites” to include “domains, websites, or portions of websites.” Overall, however, the class narrowed, since the new exemption only applied to

146. There was a two-year moratorium on circumventing access controls, as provided by 17 U.S.C. § 1201(a)(1)(A) (2006), which, in turn, delayed the first round of exemptions.

147. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556, 65,564 (Oct. 27, 2000).

148. *Id.*

149. *Id.*

150. *Id.* These lists were often criticized due to their high error rate. The Copyright Office also noted that because of the high error rate, website owners needed access to these lists to see if their sites were included. *Id.*

151. *Id.*

152. *Id.* at 64,565.

153. *Id.* The Register reasoned that this did not disrupt the copyright balance since the copyright owner would have already been compensated for the initial access to his work. *Id.* at 64,566.

154. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 68 Fed. Reg. 62,011, 62,013 (Oct. 31, 2003).

“commercially marketed” software and excluded lists of internet locations that “operate[d] exclusively to protect against damage to a computer” or that “operate[d] exclusively to prevent receipt of e-mail.”¹⁵⁵ The modifications essentially limited the compilations to “censorware.”¹⁵⁶ The second exemption in the 2000 round was also renewed, but “access control mechanism” was replaced with “dongle.”¹⁵⁷ This change narrowed the exemption’s application to a hardware lock protecting access to a computer program, as compared to the previous exemption for an obsolete TPM preventing access to *any* literary work.¹⁵⁸ The Register narrowed this exemption because of opponents’ criticisms that the category was over-broad¹⁵⁹ and due to a lack of evidence for harm to the broader category of literary works.¹⁶⁰

The other two exemptions in the second round of rulemaking were new. The first new exemption provided for video games and computer programs that were distributed in now obsolete formats.¹⁶¹ The Internet Archive proposed this exemption because they wished to store old video games and computer programs on modern storage systems.¹⁶² Their request to circumvent access on not-yet-obsolete formats was denied.¹⁶³ The second new exemption, proposed by the American Foundation for the Blind and supported by five major library associations, allowed the circumvention of measures that prevented the read-aloud function on eBooks and the ability of screen readers to convert text into a specialized format.¹⁶⁴ The Register

155. *Id.*

156. Censorware, also known as content-control software, prohibits a reader from accessing certain content on the Internet.

157. Prohibition on Circumvention, 2003 Final Rule, 68 Fed. Reg. at 62,013.

158. *Id.* In round one, the Register stated that this exemption “probably reach[ed] the outer limits of a permissible definition of ‘class.’” Prohibition on Circumvention, 2000 Final Rule, 65 Fed. Reg. at 64,565.

159. Joint Reply Comments of Am. Film Mktg Ass’n et. al. at 17–18, Exemption to Prohibition on Circumvention of Copyright Protection Systems from Access Control Technologies, Docket No. RM 2002-4 (Feb. 20, 2003), *available at* <http://www.copyright.gov/1201/2003/reply/023.pdf> [hereinafter 2003 Joint Reply Comments].

160. Prohibition on Circumvention, 2003 Final Rule, 68 Fed. Reg. at 62,013. This evidence that could have defeated the opponents’ claim. *Id.*

161. *Id.*

162. *Id.* at 62,014. The exemption for obsolete formats is covered under 17 U.S.C. § 108(c).

163. Prohibition on Circumvention, 2003 Final Rule, 68 Fed. Reg. at 62,014. The Register limited the exemption to computer programs and video games because evidence of other harm for other “classes of works” was not presented. *Id.*

164. *Id.*

reasoned that private performance and personal use by the disabled was a noninfringing use.¹⁶⁵ The exemption only applied when “all existing editions” prevented access.¹⁶⁶

The Librarian increased the number of exemptions from four to six in the 2006 round of rulemaking. The exemption for compilations of websites disappeared because the proponents chose to rest on their 2003 record, only adding that the exemption had not adversely affected the availability of blocking software and should therefore be maintained.¹⁶⁷ The Register felt this did not meet the proponents’ evidentiary burden of showing that the exemption was “necessary,” and therefore, the *de novo* requirement was not satisfied.¹⁶⁸ The Register advocated for renewal of the other three previous exemptions.¹⁶⁹ She expanded the eBook read-aloud exemption slightly to allow circumvention if the read-aloud function *or* the screen reader function was disabled, instead of requiring both functions to be disabled in order to trigger the exemption.¹⁷⁰ The dongle exemption incorporated a definition of “obsolete”: when hardware locks were “no longer manufactured or . . . a replacement or repair is no longer reasonably available.”¹⁷¹ The Register narrowed the exemption for obsolete video games and computer programs by both use and user, with circumvention only allowed for “the purpose of preservation or archival reproduction” and only by a “library or archive.”¹⁷²

The first new category in the third round allowed “media studies or film professors” to circumvent the Content Scramble System (“CSS”) on motion picture DVDs in order to extract short portions of films for classroom purposes.¹⁷³ This exemption is notable as it was one of the first times a “particular class of works” was defined by user and use, instead of solely by the attributes of work itself.¹⁷⁴ The second new category was also narrowed

165. *Id.*

166. *Id.* The Register believed this did not place too high a burden on eBook producers since they only needed to provide one edition of the book in which the read-aloud function was not disabled in order to avoid this exemption.

167. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472, 68,477 (Nov. 27, 2006).

168. *Id.*

169. *See id.* at 68,474–79.

170. *Id.* at 68,475.

171. *Id.* Adding the definition of “obsolete” did not narrow or broaden the category, but rather, imported the definition from 17 U.S.C. § 108(c), which had been referenced in the 2003 final rule.

172. *Id.* at 68,474. This change was in response to the Register’s new willingness to “refine” a class according to users and uses. *Id.*

173. *Id.*

174. *See infra* Section III.A.3 (analyzing the new approach to “class of works”).

by use; it allowed the owner of a “wireless handset” to circumvent software locks to connect the phone to a wireless telecommunications network other than that of the phone’s original carrier.¹⁷⁵ This exemption allowed people to switch carriers without having to purchase a new phone, but only if they were “lawfully connecting to a wireless telephone communication network,” i.e., their contract with the original carrier had expired.¹⁷⁶ The last new category involved sound recordings in CD format, for which the TPMs “creat[ed] or exploit[ed] a security flaw” on personal computers; circumvention was allowed in order to engage in “good faith testing, investigating or correcting” of these security flaws.¹⁷⁷ This exemption resulted from an incident in which Sony BMG Music Entertainment distributed CDs with TPMs that installed “rootkits” on personal computers, which created security vulnerabilities.¹⁷⁸

There are also six classes of works in the most recent round of exemptions. While the dongle and eBook exemptions remained exactly the same, the Register expanded two prior exemptions.¹⁷⁹ First, for the circumvention of the CSS on motion picture DVDs, the new version of the exemption focuses on purpose, rather than user, to define the “particular class of works.”¹⁸⁰ Circumvention of the CSS is now allowed in order to incorporate “short portions of motion pictures into new works for the purpose of criticism or comment” and must fall into one of three categories: (1) “educational uses” by college professors and media students, (2) “documentary filmmaking,” or (3) “noncommercial videos.”¹⁸¹ The Register

175. Prohibition on Circumvention, 2006 Final Rule, 71 Fed. Reg. at 68,476.

176. *Id.* The Register was able to refine the “class” to this particular use due to the new approach to refining a “class,” thus addressing an opponent’s concern about access to creative content created for phones.

177. *Id.* at 68,477.

178. *Id.* The language for this exemption came from 17 U.S.C. § 1201(j). Opponents claimed that this exemption already existed under § 1201(j), but the Register stated the scope was not clear and “in light of [the] uncertainty and the seriousness of the problem,” the exemption should be granted. *Id.*

179. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,833, 43,838 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

180. *See id.* at 43,825.

181. *Id.* at 43,827. Because circumventing the CSS can lead to infringing uses as well, the Register was careful to limit the class, making it narrower than the proponents’ proposals. Hence, only people who needed high quality clips qualified (elementary school teachers, therefore, did not). Further, the use was limited to a “short portion,” it had to be used for comment or criticism, it applied only to motion pictures, it had to be incorporated into a derivative work or a compilation, and the person circumventing must have had a “reasonable belief” that he had met all of these requirements. *Id.* at 43,827–28.

also expanded the wireless network exemption to include “software” in addition to “firmware,” while adding the caveat that access must be “authorized by the operator of the network.”¹⁸²

The most recent round retired two former exemptions¹⁸³ and added two new ones, including jailbreaking, which has increased awareness of the rulemaking process. The jailbreaking exemption allows the circumvention of TPMs on smartphones in order to allow third-party applications.¹⁸⁴ Apple argued that its validation system was necessary in order to protect consumers and to protect against damage to the phone,¹⁸⁵ but the Register found jailbreaking to be a fair use.¹⁸⁶ The Register also looked to the purpose of copyright, which was not forwarded by preventing circumvention; instead, this prohibition served only to protect Apple’s business model.¹⁸⁷ The second new exemption allows circumvention of TPMs on a video game for personal computers if the circumvention is “for the purpose of good faith testing for, investigating, or correcting security flaws, or vulnerabilities.”¹⁸⁸ The proposal for this exemption was a response to newly released access control software that supposedly created security vulnerabilities. This exemption built upon the DMCA’s existing “security testing” exemption by expanding access from a “computer, computer system, or computer network,” to include “video games accessible on personal computers.”¹⁸⁹

III. THE RULEMAKING PROCESS PROVIDES FLEXIBILITY

The DMCA is a pivotal building block in the movement toward a regulatory form of copyright, and establishing agency regulation through the rulemaking process is the most important DMCA regulatory trait. Agencies are usually heavily involved in the oversight of regulated industries, but agency involvement has been minimal for many regulatory-type copyright

182. *Id.*

183. The video game and audio CD exemptions disappeared.

184. Circumvention on Prohibition, 2010 Final Rule, 75 Fed. Reg. at 43,837–38.

185. *Id.* at 43,829.

186. *Id.* at 43,828–29. The Register analyzed the four fair use factors and determined the use was noninfringing largely because it promoted interoperability, it was a private, noncommercial use, and it might actually increase Apple’s market. *Id.*

187. *Id.*

188. Technically, this exemption is an update of the security exemption in the previous round. The shift to solely video games (instead of sound recordings on CDs) was the result of the evidence submitted by the exemption’s proponent. *See id.* at 43,832–33.

189. *Id.*

provisions.¹⁹⁰ Thus, the Copyright Office's involvement in the rulemaking process can serve as an example of how such agency involvement should be utilized more in copyright law. The rulemaking process demonstrates how governance can provide flexibility and how to achieve that flexibility. Because the regulatory version of copyright has been criticized as too narrow, too inflexible, and too opaque, perhaps infusing more agency regulation would be an alternative solution to returning to a simpler, more property-based model.

Before applying agency regulation more broadly, it is necessary to analyze the success of the current process. Ultimately, this process infuses flexibility, but could be even more adept at doing so. Section III.A identifies changes and trends in the notice-and-comment procedures, the participants, and the Register's analysis that appear to be the natural product of "trial-and-error." The overall trend is an expansion of the process. While this is truly perceived in the most recent round, the prior rounds have laid the foundation. The increased breadth in the most recent round of exemptions provides hope that this trend toward greater utility will continue in the fifth round. Section III.B demonstrates that while the rulemaking process has infused flexibility, it is not a complete "fail-safe mechanism." Nevertheless, with some modifications, the triennial rulemaking process could more adeptly achieve the goals that Congress originally intended. Section III.C highlights some of the modifications that would bolster the existing positive trend in the exemptions.

A. THE TREND IN RULEMAKING FROM THE FIRST ROUND TO THE MOST RECENT

There has been a discernible evolution in the rulemaking process and the resulting exemptions, from procedural changes, to the transformation in participants and their comments, to the scope of the exempted classes. These changes have resulted in a subtle but definite expansion in the process. The most obvious trend is the increase in the number of exemptions from two, to four, to six, as well as a decrease in the ratio of accepted to rejected classes. However, evidence of growth extends beyond the numbers.

190. The Copyright Office has been involved in rulemaking in four basic areas: (1) making regulations governing the Office's affairs; (2) setting royalty rates and distribution of royalties under such acts as the Audio Home Recording Act of 1992 and statutory compulsory licenses; (3) notice-and-comment rulemaking in the Digital Performance Right in Sound Recordings Act of 1995, retransmission of digital broadcast signals and licensing under § 111, and the DMCA exemption process; and (4) influencing legislation. *See, e.g.,* Rulemaking Proceedings, *supra* note 30.

In the first rulemaking, the Register noted that because § 1201(a)(1) had just been implemented in 2000 (after a two-year statutorily mandated delay), it was hard for proponents to provide proof of current or likely adverse effects.¹⁹¹ The Register lamented the lack of judicial precedent to rely upon, and that overall, it was still unclear how § 1201(a)(1) would affect users.¹⁹² The Register thus concluded, “it is more likely that the next rulemaking will result in more substantial exemptions.”¹⁹³

The second round did see a gradual expansion, at least in the number of exemptions.¹⁹⁴ The two exemptions from the first round remained, but they were both narrowed to accord with the hard evidence submitted. And while there was an eighty-two percent decrease in the number of proponents who initially submitted comments in round one, the Register noted that a “sizeable number of comments were again based on theoretical arguments, *de minimis*, or completely absent of proof of present or likely harm, and mere inconveniences.”¹⁹⁵ Thus, even though the process became more efficient in round two, the Register still struggled due to the quality of the proposals and the evidence from which she was required to make a determination.¹⁹⁶

The third round saw the greatest progress in terms of the process’s scope because the Register adopted a new approach to defining a “class of works” and expanded upon current statutory exemptions.¹⁹⁷ While the Register remarked that many proponents still did not to adhere to the Notice of Inquiry requirements, she rejected fewer classes for their failure to define a

191. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556, 65,563 (Oct. 27, 2000).

192. *Id.* at 65,564.

193. *Id.*

194. *See generally* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 68 Fed. Reg. 62,011 (Oct. 31, 2003).

195. Memorandum from Marybeth Peters, Register of Copyrights, to James H. Billington, Librarian of Cong., Recommendation of the Register of Copyrights in RM 2002-4; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, at 18 (Oct. 27, 2003), *available at* <http://www.copyright.gov/1201/2003/> [hereinafter 2003 Memorandum]. Peters noted, however, that these comments were still considered and addressed in the letter. *Id.*

196. *See* Herman & Gandy, *supra* note 3, at 165–74 (analyzing the contents of the comments and the Register’s main reasons for rejecting them).

197. *See* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472 (Nov. 27, 2006); *see also* Aaron Perzanowski, *Evolving Standards & the Future of DMCA Anticircumvention Rulemaking*, 10 J. INTERNET L., no. 10, Apr. 2007 at 1, 19–20 (discussing the Register’s new approach to “class of works”).

particular class of works, and rejected more due to a lack of evidence for “substantial adverse effect.”¹⁹⁸ Nevertheless, the comments were an improvement, and with the new scope, exemptions increased.

Finally, the most recent rulemaking round truly capitalized off of the expanded scope from round three, and the process became more efficient. The Register received fewer comments, the majority were from non-profit associations, and they met the Register’s requirements.¹⁹⁹ The Register also seemed bolder in her analysis and moved away from a general balancing approach seen in the earlier rounds. She weighed fair use factors for a few of the proposals,²⁰⁰ and for some, conducted a systematic analysis of the statutory factors the Librarian of Congress is supposed to consider.²⁰¹ The following Sections characterize areas of transformation that aided in this overall evolution.

1. *Procedural Changes to the Rulemaking Process*

This extensive process was the first of its kind in copyright law, and thus, it is not surprising that modifications arose from round to round. These changes may appear insignificant at first glance, but they ultimately aided in spawning the current exemptions. First, in round one, the Notice of Inquiry provided a list of twenty-nine questions; the Register urged the proponents to answer each question in their initial comments.²⁰² Mostly unfocused comments resulted, many of which did not answer a single question.²⁰³ It was hard to decipher the proposed “class of works” and the nature of the problem. In round two, the questions disappeared; instead, the Notice of Inquiry asked for a clear statement of the proposed “class of works,” outlined the format for the comments, and urged proponents to review the first rulemaking round for guidance.²⁰⁴ The new format allowed the

198. *See generally* Prohibition on Circumvention, 2006 Final Rule, 71 Fed. Reg. 68,472.

199. *See* Comments, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/comments/> (last visited on Feb. 3, 2011) [hereinafter 2000 Comments].

200. *See* 2010 Memorandum, *supra* note 123 (showing the Register’s fair use factor analysis for the motion picture DVD exemption and the jailbreaking exemption).

201. *Id.* at 55–72, 101–02; (explaining the recommendation for the DVD exemption and the jailbreaking exemption by a factor-by-factor analysis from § 1201(a)(1)(C)(i)–(v)).

202. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Inquiry, 64 Fed. Reg. 66,139, 66,142–43 (Nov. 24, 1999).

203. For initial comments from the first triennial rulemaking, see 2000 Comments, *supra* note 199.

204. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Inquiry, 67 Fed. Reg. 63,578 (Oct. 15, 2002).

comments to be identified by class on the website, and thus, reply comments targeted specific proposals.²⁰⁵ While the Register was still unhappy with the attempts to define a class and the provided evidence for adverse effect, the new approach did improve the comments submitted by organizations, even if individual proponents appeared to be a lost cause.

The round four changes lengthened the entire process. While the final rule was published slightly late in the third round, the most recent round was delayed eight months.²⁰⁶ For the first time, the Register published a Notice of Proposed Rulemaking, in which she placed the proposals into categories, prior to the submission of reply comments.²⁰⁷ One of the reply comments, from the consortium of content creators, criticized the new notice for appearing as if the Copyright Office was endorsing all of the proposals.²⁰⁸ Despite this criticism, since multiple comments proposed similar classes of works, this new step provided clarity and organization for the “classes of works” proposed. Furthermore, the Register conducted hearings in panel format, instead of individual-by-individual, and followed up with post-hearing questions.²⁰⁹ These post-hearing questions were more focused, compared to the first round’s general post-hearing reply comments and displayed the Register’s in-depth analysis for each proposed class.

Overall, the changes to the technical aspects of the rulemaking process, while appearing small, aided in focusing the initial comments, the reply comments, and the Register’s analysis. Focusing the comments and hearings

205. For a look at the organization of the comments, see Comments on Rulemaking on Exemptions on Anticircumvention, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/2003/comments/index.html> (last visited on Feb. 3, 2011).

206. The third round exemptions were to expire on October 27, 2009, but the Register published an Interim Rule, which extended these exemptions. *See* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Interim Rule, 74 Fed. Reg. 55,138 (Oct. 27, 2009). The Final Rule for the fourth round was not released until July 27, 2010.

207. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Proposed Rulemaking, 73 Fed. Reg. 79,425 (Dec. 29, 2008).

208. Joint Reply Comments of the Ass’n of Am. Publishers et. al. at 13, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Docket No. RM 2008-8 (Feb. 2, 2009), *available at* <http://www.copyright.gov/1201/2008/responses/association-american-publishers-47.pdf> [hereinafter 2009 Joint Reply Comments].

209. § 1201 Rulemaking Hearing Agenda, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/hearings/2009/> (last visited on Feb. 3, 2011). The post-hearing questions were posted online. *See* Post-hearing Questions and Responses, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/2008/questions/index.html> (last visited on Feb. 3, 2011).

is crucial to the Register's recommendations since she relies solely on the evidence presented in order to make her conclusions. If a proponent does not show a "particular class of works," "likelihood of harm," or "substantial adverse effect," and a "causal connection," then the proposal is dismissed.²¹⁰ Likewise, if opponents do not object in a detailed manner, their case is not considered and the Register may use a general balancing test that takes the opponents unstated interests into consideration.²¹¹

2. *Evolution of the Participants*

From round one to round four, the number of participants has changed drastically. The 235 comments in round one dropped to fifty comments in round two.²¹² The majority of the initial round one proponents were individuals, while the number of organizations submitting comments has never risen above twenty per round. In fact, it was not until the most recent round that the number of organizations exceeded the number of individuals, who all but disappeared from the process.²¹³ Perhaps this is due to the high burden of proof, including the need for factual support of a "substantial adverse effect." Legal knowledge about fair use and other noninfringing uses is also helpful²¹⁴—knowledge that individual proponents, many of them software engineers, programmers, and researchers, do not have. This is problematic because a limited number of organizations participating in the process can only propose a small number of exemptions. And with the recent victories, they will have to expend time and resources restating their cases for current exemptions due to the *de novo* requirement. This is no small feat.²¹⁵

210. See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Inquiry, 73 Fed. Reg. 58,073, 58,074–75 (Oct. 6, 2008).

211. See, e.g., Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472, 68,476 (Nov. 27, 2006) (noting the numerous reply comments in support of the wireless handset exemption and the overall lack of opposition).

212. See 2000 Comments, *supra* note 199; Comments, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/2003/comments/index.html> (last visited on Mar. 6, 2011).

213. Of the nineteen comments, twelve were from organizations and seven were from individuals. See Comments, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/2008/index.html> (last visited on Feb. 3, 2011).

214. 2010 Memorandum, *supra* note 123, at 10 ("Proponents of designating a particular class of works must also provide sufficient facts and legal analysis to demonstrate that the underlying use affected by the prohibition is a noninfringing use.").

215. Some of these proposals are quite lengthy and do not include involvement in reply comments, participation in hearings, and post-hearing questions.

Still, the disorderly process in the first round, particularly with initial comments,²¹⁶ evolved into a focused process by the fourth round. Like the Register, these participants have become more comfortable with the process and more efficient with their comments by knowing the level of factual support required, the policy arguments that resound with the Register, and how to tailor an acceptable “class of works.” This efficiency has arguably led to more satisfactory evidentiary and legal arguments, which has, in turn, led to more exemptions. And because comments proposed by organizations are usually the only ones that succeed, the loss of individuals may not be detrimental to the number of created exemptions.²¹⁷

Reply comments have come from both proponents and opponents of exemptions. The number of reply comments dropped from 129 in round one, to thirty-five in round three, but then increased to fifty-six in round four.²¹⁸ The content industry opponents who first appeared in round one have continued to participate in each subsequent round,²¹⁹ and the opposition did not increase until round four, when Apple and other cellular phone companies added to the opposition by fighting the jailbreaking and wireless handset exemptions.²²⁰ Nonetheless, the amount of industry participation has remained relatively stable, with a consortium of creative

216. Most of the initial comments from round one were one to two page documents that did not state a “class of works,” an adequate description of the nature of the problem, or factual support. A majority of the 235 comments supported one exemption: the circumvention of the CSS on DVDs for compatibility with Linux operating systems. The initial comments also included preemptive oppositions by companies such as Sony Computer Entertainment (for the Playstation) and Time Warner, who claimed that no class of works could qualify for an exemption. *See* 2000 Comments, *supra* note 199.

217. *But see* Tushnet, *supra* note 73 (proposing that rulemaking could be a way for laymen to be involved in amending copyright restrictions).

218. The increase in round four seems to be a result of several individuals supporting the jailbreaking exemption. *See* Responses to Comments, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/2008/responses/index.html> (last visited on Feb. 3, 2011).

219. These repeat participants include Time Warner, the Motion Picture Association of America, DVD Copy Control Association, and Sony Computer Entertainment. Rounds two through four have also seen dominant opposition from joint commentators in the entertainment industry. These participants have included the Association of American Publishers, the American Society of Media Photographers, the Alliance of Visual Artists, the Business Software Alliance, the Directors Guild of America, the Entertainment Software Association, the Motion Picture Association of America, the Picture Archive Council of America, the Screen Actors Guild, and the Recording Industry Association of America. The composition has varied slightly from round to round.

220. *See* Reply Comments on Anticircumvention Rulemaking, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/comments/reply/> (last visited on Feb. 3, 2011).

content industry representatives replying to every proposed exemption, and testifying at every hearing, in opposition to every proposal.²²¹

3. *The Expansion in Scope*

While the Register has been careful to remain within the statutory language and the legislative intent of the Commerce Committee, she has chosen to expand the scope of the process in two major areas: her approach to defining a “class of works” and her willingness to expand current statutory exemptions in § 1201. Both of these changes have enabled several of the current rulemaking exemptions. First, the Register broadened the definition of “particular class of works” in the third round of rulemaking.²²² In the first round, the Assistant Secretary of the NTIA suggested that “class of works” provided little guidance and that § 1201(a)(1)(C) should not be bound by the § 102(a) categories.²²³ Instead, “non-infringing *uses*” of the work should be taken into account.²²⁴ The Register disagreed at that time because she thought that a class must revolve around the “attributes” of the copyrighted work, not “external factors” such as the users or uses.²²⁵ In both the first and second rounds of exemptions, the Register rejected the majority of proposals because they failed to specify a “particular class of works” defined by the attributes of the copyrighted works.²²⁶

In the third round, however, the Register allowed a class to be refined by the users and uses.²²⁷ The proposal to circumvent the CSS on DVDs for educational purposes spurred this change. The Register justified the new approach in that “[t]he ability to carefully craft a ‘class’ that is neither too broad nor too narrow requires the availability of all of the necessary tools to achieve this goal.”²²⁸ The Register believed the statutory language supported this approach by asking for “noninfringing uses by persons who are users of a copyrighted work [who are] likely to be, adversely effected” and stating that if an exemption was granted, § 1201(a)(1)(A) “shall not apply to such users

221. See 2003 Joint Reply Comments, *supra* note 159.

222. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472, 68,473 (Nov. 27, 2006).

223. Letter from Gregory L. Rohde, Assistant Sec’y for Commc’ns and Info., to Marybeth Peters, Register of Copyrights (Sept. 29, 2000), *available at* <http://www.copyright.gov/1201/commerce.pdf>.

224. *Id.*

225. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,555, 65,562 (Oct. 27, 2000).

226. *Id.* (citing this as the main flaw of the proposals).

227. Exemption to Prohibition, 2006 Final Rule, 71 Fed. Reg. at 68,473.

228. 2006 Memorandum, *supra* note 144, at 17.

with respect to such class of works.”²²⁹ Since the impetus for most proposals has been a “particular noninfringing use,” tailoring a class by use/users allows the creation of a warranted exemption and will “clearly identify the intended recipients of the remedial exemption,” as required in § 1201(a)(1)(D).²³⁰

Several of the exemptions have since utilized this new definition. The content industry consortium saw how this approach expanded the possible exemptions in round three, observing that the change “[had] positioned this proceeding at the edge of a foreseeable slippery slope” and would lead to “an accumulation of exemptions on behalf of particular groups of users or intended uses.”²³¹ Moreover, the commenters pled that “[s]uch a proliferation of exemptions could confuse consumers; prove difficult to administer; improperly spawn an underground marketplace for circumvention services; and disrupt the legitimate market for copyrighted works, by eroding confidence in the integrity and applicability of technological measures to control access to such works.”²³² The opponents saw this change as broadening the rulemaking process.

The second change was the Register’s willingness to “expand” statutory exemptions already present in § 1201. In round one, the Register rejected two proposals that expanded statutory exemptions: computer programs and other digital works for the purposes of reverse engineering, and a proposal to expand the statutory exemption for encryption research.²³³ The Register believed that since Congress had “specifically addressed the issue . . . in the same legislation that established [the] rulemaking process, the Librarian should proceed cautiously, before in effect, expanding” a statutory exemption.²³⁴

Yet, in round three, the Register approved an exemption for circumventing TPMs on CDs to discover security vulnerabilities, thus

229. 17 U.S.C. § 1201(a)(1)(D) (2006). Further, the Register believed the only legislative guidance for a “class of works” was that a class should neither be “too broad nor too narrow.” 2010 Memorandum, *supra* note 123, at 17.

230. 2006 Memorandum, *supra* note 144, at 18–19.

231. 2009 Joint Reply Comments, *supra* note 208, at 9.

232. *Id.*

233. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556, 64,564, 64,570–71 (Oct. 27, 2000).

234. *Id.* at 64,571. While the Register did not rule out the possibility of expanding a statutory exemption, proponents did not present enough evidence to expand either § 1201(f) or § 1302(g) in this round. *See id.*

expanding § 1201(j).²³⁵ And an exemption for video game TPMs that created security vulnerabilities once again expanded § 1201(j) in the most recent round.²³⁶ In both cases, the Register cited the seriousness of the problem as the justification for expanding upon the exemptions Congress had considered in drafting the DMCA.²³⁷ Once again, the content industry consortium opposed this change and claimed that the Register was acting outside the parameters of congressional intent.²³⁸ They argued that Congress had thought about these exemptions upon enactment, it had already considered the limitations that should be imposed, and that changing a limitation's scope should be left to the courts.²³⁹ The Register disagreed.

The two new approaches show the Register's willingness to expand the process when dictated by the needs of the evidence submitted. This is crucial in analyzing the potential flexibility the triennial rulemaking process can infuse since the Register's actions show that the process can adapt to current needs. If the Register is willing to continue modifying the process, then the goal of a "fail-safe mechanism" can be achieved.

4. *The Register's Approach and Analysis*

Likely due to a combination of the above factors, the Register's reasoning for accepting or rejecting a proposed class seems to have evolved as well. In round one, the Register rejected most proposals because they did not define an adequate "class of works."²⁴⁰ The Register also rejected many proposals because of a general balance rationale—that prohibiting access allowed greater dissemination of content, which outweighed the need to circumvent for nonfringing uses (and thus infringing uses as well).²⁴¹ Analysis stopped at these two rationales.

235. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472, 68,477 (Nov. 27, 2006) (codified at 37 C.F.R. § 201.40). The language for this exemption mirrored that of the statutory exemption for security testing. *See* 17 U.S.C. § 1201(j) (2006).

236. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,832 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

237. *See* Prohibition on Circumvention, 2006 Final Rule, 71 Fed. Reg. at 68,477; Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,832.

238. 2009 Joint Reply Comments, *supra* note 208, at 12.

239. *Id.* at 9.

240. Six out of ten rejected exemptions failed to state a "class of works." Prohibition on Circumvention, 2000 Final Rule, 65 Fed. Reg. at 64,556.

241. This mirrored the "digital cornucopia" argument the content industry made in their reply comment in the latter three rounds. The content industry argued that because of the proliferation in creative content available digitally, the DMCA—with no rulemaking

The prominence of the Register's initial reasoning lessened in round three with the new ability to tailor a class by users and uses. An exemption could now be confined to a noninfringing use and/or user, which limited the infringing uses that could result.²⁴² This then shifted the balance in the general balancing test more toward granting an exemption. The focus was now more on determining if a use was noninfringing, rather than if the use had a substantial enough adverse effect that it would outweigh all the infringing uses that might result from the exemption, and thus, the incentive for content creators to continue digital dissemination.²⁴³ The fourth round exemplified this change with motion pictures on DVDs for professors, documentary filmmakers, and noncommercial videos.²⁴⁴ The Register claimed that she placed several limitations on the class because of the many infringing uses that could result from circumventing the CSS on DVDs.²⁴⁵ If she had not been able to refine the class as such, the benefit to content distribution created by the DMCA's protection of motion picture DVDs would have outweighed any circumvention proposal.²⁴⁶

Hence, in the fourth round, there seemed to be more in-depth analysis of whether or not a use was infringing. The Register was reluctant to base an exemption upon an area of law that was currently in flux,²⁴⁷ but she was

exemptions—was achieving its goal of promoting access to creativity in the digital space. *See, e.g.*, 2006 Joint Reply Comments, *supra* note 97, at 9 (providing statistical evidence for the growth of online content and claiming “it would be no exaggeration to say that the digital marketplace has exploded since 2003” which “should weigh heavily against the recognition of any exemption in this proceeding”).

242. *See* Prohibition on Circumvention, 2006 Final Rule, 71 Fed. Reg. at 68,473.

243. That is not to say that evidence of “substantial adverse effect” was not required, as it became a primary reason the Register rejected classes in the fourth round. However, the level of substantiality required did not appear as high with the classes now refined by use/user.

244. *See supra* Section II.C.

245. *See* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,828 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

246. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 68 Fed. Reg. 62,011, 62,016 (Oct. 31, 2003) (“On balance, an exemption, which would permit circumvention of CSS, could have an adverse effect on the availability of such works on DVDs to the public, since the motion picture industry’s willingness to make audiovisual works available in digital form on DVDs is based in part on the confidence it has that CSS will protect it against massive infringement.”).

247. This was seen in round four regarding whether the purchaser of a computer program is an owner or a licensee. The argument was crucial to the Electronic Frontier Foundation’s § 117 argument, which would only apply if the jailbreaker was an owner of the software on the iPhone. 2010 Memorandum, *supra* note 123, at 86–91. However, Apple contended that such a person was a licensee, in which case § 117 would not apply. *See id.*

willing to perform a fair use analysis based on the four statutory factors.²⁴⁸ Indeed, the jailbreaking exemption arose from a four factor analysis in which the Register weighed the fair use arguments made by the Electronic Frontier Foundation and those made by Apple, to determine that the use was noninfringing.²⁴⁹ The Register showed that she did not have to rely on judicial precedent or direct statutory language to determine if a use was noninfringing.²⁵⁰

B. THE RULEMAKING PROCESS PROVIDES FLEXIBILITY

While the evolution of the rulemaking process has increased its breadth and efficiency, many have criticized the process since its inception. The main critique of the process is that it fails the congressional goal of creating a “fail-safe mechanism” because it does not provide the flexibility that the Commerce Committee envisioned.²⁵¹ But as the breadth, the number, and the impact of the exemptions increases, achieving flexibility is more tangible.

1. *Critiques of the Process and Its Ability to Provide Flexibility*

One often-cited cause of the rulemaking process’s inability to provide flexibility is the restrictive boundaries within which the Librarian of Congress and the Register of Copyrights must fit exemptions.²⁵² The Register’s approach is more limiting than copyright’s fair use doctrine. For example, in the third round of exemptions, only media and film professors could circumvent DVD encryption to use clips of motion pictures in the classroom.²⁵³ While the most recent round of exemptions has expanded circumvention allowances, it still does not include all educational uses, since the Register believed grade school teachers did not need to use high-quality

248. *See id.* at 91–100.

249. *See id.* For a more in-depth discussion of the comments for this exemption, Tushnet, *supra* note 73, at 912–18.

250. *See id.*

251. For literature criticizing the DMCA, *see generally* LEE, PARK, WANG & URBAN, *supra* note 12; Von Lohmann & Hinze, *supra* note 12.

252. While this analysis of restrictive boundaries focuses on its relation to fair use, the restrictiveness of “particular class of works” also prevents the application of an exemption to other noninfringing uses. For an example of narrow limits on types of uses, see David Kravets, *Prosecutors Seek to Block Xbox Hacking Pioneer from Mod-Chip Trial*, ARS TECHNICA (Oct. 22, 2010), <http://arstechnica.com/gaming/news/2010/10/prosecutors-seek-to-block-xbox-hacking-pioneer-from-mod-chip-trial.ars> (showing that the jailbreaking exemption for the iPhone does not extend to jailbreaking of gaming consoles, and that it is hard to predict all types of uses or users for which an exemption should apply).

253. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 71 Fed. Reg. 68,472, 68,473–74 (Nov. 27, 2006).

film clips.²⁵⁴ Hence, even though all teachers can use copyrighted material for educational purposes under the fair use doctrine, a large portion of academics are still prohibited from circumventing the CSS under the DMCA in order to obtain these film clips.²⁵⁵ As stated by the Second Circuit in *Universal City Studios v. Corley*, the DMCA does not reject fair use but “[f]air use has never been held to be a guarantee of access to copyrighted material in order to copy it by the fair user’s preferred technique or in the format of the original.”²⁵⁶ However, while the court can reject access for fair use purposes on a case-by-case basis, it does not logically follow that the Register should forbid non-college professors from accessing motion picture clips.²⁵⁷

In the NTIA’s letter to the Register in 2000, the Assistant Secretary urged the Register to make the exemption process “analogous to fair use.”²⁵⁸ The letter cited the House Report’s concern that the DMCA would undermine fair use.²⁵⁹ In addition, the factors the Librarian of Congress is statutorily mandated to consider enumerate a number of fair use factors,²⁶⁰ and § 1201(c) “indicates congressional intent to preserve fair use and the other statutory limitations on the exclusive rights of copyright owners.”²⁶¹ While the Register acknowledged the NTIA letter in the Final Rule and claimed to agree with this view,²⁶² this acknowledgement has not matched in application.²⁶³

254. See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,827 (July 27, 2010) (codified at 37 C.F.R. § 201.40). In opposition to the motion picture DVD proposal, the joint commenters stated that academics could use VHS or could video tape a screen playing the movie. The Register noted such “lower-quality” alternatives should be sufficient for grade-school level teachers and thus excluded them from the class of users. See 2009 Joint Reply Comments, *supra* note 208, at 33–34. The Register borrowed from this reasoning.

255. Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,827.

256. 273 F.3d 429, 459 (2d Cir. 2001).

257. See Prohibition on Circumvention, 2006 Final Rule, 71 Fed. Reg. at 68,474.

258. Letter from Gregory L. Rohde, Assistant Sec’y for Commc’ns and Info., to Marybeth Peters, Register of Copyrights (Sept. 29, 2000), available at <http://www.copyright.gov/1201/commerce.pdf> [hereinafter 2000 NTIA Letter].

259. See *id.* (citing H.R. REP. NO. 105-551, pt. 2, at 26 (1998)).

260. See 17 U.S.C. § 1201(a)(1)(C) (2006).

261. 2000 NTIA Letter, *supra* note 258.

262. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556, 64,561–62 (Oct. 27, 2000) (stating “there is no disagreement with the Assistant Secretary or the Commerce Committee on the need to preserve the principles of fair use”).

263. The Register also rejected the Electronic Frontier Foundation’s suggestion of erring on the side of providing an exemption if a use could be noninfringing and to let the courts determine this on a case-by-case basis. The Register rejected this approach, stating that the

A second restriction is the “substantial adverse effect” requirement. Under the *de minimis* provision, the Librarian is unlikely to grant an exemption if there is a lawful alternative to gaining access or there is some unprotected format for the copyrighted work—no matter how costly or inconvenient gaining access might be—since this would reduce the adverse effect.²⁶⁴ For example, an exemption for region-coded DVDs has been proposed in all four rounds. A DVD player has region-coding systems enforced by Digital Rights Management (“DRM”) technologies, so even if a consumer has lawfully purchased a foreign manufactured DVD, he must use a special DVD player to play the DVD in the United States. While special DVD players are more costly and can still be region specific, the Register denied a circumvention exception because there were lawful alternatives, making the DMCA’s restrictions an “inconvenience rather than [an] actual or likely harm.”²⁶⁵ Thus, the “inconvenience” to a lawful owner of a region-coded DVD did not outweigh the need to protect DVD content distribution more generally.²⁶⁶

The NTIA raised a third harmful restriction with the Register: the high burden of proof for “likely” adverse effects.²⁶⁷ The Assistant Secretary claimed that the Register equates “the required proof for both present and future harms,” and while the bar for proof should not be as low as “mere speculation,” demonstrating a harm is “likely to occur” should be sufficient.²⁶⁸ The Register responded by citing the previous Notice of Inquiry, which stated that the proponent “must prove by a preponderance of

statutory bar is higher than “plausibly noninfringing.” *See* Comment of Fred von Lohmann & Jennifer Granick at 2–3, Electronic Frontier Foundation, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Docket No. RM 2008-8 (Dec. 2, 2008), *available at* <http://www.copyright.gov/1201/2008/comments/lohmann-fred.pdf>; 2010 Memorandum, *supra* note 123, at 11.

264. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Inquiry, 64 Fed. Reg. 66,139, 66,141 (Nov. 24, 1999) (“The availability without restriction in the latter format may alleviate any adverse effect that would otherwise result from the technological controls utilized in the electronic format.”).

265. Prohibition on Circumvention, 2000 Final Rule, 65 Fed. Reg. at 64,569.

266. *Id.* The Register claimed that because film release dates vary by country, access prohibition was needed to protect content distribution. *See id.*

267. Letter from Lawrence E. Strickling, Assistant Sec’y for Commc’ns and Info., to Marybeth Peters, Register of Copyrights, at 2–3 (Nov. 4, 2009), *available at* <http://www.copyright.gov/1201/2010/NTIA.pdf>.

268. *Id.*

evidence that the harm is more likely than not.”²⁶⁹ This still requires prima facie evidence—that the harm is not de minimis, it is “distinct,” and there is a causal connection.²⁷⁰ This is a high burden for alleging future harms.²⁷¹

A fourth restriction affects the utility of exemptions once they are created because the rulemaking’s scope does not extend to circumvention tools. The rulemaking process only applies to § 1201(a)(1)(A), which prevents access to copyrighted works, not the circumvention devices.²⁷² Thus, DMCA skeptics claim that the “meaningless provisions” problem, due to the device restriction, also extends to the exemption process.²⁷³ Though circumvention tools may not realistically be hard to obtain, this contradiction in the lawmaking process provides a formal prohibition to flexibility. For example, the jailbreaking exemption prohibits Apple from suing the circumventers, but not those who manufacture and distribute the jailbreaking programs.²⁷⁴ Apple has yet to pursue these programmers or the owners of websites with “how-to guides” to jailbreaking, but Apple might have a successful claim under the DMCA.²⁷⁵ Potential legal repercussions for those who create the tools may also limit the availability of such tools.

Beyond restrictions on the exemptions themselves, the length and complications of the rulemaking process cause the exemptions to lag behind the rapidity of technological advances and inhibit flexibility. First, the process length has increased, from one year to complete in round one to

269. 2010 Memorandum, *supra* note 123, at 10 (citing Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Notice of Inquiry, 70 Fed. Reg. 57,526, 57,528 (Oct. 3, 2005)).

270. *Id.*

271. Additionally, proving harm for an exemption that already exists is difficult since the current exemption “could prevent the appearance of future harm.” *See* Perzanowski, *supra* note 197, at 21–22.

272. 17 U.S.C. § 1201(a)(1) (2006).

273. Samuelson, *supra* note 3, at 547; *see also* Perzanowski, *supra* note 197, at 20.

274. *See* Jonathan Zittrain, Transcript of “Jailbreak?,” ON THE MEDIA FROM NPR (July 30, 2010), available at <http://www.onthemediamedia.org/transcripts/2010/07/30/03> (“I see this decision symbolically as helping to refine a conversation about how much the long arm of the vendor can keep operating after a purchase has been made. And even if, say, an Apple or a Kindle or a Facebook would be entirely within its rights to try to go after you for changing the applications that you can run on their product, it may mean that they’ll be more reluctant to do it because it’s seen not as a terrible activity but actually as a salutary one.”).

275. The Register stated that § 1201(f) may be a defense to the manufacture and distribution of jailbreaking tools, but it remains untested whether this argument would succeed in a court. *See* 2010 Memorandum, *supra* note 123, at 84–85.

approximately two years and eight months in the most recent round.²⁷⁶ Moreover, some believe the burden on the exemption proponent is too high. Not only is the process lengthy, but it is also perpetual since an exemption proponent must apply *de novo*.²⁷⁷ The proponent also bears a heavy burden of proof.²⁷⁸ The Register took language from the congressional record to define substantial as “distinct, verifiable, and measurable impacts,”²⁷⁹ and she has rejected many proposals because of the amount of factual evidence required to prove “substantial adverse effect.”²⁸⁰

With this high burden of proof, the length and complication of the process, and the narrowness of the results, some are skeptical about the effectiveness of the process.²⁸¹ The notable decline in the number of rulemaking participants may serve as evidence of this skepticism.²⁸² Ultimately, those who wish to propose exemptions must have a legal background (or legal support) and the resources to gather factual data beyond personal experiences, as personal experiences are *de minimis*.²⁸³ Unfortunately, there are a limited number of organizations that have repeatedly participated in these proceedings.

276. This resulted in an Interim Rule, which extended the 2006 exemptions. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Interim Rule, 74 Fed. Reg. 55,138 (Oct. 27, 2009).

277. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,826 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

278. Marybeth Peters, Recommendation of the Register of Copyrights in RM 2002-4, Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies (Oct. 27, 2003).

279. 2010 Memorandum, *supra* note 123, at 16 (citing H.R. REP. NO.105-551, pt. 2, at 37 (1998)).

280. *See generally* Prohibition on Circumvention, 2010 Final Rule, 75 Fed. Reg. at 43,834–38 (showing that lack of proof of a “substantial adverse effect” was a factor for denying each class that was considered but denied).

281. For the first time, the content consortium criticized the direction of the process in their reply, instead of praising its “narrow focus” and the overall benefits of the DMCA. *See* 2009 Joint Reply Comments, *supra* note 208. *But cf.* 2003 Joint Reply Comments, *supra* note 159, at 17–18.

282. *See supra* Section III.A.2.

283. Von Lohmann & Hinze, *supra* note 12, at 4 (“[E]ven with the assistance of sophisticated attorneys and technical experts [Electronic Frontier Foundation] nevertheless faced difficulties in shouldering the evidentiary burdens imposed by the Copyright Office.”).

C. THE POSITIVE TREND AND SUGGESTIONS FOR FURTHER IMPROVEMENT

While the round four exemptions may still seem minimal amidst all potential noninfringing uses of digitally accessible copyrighted works, the positive trend in scope, efficiency, and importance of the exemptions provides hope that this direction will continue—and gain momentum—into the fifth round. With the “jailbreaking” exemption, which has created mainstream awareness of the rulemaking process, there may be more advocates of exemptions in the future.²⁸⁴ In addition, the greater likelihood of a positive outcome for a proponent may make the burden of proof and de novo requirement feel less restrictive. A positive trend is recognizable, but this progress could be bolstered by modifications to some of the current restrictions on the exemptions and the procedures. Broadening the Librarian and the Register’s powers could make the rulemaking process a more definitive solution to the DMCA’s broad ban on access.

Nevertheless, the Register and Librarian have broadened the scope of the rulemaking process while remaining within the parameters defined in the legislative history and in the statutory language. Those parameters, however, may be too limiting. Consequently, one way to bring the process in line with the Commerce Committee’s goal would be to reduce the number of restrictions on the Librarian. For instance, § 1201(a)(2) and § 1201(b)(1) could be included within the rulemaking scope, which would provide users who are exempted from circumvention provisions the tools with which to circumvent. This inclusion would also mean that the Register would not have to worry about exceeding her authority in granting an exemption that affects access controls that are copy controls as well.²⁸⁵

Second, the de novo requirement could be removed. The Register can review exemptions every three years to determine whether they are obsolete or require modifications. Under this model, comments on the last round of exemptions would be accepted and analyzed, but would not have to be fully re-proposed.

Third, the bar for making a prima facie case could be lowered. If a proponent can prove that there have been or are likely to be noninfringing uses for a protected work, a “substantial adverse effect” should not be

284. Though greater attention could also mean more opponents as well.

285. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 65 Fed. Reg. 64,556 (Oct. 27, 2000) (stating that since the CSS was both an access and a copy control, it was unclear if this was under the Librarian’s authority, and that this issue should be addressed by Congress).

required. As long as a class can be tailored to only noninfringing users and uses, the proposed class should withstand the general balancing test, as the exemption would purely be a fair use.

Furthermore, the Register should not be limited to recommendations made by proponents. The CSS exemption, for example, encompassed only motion pictures because there was no other evidence, and thus “no basis for including the somewhat broader class of audiovisual works (which includes not only motion pictures, but also works such as video games and slide presentations).”²⁸⁶ The Register had considered the inclusion of other audiovisual works, yet her determination was limited to the evidence presented.²⁸⁷ Lastly, some exemptions, particularly those that expand current statutory exemptions, should be considered for codification.

Some of the process’s narrowness is self-imposed by the Register. For example, while the exemptions for “classes of works” should remain narrower than the § 102 categories, the uses and users could be broader than their current iterations. In the CSS example, the Register could have recommended that all teachers be able to access motion pictures on DVDs, as was encouraged by the exemption’s proponents and by the NTIA.²⁸⁸ To limit users based on an assumption of their needs, rather than allowing all academics to use motion pictures, does not comport with copyright’s fair use doctrine.

The Register also has leeway in the level of factual support needed to justify an exemption. In the most recent round, the Register rejected the eBook exemption present in the two previous rounds, due to the proponent’s insufficient evidence.²⁸⁹ Despite the Register’s independent research in the area and the favorable policy arguments, she chose not to recommend the exemption to the Librarian.²⁹⁰ The Register also has room to define a “mere inconvenience,” *de minimis*, and how heavily the balance tilts in favor of denying an exemption in order to promote digital content distribution.

286. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Final Rule, 75 Fed. Reg. 43,825, 43,828 (July 27, 2010) (codified at 37 C.F.R. § 201.40).

287. *Id.*

288. *Id.*

289. *Id.* at 43,837–38 (rejecting the eBook exemption because it only showed that one in five books downloaded had disabled the read-aloud function).

290. *Id.* at 43,837. The Librarian overrode the Register’s rejection of this class. *See id.* at 43,838.

In addition to increasing the breadth of the current process, expanding the Copyright Office, to bring it more in line with agencies in other regulated industries, may also be beneficial. For example, if the Copyright Office was given more resources to conduct research, gather empirical data, and increase its technological expertise,²⁹¹ the lengthy, de novo process may not be necessary. Instead, the Register could propose classes of works or supplement factual evidence herself and would not have to rely solely on others' proposals in making a final rule. Overall, if Congress increased the power and resources of the Copyright Office and expanded the rulemaking process, then greater flexibility could be achieved.

IV. EXPANDING THE AUTHORITY OF THE COPYRIGHT OFFICE IN THE REGULATORY COPYRIGHT REGIME

Due to the growing success of the DMCA rulemaking process, the suggestions to expand the Copyright Office's power and resources for conducting the process should extend to copyright more generally. The rulemaking process is on its way to fulfilling the congressional goal of flexibility in the DMCA and granting the Copyright Office more rulemaking and adjudicatory powers in copyright law may also infuse flexibility into its regulatory structure. As of now, "copyright law is caught awkwardly halfway between a judicially administered property rights regime and an agency administered regulatory regime."²⁹² Since the trend toward a more regulatory form of copyright appears likely to continue, Congress should embrace it and more fully institute agency governance in copyright law.²⁹³

A. THE NECESSITY OF APPLYING AGENCY REGULATION IN COPYRIGHT LAW

Because the trend toward a more regulatory form of copyright is unlikely to be reversed and because lawmaking and judiciary solutions have proven slow, copyright law needs agency regulation. While some advocate for a

291. See Liu, *supra* note 7, at 153–58; Pamela Samuelson et. al., *The Copyright Principles Project: Directions for Reform*, 25 BERKELEY TECH. L.J. 1175, 1205–06 (2010) (proposing "additional policy expertise and research capability" as one of several ways the Copyright Office's role should be expanded).

292. Liu, *supra* note 7, at 149.

293. Recognizing agency expansion as a viable option is particularly crucial given proposals to eliminate the Copyright Office completely. See Pamela Samuelson, *Will the Copyright Office Be Obsolete in the 21st Century?*, 13 CARDOZO ARTS & ENT. L.J. 55 (1995) (citing several reasons why the Copyright Office could become obsolete and showing that a merger with the Patent & Trademark Office would be a very likely scenario).

return to the simpler property-based regime,²⁹⁴ a reversal of the past thirty-five years seems improbable because the industry pressures that ushered in regulatory copyright are more present than ever. Rent-seeking legislation is prone to lengthy, complex statutes,²⁹⁵ and with copyright being an interest-laden area, this is unlikely to change. The more regulatory sections of the Copyright Act were the result of competing economic interests, interests that are unlikely to disappear.²⁹⁶ Recently, the Obama Administration issued the *Joint Strategic Plan*, a paper similar to Clinton's *Framework*.²⁹⁷ This report reflects content owners advocating for stronger intellectual property enforcement.²⁹⁸ It serves as just one example of how both the executive and legislative branches remain swayed by the content creators' interests in increasing copyright enforcement.

Leaving the legislature and the courts to adapt copyright to technological innovation also results in "legal delay and legal uncertainty."²⁹⁹ The judiciary has been reluctant to adapt copyright rules to new technology because of the difficult "fit" and because of fear that a ruling could adversely affect a technology whose social and economic implications are not fully known.³⁰⁰ Thus, courts often defer to the legislature. In the hands of the legislature, copyright laws are further delayed due to the Article I lawmaking process, Congress's lack of issue-specific expertise, and significant interest group

294. Samuelson, *supra* note 26, at 557 ("It can be made simple again; maybe not as simple as the Statute of Anne, but definitely simpler."). A group of professors, led by Pamela Samuelson, have released an extensive document outlining proposed reforms to the Copyright Act, including Copyright Office proposals listed below. Samuelson et. al., *supra* note 291.

295. See Liu, *supra* note 7, at 130–31 (applying this standard to copyright legislation).

296. See Wu, *supra* note 47 (explaining that regulatory sections of copyright law are the result of economic competitors such as the recording industry versus the online music distributors and the cable companies versus the broadcasters, and now, with the DMCA, between traditional content creators and users).

297. Victoria A. Espinel, 2010 Joint Strategic Plan on Intellectual Property Enforcement (June 2010), available at <http://www.whitehouse.gov/omb/intellectualproperty/>.

298. See generally *id.* The plan claims that the main policy rationale for stronger enforcement is to bolster U.S. economic welfare. See also *supra* Section I.A.2 (regarding "cloaking" interests).

299. Depoorter, *supra* note 66, at 1836.

300. See, e.g., *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster*, 545 U.S. 913, 965 (2005) (Bryer, J., concurring) ("As Sony recognized, the legislative option remains available. Courts are less well suited than Congress to the task of 'accommodating fully the varied permutations of competing interests that are inevitably implicated by such new technology.'" (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 431 (1984)); Depoorter, *supra* note 66, at 1842–43 tbl. I (showing the length of time it has taken Congress and the courts to rule on the legal status of new technologies).

pressure by both traditional content creators and the technology sector.³⁰¹ An agency provides the advantage of escaping some of the interest group pressure that sways Congress.³⁰² And with a specialized focus and resources to conduct studies, an agency could be more adept at diagnosing legal issues raised by new technologies as well as foresee those technologies and their social and economic implications.

Agency involvement in the DMCA rulemaking process exemplifies these advantages. The DMCA resulted from interest group pressure, particularly from the entertainment industry.³⁰³ The result was a broad ban that heavily favored copyright protection, and thus, content creators. Nevertheless, Congress created the rulemaking process to counteract any ill effects of such a broad ban.³⁰⁴ The Register has succeeded in recommending exemptions that have kept pace with technological advances better than legislation or court decisions.

B. RESHAPING THE COPYRIGHT OFFICE

Expanding the Copyright Office to provide flexibility in regulatory copyright law would require Congress to create a new entity. First, the Copyright Office is currently a subsidiary of the Library of Congress, and therefore, is an Article I agency.³⁰⁵ In granting the Librarian of Congress and the Register rulemaking authority under the DMCA, Congress violated both the separation-of-powers doctrine and the aggrandizement principle. While Congress has lawmaking power under Article I, the notice-and-comment process does not follow the Article I requirements for lawmaking.³⁰⁶ President Clinton recognized this problem when he signed the DMCA into law; he created a “legal fiction” when he stated that “the Copyright Office is, for constitutional purposes, an executive branch entity.”³⁰⁷ While the duties of the Copyright Office are more executive or administrative, the Copyright

301. See Depoorter, *supra* note 66, at 1857–58.

302. See Eskridge, *supra* note 44, at 308.

303. *Supra* Section I.A.2.

304. *Supra* Section I.A.2.

305. See 17 U.S.C. § 701 (2006) (granting powers to the Copyright Office and the Register, under the authority of Librarian of Congress, who appoints the Register and her subordinates).

306. See *Metro. Wash. Airports Auth. v. Citizens for the Abatement of Aircraft Noise*, 501 U.S. 252, 277 (1991) (holding that for a legislative official to pass a law, it must pass both houses and must be subject to the presidential veto).

307. Gass, *supra* note 106, at 11 (quoting President Clinton in the Presidential Statement on Signing the Digital Millennium Copyright Act, 34 WEEKLY COMP. PRES. DOC. 2168, 2169 (Oct. 28, 1998)).

Office still makes legislative rules through the triennial rulemaking process without the checks-and-balances imposed on Congress or the separation of power between the legislative and executive branches.³⁰⁸

The triennial rulemaking process has not led to a challenge of the Register of Copyrights and Librarian's constitutional authority in the courts. Yet, this separation-of-powers violation should be addressed due to the expansion and increased public awareness of the DMCA rulemaking process. Arguably, the appointment of a new Register will be more high profile than it was fourteen years ago.³⁰⁹ If the Copyright Office's role is expanded significantly throughout copyright law, the problem must be addressed. One option is to make the Copyright Office an executive branch agency under the direct control of the President. The second option would be to create an independent agency. The danger of either of these scenarios is "agency capture," particularly since copyright legislation often results from asymmetrical interest group pressure.³¹⁰ While the Copyright Office has not been subject to capture in its current iteration, the likelihood of such capture could increase if the scope and structure of the Office is modified.

C. POTENTIAL BENEFITS AND CONSEQUENCES OF A MORE POWERFUL COPYRIGHT OFFICE

Delegating significant authority to an agency can be considered beneficial or counterproductive, depending on which theory of regulation is espoused.³¹¹ On the most negative end of the spectrum are the public choice theorists who believe that agencies deliver benefits to private interest groups at the expense of public interests; therefore, this camp advocates for deregulation.³¹² Next are the neopluralism theorists who also recognize the

308. That the President hires and can fire the Librarian of Congress is not enough of a check. *See Buckley v. Valeo*, 424 U.S. 1 (1976) (concluding that the President must appoint agency heads with the advice and consent of Congress. Congress can only appoint officials to help exercise legislative powers, such as gathering research for legislators).

309. Marybeth Peters, the Register of Copyrights for fourteen years, has overseen the DMCA rulemaking process since its inception. She stepped down on December 31, 2010. The Librarian of Congress named an acting Register for the interim until an appointment is made. *See* Maria Pallante Appointed Acting Register of Copyrights, LIBRARY OF CONGRESS (Dec. 17, 2010), <http://www.loc.gov/today/pr/2010/10-272.html>.

310. *See* Richard Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669, 1682–88 (1975) (claiming the agencies are often susceptible to private interests).

311. Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1 (1998) (analyzing the four theories of regulation and how they should "engage" one another in order to build a more applicable theory for administrative processes).

312. *Id.* at 34–50.

effect of interest group competition on agencies but believe this competition is less asymmetrical and therefore more efficient.³¹³ Third are the public interest theorists who are agnostic about regulatory outcomes, and instead, focus on the public's ability to monitor agencies.³¹⁴ Finally, civic republicanism holds agencies in high regard, finding that they are particularly adept at providing compromise amongst parties.³¹⁵

Given the Copyright Office's performance in the notice-and-comment process, and despite strong competing interests, it seems like a more favorable theory of regulation should apply in the copyright scenario. For example, while the Librarian and the Register have been cautious in granting exemptions, they most recently ruled against Apple, amidst strong opposition from cellular phone companies and content creators. And although the content industry criticized the expansion of the rulemaking process in the third round, the Register forged ahead in the fourth round under the broadened scope. Thus, the Copyright Office has taken into account the interests of individual users as well as the interests of larger, organized parties and has been a good adjudicator of competing interests. Maintaining balance is particularly important in the copyright context since the policy goals of copyright require a balance between protection and access.

In addition to the Copyright Office's balanced approach to creating exemptions, it has maintained transparency, which is crucial to creating and enforcing positive regulations. Not only has the notice-and-comment process been documented in the Code of Federal Regulations, but the Copyright Office has posted all information on its website, including comments, audio recordings of each hearing, and letters between the Librarian and the Register.³¹⁶ The intent and goals of the Register are clear throughout the process. Ultimately, the combination of balance and transparency exhibited in the rulemaking process displays the aptitude of the Copyright Office to take on more responsibility in overseeing and evolving copyright laws generally.

V. CONCLUSION

The most recent round of the DMCA triennial rulemaking process warrants attention because this often-criticized process has displayed

313. *Id.* at 56–65.

314. *Id.* at 65–76.

315. *Id.* at 76–86.

316. *See generally* Rulemaking on Anticircumvention, COPYRIGHT OFFICE, <http://www.copyright.gov/1201/> (last visited on Nov. 23, 2010).

remarkable growth in both scope and efficiency. Although the process has evolved in each of the four rounds of exemptions, this “fail-safe mechanism” can be further improved. With an even greater expansion in both the process and the Copyright Office’s power and resources, the rulemaking procedure could better reflect legislative intent: to be a true provider of flexibility by counterbalancing the DMCA’s broad ban on circumvention.

In turn, the rulemaking process serves as an example of how to infuse flexibility throughout copyright law. While several aspects of copyright have become increasingly regulatory in nature, the role of the Copyright Office has not expanded at the same pace. The result is industry-specific legislation that is complex due to both the lawmaking process and the constant amendments arising from new technologies. Including more agency oversight could reduce Congress’s constant and lengthy legislation as well as reliance on the courts, which have been reticent to determine the legal status of new technologies. Therefore, because of the Copyright Office’s aptitude in the DMCA rulemaking process and its ability, through this process, to respond to technological advances faster than Congress or the courts, expansion of this agency’s power may be one answer to the problems that exist within “regulatory copyright.”

ADDITIONAL DEVELOPMENTS— COPYRIGHT LAW

SONY BMG MUSIC ENTERTAINMENT V. TENENBAUM

2010 WL 2705499 (D. Mass. July 9, 2010)

The District Court for Massachusetts held that a jury's award of \$675,000 in statutory damages violated the Due Process Clause by far exceeding the amount necessary to serve the government's legitimate interests in protecting copyright holders. The award was reduced to \$2,250 per infringed work, or \$67,500 in total damages.

In 2007, five major recording companies brought suit against Joel Tenenbaum. Tenenbaum was charged with infringing the plaintiffs' copyrights by using peer-to-peer networks to download and share copyrighted music when he was an undergraduate student. At trial, Tenenbaum admitted to sharing the files and the court granted the plaintiffs' motion for judgment as a matter of law on the issue of infringement. The questions of whether Tenenbaum's actions qualified as willful infringement and the amount of damages were left to the jury.

Based on the difficulty of showing actual damages, the plaintiff companies opted for statutory damages, which can range from \$750 to \$150,000 per infringed work in cases of willful infringement. The jury found Tenenbaum's actions to have been willful and imposed damages of \$22,500 per song, which led to a total award of \$675,000.

Tenenbaum appealed, challenging the amount of the damages. He argued that the amount was grossly excessive and thus in violation of the Due Process Clause. He proposed that the court dismiss the damages on procedural as well as constitutional grounds. However, the court felt that it was necessary to address the Due Process claim directly due to the plaintiffs' statement that they would opt for a new trial rather than accept a remitted award.

The court reviewed Supreme Court precedent on the outer bounds of constitutional awards of punitive or statutory damages. *See, e.g., St. Louis, I.M. & S. Ry. Co. v. Williams*, 251 U.S. 63 (1919); *BMW of North America, Inc. v. Gore*, 517 U.S. 559 (1996). Based on that jurisprudence, the court found that the damages imposed against Tenenbaum were indeed "wholly out of proportion with the government's legitimate interests in compensating the plaintiffs and deterring unlawful file-sharing."

The court determined that the maximum permissible amount was \$2,250 per song, or three times the minimum amount allowed under the statute, for a total award of \$67,500 in damages. The court reached this amount by noting the common practice of allowing treble damages, including in related statutes such as the Digital Millennium Copyright Act, 17 U.S.C. § 1203(c)(4), as well as referring to the ratio of statutory-to-actual damages allowed by the Supreme Court in *Williams*.

The *Tenenbaum* decision reaffirmed that there is an outer limit at which damages become so far removed from the actual harm suffered and the government's interest in deterring similar wrongdoing that they exceed the bounds of constitutionality. This is true whether referring to punitive or statutory damages. The case reflects how the Due Process Clause can be invoked to protect individuals, as well as large corporations, from grossly excessive damages awards.

REALNETWORKS, INC. V. DVD COPY CONTROL ASS'N, INC.

641 F. Supp. 2d 913 (N.D. Cal. 2009)

The United States District Court for the Northern District of California enjoined RealNetworks, Inc. ("Real") from manufacturing, importing, offering to the public, providing or otherwise trafficking in its RealDVD software product. The court held that plaintiff DVD Copy Control Association ("DVD CCA") established a high likelihood of success of its DMCA claim that Real trafficked in a product that circumvented technology designed to protect DVDs from being copied, violating the access-control and copy-control provisions of the DMCA. The court also found that, although the fair use defense probably protects consumers' right to make a personal, backup copy of a DVD on their computers, the DMCA unambiguously denies device manufactures the right to provide products that allow such copying.

RealDVD is a digital video platform that allows the user to copy DVDs onto a computer hard drive so that the files can be played later without the need for physical DVDs. Real had licensed encryption technology from the DVD CCA for its RealDVD product. Real brought an action seeking a declaratory judgment that Real had neither breached its license agreement with DVD CCA nor violated the DMCA by manufacturing and distributing its RealDVD product. DVD CCA and a number of movie studios then brought an action to enjoin Real from manufacturing, distributing, or otherwise trafficking in RealDVD.

The court evaluated RealDVD under both access-control and copy-control provisions of the DMCA, which promulgated new grounds for

establishing liability in the context of unauthorized access or use of copyrighted material. The court first stated that under sections 1201(a) and 1201(b), CSS is a technological measure that effectively controls access to and prevents copying of copyrighted DVD content. The court reasoned that RealDVD violated the 1201(a) access-control provision because Real had designed the product to allow users to access the DVD's content without the physical DVD and the need to go through the CSS protection steps. The device allowed accessing of content without the authority of the copyright owner and thus constituted circumvention of the access-control provision. The court then explained that RealDVD violated the 1201(b) copy-control provision because, despite initially abiding by the CSS protection when the physical DVD was inserted, the product bypassed CSS protection by allowing the user to make a copy of the DVD on a computer hard drive. Here the court was clear to distinguish between the permanent copies made by RealDVD and transient buffered or cached copies, which might be produced during normal playback of a DVD.

Real put forth a "fair use" defense, arguing that DVD CCA had no right to prevent consumers from using the RealDVD products to back up or make personal copies of DVDs. The court agreed that fair use probably does allow individual use of circumvention devices to make personal copies of DVDs lawfully owned by the users, but that "federal law has nonetheless made it illegal to manufacture or traffic in a device or tool that permits a customer to make such copies." The court thus held that the fair use of copyrighted material by end users is not a defense to, and plays no role in determining liability under, the DMCA and that allowing such a defense would ignore Congress' "clear directive." Because of the substantial likelihood of success on the merits, along with the presumption of irreparable harm applicable in copyright infringement cases, the court granted DVD CCA's request for a preliminary injunction.

GOLAN V. HOLDER*609 F.3d 1076 (10th Cir. 2010)*

In *Golan v. Holder*, the Tenth Circuit reversed the district court's decision striking down the URAA (Uruguay Round Agreements Act) under the First Amendment.

In 1994, the United States entered into a variety of trade agreements through the Uruguay Round General Agreement on Tariffs and Trade, including the Agreement on Trade Related Aspects of Intellectual Property Rights. This agreement required its signatories to extend copyright protection to foreign copyrights that had not expired, which prompted Congress to enact the URAA. Section 514 of the URAA "restores" the United States copyrights of certain foreign works in the public domain. These copyrights can be restored if the copyright was lost for one of three specified reasons: "failure to comply with formalities, lack of subject matter protection, or lack of national eligibility." Section 514 does not restore copyrights in foreign works that entered the public domain through the expiration of the term of protection."

In *Golan v. Holder*, the plaintiffs were "orchestra conductors, educators, performers, publishers, film archivists, and motion picture distributors," all of whom made their living in reliance on artistic works in the public domain. Plaintiffs originally filed suit against the government, challenging the constitutionality of the Copyright Term Extension Act and Section 514 of the URAA. The district court granted the government's motion for summary judgment.

On appeal, the Tenth Circuit remanded the case to "assess whether [Section] 514 is content-based or content-neutral," and to apply First Amendment scrutiny to Section 514. On remand, the parties agreed that Section 514 should be subject to an intermediate scrutiny standard due to its "content-neutral regulation of speech." Under this standard, the district court held Section 514 unconstitutional and granted summary judgment for the plaintiffs. The government then appealed.

Under the intermediate scrutiny standard, the law must be directed at an important or substantial governmental interest unrelated to the suppression of free expression. In addition, the "[g]overnment may not regulate expression in such a manner that a substantial portion of the burden on speech does not serve to advance its goals." The government argued that Section 514 promotes three essential government interests: "(1) attaining indisputable compliance with international treaties and multilateral agreements, (2) obtaining legal protections for American copyright holders'

interests abroad, and (3) remedying past inequities of foreign authors who lost or never obtained copyrights in the United States.”

The Tenth Circuit found that the government had a substantial interest in protecting American copyright holder’s interests abroad. The opinion cited evidence that billions of dollars were lost annually because several foreign countries were not providing copyright protection for American works. These countries were willing to provide protection only on a reciprocal basis, so the government would have to restore foreign copyrights in order to protect American interests abroad. The court concluded that Section 514 would help the government protect American works “in a direct and effective way.”

The Tenth Circuit held that Congress had the authority to enact Section 514. The court further held that Section 514 advances important governmental interests and thus did not violate plaintiffs’ First Amendment right to freedom of speech. Accordingly, the court reversed the district court’s judgment and remanded with the instruction to grant summary judgment to the government.

MATTEL V. MGA

616 F.3d 904 (9th Cir. 2010)

In July 2010, the Ninth Circuit vacated a district court decision ordering equitable relief for Mattel in *Mattel v. MGA*, a case dealing with ownership of the copyright and trademarks in the Bratz line of dolls.

This litigation dates back to 2004, when Mattel sued Carter Bryant, a former employee who left Mattel to create the hugely successful Bratz brand of dolls. While Bryant was still employed by Mattel, he conceived of the idea for the Bratz. He produced several sketches of his ideas and created “a crude dummy constructed out of a doll head from a Mattel bin, a Barbie body and Ken (Barbie’s ex) boots.” Bryant went to MGA with his concept and signed a consulting agreement.

Bryant’s sketches were the basis for the first generation of Bratz dolls. The Bratz line has since expanded to include other dolls, doll accessories, video games, and even a movie.

With respect to the scope of the original copyright in the Bratz dolls, the district court used a two-part test. The first step considers extrinsic evidence and requires the court to “examine the similarities between the copyrighted and challenged works and then determine whether the similar elements are protectable or unprotectable.” Once the unprotectable elements are filtered out, the court determines whether the copyright in question provides “broad” or “thin” protection. The second step asks whether the two works

are either substantially similar or virtually identical, depending on which standard is appropriate, and thereby determines whether the work in question infringes on the original.

The Ninth Circuit reviewed the district court's decision *de novo* and held that, although the district court had applied the correct two-part test, it had failed to perform the correct analysis. The Ninth Circuit affirmed the district court's finding that Bryant's doll sketches were deserving of broad protection, but held that the court had erred by "failing to filter out all the unprotectable elements of Bryant's sketches." Although the district court's application of the substantial similarity test was appropriate, the comparison had incorrectly included unprotectable elements, such as "doll fashions that expressed an 'aggressive, contemporary, youthful style.'"

The Ninth Circuit also rejected the district court's finding that the doll sculpt merited broad copyright protection. The Ninth Circuit reasoned that, although it is possible to create innumerable images of bratty dolls simply by varying the doll's make-up, clothing, skin color, hair style, body shape, and facial structure, the same is not true when dealing with the tangible doll sculpt. There is a relatively narrow window in which designers can vary the basic body structure of a doll while remaining aligned with the idealized proportions typical in the doll industry.

EUROPE'S "GRADUATED RESPONSE" TO INTERNET PIRACY

In order to reduce copyright infringement via illegal downloading and file-sharing, the creative industries have advocated so-called "graduated response" or "three strikes Internet disconnection policies," which disconnects consumers after issuing a number of warnings. In the United States, the creative industries have been successful in combating Internet piracy using civil lawsuits. By contrast, in Europe, copyright holders have struggled to successfully bring civil lawsuits against infringers in the face of strong judicial protection of privacy and personal data. Consequently, the industries have attempted to gain cooperation of Internet service providers (ISPs), asking them to identify infringers and to implement safeguards. Several countries (including France and the United Kingdom) have attempted to adopt a fast-track "three strikes" approach.

This approach poses many challenging legal questions. Is the "right to Internet access" a fundamental right? Under what authority can the state or ISPs cut off a user's Internet connection? How is it possible to strike a proper balance between the protection of copyright and users' rights, such as the right to privacy, freedom of speech, freedom of expression and due

process rights? How do we resolve technical issues such as tracking down users engaged in Internet piracy via Wi-Fi hotspots?

On October 22, 2009, the French Constitutional Council approved a French law authorizing the termination of a consumers Internet access after “three strikes.” CC decision no. 2009-590DC, Oct. 22, 2009, J.O. 18292. The Constitutional Council previously declared an earlier version of the bill unconstitutional, holding that revoking user’s Internet access without judicial review unlawfully infringes freedom of expression and the presumption of innocence, and violates the principle of separation of powers. CC decision no. 2009-580DC, June 10, 2009, J.O. 9675. However, under the new statute, when copyright holders bring suit, a government agency sends an email to the connection owner, followed by a certified letter. Law No. 2009-1311 of October 28, 2009, Journal Officiel de la République Française [J.O.][Official Gazette of France], October 29, 2009, p. 18290. Upon further failure to comply, the connection owner must appear before a judge who can suspend the user’s Internet access for a maximum of one year and prohibit any other contract with all ISPs, as well as impose a fine. The statute is similar to the stance taken by the European Parliament, which approved in 2009 the common position as specifically requiring a court order before cutting off Internet access.

In the United Kingdom, the Digital Economy Act, 2010, c. 24, gained Royal Assent on April 8, 2010, although the new regime has not yet been enforced. The Act establishes a new process permitting the Secretary of State to order ISPs to impose technical measures to terminate infringers’ Internet connections upon copyright owners’ request and notification. On November 10, 2010, however, the High Court of Justice granted a judicial review of the relevant part of the Act, following an application from ISPs, which alleges violation of EU law, including rules on privacy and ISP liability. As to European rules, the European Data Protection Supervisor strongly opposes “three strikes Internet disconnection policies,” arguing that it unlawfully infringes the right to privacy and protection of personal data in light of the jurisprudence of the European Court of Human Rights and of the Court of Justice.

*ARISTA RECORDS, LLC v. LAUNCH MEDIA, INC.**578 F.3d 148 (2d Cir. 2009)*

The Second Circuit held, as a matter of first impression, that an Internet music service whose playlist is individually generated based on the preferences of a particular user is not an interactive service within the meaning of Section 114 of the Copyright Act.

In 2001 Arista Records, LLC, Bad Boy Records, BMG Music, and Zomba Recording LLC (collectively, “BMG”) brought action against Launch Media, Inc. (“Launch”) alleging that Launch violated provisions of the Digital Millennium Copyright Act (the “DMCA”), by willfully infringing sound recording copyrights of BMG from 1999 to 2001. Launch operated an Internet radio website or “webcasting” service, called LAUNCHcast. This service provided users with individualized Internet radio stations that play songs that are within a particular genre or similar to a particular artist or song for which the user has expressed a preference. BMG held the copyrights in the sound recordings of some of the songs that Launch used in its webcasting service.

At trial, BMG argued that Launch provided an “interactive service” within the meaning of Section 114 of the Copyright Act in LAUNCHcast and therefore was required to pay individual licensing fees for each song the webcasting service played for its users. An interactive service is defined as a service “that enables a member of the public to receive a transmission of a program specially created for the recipient, or on request, a transmission of a particular sound recording . . . which is selected by or on behalf of the recipient.” The use of songs in an interactive service requires paying individual licensing fees to the copyright holders of the sound recordings for those songs. However, if a service is not interactive, the use of songs only incurs a statutory licensing fee set by the Copyright Royalty Board.

The Southern District of New York entered judgment on a jury verdict, finding that LAUNCHcast was not an interactive service and was therefore not liable for paying licensing fees for each individual song. BMG appealed, claiming that LAUNCHcast is an interactive service, as a matter of law because LAUNCHcast is “designed and operated to enable members of the public to receive transmissions of programs specially created for them.”

The Second Circuit looked to Congressional intent and concluded that from the Sound Recording Act of 1971 to the DMCA in 1998, Congress had enacted copyright legislation directed at preventing decrease in record sales. Congress was concerned about either: (1) direct piracy of music, or (2) digital media services that offered users the ability to select the songs they could listen to such that they would have no reason to purchase them. The court

then noted that LAUNCHcast would be interactive under the statute if a user could either: (1) request and have played a particular sound recording, or (2) receive a transmission of a program “specially created” for the user. Because a LAUNCHcast user cannot request and have played a particular song, the service does not meet the first alternative. However, depending on the interpretation of “specially created,” LAUNCHcast could be liable under the second definition.

The court concluded that LAUNCHcast did not provide a specially created program within the meaning of § 114(j)(7) because the service did not provide sufficient control to users such that the song programs were so predictable as to incentivize users to listen to the webcast instead of purchasing records. Therefore, the court found that LAUNCHcast was not an interactive service within the meaning of 17 U.S.C. § 114(j)(7).

COSMETIC IDEAS, INC., v. IAC/INTERACTIVECORP

606 F.3d 612 (9th Cir. 2010)

The United States Court of Appeals for the Ninth Circuit held that receipt by the Copyright Office of a complete application satisfies the registration requirement of 17 U.S.C. § 411(a). This decision solidifies a Circuit split on this particular issue, with the Fifth, Seventh, and Ninth Circuits adopting this approach, called the application rule. However, the Tenth and Eleventh Circuits have adopted the registration rule, which requires the Copyright Office to act on the application before an infringement action can be filed.

In 1997, Cosmetic created a piece of costume jewelry known as the “Lady Caroline Lorgnette.” Cosmetic began selling the necklace in 1999, and continued to do so up through the date of the lawsuit. Cosmetic claimed that defendants, sometime between 2005 and 2008, began manufacturing and distributing copies of a virtually identical necklace.

Cosmetic submitted an application to the Copyright Office for registration of its copyright in the jewelry, and received confirmation of receipt of that application in March 2008. Later that same month, Cosmetic filed a complaint alleging that defendant had infringed on that copyright.

In June, 2008, defendants moved to dismiss for failure to state a claim and lack of subject matter jurisdiction, arguing that Cosmetic did not possess a valid copyright registration when it commenced its action. The district court granted the motion to dismiss on the basis that it lacked subject matter jurisdiction, and Cosmetic appealed.

Section 411(a) states that “no civil action for infringement of the copyright in any United States work shall be instituted until pre-registration

or registration of the copyright claim has been made in accordance with this title.” In approaching the issue, the court first acknowledged the circuit split, and then moved on to textual analysis of § 411(a). However, the court found that the plain language of the particular section, as well as other sections in the statute, could support either the application or registration rule.

Finding the statutory language unclear, the court examined the broader context and purpose of the statute. The court observed that although the 1976 revision to the Copyright Act significantly increased the scope of protected works by eliminating required formalities like registration, Congress still valued having a robust federal register of copyrights. To this end, Congress chose to encourage registration through various incentives, such as requiring registration to bring an infringement action.

With this legislative background in mind, the Ninth Circuit adopted the application approach. It concluded that the application approach “better fulfills Congress’s purpose of providing broad copyright protection while maintaining a robust federal register.” The court pointed out that the application approach avoids unnecessary delay in infringement litigation. The court also found that it makes little sense to dismiss a case that is likely to be re-filed shortly thereafter, simply because the Copyright Office had not made a prompt decision, though the decision would have no substantive impact on the litigant’s right to proceed. In the worst case scenario, the registration approach could cause a party to lose the ability to sue because of the statute of limitations.

IN RE CELLCO PARTNERSHIP

663 F. Supp. 2d 363 (S.D.N.Y. 2009)

Cellco Partnership d/b/a Verizon Wireless (“Verizon”) initially filed an application for a determination of reasonable fees for a blanket license for the public performance of musical compositions in the repertory of the American Society of Composers, Authors, and Publishers (“ASCAP”). ASCAP is a performing rights organization that licenses, on a non-exclusive basis, the non-dramatic public performance rights to musical works. Verizon is a retail wireless communications company that sells ringtones, among other products and services, to its customers. To obtain a ringtone from Verizon, the customer must purchase it and download it to a cellular phone. Verizon was already paying songwriters and music publishers a royalty for each ringtone download pursuant to an earlier Copyright Royalty ruling.

Verizon subsequently filed a motion for summary judgment on the issue of whether it is required to pay performance licensing fees for its customers’ use of ringtones. In response, ASCAP argued that Verizon is both directly

and secondarily liable for public performances of musical works when its customers play ringtones on their phones.

The court examined two categories of use: (1) downloading ringtones, and (2) playing ringtones. Under the first category of use, ASCAP contended that Verizon's transmission of a ringtone to a customer's phone is "but the first link in a chain of transmission to the public" and thus requires a public performance license. The court reasoned that since only one subscriber receives the transmission, the transmission could not be considered a public performance under 17 U.S.C. § 106(4).

Regarding the second use, ASCAP argued that cellular phones playing ringtones to signal incoming calls constitutes a public performance. ASCAP asserted that Verizon is secondarily liable when a ringtone plays. 17 U.S.C. § 110(4) exempts a performance that occurs with no expectation of profit. ASCAP argued that this exemption should not apply because the customer benefits by purchasing a product and service it desires, and Verizon failed to demonstrate that each and every customer would be able to meet its burden of proof to show that his or her "performance" of ringtones would satisfy the exemption. The court rejected this argument and held that "this personal, non-monetary benefit does not vitiate the application of the § 110(4) exemption" and that the law does not impose such an insurmountable burden of proof upon Verizon.

ASCAP also asserted that Verizon is directly liable for copyright infringement. ASCAP contended that Verizon controls the entire series of steps that make cell phones perform the ringtones in public and "that these actions constitute the performance 'publicly' of a musical work." The court again held in favor of Verizon and reasoned that "Verizon's putative 'control' over the playing of the ringtone in public . . . [is] too attenuated from that 'performance' to render Verizon liable."

In granting Verizon's motion for summary judgment, the U.S. District Court for the Southern District of New York effectively held that a wireless communications company was not required to pay performance royalties for the playing of ringtones when its customers receive a call.

AUTHENTICATE THIS: REVAMPING SECONDARY TRADEMARK LIABILITY STANDARDS TO ADDRESS A WORLDWIDE WEB OF COUNTERFEITS

Michelle C. Leu[†]

For years, eBay has described itself as an online sales platform that links buyers and sellers. In recent years, however, eBay has not only become the world's largest online marketplace, but also "the center of a new universe of counterfeit products."¹ Although eBay did not create the counterfeiting problem, its success as a forum for sales of counterfeit products has made it a target for luxury brand owners.² Premier jeweler Tiffany & Co. ("Tiffany") first filed suit against eBay in New York district court, claiming that eBay facilitated and allowed the sale of thousands of pieces of fake Tiffany products and, in the process, devalued the 150-year-old Tiffany brand.³ On appeal, the Second Circuit affirmed the district court's conclusion that eBay was not contributorily liable for trademark infringement.⁴ Specifically, the court found that eBay's prompt responses to notices of potentially infringing listings prevented it from possessing the specific knowledge of infringement necessary for a finding of contributory liability.⁵

This Note addresses the problem of trademark infringement of luxury brands on eBay. By examining the Second Circuit's decision in *Tiffany v. eBay*, the efficacy of eBay's current anti-fraud systems, and the conflicting interests at stake, this Note proposes a balancing framework that will likely promote the integrity of the online marketplace while allowing room for the public to engage in legitimate secondary market activity. Although counterfeiting is not limited to premium goods, luxury brands—especially coveted names like

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1. Katie Hafner, *Tiffany and eBay in Fight Over Fakes*, N.Y. TIMES (Nov. 27, 2007), <http://www.nytimes.com/2007/11/27/technology/27ebay.html> ("[A]s the biggest online marketplace, eBay is the center of a new universe of counterfeit products.").

2. See EBAY 2009 ANNUAL REPORT 18 (2009), available at <http://investor.ebay.com/annuals.cfm>.

3. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 469 (S.D.N.Y. 2008).

4. *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 109 (2d Cir. 2010).

5. *Id.*

Tiffany, Louis Vuitton, and Gucci—are among the fastest-growing targets for counterfeits on the Internet.⁶

This Note proceeds in five parts. Part I examines the differences between trademark law and copyright law, discusses the development of secondary trademark liability principles, and reviews the current standards for secondary copyright liability. Part II describes eBay's business model and its current anti-counterfeiting efforts. Part III discusses *Tiffany v. eBay* and explains the Second Circuit's affirmance of the district court's holding that generalized knowledge is insufficient to impose upon eBay an affirmative duty to remedy the counterfeiting problem on its website. Finally, Part IV discusses why, after considering and weighing the legitimate interests at stake, courts should adopt a balancing framework—akin to tort law's reasonable alternative design theory—to determine the contours of secondary trademark liability.

This Note explains how the Second Circuit's approach to eBay's secondary liability fails to lay a reasonable template for addressing misaligned interests and complex issues of technological change. Shielding eBay from liability where it lacks specific knowledge of infringement largely eliminates worthwhile incentives for the company to develop more effective solutions. As there is evidence that eBay's efforts at combating infringement have not been effective, a balancing framework will likely encourage eBay to adopt more effective alternative anti-counterfeiting mechanisms as they become available. Importantly, by putting pressure on eBay and Tiffany to work together, a balancing framework can promote a legitimate secondary marketplace without restricting technological innovation.

I. SECONDARY TRADEMARK LIABILITY

A. COMPARING TRADEMARK AND COPYRIGHT LAW

Trademark and copyright protection differ in scope partly because of their differing rationales. Copyright law originates in the Constitution and encompasses a broad range of subject matters. By granting authors a set of exclusive rights over their works, copyright law incentivizes creativity to benefit the public.⁷ Copyright protection attaches from the moment a work is

6. Maura Kutner, *The Fight Against Fakes Online*, HARPER'S BAZAAR (Dec. 14, 2010), <http://www.harpersbazaar.com/fashion/fashion-articles/fight-against-fakes-online-0111>.

7. See U.S. CONST., art. I, § 8, cl. 8 (“The Congress shall have 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”).

fixed in a tangible medium of expression,⁸ and it generally extends to the life of the author plus seventy years.⁹

Trademark law, on the other hand, focuses upon the quality of information in the marketplace.¹⁰ Trademark rights are acquired when a trademark is used in commerce and endure as long as the use continues.¹¹ Rather than protecting innovation or creativity directly, trademark law aims to “protect the integrity of the marketplace by prohibiting the use of marks associated with particular manufacturers in ways that would cause confusion as to the sources of the goods.”¹² In doing so, trademark law reduces consumer confusion as to source and incentivizes firms to invest in activities that improve brand reputation, such as supplying quality products and services.¹³

Both consumers and sellers benefit from having access to truthful information about the source of products and services.¹⁴ Sellers benefit by being able to invest and capitalize in goodwill without fear that others will appropriate it.¹⁵ In markets where the quality of information is accurate and consistent, consumers can determine the attributes without confronting information problems.¹⁶ By contrast, an “information asymmetry” exists in many secondary markets, like eBay, where sellers typically have better information about the products being offered than buyers can readily discern.¹⁷ Because the efficiency of the marketplace is largely contingent upon the quality of information available to consumers, proliferation of unreliable information increases consumer search costs.¹⁸ Consumers will have to spend more time and effort evaluating the merchandise and researching the product market to ensure the accuracy of claims or the authenticity of an item.

8. See 17 U.S.C. § 102 (2006).

9. 17 U.S.C. § 302(a).

10. Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1536 (A. Mitchell Polinsky & Steven Shavell eds., 2007).

11. See generally ROBERT P. MERGES ET AL., *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE* 735 (5th ed. 2010) (“[Trademarks] are rights acquired with the use of a trademark in commerce, and they continue only so long as that use continues.”).

12. Menell & Scotchmer, *supra* note 10, at 1536.

13. *Id.*

14. Stacey Dogan & Mark Lemley, *Trademark in Transition: Institute for Intellectual Property & Information Law Symposium: Trademarks and Consumer Search Costs on the Internet*, 41 HOUS. L. REV. 777, 787 (2004).

15. *Id.*

16. Menell & Scotchmer, *supra* note 10, at 1536.

17. *Id.*

18. *Id.* at 1537.

B. SECONDARY TRADEMARK LIABILITY

Secondary liability—imposing liability on a defendant who did not directly commit the infringing act—originates in tort law. Though the Lanham Act does not explicitly reference the liability of third-party infringers, courts have justified the importation of secondary tort liability principles into trademark law on the grounds that the Lanham Act is derived “generally and purposefully from the common law tort of unfair competition.”¹⁹ Secondary trademark liability comes in two flavors: contributory and vicarious.²⁰

1. *Contributory Trademark Infringement*

Contributory trademark infringement is a judicially created doctrine that grows out of tort law jurisprudence.²¹ A contributory infringer is “one who, with knowledge of the infringing activity, induces, causes, or materially contributes to the infringing conduct of another.”²²

In 1982, the Supreme Court articulated the current test for contributory trademark infringement in *Inwood Laboratories v. Ives Laboratories*.²³ There, a manufacturer of generic pharmaceuticals continued to supply pills to pharmacists who were intentionally mislabeling generic drugs with plaintiff’s protected trademark, rather than the appropriate generic label. The plaintiff stated a cause of action for contributory infringement by alleging that the defendant manufacturer “continued to supply [the product] to pharmacists who the petitioners knew or should have known were mislabeling generic drugs.”²⁴ The Court stated that “if a *manufacturer or distributor* intentionally induces another to infringe a trademark, or if it continues to supply its *product* to one whom it knows or has reason to know is engaging in trademark infringement, the manufacturer or distributor is contributorily responsible for any harm done as a result of the deceit.”²⁵

19. *AT&T Co. v. Winback & Conserve Program, Inc.*, 42 F.3d 1421, 1433 (3d Cir. 1994).

20. *See Perfect 10, Inc. v. Visa Int’l Serv. Ass’n*, 494 F.3d 788, 806–08 (9th Cir. 2007).

21. *See, e.g., Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 103–04 (2d Cir. 2010); *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1148 (7th Cir. 1992); *cf. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005) (“[T]hese doctrines of secondary liability emerged from common law principles and are well established in the law.”) (citations omitted).

22. *Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971).

23. 456 U.S. 844 (1982).

24. *Id.*

25. *Id.* at 854 (emphasis added).

The Ninth Circuit read *Inwood* broadly, holding that the Supreme Court “laid down no limiting principle that would require defendant to be manufacturer or distributor.”²⁶ Indeed, other circuits have not confined contributory infringement in its application to manufacturers and distributors.²⁷ For example, the Eleventh Circuit acknowledged that a franchisor could be contributorily liable for a franchisee’s infringing actions if the franchisor had intentionally induced the infringing acts or actively participated in any infringement scheme.²⁸ Moreover, the Seventh Circuit observed that the landlord of a flea market could be contributorily liable for a tenant’s sale of infringing products where the landlord was found to have been “willfully blind” to the infringing acts.²⁹

In the years following *Inwood*, technological changes precipitated by the Internet have made possible situations where a defendant could contribute in some way to trademark infringement without supplying a product to the direct infringer. In one such case, the court applied a modified standard in which *Inwood*’s test for contributory trademark infringement applies if a defendant exercises sufficient control over the infringing conduct.³⁰

2. Vicarious Trademark Infringement

Vicarious trademark infringement has evolved in the federal courts under traditional tort and agency principles.³¹ Vicarious liability is appropriate where the defendant and the infringer “have an apparent or actual partnership, have

26. *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 265 (9th Cir. 1996).

27. *See, e.g., Procter & Gamble Co. v. Haugen*, 317 F.3d 1121, 1128 (10th Cir. 2003) (stating that action may extend to “licensors, franchisors, or to similarly situated third parties”); *Mini Maid Servs. Co. v. Maid Brigade Systems, Inc.*, 967 F.2d 1516, 1521 (11th Cir. 1992) (extending the contributory liability analysis in *Inwood Laboratories* to govern the relationship between a franchisor and its franchisees); *Habeeba’s Dance of the Arts, Ltd. v. Knoblauch*, 430 F. Supp. 2d 709, 714–15 (S.D. Ohio 2006) (sustaining contributory liability claim against landlords who allowed trademark infringers to use their property).

28. *Mini Maid Servs. Co.*, 967 F.2d at 1522.

29. *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1149 (7th Cir. 1992).

30. Specifically, “when measuring and weighing a fact pattern in the contributory infringement context without the convenient ‘product’ mold dealt with in *Inwood Lab.*, we consider the extent of control exercised by the defendant over the third party’s means of infringement.” *Lockheed Martin Corp. v. Network Solutions, Inc.*, 194 F.3d 980, 984 (9th Cir. 1999); *see also Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 105 (2d Cir. 2010).

31. *See AT&T Co. v. Winback & Conserve Program, Inc.*, 42 F.3d 1421, 1437 (3rd Cir. 1994); *David Berg & Co. v. Gatto Int’l Trading Co.*, 884 F.2d 306, 311 (7th Cir. 1989); *Hard Rock Cafe*, 955 F.2d at 1150 (citing *David Berg*, 844 F.2d at 311).

authority to bind one another in transactions with third parties, or exercise joint ownership or control over the infringing product.”³²

In *Hard Rock Cafe*, the Seventh Circuit declined to extend vicarious trademark infringement to the owner of a flea market because it did not exercise control over the third-party vendors beyond that exercised by a landlord over his tenants.³³ The court noted that the supervision of the flea markets was minimal, as the vendors were subject to very few rules and limitations, no one screened the vendors’ wares before they entered the market and set up their stalls, and any examination after that was cursory.³⁴

C. SECONDARY COPYRIGHT LIABILITY

Courts have also generally looked to tort law in developing secondary copyright liability.³⁵ Although the Copyright Act does not expressly address secondary liability, the Supreme Court has explained that this does not preclude the imposition of liability on third parties.³⁶ Moreover, secondary copyright liability finds support in the legislative history underlying the 1976 Copyright Act, which makes two direct references to indirect liability standards.³⁷ Secondary copyright liability also comes in two forms: contributory liability and vicarious liability.³⁸

1. *Contributory Copyright Infringement*

Contributory copyright infringement finds its roots in the common law tort doctrine of joint liability—that one who knowingly participates in or furthers a tortious act is jointly and severally liable with the primary tortfeasor.³⁹ To be held liable for contributory copyright infringement, one

32. *Hard Rock Cafe*, 955 F.2d at 1150 (citing *David Berg*, 884 F.2d at 311).

33. *Id.* at 1150 n.4.

34. *Id.* at 1146.

35. Peter S. Menell & David Nimmer, *Unwinding Sony*, 95 CALIF. L. REV. 941, 996–97 (2007).

36. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 435 (1984).

37. H.R. REP. NO. 94-1476, at 61, 159–60 (1976).

38. Mark Bartholomew & John Tehranian, *The Secret Life of Legal Doctrine: The Divergent Evolution of Secondary Liability in Trademark and Copyright Law*, 21 BERKELEY TECH. L.J. 1363, 1366 (2006).

39. 1 NIEL BOORSTYN, BOORSTYN ON COPYRIGHT § 10.06[2], at 10-21 (1994) (“In other words, the common law doctrine that one who knowingly participates in or furthers a tortious act is jointly and severally liable with the prime tortfeasor, is applicable under copyright law”).

must have knowledge of the infringing activity and induce, cause, or materially contribute to the infringing conduct of another.⁴⁰

In *Fonovisa, Inc. v. Cherry Auction, Inc.*,⁴¹ for example, the Ninth Circuit upheld a claim for contributory copyright infringement against a swap meet proprietor for the infringing activities of vendors on its property.⁴² There, the knowledge prong of the contributory copyright infringement was satisfied because the proprietor was aware that vendors in its swap meet were selling counterfeit recordings in violation of the plaintiff's copyrights.⁴³ In concluding that the material contribution prong was also met, the court noted that "it would be difficult for the infringing activity to take place in the massive quantities alleged without the support services provided by the swap meet."⁴⁴ The supporting services provided by the defendants included the provision of space, utilities, parking, advertising, plumbing, and customers.⁴⁵

2. *Vicarious Copyright Infringement*

Like vicarious trademark infringement, vicarious copyright infringement grew out of the agency branch of indirect tort liability.⁴⁶ Nevertheless, a defendant may be guilty of vicarious copyright liability even in the absence of a formal agency relationship.⁴⁷ To succeed on a claim for vicarious liability, a plaintiff must demonstrate that the defendant has the right and ability to supervise the infringing activity and obtains a direct financial benefit from the infringement. Unlike contributory liability, vicarious liability does not require knowledge, as "a defendant exercises control over a direct infringer when he has both a legal right to stop or limit the directly infringing conduct, as well as the practical ability to do so."⁴⁸

In *Fonovisa*, the Ninth Circuit found that the swap meet proprietor could also be vicariously liable for the third-party vendors' copyright infringement.⁴⁹ Because the swap meet proprietor had the right to terminate vendors for any reason, promoted the swap meet, patrolled the premises,

40. *Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971).

41. 76 F.3d 259 (9th Cir. 2006).

42. *Id.* at 264.

43. *Id.* at 261, 264.

44. *Id.* at 264. The court took the view that "providing the site and facilities for known infringing activity is sufficient to establish contributory liability." *Id.*

45. *Id.*

46. *Menell & Nimmer*, *supra* note 35, at 1014.

47. *Bartholomew & Tehranian*, *supra* note 38, 1394–95.

48. *Perfect 10, Inc. v. Amazon.com, Inc.*, 508 F.3d 1146, 1173 (9th Cir. 2007).

49. 76 F.3d 259, 264 (9th Cir. 1996).

controlled customers' access to the swap meet area, and was aware that vendors were selling counterfeit recordings in violation of plaintiff's copyrights and trademarks, it had the ability to control the activities of the vendors.⁵⁰ Moreover, the court concluded that a daily rental fee by each of the infringing vendors, an admission fee by each customer, and incidental payments for parking, food, and other services by customers seeking to purchase infringing recordings can satisfy the direct financial benefit prong of the vicarious copyright infringement test.⁵¹ The court rejected the proprietor's argument that a commission—directly tied to the sale of particular infringing items—is required.⁵²

3. *Secondary Copyright Liability in the Digital Age*

In 1998, Congress enacted the Digital Millennium Copyright Act (DMCA) in an effort to mitigate the problems presented by copyright enforcement in the digital age.⁵³ The DMCA provides a series of safe harbors to shield service providers from liability, provided that the service providers remove infringing materials upon proper notification from copyright owners.⁵⁴ The safe harbor provisions thus endeavor to facilitate cooperation between service providers and copyright owners by striking a balance between their competing interests.⁵⁵

In order to enjoy the limited immunities afforded under the DMCA safe harbors, a defendant must satisfy four threshold conditions. First, the defendant must be a “service provider”⁵⁶ and must “adopt[] and reasonably implement[] a policy” that terminates accounts of users who are repeat infringers.⁵⁷ Second, a service provider is insulated from liability for copyright

50. *Id.* at 261–62.

51. *Id.* at 263.

52. *Id.*

53. 17 U.S.C. § 512 (2006); *see also* *Ellison v. Robertson*, 357 F.3d 1072, 1076 (9th Cir. 2004).

54. *Id.*

55. H.R. REP. NO. 105-551, pt. 2, at 49 (1998).

56. 17 U.S.C. § 512(k)(1) (A service provider is “a provider of online services or network access, or the operator of facilities therefor” and “an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user's choosing, without modification to the content of the material as sent or received.”).

57. *Id.* § 512(i)(1)(A). Although the statute does not define “implemented,” one court has held that a service provider has implemented a policy if it has “a working notification system, a procedure for dealing with DMCA-compliant notifications, and if it does not actively prevent copyright owners from collecting information needed to issue such notifications.” *Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102, 1109 (9th Cir. 2007). A policy

infringement if it (1) does not have actual knowledge of infringing activity, (2) is not aware of facts or circumstances from which infringing activity is apparent, or (3) expeditiously removes the allegedly infringing material upon obtaining such knowledge or awareness.⁵⁸ Third, a service provider must not receive a financial benefit directly attributable to the infringing activity, if it had the ability to control such activity.⁵⁹ Fourth, a service provider must remove the allegedly infringing material upon notification of claimed infringement.⁶⁰

The DMCA prescribes a notice-and-takedown regime that enables copyright owners to notify service providers about allegedly infringing activity and demand that such material be removed.⁶¹ When a copyright owner suspects that her copyright has been infringed, she must follow the notice-and-takedown provisions set out in § 512(c)(3) of the DMCA. Upon proper notice,⁶² the service provider must expeditiously remove any material that is claimed to be infringing or to be the subject of infringing activity.⁶³ The service provider is then required to take reasonable steps to notify the creator of the allegedly infringing material that the material has been removed as a result of the DMCA notice-and-takedown request.⁶⁴ In response to the removal of her material, the accused infringer may submit a “counter-notification” that she has a good faith belief that her material was removed as a result of mistake or misidentification.⁶⁵ Upon receipt of a counter-notification, the service provider is then required to notify the original claimant that unless it receives notice of a pending legal action within fourteen days, the material will be replaced.⁶⁶

II. WHAT IS EBAY?

eBay operates the world’s largest online marketplace,⁶⁷ www.ebay.com, that allows individuals and businesses to buy and sell a broad variety of

is “unreasonable only if the service provider failed to respond when it had knowledge of the infringement.” *Id.*

58. 17 U.S.C. § 512(c)(1).

59. *Id.* § 512(c)(1)(B).

60. *Id.* § 512(c)(1)(C).

61. *Id.* § 512.

62. *See id.* § 512(c)(3).

63. *Id.* § 512(d)(3).

64. *Id.* § 512(g)(2)(A).

65. *Id.* § 512(g)(3).

66. *Id.* § 512(g)(2)(B)–(C).

67. *See The eBay Company*, EBAY, <http://pages.ebay.com/aboutebay/thecompany/companyoverview.html> (last visited Feb. 9, 2011); TRADEMARKS AND UNFAIR

goods and services worldwide.⁶⁸ Since eBay's founding in 1995, it has become one of the world's largest and most popular shopping destinations.⁶⁹ With over 300 million registered users, eBay offers localized sites in some thirty countries and facilitates tens of millions of transactions every day.⁷⁰

Unlike many electronic marketplaces, eBay's business model has never included maintaining physical inventory or possession of third party seller merchandise.⁷¹ As a platform for sales, eBay brings buyers and sellers together in a manner where sellers list items for sale, buyers bid on items of interest, the parties consummate the transaction on their own, and eBay collects its final value fee independent of payment and shipment.⁷²

Unfortunately, eBay's popularity and convenience has also attracted dishonest individuals looking to sell or buy counterfeit items. An estimated 29 percent of online auction fraud happens on eBay.⁷³ As such, eBay accounts for approximately 15 percent of known fraud on the Internet.⁷⁴ In recent years, numerous luxury brand owners have filed suit against eBay seeking to hold eBay liable for alleged counterfeit items listed on its website by third parties.⁷⁵

A. EBAY'S BUSINESS MODEL

eBay's goals as a publicly traded company are twofold: to provide its users with a well-functioning trading platform, and to maximize profits, both

COMPETITION COMMITTEE, ONLINE AUCTION SITES FINAL REPORT 1, *available at* www.abcny.org/pdf/report/Online%20Auction%20Sites%20Final%20Report.pdf.

68. According to eBay's mission statement, "eBay's mission is to provide a global trading platform where practically anyone can trade practically anything." *The Company*, EBAY CANADA, <http://pages.ebay.ca/aboutebay/thecompany/companyoverview.html> (last visited Feb. 10, 2011); *see also* Aron Hsiao, *What Is eBay?*, ABOUT, http://ebay.about.com/od/gettingstarted/a/g_s_whatisebay.htm (last visited Feb. 9, 2011).

69. Aron Hsiao, *About eBay the Business*, ABOUT, http://ebay.about.com/od/ebaylifestyle/a/el_bus09.htm (last visited Feb. 9, 2011).

70. *Id.*

71. *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 97 (2d Cir. 2010).

72. *The eBay Business Model*, ALLBUSINESS, <http://www.allbusiness.com/sales/internet-ebay/3251-1.html> (last visited Feb. 9, 2011).

73. Matthew C. Berntsen, *Knowledge and Misfeasance*, 16 B.U. J. SCI. & TECH. L. 102, 103 (2010).

74. *Id.*

75. EBAY INC., 2009 ANNUAL REPORT / FORM 10-K 18, 46–47 (2009), *available at* <http://investor.ebay.com/annuals.cfm>. Luxury brand owners that have filed suit against eBay alleging trademark infringement include Louis Vuitton Malletier, Christian Dior Couture, Parfums Christian Dior, Kenzo Parfums, Parfums Givenchy, Guerlain Société, L'Oreal SA, and Tiffany, Inc. *Id.* at 46–47.

in the short term and over the long term.⁷⁶ The two goals are interdependent. eBay attracts hundreds of millions of users by acting as a highly efficient middleman. Because eBay's revenue stream is reliant upon the various fees it charges its users, the more transactions it facilitates, the more money it makes.⁷⁷

Browsing and bidding on auctions is free of charge, but sellers are charged two basic kinds of fees. For each item listed on eBay, a nonrefundable insertion fee is charged based on the seller's opening bid on the item.⁷⁸ Once the auction is completed, eBay charges a final value fee that is based on the final sale price, listing format (i.e., auction-style or fixed price), and category of goods.⁷⁹ eBay charges additional fees for optional features designed to boost sales, such as hosting pictures to help buyers see more of the seller's listed item or selling with a reserve price.⁸⁰ Further, PayPal, the online payment service eBay acquired in 2002,⁸¹ also collects a fee from sellers for each payment completed through its service.⁸²

B. EBAY'S ANTI-FRAUD EFFORTS

1. *Trust and Safety Department*

eBay expends as much as \$20 million annually on tools to promote trust and safety on its website.⁸³ One quarter of eBay's workforce, roughly 4,000 employees, is devoted to addressing "trust and safety" issues.⁸⁴ Of these 4,000 employees, 2,000 serve as eBay Customer Service Representatives

76. Aron Hsiao, *Buyer vs. Seller Bias on eBay*, ABOUT, http://ebay.about.com/od/ebaylifestyle/a/el_bias.htm (last visited Dec. 24, 2010).

77. *See Fees for Selling on eBay*, EBAY, <http://pages.ebay.com/help/sell/fees.html> (last visited Dec. 24, 2010).

78. *Insertion Fees*, EBAY, <http://pages.ebay.com/help/sell/insertion-fee.html> (last visited Feb. 16, 2011).

79. *Final Value Fees*, EBAY, <http://pages.ebay.com/help/sell/fvf.html> (last visited Feb. 9, 2011).

80. *Optional Fees*, EBAY, <http://pages.ebay.com/help/sell/fees.html#optional> (last visited Feb. 9, 2011).

81. *The eBay Company*, <http://pages.ebay.com/aboutebay/thecompany/companyoverview.html> (last visited Feb. 9, 2011).

82. *Fees*, PAYPAL, https://www.paypal.com/cgi-bin/webscr?cmd=_display-fees-outside (last visited Feb. 9, 2011). Though eBay does not require sellers to use PayPal as a payment method, recent surveys show that three out of four buyers prefer paying with PayPal to any other method because PayPal payments are generally safer and more efficient. Auction Tools for eBay, PAYPAL, https://www.paypal.com/cz/cgi-bin/webscr?cmd=_auction-outside&nav=1.4.0 (last visited Feb. 16, 2011).

83. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 476 (S.D.N.Y. 2008).

84. *Id.*; Brief for Appellee at 18, *Tiffany, Inc. v. eBay, Inc.*, 600 F.3d 93 (2d Cir. 2010) (No. 08-3947).

(“CSRs”).⁸⁵ More than 200 CSRs focus exclusively on combating infringement. Furthermore, eBay employs seventy individuals who work exclusively with law enforcement.⁸⁶

2. *Fraud Engine*

eBay devotes more than \$5 million annually to maintaining and enhancing a fraud engine that automatically searches for activity that violates eBay policies.⁸⁷ The fraud engine uses over 13,000 different search criteria to identify listings that contain indicia of counterfeiting apparent on the face of the listings without requiring expertise in rights owners’ brands or products.⁸⁸ eBay developed the fraud engine to flag or remove listings that expressly offer “knock-off” or “replica” merchandise, contain blatant disclaimers of genuineness, or include statements that the seller “cannot guarantee the authenticity” of the item.⁸⁹ Additionally, the fraud engine contains data elements designed to evaluate listings based on the seller’s Internet Protocol (IP) address and any issues associated with the seller’s account.⁹⁰ Beyond these “red flags,” the fraud engine cannot determine whether a listed item is actually counterfeit.

Listings flagged by the fraud engine are sent to eBay’s CSRs for review and possible further action.⁹¹ Upon reviewing a potentially infringing listing, the CSR may (1) remove the listing from eBay; (2) send a warning to the seller; (3) place restrictions on the seller’s account, such as a selling restriction or suspension; or (4) refer the matter to law enforcement.⁹² eBay removes thousands of listings per month based on CSR review of listings captured by the fraud engine.⁹³ Nevertheless, eBay’s ability to detect infringement is limited by virtue of the fact that eBay cannot physically inspect merchandise in the listings.⁹⁴ Listings that offer potentially infringing or counterfeit items inevitably require a more in-depth review.

85. *Tiffany (NJ) Inc.*, 576 F. Supp. at 476.

86. *Id.*

87. Brief for Appellee, *supra* note 84, at 18–19.

88. *Id.*

89. *Id.* at 19.

90. *Id.*

91. *Id.*

92. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 477 (S.D.N.Y. 2008).

93. Brief for Appellee, *supra* note 84, at 19–20.

94. *Tiffany Inc.*, 576 F. Supp. 2d at 477–78.

3. *User Suspensions*

eBay primarily employs a “three-strikes rule” against sellers for repeat offenses.⁹⁵ Nevertheless, a seller can be suspended for a first violation if it is determined that, for example, she listed a number of infringing listings and this appears to be the only reason she uses eBay’s services.⁹⁶ eBay has also invested substantial resources in developing tools to “detect patterns of fraudulent activity, identify previously suspended users, and prevent such users from re-registering, even with different personally identifying information.”⁹⁷ These suspension policies apply to every user, including high-volume sellers known as PowerSellers.⁹⁸

4. *The Verified Rights Owner (“VeRO”) Program*

Introduced in 1998, VeRO is now a large part of eBay’s anti-fraud efforts.⁹⁹ VeRO reflects eBay’s recognition that, in order to effectively combat counterfeiting on its site, eBay must rely on cooperation from rights owners whose goods are offered on the site.¹⁰⁰ Currently, more than 14,000 rights owners, including Tiffany, participate in the VeRO program.¹⁰¹

The core of VeRO is a notice-and-takedown system. Detection of counterfeit goods requires expertise in identifying those aspects of the goods that are different from the genuine versions. Because intellectual property rights owners are intimately familiar with their own merchandise, VeRO allows a rights owner who identifies a potentially infringing item to report the listing to eBay by submitting a Notice of Claimed Infringement (“NOCI”).¹⁰² Upon receiving a NOCI that contains the necessary information and has indicia of accuracy, eBay CSRs remove the reported listing. eBay’s practice has been to remove reported listings within twenty-four hours of receiving a NOCI.¹⁰³ Currently, three-quarters of reported listings are removed within

95. Brief for Appellee, *supra* note 84, at 21.

96. *Id.*

97. *Id.*

98. *Id.*

99. Daniel NISSANOFF, *FUTURESHOP: HOW THE NEW AUCTION CULTURE WILL REVOLUTIONIZE THE WAY WE BUY, SELL, AND GET THE THINGS WE REALLY WANT* 163 (2006).

100. Brief for Appellee, *supra* note 84, at 13; EBAY, *FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS* 25 (2009), www.ebaymainstreet.com/files/Fighting_Against_online_Solicitations.pdf.

101. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 478 (S.D.N.Y. 2008).

102. *FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS*, *supra* note 100, at 25.

103. *Tiffany Inc.*, 576 F. Supp. 2d at 478.

four hours of notification.¹⁰⁴ eBay typically removes thousands of listings per week based on the submission of NOCIs by rights holders.¹⁰⁵

When eBay removes a listing before bidding has ended, eBay cancels all bids and notifies the seller and bidders that it has removed the listing.¹⁰⁶ eBay also informs the seller of the reason for the removal and provides educational information to prevent the seller from committing the same violation.¹⁰⁷ If the bidding has ended, eBay cancels the transaction retroactively, removes the listing, and informs the winning bidder and the seller that it has removed the listing and that the parties should not complete the transaction.¹⁰⁸ Each time a listing is removed, eBay refunds associated fees, including listing fees, feature fees, and final value fees.¹⁰⁹ eBay also reviews the seller's account and routinely takes remedial action, including suspending the seller's account.¹¹⁰

5. "About Me" Page

As an additional educational tool, eBay encourages rights owners to create an "About Me" webpage on the eBay website to inform users about their products, intellectual property rights, and legal positions.¹¹¹ eBay does not exercise any control over the content of a rights owner's "About Me" page.¹¹² After eBay removes their listings, sellers are directed to the relevant rights owner's "About Me" page for information about why eBay removed their listings and how they can avoid posting infringing listings in the future.¹¹³

Tiffany, for example, has maintained an "About Me" page since the beginning of 2004.¹¹⁴ Tiffany's "About Me" page states that "most of the purported TIFFANY & CO. silver jewelry and packaging available on eBay is counterfeit."¹¹⁵ Tiffany's "About Me" page further claims that genuine

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.* at 478–79; Brief for Appellee, *supra* note 84, at 14–15.

110. Brief for Appellee, *supra* note 84, at 15.

111. FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS, *supra* note 100, at 20.

112. *Tiffany Inc.*, 576 F. Supp. 2d at 479.

113. *Id.*

114. *Id.*

115. *eBay View About Me for tiffanytrademark2*, eBay, <http://cgi3.ebay.com/ws/eBayISAPI.dll?ViewUserPage&userid=tiffanytrademark2> (last visited Feb. 10, 2011).

Tiffany merchandise is available only through stores, catalogs, and Tiffany's own website, and that the manufacture and sale of counterfeit Tiffany goods on eBay is a crime.¹¹⁶ The page concludes by stating that "TIFFANY & CO. RIGOROUSLY PROTECTS ITS TRADEMARKS AND COPYRIGHTS."¹¹⁷

III. TIFFANY V. EBAY

Tiffany has created a brand of jewelry known for its high-end quality and style.¹¹⁸ Since 2000, all new Tiffany jewelry sold in the United States has been available exclusively through Tiffany's retail stores, catalogs, and website, and through its Corporate Sales Department.¹¹⁹ Tiffany does not, nor can it, control the legitimate secondary market in authentic Tiffany jewelry.¹²⁰

In 2004, Tiffany brought an action against eBay, alleging that hundreds of thousands of counterfeit silver jewelry items were offered for sale on eBay's website from 2003 to 2006.¹²¹ Tiffany sought to hold eBay liable for contributory trademark infringement, among other things, for facilitating and allowing the counterfeit goods to be sold on its website.¹²² Though Tiffany acknowledged that individual sellers, rather than eBay, are responsible for listing and selling counterfeit Tiffany items,¹²³ Tiffany nevertheless argued that eBay was on notice about the counterfeiting activity and therefore had an affirmative duty to remedy the problem or be held contributorily liable.¹²⁴ Tiffany also asserted that eBay's failure to conduct an investigation to determine the extent of counterfeiting on its website constituted willful blindness.¹²⁵ In response, eBay argued that it is the proprietor's burden, not eBay's, to monitor the eBay website for counterfeits and to bring counterfeits to eBay's attention.¹²⁶ eBay also claimed that it undertook extensive, voluntary efforts to combat counterfeiting on its website.¹²⁷

116. *Id.*

117. *Id.*

118. *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 96 (2d Cir. 2010).

119. *Id.* at 97.

120. *Id.*

121. *Tiffany (NJ) Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 469 (S.D.N.Y. 2008).

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.* at 513.

126. *Id.*

127. *Id.*

Although eBay has no direct means of inspecting the goods and making authenticity determinations, the district court found that eBay had taken expensive and time-consuming measures to remove counterfeit Tiffany items and to police against their being sold on eBay.¹²⁸ The district court concluded, “eBay consistently took steps to improve its technology and develop anti-fraud measures as such measures became technologically feasible and readily available.”¹²⁹ Following a bench trial, the district court ruled in favor of eBay on all claims.¹³⁰ Tiffany appealed from the district court’s judgment for eBay.¹³¹

The Second Circuit affirmed the district court’s conclusion that eBay’s generalized knowledge of infringement of Tiffany’s trademark on its website was not sufficient to impose upon eBay an affirmative duty to remedy the problem. Therefore, eBay was not liable for contributory trademark infringement for facilitating the infringing conduct of counterfeiting vendors.¹³²

In reaching its holding, the Second Circuit looked to the seminal case on secondary liability for trademark infringement, *Inwood Laboratories, Inc.*¹³³ The Second Circuit stated that “when applying *Inwood* to service providers, there are two ways in which a defendant may become contributorily liable for the infringing conduct of another: first, if the service provider intentionally induces another to infringe a trademark, and second, if the service provider continues to supply its [service] to one whom it knows or has reason to know is engaging in trademark infringement.”¹³⁴ Because inducement was not an

128. *Id.* at 476 (“eBay has made substantial investments in anti-counterfeiting initiatives.”).

129. *Id.* at 493.

130. *Id.* at 527.

131. *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 101 (2d Cir. 2010).

132. *Id.* at 107.

133. *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 854 (1982) (“[I]f a manufacturer or distributor intentionally induces another to infringe a trademark, or if it continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement, the manufacturer or distributor is contributorily responsible for any harm done as a result of the deceit.”). For further discussion, see *supra* Section I.B.1. Note, however, that eBay argued in the district court that the *Inwood* test applies only to manufacturers and distributors of products and not to online service providers, as the language in *Inwood* explicitly states; but it did not raise this issue on appeal. *Tiffany Inc.*, 600 F.3d at 105. Accordingly, the Second Circuit applied the *Inwood* standard without examining the issue of whether or not the standard applies to online service providers. *Id.* at 105–06.

134. *Id.* at 106 (internal quotations omitted). The district court acknowledged that cases decided after *Inwood* have imposed liability for contributory trademark infringement beyond manufacturers and distributors of products, and thus concluded that the *Inwood* test can be

issue in this case, the Second Circuit focused its analysis on the “knows or has reason to know” prong of the test.¹³⁵

The Second Circuit agreed with the district court that the “knows or has reason to know” prong of the *Inwood* test requires more than a general knowledge of counterfeiting activity.¹³⁶ In support of its conclusion, the Second Circuit looked to the Supreme Court’s comments about the *Inwood* test in *Sony Corp. of America*.¹³⁷ There, the Court explained that *Inwood*’s “narrow standard” would have required knowledge by Sony of “identified individuals” engaging in infringing conduct.¹³⁸ Based on this language, the Second Circuit concluded that for contributory trademark infringement liability to lie, a service provider must have “[s]ome contemporary knowledge of which *particular* listings are infringing or will infringe in the future.”¹³⁹

The Second Circuit dismissed Tiffany’s concerns about willful blindness on the part of service providers. First, the court explained that private market forces incentivize service providers like eBay to reduce or eliminate the counterfeit goods sold on their websites.¹⁴⁰ Indeed, eliminating counterfeit merchandise preserves the reputation of online service providers as safe places to do business.¹⁴¹ Second, the court stated that willful blindness is equivalent to actual knowledge for purposes of the Lanham Act.¹⁴² Therefore, a service provider will not be immune to liability if it has reason to know that certain users of its service are engaging in infringing activity but chooses to look the other way.¹⁴³

applied to service providers like eBay. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 504–06 (S.D.N.Y. 2008).

135. *Tiffany Inc.*, 600 F.3d at 106.

136. *Id.* at 106–07.

137. *Id.* at 108; *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 439 n.19 (1984).

138. *Tiffany Inc.*, 600 F.3d at 108 (citing *Sony*, 464 U.S. at 439, n.19).

139. *Id.* at 107 (emphasis added).

140. *Id.* at 109.

141. See FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS, *supra* note 100, at 16 (“eBay’s business model is built on trust. All online businesses and eBay especially, need to convince users that their services are safe vehicles through which to purchase items without needing to first meet the sellers.”).

142. *Tiffany Inc.*, 600 F.3d at 109.

143. *Id.*

IV. ADDRESSING SECONDARY TRADEMARK INFRINGEMENT IN THE DIGITAL AGE

A. A DMCA-LIKE SAFE HARBOR DOES NOT EFFECTIVELY ADDRESS THE COUNTERFEITING PROBLEM ON eBay

In the *Tiffany v. eBay* decision, the Second Circuit effectively placed eBay into a DMCA-like safe harbor to shield it from contributory trademark infringement liability. By requiring knowledge of *specific* instances of actual infringement beyond those that were addressed in Tiffany's notices, the court gave the "knows or has reason to know" prong of the *Inwood* test an interpretation that parallels the knowledge requirement in the copyright contributory infringement context.¹⁴⁴ The court then found eBay's practices under VeRO—which functions according to the DMCA notice-and-takedown provisions: promptly removing any challenged listing, informing the seller of the reason for cancellation, and warning buyers not to purchase the disputed item¹⁴⁵—sufficient for eBay to avoid possessing the requisite level of knowledge for liability.¹⁴⁶ Thus, by commending eBay's implementation of VeRO and finding that this system prevented eBay from meeting the new knowledge-plus threshold for contributory liability, the Second Circuit essentially imported a DMCA-like safe harbor into the contributory trademark infringement context.

Unfortunately, by failing to examine the efficacy of eBay's anti-counterfeiting programs or to explore the possibility of alternative methods of reducing infringement, the Second Circuit effectively authorized eBay's current state of anti-fraud efforts. This is problematic because statistics show that eBay has a long way to go before its website can be deemed a safe place to do business.¹⁴⁷

144. *See id.* at 109; *Viacom Int'l, Inc. v. YouTube, Inc.*, 718 F. Supp. 2d 514, 525 (S.D.N.Y. 2010). In discussing the requirements for DMCA safe harbor eligibility, the court explained, "if a service provider knows (from notice from the owner, or a 'red flag') of specific instances of infringement, the provider must promptly remove the infringing material. If not, the burden is on the owner to identify the infringement. General knowledge that infringement is 'ubiquitous' does not impose a duty on the service provider to monitor or search its service for infringements." *Id.*

145. *See Hendrickson v. eBay, Inc.*, 165 F. Supp. 2d 1082 (C.D. Cal. 2001). In *Hendrickson*, the court found that "eBay has established that it meets the test for safe harbor under Section 512(c) . . . [and is thus] entitled to summary judgment in its favor on the copyright claims." *Id.* at 1094.

146. *Tiffany Inc.*, 600 F.3d at 106.

147. In 2004 and 2005, Tiffany conducted two surveys known as "Buying Programs" in an attempt to assess the extent of counterfeit Tiffany merchandise sold on eBay's site. *Id.* at 97. Tiffany's quality management personnel found that 73.1 percent of the "Tiffany" jewelry

Despite eBay's commendable efforts in implementing anti-counterfeiting programs, it continues to serve as a haven for counterfeit goods. While VeRO has been in place for over a decade,¹⁴⁸ the number of counterfeit items sold on eBay has generally risen over the past few years.¹⁴⁹ Furthermore, despite eBay's significant investments in its Trust and Safety program and fraud engine, Tiffany still found that approximately 73.1 percent of the Tiffany-marked sterling silver merchandise on eBay was counterfeit, and that only 5 percent was genuine.¹⁵⁰ More than \$1.5 million worth of Tiffany products is traded on eBay per month.¹⁵¹ If, according to eBay's statistical expert, at least 30 percent or more of Tiffany-marked jewelry on eBay "could safely be deemed counterfeit,"¹⁵² eBay profits substantially from sales of counterfeit goods.

B. EXAMINING THE TRANSACTIONS AT ISSUE AND CONSIDERING THE LEGITIMATE INTERESTS AT STAKE

The Second Circuit's approach to the trademark infringement problem on eBay does not achieve a satisfactory net social balance. The court's ultimate finding—that eBay was not contributorily liable because it only had generalized knowledge of infringing activity¹⁵³—will have a substantial adverse impact on the legitimate interests of eBay users with concomitantly little reduction in cognizable harm to Tiffany and other luxury brand owners. Tiffany will continue to carry the immense burden of policing eBay's vast marketplace for infringing versions of its branded items, while eBay will continue profiting from illegitimate transactions that go unnoticed by rights owners. Perhaps most importantly, legitimate eBay users will be deprived of a secondary market with integrity.

purchased in the 2004 Buying Program and 75.5 percent of those purchased in the 2005 Buying Program were counterfeit. *Id.* Although the district court concluded that the Buying Programs were "methodologically flawed and of questionable value," even eBay's expert conceded that 30 percent or more of the "Tiffany" jewelry listed on eBay's website could safely be deemed counterfeit. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 486, 512 (S.D.N.Y. 2008).

148. NISSANOFF, *supra* note 99, at 163.

149. Kate Goldwasser, *Knock It Off: An Analysis of Trademark Counterfeit Goods Regulation in the United States, France, and Belgium*, 18 CARDOZO J. INT'L & COMP. L. 207, 210 (2010).

150. *Tiffany Inc.*, 576 F. Supp. 2d at 482. Tiffany's quality management personnel deemed the remaining 21.9 percent potentially actionable but did not determine that they were counterfeit. *Id.* at 485.

151. NISSANOFF, *supra* note 99, at 168.

152. *Tiffany Inc.*, 576 F. Supp. 2d at 486.

153. *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 109 (2d Cir. 2010).

Finding an effective yet practical solution to the infringement problem on eBay requires an examination of the transactions at issue. A consideration and weighing of the legitimate interests at stake may reveal that it is in the public's interest for eBay to take additional, affirmative steps to combat infringement, even if it only has generalized knowledge of illegitimate activity on its website.

Figure 1: MATRIX OF INTERESTS

	Honest Buyers	Dishonest Buyers
Honest Sellers	1. H-H: <i>Legitimate</i>	3. H-DH: <i>Unlikely</i>
Dishonest Sellers	2. DH-H: <i>Duped Buyers</i>	4. DH-DH: <i>Squalor Zone</i>
eBay: Prefers all transactions in its marketplace.		
Tiffany: Arguably has an incentive to eliminate all transactions in the secondary market.		

1. *Honest Sellers-Honest Buyers*

Both Honest Sellers and Honest Buyers have a substantial, legitimate interest in having access to a secondary marketplace like eBay. eBay's popularity and growth is in large part attributable to its ability to reduce consumer search costs. In just a few seconds, eBay's automated search engine can sort through millions of listings in over 50,000 different product categories to help consumers find what they are looking for.¹⁵⁴ As the largest secondary market in the world, eBay enables buyers to access goods they would have been hard-pressed to locate, such as antiques, collectibles, and discontinued items. Consumers can also use eBay to conveniently locate authentic luxury items without paying high retail prices. Moreover, many buyers find that eBay is one of the best places to window shop.¹⁵⁵ Side-by-side comparisons of item listings can help users make better purchasing decisions by providing insight into the real market value of most types of goods.¹⁵⁶

Furthermore, eBay's democratic marketplace allows individual sellers with few resources to compete on an equal footing with the largest corporations.¹⁵⁷ eBay has lowered operating expenses by helping sellers

154. DAVID BUNNELL, THE EBAY PHENOMENON: BUSINESS SECRETS BEHIND THE WORLD'S HOTTEST INTERNET COMPANY 6 (2000); FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS, *supra* note 100, at 24.

155. Hsiao, *supra* note 68.

156. *Id.*

157. ADAM COHEN, THE PERFECT STORE: INSIDE EBAY 10 (2002). In fact, as many as 730,000 people make their living by selling on eBay. ELLEN LEWIS, THE EBAY

circumvent high-priced retailing space, exclusive distribution channels, and costly advertising, all the while allowing them to market directly to millions of buyers.¹⁵⁸ Registering on eBay and listing items is relatively fast, simple, and inexpensive. Transacting online eliminates physical distance and allows individuals to buy and sell on a 24/7 basis, as buyers and sellers need not be available at the same time to do business.

Before sites like eBay emerged, sellers had to take their unwanted goods to physical secondary-market channels, such as consignment stores, that are generally selective in what they accept.¹⁵⁹ Even if the shops accepted the goods, sellers seldom had control over where the shopkeeper set the price and how the merchandise was marketed.¹⁶⁰ Many traditional secondary-market channels collect high commissions on sales,¹⁶¹ denying Honest Sellers—who often paid retail prices—the resale value of their goods.

Though it is evident from this discussion that Honest Buyers and Sellers have legitimate interests in accessing eBay, Tiffany is arguably interested in eliminating this secondary market for genuine Tiffany merchandise.¹⁶² As the district court noted, “every sale of Tiffany jewelry on eBay potentially represents a lost sales opportunity via Tiffany’s own authorized distribution channels.”¹⁶³ Tiffany’s refusal to authenticate merchandise in non-Tiffany stores evidences its economic interest in diminishing competition in the market for genuine Tiffany merchandise.¹⁶⁴ Indeed, if Tiffany’s only concern

PHENOMENON: HOW ONE BRAND TAUGHT MILLIONS OF STRANGERS TO TRUST ONE ANOTHER 14 (2008).

158. COHEN, *supra* note 157, at 10; *cf.* NISSANOFF, *supra* note 99, at 45 (“[Consignment] stores [] offer only limited, local exposure for your goods.”).

159. NISSANOFF, *supra* note 99, at 44–45.

160. *See id.*

161. In jewelry sales, for example, the most common consignment percentage is 60/40, where 60 percent of the final sale price goes to the artist, and 40 percent to the shop. Rena Klingenberg, *Jewelry Consignment Percentage*, HOME JEWELRY BUSINESS SUCCESS TIPS, <http://www.home-jewelry-business-success-tips.com/jewelry-consignment-percentage.html> (last visited Feb. 10, 2011).

162. Companies besides Tiffany have used VeRO to discourage sellers from their products in the secondary marketplace. NISSANOFF, *supra* note 99, at 168. Since the early days of VeRO, eBay users have complained about companies indiscriminately shutting down auctions and purposefully closing legitimate auctions involving secondhand items. *Id.* at 168–69.

163. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 463, 473 (S.D.N.Y. 2008).

164. Sofia H. Ahmed, *Life, Liberty, and the Pursuit of Luxury*, 5 BYU INT’L L. & MGMT. REV. 247, 271 (2009); *Tiffany Inc.*, 576 F. Supp. 2d at 517, n.39. In fact, Tiffany will only authenticate merchandise purchased from one of its stores, which would defeat the purpose of requesting authentication. Ahmed, *supra*, at 271. Interestingly, more and more designers

were reputational, Tiffany would likely want to authenticate Tiffany-labeled items so as to distance itself from cheap imitations. Furthermore, the district court found that the Tiffany-suggested “five-or-more” rule served more as an anti-diversion tool rather than an anti-counterfeiting tool because Tiffany itself failed to regularly enforce a five-item limit.¹⁶⁵ Clearly, Tiffany would like to serve as the exclusive provider of Tiffany goods. This interest should not be given any weight, however, as the law only protects trademark holders from counterfeit goods.¹⁶⁶

2. Dishonest Sellers-Honest Buyers

Though the vast majority of eBay sellers are law-abiding citizens,¹⁶⁷ eBay’s success has also attracted a customer base that eBay does not as readily acknowledge: criminal counterfeiters. These Dishonest Sellers turn to eBay because it makes counterfeit products easier to distribute. Policing for counterfeits on eBay is difficult due to the anonymity of users, the vast quantity of goods that pass through the site, and the relatively short timeframe of auctions.¹⁶⁸ Honest Buyers are often duped either when they are deprived of the ability to evaluate a product’s quality or authenticity through physical inspection, or when the counterfeit is a compelling fake.

To the extent that the consuming public is dominated by Honest Buyers, market forces incentivize eBay to reduce infringing activity on its website in several ways. First, eBay’s business model is built on trust.¹⁶⁹ To be successful, eBay needs to convince users that the eBay marketplace is a safe place to purchase items without having to meet the sellers first. Purchasing items that turn out to be counterfeit is a negative experience for consumers

are making it corporate policy not to authenticate merchandise. See *Frequently Asked Questions*, MYPOUPETTE, <http://mypoupette.com/faq.php> (last visited Feb. 10, 2011).

165. In fact, Tiffany has allowed a single buyer to purchase more than twenty pieces at a time in its retail store. Ahmed, *supra* note 164, at 260; *Tiffany Inc.*, 576 F. Supp. 2d at 511–12.

166. *Tiffany Inc.*, 572 F. Supp. 2d at 512 (citing *Polymer Tech. Corp. v. Mimran*, 975 F.2d 58, 61–62 (2d. Cir. 1992)) (“[T]rademark law does not reach the sale of genuine goods bearing a true mark even though the sale is not authorized by the mark owner”).

167. Sarah D. Scalet, *Auction Blocks*, CIO (Sept. 22, 2005, 10:09), http://www.cio.com.au/article/140981/auction_blocks/.

168. Emily Favre, *Online Auction Houses: How Trademark Owners Protect Brand Integrity Against Counterfeiting*, 15 J.L. & POL’Y 165, 168 (2007). Much of the counterfeiting activity that used to take place at flea markets has moved online, where unlike flea markets and pawn shops, sellers are not required to show receipts for merchandise, or to register and fill out paperwork before selling certain goods. See Scalet, *supra* note 167.

169. FIGHTING AGAINST ONLINE SOLICITATIONS OF COUNTERFEITS, *supra* note 102, at 16.

and will drive them away from the eBay marketplace.¹⁷⁰ The proliferation of counterfeit listings erodes consumer trust¹⁷¹ and decreases the success of the eBay business model.¹⁷²

Second, eBay has an economic incentive to ensure customer satisfaction because addressing grievances and disputes require additional time and resources.¹⁷³ As long as certain requirements are met, customers who suspect the item they purchased was not as the seller described in the listing may file a case under the eBay Buyer Protection Policy.¹⁷⁴ The review process can be time-consuming, as it sometimes involves examining messages sent between the transacting parties through eBay messages and contacting the seller about the case.¹⁷⁵ The resolution may include refunding the customer up to the full cost of the item plus original shipping charges.¹⁷⁶ Therefore, eBay has an interest in eliminating counterfeit merchandise from its website, lest Honest Buyers complain and force eBay to provide compensation.¹⁷⁷

Tiffany also has significant reputational and economic interests in eliminating transactions involving counterfeit versions of its products. The protection of the quality and integrity of its brand is critical to Tiffany's success as a retailer of luxury goods. Through the dedicated protection of its brand, a company like Tiffany "establishes a higher level of branding consistency, drives revenue, increases market share, and improves customer

170. *Id.*

171. Survey data in 2006 indicated that users who are defrauded into purchasing counterfeit merchandise are unlikely to return to eBay. *Id.*

172. *Id.*

173. Ahmed, *supra* note 164, at 259.

174. *eBay Buyer Protection Program*, EBAY, <http://pages.ebay.com/help/policies/buyer-protection.html#overview> (last visited Feb. 11, 2011).

175. *Id.*

176. *See id.* If the case is based on an item not as described case, the resolution would include:

- Responding to the case by providing proof to eBay that the item was described accurately and consistently throughout the listing and all associated communication (for example, providing documentation that supports "original," "first edition," or similar claims);
- Agreeing to send a replacement item after the buyer returns the original, if this is what the buyer would prefer;
- Refunding the buyer up to the full cost of the item (including any applicable sales tax) plus original shipping. *Id.*

177. In its appellate brief, eBay states that it has "committed tens of millions of dollars annually to pay claims through its buyer protection program, whereby eBay reimburses buyers for the cost of counterfeit items they have purchased on the site, including Tiffany items." Brief for Appellee, *supra* note 84, at 11.

loyalty.”¹⁷⁸ The circulation of cheap imitations can tarnish Tiffany’s image as a famed purveyor of luxury jewelry.¹⁷⁹ Cheap imitations may also damage Tiffany’s reputation through third party post-sale confusion.¹⁸⁰

Tiffany also maintains an interest in eliminating counterfeit goods of equal quality. Even if high quality fakes present little harm to the reputation earned by the trademarked Tiffany goods, present quality is no assurance of continued quality. As the Ninth Circuit cogently explained, “[t]he wrong inheres in involuntarily entrusting one’s business reputation to another business.”¹⁸¹

Moreover, when the value of a luxury brand inheres in the exclusivity it signals,¹⁸² individuals might lose interest in a previously coveted luxury item if it is readily available to everyone else at a discount price.¹⁸³ The proliferation of Burberry counterfeits, for example, prompted the *Financial Times* to report, “Burberry is no longer a symbol of luxury, taste and refinement, but has become a uniform for loutish, drunken hooligans, known today as chavs—men and women more likely to pick a fight than be picked for the world’s best-dressed list.”¹⁸⁴ Where a branded good is sought after for display reasons, then, counterfeiting will lower the demand for the authentic good, and the value of the trademark will be reduced.¹⁸⁵ The proliferation of counterfeits will also reduce a firm’s incentive to produce quality goods, as others will be able to free ride on its reputation.¹⁸⁶

3. *Honest Sellers-Dishonest Buyers*

Transactions between Honest Sellers and Dishonest Buyers are unlikely. Dishonest Buyers want to enjoy the benefits of owning luxury branded items without paying the corresponding premium price tag. Honest Sellers of authentic goods who paid retail prices for such products are unlikely to charge unreasonably low prices at resale. Of course, it is possible that a genuine luxury item may be offered for sale at such an unusually low price so

178. Favre, *supra* note 168, at 165–66.

179. *See, e.g.*, NISSANOFF, *supra* note 99, at 159.

180. *See generally* MERGES ET AL., *supra* note 11, at 835.

181. AMF Inc. v. Sleekcraft Boats, 599 F.2d 341, 353 (9th Cir. 1979).

182. Richard S. Higgins & Paul H. Rubin, *Counterfeit Goods*, 29 J.L. & ECON. 211, 214 (1986); Alex Kozinski, *Trademarks Unplugged*, 68 N.Y.U. L. REV. 960, 970 (1993).

183. Ellie Mercado, *As Long As “It” Is Not Counterfeit: Holding Ebay Liable for Secondary Trademark Infringement in the Wake of LVMH and Tiffany Inc.*, 28 CARDOZO ARTS & ENT. L.J. 115, 135 (2010); Kozinski, *supra* note 182, at 970.

184. NISSANOFF, *supra* note 99, at 159–60.

185. Higgins & Rubin, *supra* note 182, at 214.

186. *See* Menell & Scotchmer, *supra* note 10, at 1537.

as to cause a Dishonest Buyer to unintentionally purchase an authentic piece. However, these transactions are rare and thus not at issue in this Note.

4. *Dishonest Sellers-Dishonest Buyers*

Unfortunately, the advantages of shopping on eBay have also attracted Dishonest Buyers. In contrast to duped Honest Buyers, Dishonest Buyers are those who buy fakes precisely because they are fake.¹⁸⁷ They want to reap the image-enhancing benefits of owning a luxury item without having to pay the corresponding premium price. eBay makes counterfeit products easily accessible to Dishonest Buyers, as it eliminates additional search costs that would otherwise be incurred in order to locate counterfeit goods. For example, those who used to have to venture out to Canal Street in lower Manhattan¹⁸⁸ for a fake Coach handbag can now peruse a wide selection of counterfeit handbags on eBay simply by typing in a few search terms.

To the extent that a portion of its buying users is dishonest, eBay arguably has an incentive to permit sales of counterfeit merchandise because it profits from these transactions.¹⁸⁹ Moreover, private market forces generally will not incentivize reducing illegitimate transactions where both parties are dishonest. One of eBay's primary goals is to satisfy its customers, and many buyers seek out—or at the very least, do not care if they end up with—counterfeit goods.¹⁹⁰

The Second Circuit's decision does not address transactions involving Dishonest Buyers who seek out counterfeit merchandise. After the court's decision, eBay is obligated to continue promptly removing reported listings upon receiving a NOCI if it wants to avoid contributory trademark liability.¹⁹¹ However, the decision does not put pressure on eBay to affirmatively root out specific counterfeit listings that rights owners failed to bring to its attention, especially when eBay profits from these illegitimate transactions.

187. Kozinski, *supra* note 182, at 970.

188. Scalet, *supra* note 167.

189. As the Second Circuit acknowledged, “insofar as eBay receives revenue from undetected counterfeit listings and sales through the fees it charges, it has an incentive to permit such listings and sales to continue.” *Tiffany Inc. v. eBay, Inc.*, 600 F.3d 93, 109 n.13 (2d Cir. 2010); *see also* Scalet, *supra* note 167 (“The people who eBay really wants to please are its customers, and many buyers simply don’t care if they end up with stolen or counterfeit goods.”).

190. Scalet, *supra* note 167.

191. *See Tiffany Inc.*, 600 F.3d at 109 (“[A]lthough the NOCIs and buyer complaints gave eBay reason to know that certain sellers had been selling counterfeits, those sellers’ listings were removed and repeat offenders were suspended from the eBay site.”).

C. LOOKING TO TORT LAW PRINCIPLES TO DELINEATE THE CONTOURS OF EBAY'S INDIRECT TRADEMARK LIABILITY

By sheltering eBay in a DMCA-like safe harbor, the Second Circuit largely eliminated eBay's motivation to continue refining its anti-counterfeiting programs to ensure their efficacy. Before Tiffany brought suit against eBay, the ambiguous contours of secondary trademark liability counseled against permitting the proliferation of these items on its website and encouraged eBay to devote resources to improve its technology and develop anti-fraud systems as such measures became technologically feasible and reasonably available.¹⁹² After the Second Circuit's decision, however, it seems as though eBay has few obligations beyond implementing a notice-and-takedown system, even if alternative mechanisms are feasible.

Given the varied and substantial legitimate interests at stake, the Second Circuit would have been better advised to adopt a balancing framework akin to tort law's reasonable alternative design theory to determine the scope of eBay's liability. After all, indirect trademark liability derives from tort law, which is particularly well-suited to balancing conflicting social interactions.¹⁹³ This framework would examine (1) whether alternative designs were reasonably available at the time of infringement, and (2) whether the reduction in risk of infringement outweighs the loss in utility.¹⁹⁴

A balancing framework will help create the conditions for the parties who can efficiently solve the problem to work together. With eBay's ability to control its website, however limited, and Tiffany's knowledge of its own proprietary standards, a balancing framework can encourage the two parties to combine their efforts to fight aggressively and effectively to curb the spread of counterfeits in the eBay marketplace. Unlike a DMCA-like safe harbor for secondary trademark liability, the absence of blanket immunity upon notice and takedown will incentivize eBay to adopt more effective methods of combating infringement as such methods become available. Moreover, a balancing framework will incentivize eBay to root out counterfeit listings that rights owners fail to detect. At the same time, placing the burden on Tiffany to prove the availability of these mechanisms will likely incentivize Tiffany to assist eBay in authenticating.

192. See *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 493 (S.D.N.Y. 2008).

193. Menell & Nimmer, *supra* note 35, at 1006. As Professors Peter Menell and David Nimmer have argued in the contributory copyright context, "tort law serves as the default framework for balancing conflicting social interactions. Its doctrines reflect a dynamism driven by changes in social conditions, technology, and institutions." *Id.*

194. See RESTATEMENT (THIRD) OF TORTS: PROD. LIAB. § 2 (1998).

D. ANTI-COUNTERFEITING DESIGN ALTERNATIVES

eBay has anti-counterfeiting systems in place, but there are improvements that can be made. This section will recommend several anti-counterfeiting design alternatives that eBay might consider implementing to maximize the efficacy of its programs without having substantial adverse impacts on eBay's business or the legitimate interests of its users.

1. *Authentication*

Either eBay or the proprietary rights holder may be able to authenticate merchandise based on the listings alone if the listings provide photos and detailed descriptions of the featured items. Several third-party authenticating companies specialize in spotting counterfeit items based on electronic listings. MyPoupette, for example, considers the authenticity of an item by examining the entire transaction, including the photos, written description, and the seller's feedback record.¹⁹⁵ For an additional fee, MyPoupette provides a written statement that approves or disproves authenticity.¹⁹⁶ Volunteer experts at The Purse Forum will also authenticate items—with no written or implied guarantees—by examining photos provided in online listings and giving recommendations based off of their knowledge of a certain brand or item.¹⁹⁷

For items that can be authenticated based on manual review of electronic listings alone, Tiffany can lend manpower to help comb through listings flagged by eBay's fraud engine. Although eBay currently has employees reviewing flagged listings, those employees may not be as experienced in spotting fakes as individuals with knowledge of a brand's exacting

195. See *Frequently Asked Questions*, MYPPOUPETTE, <http://www.mypoupette.com/faq.php> (last visited Feb. 10, 2011). However, MyPoupette acknowledges that there are now "Super Fakes" that make it nearly impossible to judge authenticity without having designer experts examine the item in person. *Id.* MyPoupette will sometimes perform in-person authentication if the item is not eligible for electronic authentication. *Id.* In addition to MyPoupette, other professional authenticators include Caroldiva (specializing in LV), Etinceler Authentications (specializing in Chanel), Castira (specializing in Gucci), Fakespotters (specializing in Balenciaga, Chloe, Dior, Hermes, Miu Miu, Mulberry, and Prada), Amourauthentic (specializing in Goyard, LV, Ugg), and Authentic-Luxury (specializing in LV). See *Need an Authentication Letter for an eBay Claim?*, The Purse Forum (Oct. 19, 2010, 11:20 AM), <http://forum.purseblog.com/ebay-forum/bought-a-fake-online-please-read-on-657186.html>.

196. *Authentication Services*, MYPPOUPETTE, <http://www.mypoupette.com/authentications.php> (last visited Feb. 10, 2011).

197. *Authenticate This . . .*, THE PURSE FORUM, <http://forum.purseblog.com/authenticate-this/> (last visited Dec. 24, 2010).

standards.¹⁹⁸ Assigning the review process to Tiffany experts will increase the number of accurately identified infringing listings and reduce the number of legitimate auctions being erroneously suspended.¹⁹⁹

Designer brand Kate Spade, for example, hired a team of law students to monitor eBay for fakes.²⁰⁰ The intern authenticators are provided with detailed archives of its collections to help spot counterfeits from uploaded photos on listings.²⁰¹ This approach appears to be working. According to Kate Spade's general counsel, "[e]verybody has occasionally—rarely, but occasionally—misidentified. We just reinstate the auction. . . . Almost all the time we're right because we know our products so well."²⁰² By comparing detailed archives of its collections with uploaded photos on eBay listings, Kate Spade's authenticators can spot design prints that have never appeared on a real Kate Spade bag or fabric labels with letters that are slightly off.²⁰³

2. Refining Brand-Specific Filtering Criteria

Because counterfeiting luxury goods has become much more sophisticated in recent years,²⁰⁴ in-person inspection is the only way to authenticate certain items.²⁰⁵ With the help of technological advances and the encouragement of greater economic incentives, counterfeiters have become very skilled, producing fakes that rival their authentic counterparts in both appearance and quality.²⁰⁶ Additionally, certain goods are particularly easy to counterfeit. For example, eBay auctions most frequently involve entry-level sterling silver Tiffany items which, due to the simplistic nature of their design, can be counterfeited remarkably well.²⁰⁷ There are no hidden

198. Mercado, *supra* note 183, at 145. The district court found that, as part of eBay's targeted efforts to "clean-up" Tiffany listings, members of eBay's infringement group focused on Tiffany listings and, using their best judgment, searched the website manually to find counterfeit listings. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 491 (S.D.N.Y. 2008).

199. Mercado, *supra* note 183, at 145.

200. NISSANOFF, *supra* note 99, at 176.

201. *Id.*

202. *Id.*

203. *Id.*

204. *Id.* at 159 ("Fakes used to be cheap junk, but now their apparent quality often rivals that of the original.").

205. To determine if an item is an authentic Tiffany silver jewelry, for example, Tiffany quality inspectors must be able to physically inspect the item. *Tiffany Inc. v. eBay, Inc.*, 576 F. Supp. 2d 463, 472 (S.D.N.Y. 2008).

206. NISSANOFF, *supra* note 99, at 158–59.

207. A quick search on eBay.com for "Tiffany & Co." items will produce mostly listings featuring sterling-silver items. "*Tiffany & Co. Items on eBay*, EBAY, <http://shop.ebay.com/> (search "tiffany & co") (last visited Feb. 10, 2011).

markings on genuine Tiffany items, and the material is relatively inexpensive and easily accessible. Often times, the only way to distinguish a genuine Tiffany article from a counterfeit version is by detecting a difference in weight, as Tiffany silver is usually heavier.²⁰⁸ Occasionally, however, counterfeiters can fool even the experts. During its 2004 anti-counterfeiting investigation, Tiffany itself could only make accurate authenticity determinations of “Tiffany”-marked goods approximately 78 percent of the time.²⁰⁹

Requiring in-person authentication of every item that can only be authenticated upon physical inspection is not a practical solution. Most sterling silver Tiffany items, for example, are listed for sale on eBay for anywhere between twenty to two hundred dollars.²¹⁰ In-person authentication may cost just as much as the item itself, if not more.²¹¹ Furthermore, because of the large number of Tiffany sterling silver jewelry available on eBay and the short timeframes for auction transactions, in-person authentication for each individual item is simply not a feasible option for eBay, even with Tiffany’s help.

Due to the prohibitively high costs associated with providing in-person inspections for each Tiffany-marked item listed on eBay, Tiffany can help eBay refine its automated filtering criteria so as to accurately flag infringing listings. Many of eBay’s current Tiffany-specific filters fail to target characteristics that speak to an item’s authenticity and often erroneously target legitimate listings.²¹² eBay’s fraud engine screens listings and detects blatantly infringing activities including, for example, listings that contain terms such as “counterfeit Tiffany” or “faux Tiffany.”²¹³ However, Dishonest

208. See *Very Useful Tips to Spot Fake Tiffany Jewel Online*, IOFFER EBAY, <http://www.ioffer-ebay.com/very-useful-tips-to-spot-fake-tiffany-jewel-online-213.html> (last visited Feb. 10, 2011); *How To Spot Fake Tiffany Jewelry*, EBAY GUIDES, http://reviews.ebay.com/How-To-Spot-Fake-Tiffany-Jewelry_W0QQugidZ1000000001241859 (last updated Feb. 10, 2011).

209. *Tiffany Inc.*, 576 F. Supp. 2d at 485. In Tiffany’s 2004 Buying Program—a survey conducted to determine the extent of counterfeit Tiffany jewelry available on eBay—Tiffany experts found that out of 186 pieces of “Tiffany” jewelry, 73.1 percent were counterfeit, 5 percent were genuine, and the remaining 21.9 percent were potentially actionable but not necessarily counterfeit. *Id.*

210. A quick eBay search for “Tiffany sterling silver” will reveal that prices for these items range from twenty to two hundred dollars. EBAY, *supra* note 210.

211. See *Authentication Services*, MYPPOUPETTE, <http://www.mypoupette.com/authentication.php> (last visited Feb. 10, 2011).

212. Scalet, *supra* note 167 (“Sellers are already complaining about abuses of the VeRO program.”).

213. *Tiffany Inc.*, 576 F. Supp. 2d at 491.

Sellers can easily escape these types of triggers. Moreover, some sellers have discovered that by designating listed items as “preowned” or “gift,” they are able to dodge some of the Tiffany-specific filters.²¹⁴

Tiffany employees, the best experts on Tiffany products, know how to narrow the automated filtering search to the most suspicious activity.²¹⁵ Tiffany can provide eBay with criteria to flag listings featuring Tiffany-branded merchandise with a high likelihood of counterfeiting, including ostensibly brand new items that are listed for prices significantly below retail prices, inaccurate descriptions of Tiffany items, and descriptions of Tiffany items not yet available in stores.²¹⁶

3. *Refining Brand-Neutral Filtering Criteria*

Many Dishonest Sellers who are familiar with the fraud engine filters will avoid using explicit terms, such as “counterfeit” and “replica,” to evade detection. In addition to identifying listings that explicitly offer counterfeit items, there are other approaches that eBay might consider as filters to flag more subtle forms of infringing activity. For example, filters that flag the following criteria will likely identify potentially counterfeit items. Moreover, these filters generally do not require knowledge of a rights owner’s mark or its exacting product standards.

- a) One-Day Auctions. Auctions with short timeframes are less likely to be spotted by a rights owner’s policing program.²¹⁷ Even if a rights owner identifies such an offer, the transaction will likely be completed before VeRO can act to remove the listing.²¹⁸
- b) Large Lots of the Same Item. Though the district court dismissed Tiffany’s “five or more” rule as unfounded in light of Tiffany’s own sporadic implementation of this policy, a user who offers for sale identical items in lots of five are likely engaging in infringing activity.²¹⁹ Of course, adopting this filter would require rights owners to consistently implement this policy in its authorized distribution channels.

214. See *eBay Forum*, THE PURSE FORUM, <http://forum.purseblog.com/eBay-forum/> (last visited Dec. 24, 2010).

215. See Scalet, *supra* note 167.

216. See Mercado, *supra* note 183, at 144–45.

217. Brief for Coty Inc. as Amicus Curiae Supporting Petitioners at 29, *Tiffany, Inc. v. eBay, Inc.* 600 F.3d 93 (2d Cir. 2010) (No. 08-3947).

218. *Id.*

219. *Tiffany Inc.*, 576 F. Supp. 2d at 482–83.

- c) Unusually Low Sales Prices. Honest Buyers who paid retail prices for authentic items are unlikely to resell for extremely low prices.²²⁰ Whether or not an asking price is unusually low requires some knowledge of the original retail price.
- d) Same Graphics and Text. Sometimes a Dishonest Seller will register under multiple accounts and use different usernames to avoid being shut down altogether by VeRO. These sellers often use the same photographs and text to describe their products.²²¹

V. CONCLUSION

An explication of the Matrix of Interests, *supra* Figure 1, reveals that many of the interests at stake are misaligned. Tiffany has an interest in completely eliminating sales of both fake and genuine Tiffany goods from the secondary market to maintain its reputation and to boost its profits in the primary market. eBay, on the other hand, profits from sales of infringing goods, and thus may want to permit some of these illegitimate transactions. Perhaps most importantly, the public has a significant interest in having access to a legitimate secondary market.

Under the existing law of secondary trademark liability, the Second Circuit reached the correct result in ruling in favor of eBay. Nevertheless, the court's approach—creating a DMCA-like safe harbor for eBay—will not properly address the regular and widespread trademark infringement eBay facilitates. Despite eBay's commendable anti-fraud efforts, there is evidence that counterfeiting remains a serious problem in the eBay marketplace. eBay's lack of expertise limits its ability to effectively combat the counterfeiting problem. At the same time, the vast quantity of goods offered for sale on eBay makes policing extremely difficult and costly for Tiffany. Rather than shielding eBay from liability upon the implementation of a simple notice-and-takedown system, the court could have used this opportunity to articulate a more nuanced legal standard and thereby encourage cooperation between the parties most capable of solving the problem efficiently.

Where multiple legitimate interests collide, a balancing framework can promote a legitimate secondary marketplace without chilling the development of useful new technologies.²²² Placing the burden on the

220. Brief for Coty Inc., *supra* note 217, at 29.

221. *See id.*; Scalet, *supra* note 167.

222. In the copyright context, it has been argued that “[c]areful application of [tort principles] would have [] provided a limited immunity for technology companies while

plaintiff to prove the availability of feasible alternative mechanisms would likely lead to cooperation between the eBays and Tiffanys of the world. Moreover, requiring eBay to implement alternative anti-counterfeiting measures when such measures are feasible would incentivize eBay to root out counterfeit listings that rights owners failed to detect. Applying this approach to the dispute between eBay and Tiffany would have likely produced the same result with regards to secondary liability for infringement, but it would have provided a sounder and more dynamic template for resolving complex issues of technological change moving forward.

fostering dynamic incentives with content industries.” Menell & Nimmer, *supra* note 35, at 1022.

**TARNISHING THE DILUTION BY TARNISHMENT
CAUSE OF ACTION: STARBUCKS CORP. V. WOLFE’S
BOROUGH COFFEE, INC. AND V SECRET
CATALOGUE, INC. V. MOSELEY, COMPARED**

Britt N. Lovejoy[†]

In 2006, Congress amended the Federal Trademark Dilution Act (FTDA) by passing the Trademark Dilution Revision Act (TDRA).¹ The TDRA was, in part, a legislative response to the Supreme Court’s decision in *Moseley v. V Secret Catalogue, Inc. (Moseley I)*² in which the Court held that the FTDA required that a plaintiff prove “actual dilution” in order to succeed on a claim of trademark dilution.³ The TDRA rejected the burden of proof set forth in *Moseley I*, providing instead that the owner of a mark that is both famous and distinctive is entitled to an injunction against a use of a mark that is merely “likely” to dilute the famous mark.⁴

Unfortunately, Congress’s decision to substitute a “likelihood of dilution” standard for one of “actual dilution” provides no answer to the more difficult question persisting within the dilution debate: what is dilution by tarnishment and how does a plaintiff prove its likelihood?⁵ Although the TDRA provides some guidance as to what factors might suggest a likelihood of dilution by blurring,⁶ it does not provide similar guidance as to what a plaintiff must show in order to prove a likelihood of tarnishment. The tarnishment provision, unlike the blurring provision, does not include a list

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1. Federal Trademark Dilution Revision Act, Pub. L. No. 109-312, 120 Stat. 1730 (2006) (codified at 15 U.S.C. § 1125(c) (2006)) (amending Federal Trademark Dilution Act, Pub. L. No. 104-98, 109 Stat. 985 (1996)).

2. *Moseley v. V Secret Catalogue, Inc. (Moseley I)*, 537 U.S. 418 (2003).

3. *Id.* at 433.

4. *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*, 588 F.3d 97, 104 (2009) (citing § 1125(c)(1)).

5. See Stacey L. Dogan, *What Is Dilution, Anyway?*, 105 MICH. L. REV. FIRST IMPRESSIONS 103, 103 (2006) (asking the same question of dilution generally).

6. See § 1125(c)(2)(B)(i)–(vi) (listing six non-exhaustive factors for courts to use in determining whether there is a likelihood of trademark blurring).

of factors for consideration.⁷ The TDRA simply defines tarnishment as an “association arising from the similarity between a mark or trade name and a famous mark that harms the reputation of the famous mark.”⁸

Despite this ambiguity, little scholarship has touched upon dilution by tarnishment since the passage of the TDRA.⁹ Instead, law review articles on the TDRA tend to focus on dilution by blurring,¹⁰ perhaps because this cause of action is applicable to a greater number of fact patterns and therefore more attractive to litigants.¹¹ Likewise—and perhaps for the same reason—there is little guidance to be found in the current case law on dilution by tarnishment. Although it has been five years since the TDRA became effective, relatively few reported opinions discuss dilution by tarnishment.¹²

The question of what constitutes tarnishment thus remains largely unresolved, leaving the courts with the responsibility of determining the scope of the dilution by tarnishment cause of action on a case-by-case basis.¹³ Consequently, judges have great discretion in shaping the dilution by tarnishment doctrine.¹⁴ The vastly divergent stances taken by the Court of Appeals for the Second Circuit and the Sixth Circuit in two recent tarnishment cases, *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*¹⁵ and *V Secret Catalogue, Inc. v. Moseley (Moseley II)*,¹⁶ illustrate the extent of this discretion.

7. Compare § 1125(c)(2)(B) (listing as factors: “(i) The degree of similarity between the mark or trade name and the famous mark; (ii) The degree of inherent or acquired distinctiveness of the famous mark; (iii) The extent to which the owner of the famous mark is engaging in substantially exclusive use of the mark; (iv) The degree of recognition of the famous mark; (v) Whether the user of the mark or trade name intended to create an association with the famous mark; (vi) Any actual association between the mark or trade name and the famous mark”) with § 1125(c)(2)(C) (no factors listed).

8. § 1125(c)(2)(C).

9. Sarah L. Burstein, *Dilution by Tarnishment: The New Cause of Action*, 98 TRADEMARK REP. 1189, 1190 (2008).

10. *Id.* at 1190 (citing as an example Scot A. Duvall, *The Trademark Dilution Revision Act of 2006: Balanced Protection for Famous Brands*, 97 TRADEMARK REP. 1252, 1267–68 (2007)).

11. See J. THOMAS MCCARTHY, 4 MCCARTHY ON TRADEMARKS & UNFAIR COMPETITION § 24:67 (4th ed.) (“The vast majority of dilution cases involve dilution by ‘blurring.’ Dilution by ‘tarnishment’ is a much rarer and unusual situation.”).

12. Burstein, *supra* note 9 (discussing the lack of case law on dilution by tarnishment). A quick search conducted on Westlaw on February 10, 2011 revealed only 146 federal court opinions discussing dilution by tarnishment after the passage of the TDRA.

13. See Dogan, *supra* note 5, at 103 (noting the same of dilution generally).

14. *Id.* (noting the same of dilution generally).

15. *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*, 588 F.3d 97 (2d Cir. 2009).

16. *V Secret Catalogue, Inc. v. Moseley (Moseley II)*, 605 F.3d 382 (6th Cir. 2010), *cert. denied*, 79 U.S.L.W. 3301 (U.S. Jan. 18, 2011) (No. 10-604).

As will be discussed in Part II, *infra*, the Second Circuit in *Starbucks* applied the dilution by tarnishment standard outlined in the TDRA in a relatively straightforward manner.¹⁷ By contrast, the Sixth Circuit's decision in *Moseley II* created an unprecedented "rebuttable presumption" of tarnishment to be applied in cases where the defendant has used the plaintiff's mark, or a semantically similar mark, in association with sex-related products.¹⁸ It is unclear what effect the Sixth Circuit intended that this presumption might have on dilution by tarnishment litigation. However, this Note argues that regardless of the presumption's intended impact, its creation runs contrary to the language and legislative history of the TDRA.

The opinion in *V Secret Catalogue, Inc. v. Moseley* must therefore be regarded as an oddity—likely inspired by the persistent ambiguity in this area of trademark law. It must not serve as a guide for future dilution by tarnishment decisions. Courts seeking guidance in applying the TDRA standard for dilution by tarnishment should turn instead to the Second Circuit's decision in *Starbucks Corp. v. Wolfe's Borough Coffee, Inc.*

I. BACKGROUND: EVOLUTION OF THE FEDERAL STANDARD FOR TRADEMARK DILUTION BY TARNISHMENT

Essential to any discussion of how the dilution by tarnishment standard should be applied under the TDRA is an understanding of how that standard has evolved in recent years. This Part will first provide a general explanation of tarnishment. It will then discuss the dilution by tarnishment cause of action under the first federal anti-dilution statute, the FTDA. Finally, it will explore the TDRA's treatment of the dilution by tarnishment cause of action.

A. TARNISHMENT GENERALLY

Dilution generally refers to the harm that results when a famous mark loses its "singular meaning."¹⁹ Traditional trademark infringement law protects against junior uses of a mark that are so similar to the senior user's use of that mark that there exists a likelihood of consumer confusion.²⁰ Such protection is theoretically justified, in part, by the consumer's interest in not

17. *See Starbucks*, 588 F.3d at 110–12.

18. *Moseley II*, 605 F.3d at 385.

19. *E.g.*, Dogan, *supra* note 5, at 103.

20. MCCARTHY, *supra* note 11, § 23:1.

being deceived.²¹ In contrast, trademark dilution law protects the “distinctive quality” of the mark itself by allowing a mark owner to prohibit junior uses that might “dilute” the mark’s distinctive quality.²² A famous mark can be diluted by either a “blurring” or “tarnishment” of the mark.²³

Blurring generally occurs where consumers begin to associate a famous mark with a second source of goods, although they maintain an understanding that the goods come from two distinct sources, and thus no “confusion” exists.²⁴ The need for legal protection in this scenario is justified on the theory that if potential consumers see a senior user’s famous mark used to identify other sources for diverse goods and services, then the ability of the mark to clearly identify the original source might be “diluted” or weakened.²⁵

By contrast, tarnishment traditionally occurs where a defendant’s unauthorized use of a mark tarnishes or degrades consumers’ positive associations with a mark, and thus harms the reputation of that mark.²⁶ The Second Circuit has observed that: “The sine qua non of tarnishment is a finding that plaintiff’s mark will suffer negative associations through defendant’s use.”²⁷ Likewise, the Restatement of Unfair Competition explains that dilution by tarnishment results when a mark’s “positive associations” are undermined and thereby harmed by a subsequent user: “To prove a case of tarnishment, the prior user must demonstrate that the subsequent use is likely to come to the attention of the prior user’s prospective purchasers and that the use is likely to undermine or damage the positive associations evoked by the mark.”²⁸

Various trademark scholars, including Thomas McCarthy, have argued that dilution by tarnishment need not necessarily be regarded as a cause of

21. *E.g., id.* § 2:1 (noting that “[t]he interest of the public in not being deceived has been called the basic policy [justifying the law of unfair competition]” although “[t]he plaintiff’s interest in not having the fruit of his labor misappropriated should not be disregarded.” (quoting *Zippo Mfg. Co. v. Rogers Imports, Inc.*, 216 F. Supp. 670, 694 (S.D.N.Y. 1963))).

22. *E.g.,* DAVID S. WELKOWITZ, TRADEMARK DILUTION 4–5 (2002).

23. *E.g.,* MCCARTHY, *supra* note 11, § 24:67 (citing RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 (1995)).

24. *E.g., id.* § 24:69.

25. *E.g., id.*

26. MCCARTHY, *supra* note 11, § 24:89.

27. *Hormel Foods Corp. v. Jim Henson Prods., Inc.*, 73 F.3d 497, 507 (2d Cir. 1996).

28. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 cmt. g (1995).

action separate from traditional trademark infringement.²⁹ As McCarthy explains, “‘Tarnishment’ . . . denotes a kind of injury to a mark, not a type of separate commercial tort. Thus, in theory, ‘tarnishment’ could occur either as a result of traditional likely [consumer] confusion or by dilution without [consumer] confusion.”³⁰ The First Circuit’s definition of trademark dilution likewise highlights the indistinct relationship between dilution by tarnishment and the likelihood of consumer confusion concept:

A trademark is tarnished when consumer capacity to associate it with the appropriate products or services has been diminished. The threat of tarnishment arises when the goodwill and reputation of a plaintiff’s trademark is linked to products which are of shoddy quality or which conjure associations that clash with the associations generated by the owner’s lawful use of the mark³¹

By defining tarnishment in terms of consumer capacity to associate the mark with the “appropriate” product or service, the First Circuit brings tarnishment within close proximity of traditional trademark infringement’s “likelihood of confusion” test.

Although the line between tarnishment and infringement may be blurry, it is clear that unlike infringement, tarnishment *only* occurs where a mark is used in a disparaging context.³² Indeed, the Ninth Circuit has stated that dilution by tarnishment only occurs where a plaintiff’s mark is linked “with something unsavory or degrading.”³³ For example, tarnishment has been found when the defendant has used the plaintiff’s mark in connection with the following products: X-rated movies; adult cartoons; adult content Web sites; adult entertainment; a topless bar; crude humor; illegal drugs; and drug

29. See, e.g., MCCARTHY, *supra* note 11, § 24:89. See generally Robert S. Nelson, *Unraveling the Trademark Rope: Tarnishment and Its Proper Place in the Laws of Unfair Competition*, 42 IDEA 133 (2002) (arguing that because one entity can only tarnish another if observers think the two are somehow affiliated, tarnishment appears to be something far more akin to trademark infringement than dilution).

30. MCCARTHY, *supra* note 11, § 24:89.

31. *L.L. Bean, Inc. v. Drake Publishers, Inc.*, 811 F.2d 26, 31 (1st Cir. 1987).

32. See, e.g., *Clinique Labs., Inc. v. Dep Corp.*, 945 F. Supp. 547, 562 (S.D.N.Y. 1996) (“[Defendant] is not attempting to associate [plaintiff’s] products with obscenity or sexual or illegal activity, the [defendant’s cheaper] product line is neither shoddy or [sic] unwholesome, and no evidence suggests that [plaintiff’s] trademark or trade dress will suffer negative associations through [defendant’s] use of [its] mark.”).

33. *Toho Co. v. Sears, Roebuck & Co.*, 645 F.2d 788, 790, 793 (9th Cir. 1981) (holding use by Sears of “Bagzilla” on “Monstrously Strong” garbage bags did not tarnish the “Godzilla” mark because the defendant did not link the mark with something “unsavory or degrading”).

culture music.³⁴ In addition, tarnishment may be found where a mark is used in connection with goods of “shoddy quality,” as the public may come to “associate the lack of quality or lack of prestige in the defendant’s goods with the plaintiff’s unrelated goods.”³⁵

B. DILUTION BY TARNISHMENT UNDER THE FTDA

The first federal anti-dilution statute, the FTDA, made no specific mention of dilution by tarnishment at the time of its enactment in 1996.³⁶ Consequently, various legal scholars have argued that a dilution by tarnishment cause of action did not exist under the FTDA.³⁷ Others have argued that the legislative history of the FTDA clearly reveals Congress’s intention that the statute serve to protect trademarks from dilution by tarnishment.³⁸

In the years following the FTDA’s enactment, several courts held that the statute did in fact encompass dilution by tarnishment.³⁹ However, despite

34. MCCARTHY, *supra* note 11, § 24:89.

35. *Hormel Foods Corp. v. Jim Henson Prods., Inc.*, 73 F.3d 497, 507 (2d Cir. 1996) (quoting *Deere & Co. v. MTD Prods., Inc.*, 41 F.3d 39, 43 (2d Cir. 1994)).

36. MCCARTHY, *supra* note 11, § 24:89 (noting that the “statute did not include the wording ‘likelihood of injury to business reputation’ that the 1964 Model Bill contained and that several state anti-dilution statutes contain”); *see also* Federal Trademark Dilution Act, Pub. L. No. 104-98, 109 Stat. 985 (1996) (codified at 15 U.S.C. § 1125 (1996)) (amended 2006).

37. *See, e.g.*, Robert C. Denicola, *Some Thoughts on the Dynamics of Federal Trademark Legislation and the Trademark Dilution Act of 1995*, 59 LAW & CONTEMP. PROBS. 75, 88–90 (1996) (“Unlike broader state dilution acts with their references to ‘injury to business reputation’ as well as to ‘dilution of the distinctive quality of a trademark,’ the federal dilution statute is limited to uses that blur the source significance of the mark.”); Miles J. Alexander & Michael K. Heilbronner, *Dilution Under Section 43(c) of the Lanham Act*, 59 LAW & CONTEMP. PROBS. 93, 124–25 (1996) (“Under a strict constructionist view like Justice Scalia’s, the omission in the federal statute of the ‘injury to business reputation’ language that is contained in most state dilution statutes may mean that a claim for tarnishment is not available under the federal statute.”).

38. *See, e.g.*, MCCARTHY, *supra* note 11, § 24:89 (citing 141 CONG. REC. S19,312-01 (daily ed. Dec. 29, 1995) (statement of Sen. Leahy)); 141 CONG. REC. H14,317-02 (daily ed. Dec. 12, 1995) (statement of Rep. Carlos Moorhead) (“Mr. Speaker, this bill [HR 1295] is designed to protect famous trademarks from subsequent uses that blur the distinctiveness of the mark or tarnish or disparage it, even in the absence of a likelihood of confusion.”); H.R. REP. NO. 104-374, at 8 (1995) (“The definition [of ‘dilution’] is designed to encompass all forms of dilution recognized by the courts, including dilution by blurring, by tarnishment and disparagement, and by diminishment.”).

39. *See, e.g.*, *Kraft Foods Holdings, Inc. v. Helm*, 205 F. Supp. 2d 942, 942, 948 (N.D. Ill. 2002) (“Dilution can occur by blurring or tarnishment.”); *Mattel, Inc. v. Internet Dimensions, Inc.*, No. 99 Civ. 10066, 2000 WL 973745, at *8 (S.D.N.Y. July 13, 2000) (“Under federal law, dilution can occur either by blurring or by tarnishment.”); *America*

increasing recognition of a federal dilution by tarnishment standard in the lower courts, in the 2003 Supreme Court case *Moseley I*, Justice Stevens stated in dicta that tarnishment might not be covered by the FTDA.⁴⁰ Justice Stevens's doubt inspired Congress to include an explicit dilution by tarnishment cause of action in the TDRA.⁴¹

C. THE STANDARD FOR TARNISHMENT UNDER THE TDRA

The TDRA fills the “statutory gap” of dilution by tarnishment.⁴² In contrast to the FTDA, which made no explicit mention of tarnishment, the TDRA includes a dilution by tarnishment cause of action.⁴³ Section 1125(c)(1) provides:

Subject to the principles of equity, the owner of a famous mark that is distinctive, inherently or through acquired distinctiveness, shall be entitled to an injunction against another person who, at any time after the owner's mark has become famous, commences use of a mark or trade name in commerce that is likely to cause dilution by blurring *or dilution by tarnishment of the famous mark*, regardless of the presence or absence of actual or likely confusion, of competition, or of actual economic injury.⁴⁴

Further, § 1125(c)(2)(C) defines tarnishment as an “association arising from the similarity between a mark or trade name and a famous mark that harms the reputation of the famous mark.”⁴⁵ Drawing upon subsections (c)(1) and (c)(2)(C), trademark scholar Sarah Burstein has identified the *prima facie* elements of a dilution by tarnishment cause of action:

- (1) The plaintiff's mark was eligible for TDRA protection before
- (2) the defendant made a trademark use of a mark or trade name,

Online, Inc. v. IMS, 24 F. Supp. 2d 548, 552 (E.D. Va. 1998) (“The ‘likelihood of dilution’ element can be established either by a showing of ‘blurring’ or by a showing of ‘tarnishment.’); see also Jennifer Files Beerline, Note, *Anti-Dilution Law, New and Improved: The Trademark Dilution Revision Act of 2006*, 23 BERKELEY TECH. L.J. 511, 520 (2008) (“Courts recognized tarnishment as a cause of action under the FTDA . . .”).

40. *Moseley I*, 537 U.S. 418, 432 (2003).

41. See, e.g., *Trademark Dilution Revision Act of 2005: Hearing on H.R. 683 Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. 34 (2005) [hereinafter *2005 Hearing*] (statement of Anne Gundelfinger, President, International Trademark Association) (“In light of the ambiguity created by the Supreme Court's dicta in the *Moseley [I]* decision, INTA believes that it is important to expressly state in a revised federal dilution statute that tarnishment is within the scope of the law.”).

42. MCCARTHY, *supra* note 11, § 24:89.

43. 15 U.S.C. § 1125(c)(1) (2006).

44. *Id.* (emphasis added).

45. § 1125(c)(2)(C).

(3) which is . . . similar to the famous mark, (4) and as a result of such similarity, the junior use creates a mental association between the defendant's mark and the famous mark, (5) which is likely to harm the famous mark's reputation.⁴⁶

However, although the TDRA includes a tarnishment cause of action, it does not codify the existing case law on tarnishment.⁴⁷ Even a superficial comparison of the standard under the TDRA with the treatment of dilution by tarnishment under the FTDA reveals significant differences.

First, new language in the TDRA makes clear that the standard for proving a dilution claim is "likely to cause dilution."⁴⁸ Congress added this clarifying language in order to reject the increased burden of proof, namely that of "actual dilution," required by the Supreme Court's ruling in *Moseley I.*⁴⁹ Although its decision to adopt the "likelihood" standard strengthened the rights of trademark holders, Congress did not see the adoption of this standard as a deviation from the FTDA. Rather, Congress believed that it was merely articulating more clearly what it had always believed to be the law; the House Report noted that "[t]he language in the bill now squares with what Congress had initially intended."⁵⁰

Further, although Congress's decision to embrace a standard of "likely" rather than "actual" dilution may have had the effect of empowering trademark owners, Congress also enacted several changes to create balance in the law. By more specifically delineating actionable trademark uses, Congress

46. Burstein, *supra* note 9, at 1216. Omitted from Burstein's third element is the word "substantially." *See id.* The Second Circuit in *Starbucks* held that the TDRA does not require a showing of "substantial similarity." *Starbucks Corp. v. Wolfe's Borough Coffee, Inc.*, 588 F.3d 97, 108 (2009). The Ninth Circuit also found that a requirement of "substantial similarity" did not survive Congress's enactment of the TDRA. *Levi Strauss & Co. v. Abercrombie & Fitch Trading Co.*, 633 F.3d 1158, 1172 (9th Cir. 2011). The court held that the TDRA requires only a showing of "similarity" between the two marks at issue. *Id.* at 1173. While both of these cases discuss "similarity" in the context of blurring, the TDRA likewise does not seem to require that a plaintiff show "substantial similarity" in order to succeed on a tarnishment claim. *See* § 1125(c)(1)(C) (also not including the word "substantial").

47. Burstein, *supra* note 9, at 1189.

48. *See* § 1125(c)(1).

49. H.R. REP. NO. 109-23, at 5 (2005) ("The [*Moseley I.*] standard creates an undue burden for trademark holders who contest diluting uses and should be revised.").

50. *Id.* at 25; *see also* 151 CONG. REC. H2121-01 (daily ed. Apr. 19, 2005) (statement of Rep. Sensenbrenner) ("H.R. 683 [the TDRA bill] does not establish new precedent or break new ground. Rather, the bill represents a clarification of what Congress meant when it passed the dilution statute a decade ago.").

both narrowed the boundaries of the tarnishment cause of action and protected defendants' First Amendment rights.⁵¹

For example, before the passage of the TDRA, tarnishment case law generally did not require that the defendant make a trademark use of the mark.⁵² By contrast, for a dilution by tarnishment cause of action to exist under the TDRA, a defendant must use the plaintiff's mark as a "mark or trade name"—essentially, as a designation of source.⁵³ Legislative history indicates that this requirement was intended to protect defendants' First Amendment rights from being trampled by dilution law. Those testifying at the 2004 and 2005 hearings before the Subcommittee on Courts, the Internet, and Intellectual Property seemed to be in general agreement that the source designation requirement would protect socially valuable parody, criticism, and other fair uses.⁵⁴ Professor Mark Lemley noted that

[a]dding [the "trademark use" requirement] to the dilution statute provides an important safeguard against the use of the law to attack free speech or legitimate competition. Competitors, parodists, disgruntled consumers, the media and others will be free to use even famous trademarks to comment, criticize, discuss or make fun of the trademark owner, and to engage in legitimate comparisons between their products and the trademark owner's. . . . None of these uses seek to appropriate the famous mark as a brand for the defendant's own products. Only where the defendant uses the famous mark *as a mark*—as a means of identifying their own goods—are the risks of dilution present.⁵⁵

Further, unlike the FTDA, the TDRA explicitly specifies that various nominative fair uses are not actionable under the statute.⁵⁶ The TDRA specifically shields comparative advertising, parodies, all forms of news

51. See Burstein, *supra* note 9, at 1189–90 (citing § 1125(c)(1), 1125(c)(2)(C), 1125(c)(3); H.R. REP. NO. 109-23, at 25 (statement of Rep. Berman)); see also Beerline, *supra* note 29, at 530 ("the new law's expanded exemptions could limit some claims").

52. E.g., Burstein, *supra* note 9, at 1189.

53. *Id.* at 1189–90 (citing §§ 1125(c)(1), 1125(c)(2)(C)).

54. See, e.g., *Comm. Print to Amend the Fed. Trademark Dilution Act: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the H. Comm. on the Judiciary*, 108th Cong. 16 (2004) [hereinafter *2004 Hearing*] (statement of Jacqueline A. Leimer, President, International Trademark Association) ("This requirement [trademark use] will protect fair uses of a famous mark and safeguard all legitimate parody and satire, even if that parody and satire appear in a commercial context."); *2005 Hearing, supra* note 41, at 46–47 (statement of Mark A. Lemley, William H. Neukom Professor of Law, Stanford University).

55. *2005 Hearing, supra* note 41, at 46–47.

56. Burstein, *supra* note 9, at 1190 (citing § 1125(c)(3)).

reporting and news commentary, and any other noncommercial use of a mark from liability for dilution.⁵⁷

Congress also significantly narrowed the tarnishment cause of action by “tightening” the threshold requirements a mark must satisfy in order to qualify for protection under the statute.⁵⁸ Congress noted in the House Report that the TDRA would serve to “narrow[] the application of dilution by tightening the definition of what is necessary to be considered a famous mark.”⁵⁹ Specifically, the TDRA provides four factors for courts to use in determining whether a mark is sufficiently “famous” to meet the TDRA’s threshold fame requirement.⁶⁰ The TDRA also denies protection to marks that are famous only in a niche market.⁶¹

In sum, to the extent that the FTDA allowed trademark holders to bring suit for dilution by tarnishment under federal law, Congress attempted to significantly narrow the cause of action by the passage of the TDRA.⁶² This intent is made strikingly clear in the language of the House Report:

Protection against trademark dilution seems, in some ways, more akin to property protection than consumer protection. Thus, any anti-dilution legislation should be carefully and narrowly crafted. The goal must be to protect only the most famous trademarks from subsequent uses that blur the distinctiveness of the mark or tarnish or disparage it. Legislation should refrain from expanding the potential of creating rights in perpetuity for trademarks. Dilution should once again be used sparingly as an “extraordinary” remedy, one that requires a significant showing of fame.⁶³

57. 15 U.S.C. § 1125(c)(3) (2006).

58. H.R. REP. NO. 109-23, at 25 (2005).

59. *Id.*

60. *See* § 1125(c)(2)(A) (listing as factors “(i) The duration, extent, and geographic reach of advertising and publicity of the mark, whether advertised or publicized by the owner or third parties. (ii) The amount, volume, and geographic extent of sales of goods or services offered under the mark. (iii) The extent of actual recognition of the mark. (iv) Whether the mark was registered under the Act of March 3, 1881, or the Act of February 20, 1905, or on the principal register.”).

61. *See* § 1125(c)(2) (“For purposes of paragraph (1), a mark is famous if it is widely recognized by the general consuming public of the United States as a designation of source of the goods or services of the mark’s owner.”) (emphasis added).

62. *See* Burstein, *supra* note 9, at 1190.

63. H.R. REP. NO. 109-23, at 25.

II. CASE SUMMARIES: APPLICATION OF THE POST-TDRA TARNISHMENT STANDARD IN *STARBUCKS* AND *V. SECRET*

This Part will address two recent post-TDRA dilution by tarnishment cases, *Starbucks Corp. v. Wolfe's Borough Coffee, Inc.* and *V. Secret Catalogue, Inc. v. Moseley*. For each case, it will provide background information on the case's facts and procedural history, and an overview of the court's analysis.

A. *STARBUCKS CORP. V. WOLFE'S BOROUGH COFFEE, INC.*

1. *Facts and Procedural History*

At the time the case came before the Second Circuit, the plaintiff, coffee retailer Starbucks, maintained stores in over 8,700 retail locations in the United States and abroad, as well as an Internet site that generated over 350,000 hits per week.⁶⁴ In conducting its commercial activities, Starbucks prominently displayed its various marks, including the trade name "Starbucks," and the corporation's mermaid logo.⁶⁵

Defendant Black Bear was also in the business of selling coffee beans—Black Bear was a small family-owned company that manufactured and sold roasted coffee beans and related goods via mail order and Internet order, as well as in a small number of New England supermarkets.⁶⁶ In April of 1997, Black Bear began selling a dark roast blend of coffee called "Charbucks Blend" and "Mister Charbucks."⁶⁷

In August of 1997, Starbucks demanded that Black Bear cease use of the "Charbucks" marks.⁶⁸ Black Bear nonetheless continued to use the marks.⁶⁹ Consequently, Starbucks filed a complaint in the United States District Court for the Southern District of New York alleging several trademark claims, including dilution under sections 1125(c) and 1127 of Title 15.⁷⁰ After a two-day bench trial, the district court issued an order ruling in favor of Black Bear.⁷¹ The court found that there was neither actual dilution to establish a

64. *Starbucks Corp. v. Wolfe's Borough Coffee, Inc.*, 588 F.3d 97, 102 (2d Cir. 2009).

65. *Id.*

66. *Id.* at 103.

67. *Id.*

68. *Id.*

69. *Id.*

70. *Id.*

71. *Id.* at 104.

violation of the federal trademark laws nor any likelihood of dilution to establish a violation of New York's trademark laws.⁷²

Starbucks appealed the district court's determination to the United States Court of Appeals for the Second Circuit.⁷³ However, while the appeal was pending, Congress amended the federal law on trademark dilution by passing the TDRA.⁷⁴ In light of this change in the law, the Court of Appeals vacated the judgment of the lower court and remanded for further proceedings.⁷⁵

On remand, the district court entered judgment in favor of Black Bear, finding that with respect to the federal dilution claim, Starbucks failed to demonstrate an entitlement to relief.⁷⁶ Starbucks again appealed.⁷⁷

2. *Analysis of the Second Circuit*

In 2009, Starbucks found itself once again before the Second Circuit. Starbucks argued that the district court erred in its analysis of the dilution by tarnishment claim because it failed to find that "Charbucks" damages the positive reputation of Starbucks by evoking both "Starbucks" and negative associations in the minds of consumers—specifically the image of bitter, over-roasted coffee.⁷⁸

The Court of Appeals began its analysis of Starbucks' tarnishment claim by examining the TDRA. The court cited the definition for dilution by tarnishment provided therein: "Dilution by tarnishment is an 'association arising from the similarity between a mark or trade name and a famous mark that harms the reputation of the famous mark.'"⁷⁹ The court further explained: "[a] trademark may be tarnished when it is linked to products of shoddy quality, or is portrayed in an unwholesome or unsavory context, with the result that the public will associate the lack of quality or lack of prestige in the defendant's goods with the plaintiff's unrelated goods."⁸⁰

In applying this rule to the facts at bar, the court upheld the district court's finding that tarnishment was not likely. Starbucks presented evidence

72. *Id.*

73. *Id.*

74. *Id.*; Federal Trademark Dilution Revision Act, Pub. L. No. 109-312, 120 Stat. 1730 (2006) (codified at 15 U.S.C. § 1125(c) (2006)) (amending Federal Trademark Dilution Act, Pub. L. No. 104-98, 109 Stat. 985 (1996)).

75. *Starbucks*, 588 F.3d at 104.

76. *Id.* at 104–05.

77. *Id.*

78. *Id.* at 110–11.

79. *Id.* at 108 (citing § 1125(c)(2)(C)).

80. *Id.* at 110 (citing *Hormel Foods Corp. v. Jim Henson Productions, Inc.*, 73 F.3d 497, 507 (2d Cir. 1996)).

before the district court that 30.5% of the persons it surveyed associated “Charbucks” with “Starbucks” and, further, that 62% of those who associated “Charbucks” with “Starbucks” indicated that they had a negative impression of the “Charbucks” mark.⁸¹ The Second Circuit did not find this evidence persuasive. Specifically, it held that “a mere association between ‘Charbucks,’ and ‘Starbucks,’ coupled with a negative impression of the name ‘Charbucks,’ is insufficient to establish a likelihood of dilution by tarnishment.”⁸² The court further explained that the relevant question is not simply whether a consumer might associate a negative sounding junior mark with a famous senior mark, but whether such an association is actually *likely to harm* a consumer’s positive impressions about the mark owner’s products—in this case, Starbucks coffee.⁸³

In addition, the court found that the Charbucks line of coffee is not an inherently unwholesome, unsavory, or otherwise poor product.⁸⁴ Rather, the fact that, like Starbucks, Charbucks markets its coffee as being of “[v]ery high quality” undercuts Starbucks’ claim that Charbucks harms the reputation of its marks.⁸⁵ Because Starbucks failed to present any evidence suggesting that its marks’ reputational strength would likely be damaged by Black Bear’s use of the Charbucks marks, the court found that the district court did not err in rejecting Starbucks’ claim of dilution by tarnishment.⁸⁶

In sum, as mandated by the statutory language of the TDRA, the Second Circuit’s analysis focused heavily on the extent to which the junior mark is likely to “harm[] the reputation of the famous mark.”⁸⁷

B. *V. SECRET CATALOGUE, INC. V. MOSELEY*

1. *Facts and Procedural History*

The plaintiff in this case was an international lingerie company and owner of the “Victoria’s Secret” mark.⁸⁸ Defendants Victor and Cathy

81. *Id.*; Starbucks Corp. v. Wolfe’s Borough Coffee, Inc., 559 F. Supp. 2d 472 (S.D.N.Y. 2008).

82. *Starbucks*, 588 F.3d at 110.

83. *Id.*

84. *Id.* at 110–11.

85. *Id.* at 111. The court further held that even if the name “Charbucks” does suggest poor quality coffee, the court hypothesized that the Charbucks marks may in that case actually serve to strengthen Starbucks reputation because it “brings to the attention of consumers that the ‘Char’ is absent in ‘Starbucks, and, therefore, of the two ‘bucks,’ Starbucks is the ‘un-charred’ and more appealing product.” *Id.* at 110–11.

86. *Id.* at 110. The court also rejected Black Bear’s argument that its alleged parody of the Starbucks marks shields it from claims of trademark dilution. *Id.* at 113.

87. 15 U.S.C. § 1125(c)(2)(C) (2006).

Moseley owned a small retail store that sold sex toys and other erotic products in a mall in Elizabethtown, Kentucky.⁸⁹ The store was originally named “Victor’s Secret” before it was changed to “Victor’s Little Secret.”⁹⁰ An Army Colonel from Fort Knox informed Victoria’s Secret of the defendants’ use of the mark.⁹¹ Colonel Baker, who had seen an advertisement for the defendants’ store in a weekly publication, was offended by what he perceived to be an attempt to use a reputable company’s trademark to promote the sale of “unwholesome, tawdry merchandise,” and sent a copy to the Victoria’s Secret.⁹² Victoria’s Secret sought injunctive relief against the use of its mark, alleging federal trademark dilution by tarnishment.⁹³ The district court issued the injunction,⁹⁴ and the Sixth Circuit Court of Appeals affirmed its decision.⁹⁵

However, in *Moseley I*, the Supreme Court reversed the decision of the Sixth Circuit panel.⁹⁶ The Court held that “actual harm” rather than a mere “likelihood” of harm must be shown in order to prevail upon a claim of trademark dilution.⁹⁷ More specifically, the Court determined that Victoria’s Secret bore the burden of proving an actual “lessening of the capacity of the VICTORIA’S SECRET mark to identify and distinguish goods or services sold in Victoria’s Secret stores or advertised in its catalogs.”⁹⁸ As discussed in Section I.C, *supra*, Congress thereafter amended the FTDA, changing the test for dilution by tarnishment from an “actual” to a “likelihood of harm” standard, largely in response to this Supreme Court decision.⁹⁹

On remand,¹⁰⁰ the district court reassessed the case under the newly amended statute.¹⁰¹ The court found that the defendant’s use of the Victoria’s

88. *Moseley II*, 605 F.3d 382, 384 (6th Cir. 2010).

89. *Id.*

90. *Id.* The Moseleys changed the name of their store from “Victor’s Secret” to “Victor’s Little Secret” after they received a cease and desist letter from Victoria’s Secret on February 25, 1998. *V Secret Catalogue, Inc. v. Moseley*, No. 3:98CV-395-S, 2000 WL 370525, at *1 (W.D. Ky. Feb. 9, 2000).

91. *Moseley II*, 605 F.3d at 385.

92. *Id.* at 385 n.3.

93. *Id.* at 384.

94. *V Secret*, 2000 WL 370525, at *6.

95. *V Secret Catalogue, Inc. v. Moseley*, 259 F.3d 464, 477 (6th Cir. 2001).

96. *Moseley I*, 537 U.S. 418, 434 (2003).

97. *Id.*

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

99. See discussion *supra* Sections I.B, I.C.

100. After the Supreme Court issued its decision in *Moseley I* in April of 2003, the Moseleys filed a motion in the Sixth Circuit Court of Appeals to vacate the injunction against them. See *V Secret Catalogue, Inc. v. Moseley*, 558 F. Supp. 2d 734, 737 (W.D. Ky. 2008)

Secret mark created a likelihood of trademark dilution by tarnishment because the defendant's store contained sexually explicit goods that would "reduce" the reputation of the Victoria's Secret mark as "a wholesome identifier" of Victoria's Secret goods.¹⁰² The defendants appealed the court's decision and the case was once again brought before the Sixth Circuit Court of Appeals.¹⁰³

2. *Analysis of the Sixth Circuit*

The Court of Appeals' analysis focused heavily on the salacious nature of the allegedly tarnishing products.¹⁰⁴ Citing eight federal cases across six jurisdictions that found tarnishment where a junior user used a mark in association sex-related products, the court held that 15 U.S.C. § 1125(c) should be interpreted to create a "rebuttable presumption" of tarnishment, or "at least a strong inference" that a junior mark used to sell sex-related products is likely to tarnish a famous mark, where there is a clear semantic association between the two marks.¹⁰⁵

Specifically, the court held that the presumption has a "*res ipsa loquitor*-like effect" that "is not conclusive but places on the owner of the new mark the burden of coming forward with evidence that there is no likelihood or probability of tarnishment."¹⁰⁶ As will be discussed in more detail in Section III.A, *infra*, the opinion is not clear as to what effect the court intended that

(giving a detailed description of the case's history up until that point). The case sat pending in the Sixth Circuit for four years without action. *Id.* On July 26, 2007, the Sixth Circuit remanded the case to the United States District Court in the Western District of Kentucky stating that "[t]he decision of [the Sixth Circuit] having been reversed by the United States Supreme Court and the case having been remanded for further proceedings, the Court further remands this case to the district court for further proceedings consistent with the Supreme Court's decision in [*Moseley I*]." *Id.*

101. *Id.* at 750.

102. *Id.*

103. *Moseley II*, 605 F.3d 382 (6th Cir. 2010).

104. *Id.* at 388.

105. *Id.* (citing *Pfizer Inc. v. Sachs*, 652 F. Supp. 2d 512, 525 (S.D.N.Y. 2009); *Williams-Sonoma, Inc. v. Friendfinder, Inc.*, No. C 06-6572, 2007 WL 4973848, at *7 (N.D. Cal. Dec. 6, 2007); *Kraft Foods Holdings, Inc. v. Helm*, 205 F. Supp. 2d 942, 949-50 (N.D. Ill. 2002); *Victoria's Cyber Secret Ltd. P'ship v. V Secret Catalogue, Inc.*, 161 F. Supp. 2d 1339, 1355 (S.D. Fla. 2001); *Mattel, Inc. v. Internet Dimensions Inc.*, No. 99 Civ. 10066(HB), 2000 WL 973745, at *8 (S.D.N.Y. July 13, 2000); *Polo Ralph Lauren L.P. v. Schuman*, No. Civ.A. H97-1855, 1998 WL 110059, at *1048 (S.D. Tex. Feb. 9, 1998); *Pillsbury Co. v. Milky Way Prods., Inc.*, No. C78-679A, 1981 WL 1402, at *15 (N.D. Ga. Dec. 24, 1981); *Dallas Cowboys Cheerleaders, Inc. v. Pussycat Cinema, Ltd.*, 467 F. Supp. 366, 377 (S.D.N.Y. 1979)).

106. *Id.*

this presumption would have on tarnishment litigation. The court did, however, specify that this presumption could be overcome by the production of evidence that rebuts the probability that some consumers will find the new mark both offensive and harmful to the reputation and “favorable symbolism” of the senior mark.¹⁰⁷ The court noted that such evidence could be in the form of expert testimony, surveys, polls, or customer testimony.¹⁰⁸

The court supported its decision to create a “rebuttable presumption” with a quotation pulled from the House Report: “The [*Moseley I*] standard creates an undue burden for trademark holders who contest diluting uses and should be revised.”¹⁰⁹ The court reasoned that this quotation indicated Congress’s dissatisfaction with the result in *Moseley I*¹¹⁰ and “with regard to the proof in this case and with regard to the method of allocating the burden of proof.”¹¹¹

Applying the presumption to the facts at bar, the court found that the Moseleys failed to meet the requisite burden.¹¹² Specifically, the Moseleys did not offer any evidence showing that there is no real likelihood of tarnishment.¹¹³ Nor did the Moseleys offer at oral argument any suggestion that they could produce such evidence.¹¹⁴ The court therefore affirmed the decision of the district court.¹¹⁵

3. Judge Moore’s Dissent

Judge Karen Nelson Moore dissented from the majority decision, taking issue with the majority’s conclusion that the legislative history supported the creation of a rebuttable presumption in dilution by tarnishment cases

107. *Id.* at 389.

108. *Id.* at 388.

109. *Id.* at 387 (citing H.R. REP. NO. 109-23, at 5 (2005), reprinted in 2006 U.S.C.C.A.N. 1091, 1097) (emphasis added by the Sixth Circuit).

110. *Id.* at 389 (“It seems clear that the new Act demonstrates that Congress intended that a court should reach a different result in this case if the facts remain the same.”).

111. *Id.* (emphasis added). Here, the court does not specify whether the term “burden of proof” is being used here to refer to the burden of persuasion, the burden of production, or both. See discussion *infra* Section III.A.

112. *Moseley II*, 605 F.3d at 388–89.

113. *Id.* at 389.

114. *Id.*

115. *Id.* at 390. On November 1, 2010 the Moseleys petitioned for writ of certiorari. Petition for Writ of Certiorari, *Moseley v. V Secret Catalogue, Inc.*, (No. 10-604), 2010 WL 4382003. On January 18, 2011, the Supreme Court denied the petition. See note 16. On February 10, 2011 the Moseleys filed a petition for rehearing. Petition for Rehearing, *Moseley v. V Secret Catalogue, Inc.*, (No. 10-604), 2011 WL 515703.

involving marks with potentially offensive sexual associations.¹¹⁶ Judge Moore reasoned that although the House Judiciary Committee Report articulated concern that the *Moseley I* actual harm standard had created an undue burden on trademark owners, she did not read the report “to mean that Congress envisioned a modification of the party that bears the burden of proof¹¹⁷ as opposed to simply a lightening of the evidentiary showing.”¹¹⁸ Indeed, Judge Moore stated that

[t]he majority’s conclusion that Congress intended to change which party has the burden of proof—i.e., the framework governing which party must put forth evidence in support of its position—as opposed to the standard of harm—i.e., actual harm versus a likelihood of harm—is not supported by the statute or the legislative history.¹¹⁹

In support of her contention, Judge Moore reprinted the full paragraph of the House Judiciary Committee Report from which the majority drew its support:

Witnesses at the[] [legislative] hearings focused on the *standard of harm threshold* articulated in [*Moseley I*]. For example, a representative of the International Trademark Association observed that “[b]y the time measurable, provable damage to the mark has occurred much time has passed, the damage has been done, and the remedy, which

116. *Moseley II*, 605 F.3d at 391 (Moore, J., dissenting). Judge Gibbons wrote a brief concurrence that nevertheless took some issue with the majority’s view of the burden requirements:

I would not use the term “rebuttable presumption” to describe the inference that a new mark used to sell sex-related products is likely to tarnish a famous mark if there is a clear semantic association between the two. Practically speaking, what the inference is called makes little difference. I agree with the majority opinion that the inference is a strong one and that, to counter it, some evidence that there is no likelihood or probability of tarnishment is required. But because we are endeavoring to interpret a new law and because the legislative history is not explicit on the point of modification of the burden of proof, I think it best to end our analysis by characterizing the inference as an inference.

Id. at 390 (Gibbons, J., concurring).

117. Throughout her dissent Judge Moore used the term “burden of proof” when discussing the majority’s burden-shifting. *Id.* at 391–95 (Moore, J., dissenting). However, she defined burden of proof as “the framework governing which party *must put forth evidence* in support of its position.” *Id.* at 393 n.3 (emphasis added). It is thus unclear whether she read the majority’s opinion as requiring a shift in the burden of production or persuasion. *See* discussion *infra* Section III.A.

118. *Id.* at 391 n.2 (citing H.R. REP. NO. 109-23, at 5 (2005)).

119. *Id.* at 392 n.3.

is injunctive relief, is far less effective.” The Committee endorses this position. The [*Moseley I*] standard creates an undue burden for trademark holders who contest diluting uses and should be revised.¹²⁰

Judge Moore reasoned that the House Report shows that Congress was chiefly concerned with the “standard of harm” threshold, rather than with which party bore the burden. Judge Moore therefore concluded that the burden of showing tarnishment should remain with Victoria’s Secret.¹²¹

Further, Judge Moore found that Victoria’s Secret did not meet its requisite burden in proving likelihood of harm, and consequently wrote that she would reverse the judgment of the district court.¹²² Quoting *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*, Moore noted that the relevant inquiry in a dilution by tarnishment case was how an individual’s associations with a junior mark would actually affect his or her positive associations with the famous mark.¹²³ She reasoned that although Victoria’s Secret presented an affidavit that demonstrated one individual’s negative feelings about “Victor’s Little Secret” (namely that of Colonel John E. Baker, who had seen a Victor’s Little Secret advertisement in a weekly publication), Victoria’s Secret failed to produce any evidence that such distaste had altered the individual’s positive regard for the senior mark, Victoria’s Secret.¹²⁴

Moreover, Judge Moore acknowledged that although it may be *possible* that the Moseleys’ use of the “Victor’s Little Secret Mark” might damage the “Victoria’s Secret” mark, the evidentiary standard is one of likelihood, akin to probability, not mere possibility.¹²⁵ Judge Moore was not comfortable “assuming,” as she argued the majority did, that Victoria’s Secret had met its burden based on the fact that cases from other jurisdictions had found that a famous mark is tarnished when semantically associated with sex-related products.¹²⁶ Further, Judge Moore distinguished the facts at bar from those in the eight cases cited by the majority on the basis that, here, the senior mark was *also* associated with sex.¹²⁷ Judge Moore therefore dissented from the

120. *Id.* (quoting H.R. REP. NO. 109-23, at 5).

121. *Id.* at 391.

122. *Id.*

123. *Id.* at 392 (quoting *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.*, 588 F.3d 97, 110 (2d Cir. 2009)).

124. *Id.*

125. *Id.* at 394 (citing MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 24:115 n.2).

126. *Id.*

127. *Id.*

majority opinion and found that the decision of the district court should be vacated.¹²⁸

III. FLAWS IN THE SIXTH CIRCUIT'S DILUTION BY TARNISHMENT ANALYSIS

In contrast to the Second Circuit's straightforward application of the statutory language of the TDRA, the Sixth Circuit created a "rebuttable presumption" of tarnishment to be applied in cases where the defendant used the plaintiff's mark, or a semantically similar mark, in connection with sex-related goods. As will be discussed in Section III.A, *infra*, the actual effect of this presumption on litigation is unclear. The Sixth Circuit's opinion does not specify whether it intended that its "rebuttable presumption" would operate to shift the burden of production, or the burden of persuasion, to the defendant.

However, regardless of the presumption's effective impact on dilution by tarnishment litigation, the Sixth Circuit's reasoning in support of its creation misses the mark. Section III.B of this Part will show that the majority's reading of the legislative history of the TDRA, as demanding a shift in either the burden of production or persuasion, is inaccurate. Finally, Section III.C will argue that had the Sixth Circuit applied the *Starbucks* reasoning to the facts of *Moseley II*, the outcome of that case would likely have been different.

A. THE EFFECT OF THE SIXTH CIRCUIT'S "REBUTTABLE PRESUMPTION" ON LITIGATION IS UNCLEAR

Although the Sixth Circuit limited its holding to cases where a senior mark was used in connection with sex-related products, the opinion is silent on what other disparaging contexts might likewise come to warrant application of its "rebuttable presumption." It can therefore be predicted that Sixth Circuit's "rebuttable presumption" will be cited in the briefs of future dilution by tarnishment plaintiffs hoping to benefit from its application. Indeed, the Sixth Circuit's reasoning could easily be extended to other traditionally tarnishing subject matter.¹²⁹ However, it is unclear what actual

128. *Id.* at 395.

129. For example, just as the Sixth Circuit was able to support its use of a "rebuttable presumption" with citation to a barrage of cases wherein the use of a mark in association with sex was found to be tarnishing, a plaintiff alleging that tarnishment is likely to occur where a mark has been used in connection with drugs could similarly gather a considerable number of cases showing that tarnishment had been found when a plaintiff's mark was used in connection with illegal drugs. MCCARTHY, *supra* note 11, § 24:89. It therefore seems likely

effect the Sixth Circuit's "rebuttable presumption" will have on litigation when implicated in a dilution by tarnishment case.

The Sixth Circuit explained only that the presumption has a "*res ipsa loquitor*-like effect" that "is not conclusive but places on the owner of the new mark the burden of coming forward with evidence that there is no likelihood or probability of tarnishment."¹³⁰ This language suggests that the "rebuttable presumption" would operate to shift the burden of producing evidence to the defendant. The phrase "burden of going forward," or what the Sixth Circuit terms the "burden of coming forward with evidence," is synonymous with "burden of production."¹³¹ Moreover, *res ipsa loquitur* is a rule "which provides that a plaintiff may satisfy his *burden of producing evidence* of a defendant's negligence by proving that the plaintiff has been injured by a casualty of a sort that normally would not have occurred in the absence of the defendant's negligence."¹³² It therefore seems that the court may have intended that its presumption would operate to shift the burden of production to the defendant.

Indeed, under Federal Rule of Evidence 301, presumptions are treated as Thayer or "bursting bubble" presumptions, which shift the *burden of production*

that a plaintiff would argue that the Sixth Circuit's "rebuttable presumption" should apply with equal force where a famous mark has been associated with drugs.

Further, as explained in Section I.A, *supra*, courts are not only finding tarnishment in "classic" tarnishing scenarios, such as those dealing with sex, drugs, and illegal activities but also in cases where the plaintiff's product is linked to a product of "shoddy quality." *Deere & Co. v. MTD Prods., Inc.*, 41 F.3d 39, 43 (2d Cir. 1994). For example, in *Diane Von Furstenberg Studio v. Snyder*, the defendant sold counterfeit Diane Von Furstenberg (DVF) dresses bearing DVF marks. *Diane Von Furstenberg Studio v. Snyder*, No. 1:06cv1356, 2007 WL 2688184 (E.D. Va. Sept. 10, 2007). The court not only granted the plaintiff's motion for summary judgment on its trademark infringement claim but also found that the defendant's use of "the identical DVF on the inferior-quality dresses they sold" was likely to tarnish the DVF mark. *Id.* at *3-4. Assuming that the use of a senior mark on a product of inferior quality has the potential to harm a mark's reputation, should plaintiffs be entitled to the "rebuttable presumption" when their marks are linked with products of inferior quality? If a plaintiff were to enjoy the "rebuttable presumption" of tarnishment simply by showing that the defendant used the senior mark on a product of inferior quality, a plaintiff could obtain an injunction while avoiding the more difficult and costly "likelihood of confusion" standard associated with traditional trademark infringement actions. Therefore, contrary to Congress's hope "that the dilution remedy will be used in the rare circumstance and not as the alternative pleading" it seems possible that, should the "rebuttable presumption" be extended to other factual contexts, dilution by tarnishment could become the poor man's trademark infringement action. *See* H.R. REP. NO. 109-23, at 25 (2005).

130. *Moseley II*, 605 F.3d at 388.

131. *See* 2 CHARLES TILFORD MCCORMICK, MCCORMICK ON EVIDENCE § 336 n.3 (Kenneth S. Broun ed., 6th ed. 2006).

132. *See id.* § 342 (emphasis added).

onto the defendant, but *not* the *burden of persuasion*.¹³³ This means that all a defendant in a dilution by tarnishment case need do is present *some* evidence that tarnishment is unlikely in order to “burst” the presumption bubble and shift the burden of production back to the plaintiff.¹³⁴ The Sixth Circuit’s opinion suggests that such evidence could be presented in the form of expert testimony, surveys, polls, or customer testimony.¹³⁵

However, elsewhere in the opinion, the court uses the term “burden of proof” when discussing its justification for the creation of a “rebuttable presumption” of tarnishment.¹³⁶ Its use of this term suggests that it may have intended that its presumption would operate to shift the burden of persuasion to the defendant, as the term “burden of proof” is commonly used to refer to a party’s burden of persuasion.¹³⁷ Indeed, Thomas McCarthy seems to have read the majority opinion as requiring a shift in the burden of proof, or persuasion.¹³⁸ A shift in the burden of persuasion to the defendant would require the defendant to *prove* that tarnishment was not likely rather than simply present evidence that would burst the presumption “bubble.”¹³⁹

To the extent that the court’s opinion can be read as mandating a shift in the burden of persuasion to the defendant, such a shift runs contrary to established trademark law. As noted by Thomas McCarthy in his criticism of

133. See FED. R. EVID. 301 advisory committee’s note; see also *In re Yoder Co.*, 758 F.2d 1114, 1119–20 (6th Cir. 1985) (“Most commentators have concluded that Rule 301 as enacted embodies the Thayer or ‘bursting bubble’ approach. . . . The Thayer view is consistent with the language of Rule 301, which provides only that a presumption shifts ‘the burden of going forward with evidence to rebut or meet the presumption.’”) (internal citations omitted).

134. See *Yoder*, 758 F.3d at 1119 (“Under the Thayer or ‘bursting bubble’ theory a presumption vanishes entirely once rebutted, and the question must be decided as any ordinary question of fact.”).

135. *Moseley II*, 605 F.3d at 388.

136. *Id.* at 389 (justifying its creation of the presumption through discussion of Congress’s will “with regard to the proof in this case and with regard to the *method of allocating the burden of proof*” (emphasis added)).

137. See *Dir., Office of Workers’ Comp. Programs, Dep’t of Labor v. Greenwich Collieries*, 512 U.S. 267, 272–76 (1994) (explaining that after 1923, Supreme Court opinions have consistently distinguished between “burden of proof, which we defined as burden of persuasion, and an alternative concept, which we increasingly referred to as the burden of production or the burden of going forward with the evidence”).

138. See J. Thomas McCarthy, *A First Look by Tom McCarthy at the Sixth Circuit’s 2010 Victoria’s Secret Tarnishment Decision*, TECHNOLOGY & MARKETING LAW BLOG (May 24, 2010, 9:07 AM), http://blog.ericgoldman.org/archives/2010/05/a_first_look_by.htm.

139. See *Yoder*, 758 F.3d at 1119 (explaining that where a presumption shifts the burden of persuasion to a defendant the defendant would be required to prove the nonexistence of the presumed fact).

the *Moseley II* decision: “A central message of the Supreme Court’s 2004 Microcolor decision is that the burden of proving a likelihood of confusion always remains with the plaintiff. This same reasoning should apply with equal force to an anti-dilution case.”¹⁴⁰

McCarthy is referring to *KP Permanent Makeup, Inc. v. Lasting Impression I, Inc.*,¹⁴¹ in which the Supreme Court made clear that the burden of proof in a trademark infringement action lies always with the plaintiff, regardless of a mark’s incontestable status, or whether the defendant claims that its use of the mark is fair.¹⁴² Consequently, it is established law that in the case of trademark infringement actions, the burden of proving the prima facie elements of infringement always lies with the plaintiff.¹⁴³ In its analysis in *Moseley II*, the Sixth Circuit failed to provide any reason why the burden of persuasion should be allocated differently in a trademark dilution action.

Further, as noted above, even if the Sixth Circuit intended that its presumption would operate to shift the burden of persuasion to the defendant, under the Federal Rules of Evidence, it would not have that effect. Federal Rule of Evidence 301 provides:

[A] presumption imposes on the party against whom it is directed the burden of going forward with evidence to rebut or meet the presumption, but does not shift to such party the burden of proof in the sense of the risk of nonpersuasion, which remains throughout the trial upon the party on whom it was originally cast.¹⁴⁴

140. McCarthy, *supra* note 138 (citing *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 543 U.S. 111 (2004)).

141. *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 543 U.S. 111 (2004). In this case, the Supreme Court reviewed a Ninth Circuit holding that no infringing trademark use could be recognized as fair where consumer confusion was probable. *Id.* at 116. Although the Ninth Circuit did not explicitly address which party bears the burden of showing the presence or absence of consumer confusion in such a case, it appears to have placed the burden on the defendant. *Id.* The Supreme Court granted certiorari to address the relevance of the likely confusion test to a fair use defense and to determine the obligation of a party defending on that ground to show that its use is unlikely to cause consumer confusion. *Id.* The Court ultimately vacated the Ninth Circuit and held both that the mere risk of confusion will not necessarily rule out fair use and that a defendant need not show the absence of a likelihood of confusion in order to succeed on a fair use defense. *Id.* at 123–24.

142. *Id.* at 118, 121–23.

143. The same is true of an action for product disparagement at common law. *See* MCCARTHY, *supra* note 11, § 27:103 n.1.

144. FED. R. EVID. 301 (emphasis added).

Thus it seems that a presumption mandating a shift in the burden of persuasion would be in conflict with federal evidence law. However, regardless of the presumption's intended effect, as will be shown in Section III.B, *infra*, its creation is entirely unsupported by the legislative history of the TDRA.

B. THE SIXTH CIRCUIT'S MISREADING OF THE LEGISLATIVE HISTORY OF THE TDRA

In support of its decision to create a “rebuttable presumption” of tarnishment, the Sixth Circuit noted that the House Report for the TDRA illustrated Congress's intent to reduce the “burden” of evidentiary production borne by the trademark holder.¹⁴⁵ As discussed in Section II.B.2, *supra*, the court relied heavily on the following quotation from the Report: “The [*Moseley I*] standard *creates an undue burden* for trademark holders who contest diluting uses and should be revised.”¹⁴⁶ The court argued that this excerpt, read together with the “developing case law” (presumably, the eight cases it cited where tarnishment was found where the junior user was associated with sex) and § 25 comment (g) of the Restatement (Third) of Unfair Competition, should be interpreted as creating “a kind of rebuttable presumption” of tarnishment where the defendant has used the mark in connection with sex-related products.¹⁴⁷

145. *Moseley II*, 605 F.3d at 387.

146. *Id.* at 387 (citing H.R. REP. NO. 109-23, at 5 (2005), *reprinted in* 2006 U.S.C.C.A.N. 1091, 1097) (emphasis added by the Sixth Circuit).

147. *See Moseley II*, 605 F.3d at 388 (“The burden-of-proof problem, the developing case law, and the Restatement (Third) of Trademarks in § 25 (particularly [comment] g) should now be interpreted, we think, to create a kind of rebuttable presumption, or at least a very strong inference, that a new mark used to sell sex-related products is likely to tarnish a famous mark if there is a clear semantic association between the two.”). It is important to note that while the defendants in each of the cases cited by the Sixth Circuit were associated with sex, none of the plaintiffs were even loosely associated with sexual content. *See* cases cited *supra* note 105. In contrast, here, Victoria's Secret markets its own lingerie as “sexy little things.” *See Menashe v. V Secret Catalogue, Inc.*, 409 F. Supp. 2d 412, 417 (S.D.N.Y. 2006). Likewise, § 25 cmt. g of the Restatement makes no mention of such a “rebuttable presumption,” nor in any way suggests that either the burden of persuasion or production in dilution by tarnishment cases should be shifted to the defendant. Rather, § 25 cmt. g makes explicit mention of what the *prior user*, or plaintiff, must prove in order to succeed on a dilution by tarnishment claim: “To prove a case of tarnishment, *the prior user must demonstrate* that the subsequent use is likely to come to the attention of the *prior user's* prospective purchasers and that the use is likely to undermine or damage the positive associations evoked by the mark.” RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 25 cmt. g (1995) (emphasis added).

However, the legislative history as a whole does not support the Sixth Circuit's reasoning. As mentioned by Judge Moore in her dissent, the legislative history surrounding the TDRA reflects Congress's concern with the "actual harm" standard created by *Moseley I*, and *not* with *which party* bears the burden of persuasion or production in a dilution by tarnishment action.¹⁴⁸ Nowhere within the legislative history is there any implication that Congress intended to shift the either the burden of proof or production in dilution by tarnishment cases.

1. House Judiciary Hearings

As the House Report explains, transcripts from the 2004 and 2005 hearings on the TDRA before the Subcommittee on the Courts, the Internet, and Intellectual Property reveal why critics of the *Moseley I* decision proposed a revision to the FTDA:

Following the passage of the TDRA, the circuit courts of appeal split as to whether the statute required the owner of a famous mark to prove actual harm as a prerequisite to injunctive relief. This question was addressed by the Supreme Court in the case of [*Moseley I*]. In a dilution action between the lingerie company Victoria's Secret and a small retail company (Victor's Little Secret) . . . the Court determined that the FTDA "unambiguously requires a showing of actual dilution, rather than a likelihood of dilution." The Subcommittee on Courts, the Internet, and Intellectual Property received testimony on this issue and other topics. Witnesses at these hearings focused on the standard of harm threshold articulated in [*Moseley I*].¹⁴⁹

Significantly, these transcripts contain no indication that critics of *Moseley I* were concerned with which party bore the burden of proof in trademark dilution disputes, much less advocated shifting the burden of proof to the defendant in dilution by tarnishment cases.¹⁵⁰ Rather, testimony within the reports suggests that concern with the *Moseley I* standard centered around two problems: (1) the problem of proof created by the actual dilution standard and (2) the risk that requiring plaintiffs to wait until actual dilution had occurred to file a dilution claim would result in "too little, too late" protection for famous marks.¹⁵¹

148. See *Moseley II*, 605 F.3d at 391 n.4 (Moore, J. dissenting); see also discussion *supra* Section I.C, *infra* Sections III.B.1, III.B.2.

149. H.R. REP. NO. 109-23, at 5.

150. See 2004 Hearing, *supra* note 54; 2005 Hearing, *supra* note 41.

151. See 2004 Hearing, *supra* note 54; 2005 Hearing, *supra* note 41.

The Subcommittee hearing transcripts indicate widespread confusion regarding what sort of evidence a plaintiff might present in order to establish actual dilution. The prepared statement of Robert W. Sacoff, Chair of the American Bar Association Intellectual Property Law Section, before the subcommittee in 2004 highlights this issue.¹⁵² Sacoff notes: “The Supreme Court’s recent decision in *Moseley I* requiring actual dilution has led to uncertainty and unpredictability in the lower courts as they struggle with the quantum of proof and type of evidence necessary to establish actual dilution. The actual dilution standard has proven unworkable in practice.”¹⁵³

Sacoff pointed to several post-*Moseley I* cases in which the court struggled with what type of evidence would be sufficient to show actual dilution, including *Ty Inc. v. Softbelly’s, Inc.*¹⁵⁴ In *Ty*, Judge Posner explained that *Moseley I* “impl[ie]d a need for trial-type evidence” in order to determine whether dilution had occurred.¹⁵⁵ Further, commenting on the Supreme Court’s reference to consumer surveys as direct evidence of actual dilution, Judge Posner expressed doubt that any “question could be put to consumers that would elicit a meaningful answer either in that case [*Moseley I*] or this one.”¹⁵⁶

Posner’s concern with how a plaintiff might demonstrate actual dilution was shared by other individuals at the Subcommittee hearings. Congressman Berman, for example, noted: “I agree that if we were to maintain an actual dilution standard, as the Supreme Court held in [*Moseley I*], a number of difficult issues arise, including how one proves actual dilution without demonstrating lost profits. That is very difficult to do in these situations.”¹⁵⁷ Likewise, Anne Gundelfinger, President of the International Trademark Association (INTA), expressed her concern that: “the Supreme Court [in *Moseley I*] has interpreted [the dilution by tarnishment cause of action] in a manner that makes it at best ambiguous and at worst nearly impossible to establish.”¹⁵⁸

The 2004 and 2005 hearings also reveal trademark holders’ concern that by the time they were able to prove actual damage under the *Moseley I*

152. 2004 Hearing, *supra* note 54, at 16.

153. *Id.* at 16.

154. *Id.* at 17 (discussing *Ty Inc. v. Softbelly’s, Inc.*, 353 F.3d 528 (7th Cir. 2003); *Caterpillar Inc. v. Walt Disney Co.*, 287 F. Supp. 2d 913 (C.D. Ill. 2003); *Kellogg Co. v. Toucan Golf, Inc.*, 337 F.3d 616 (6th Cir. 2003)).

155. *Ty Inc. v. Softbelly’s, Inc.*, 353 F.3d 528, 535 (7th Cir. 2003) (citing *Moseley I*, 537 U.S. 412, 434 (2008)).

156. *Id.*

157. 2005 Hearing, *supra* note 41, at 4.

158. *Id.* at 9.

standard, too much reputational harm may have already been done. The prepared statement of David C. Stimson, Chief Trademark Counsel for the Eastman Kodak Company, explained that

[a] requirement that Kodak show actual harm would mean spending months litigating at the potential cost of hundreds of thousands of dollars in legal and survey fees. But even more importantly, in the meantime the dilution would continue and the value of our trademark would be constantly diminishing at a huge cost that could not be calculated. Once the injunction was finally issued, the damage to our trademark would already have been done.¹⁵⁹

Members of professional associations and trademark scholars also shared in this concern. INTA President Anne Gundelfinger noted at the 2005 hearing that

[The *Moseley I* “actual dilution” standard] is completely at odds with Congress’ [sic] intent—to prevent dilution at its incipiency, before measurable damage to the mark has occurred. By the time measurable, provable damage to the mark has occurred much time has passed, the damage has been done, and the remedy, which is injunctive relief, is far less effective.¹⁶⁰

Professor Mark Lemley explained the problem with an analogy: “The idea that you have to wait until you have suffered actual injury . . . [e]ssentially says you have got to wait until the horse is gone, and then the only thing you can do is close the barn door.”¹⁶¹

As demonstrated by these excerpts, the 2004 and 2005 Subcommittee hearing transcripts indicate that those involved in the process of guiding the revision of federal dilution law were primarily concerned with the problems of proof created by the “actual dilution” standard and with the irreversible reputational damage that would be done to a brand should a plaintiff be required to wait until he or she is able to prove actual damage before seeking an injunction. The 2004 and 2005 hearing transcripts do not show that lawmakers, trademark holders, or legal scholars were concerned with which party bore the burden of persuasion, or production, in a dilution by tarnishment case.

159. 2004 Hearing, *supra* note 54, at 46.

160. 2005 Hearing, *supra* note 41, at 9.

161. *Id.* at 18.

2. *The Congressional Record*

The Congressional Record likewise reveals that members of Congress were concerned that, in requiring plaintiffs to wait to bring suit until they could prove that their marks had actually been diluted, the *Moseley I* “actual dilution” standard would fail to adequately protect famous marks. Representative Smith stated on the House floor:

[A] 2003 Supreme Court decision involving Victoria’s Secret ruled that the standard of harm in dilution cases is actual harm. Based on testimony taken at our two Intellectual Property Subcommittee hearings, this is contrary to what Congress intended when it passed the dilution statute and is at odds with the concept of dilution. Diluting needs to be stopped at the outset because actual damage can only be proven over time, after which the good will of a mark cannot be restored.¹⁶²

Representative Smith’s concerns were shared by Senator Leahy, whose comments before the Senate indicate that Congress did not originally intend that federal dilution law require a trademark holder wait until actual dilution of his or her mark had occurred before filing suit:

As an original author and sponsor of the act, I know firsthand that [the *Moseley I* “actual dilution” burden of proof] is contrary to what Congress intended when it passed the dilution statute. What we did intend was to stop diluting before actual harm could be realized and the value of any reputable trademark debased.¹⁶³

Thus, it appears that lawmakers advocating for the passage of the TDRA were chiefly concerned with how the “actual dilution” standard mandated by the *Moseley I* decision would impact a trademark holder’s ability to quickly protect his or her mark. The Congressional Record does not reveal similar concern with which party bears the burden of production or persuasion in a dilution by tarnishment case.

3. *The Proposed Solution: “Likelihood of Dilution”*

The TDRA’s proposed solution to the problems discussed above was a lowering of the required burden of proof—the new act would demand a showing of a “likely” rather than “actual” dilution.¹⁶⁴ Professor Lemley and

162. 151 CONG. REC. H2121-01 (daily ed. April 19, 2005) (statement of Rep. Smith).

163. 152 CONG. REC. S1921-01 (daily ed. March 8, 2006) (statement of Sen. Leahy).

164. H.R. REP. NO. 109-23, at 8, 25 (2005) (“Under H.R. 683, and in response to the [*Moseley I*] decision, actual harm is not a prerequisite to injunctive relief. . . . [T]his bill changes the standard of dilution from ‘actual’ to ‘likelihood’ of dilution.”).

others voraciously advocated for this solution during the 2004 and 2005 hearings.¹⁶⁵ Likewise, the Congressional Record clearly indicates congressional endorsement of the “likelihood of dilution” standard as an appropriate solution to these problems:

As a result of [the *Moseley I*] decision, trademark holders are now required to wait until the injury happens before bringing suit. . . . Section (2)(c)(1) of this bill addresses this problem by changing the standard to “likelihood of dilution.” *By lowering the standard, proof of actual harm would no longer be a prerequisite to injunctive relief, and therefore extensive damage cannot be done before relief can be sought.*¹⁶⁶

Indeed, comments made by several lawmakers suggest that Congress had always intended that the burden of proof in dilution cases be one of “likely” rather than “actual” dilution.¹⁶⁷

By contrast, neither the House Report, the TDRA, the transcripts of the 2004 and 2005 hearings before the Subcommittee on the Courts, the Internet, and Intellectual Property, nor the Congressional Record reveal any congressional intent whatsoever to modify the statute’s “method of allocating the burden of proof” as the Sixth Circuit suggested in *Moseley II*.¹⁶⁸ Although lawmakers were concerned with the level of proof required by the *Moseley I* decision, the legislative material does not suggest that Congress ever considered burden-shifting as a possible solution to problems created by the “actual dilution” standard.

Consequently, the Sixth Circuit’s reliance on legislative history to support its contention that Congress intended either the burden of production or proof to be re-allocated to the defendant is misguided. Congress did not

165. See 2004 Hearing, *supra* note 54; 2005 Hearing, *supra* note 39.

166. 151 CONG. REC. H2121-01 (daily ed. April 19, 2005) (statement of Rep. Berman) (emphasis added).

167. See H.R. REP. NO. 109-23, at 25 (“The language in the [the TDRA] now squares with what Congress had initially intended.”); 151 CONG. REC. H2121-01 (daily ed. Apr. 19, 2005) (statement of Rep. Sensenbrenner) (“H.R. 683 [the TDRA bill] does not establish new precedent or break new ground. Rather, the bill represents a clarification of what Congress meant when it passed the dilution statute a decade ago.”); 151 CONG. REC. H2121-01 (daily ed. April 19, 2005) (statement of Rep. Smith) (“Based on testimony taken at our two Intellectual Property Subcommittee hearings, [the *Moseley I* decision] is contrary to what Congress intended when it passed the dilution statute and is at odds with the concept of dilution.”); 152 CONG. REC. S1921-01 (daily ed. March 8, 2006) (statement of Sen. Leahy) (“As an original author and sponsor of the act, I know firsthand that [the *Moseley I* ‘actual dilution’ burden of proof] is contrary to what Congress intended when it passed the dilution statute.”).

168. See *Moseley II*, 605 F.3d 382, 389 (6th Cir. 2010).

intend that the TDRA would shift the burden of proof or production in cases where a defendant had used a plaintiff's mark in association with sex related products. In allowing a court to presume tarnishment, the Sixth Circuit's "rebuttable presumption" greatly expands trademark holders' rights and may encourage dilution by tarnishment litigation.¹⁶⁹ The presumption therefore frustrates Congress's intent that "[l]egislation should refrain from . . . creating rights in perpetuity for trademarks" and that the dilution cause of action "be used sparingly as an 'extraordinary' remedy."¹⁷⁰

Therefore, courts adjudicating future dilution by tarnishment cases should not rely upon the reasoning of the Sixth Circuit in *Moseley II*. Courts struggling to apply the post-TDRA dilution by tarnishment cause of action should turn to a truer guide, the Second Circuit *Starbucks* opinion. As was shown in Section II.A.2, *supra*, the *Starbucks* reasoning—in contrast to the Sixth Circuit's reasoning in *Moseley II*—focuses more intently on whether the defendant's use of the plaintiff's mark is actually likely to "harm[] the reputation of the famous mark,"¹⁷¹ as mandated by the language of the TDRA. In assessing the harm that would likely result from the defendant's use of a plaintiff's mark (rather than presuming its probability), the Second Circuit reasoning more accurately applies the TDRA standard for dilution by tarnishment.

C. APPLYING THE *STARBUCKS* REASONING TO *MOSELEY II*: A DIFFERENT OUTCOME

Indeed, had Sixth Circuit focused on whether the plaintiff had presented sufficient evidence to show that the defendant's use of the mark would likely harm the plaintiff's mark—as the Second Circuit in *Starbucks* did—the case would have likely come out the other way.

In *Moseley II*, the plaintiff failed to present *any* evidence that consumers' positive associations with the Victoria's Secret mark are likely to be degraded as a result of the defendants' use of the "Victor's Little Secret" mark.¹⁷² Although the plaintiff presented an affidavit from Army Colonel John E. Baker stating that he "was offended by [the] defendants' use of [Victoria's Secret's] trademark to promote . . . un-wholesome, tawdry merchandise," such as " 'adult' novelties and gifts,"¹⁷³ the Supreme Court made clear in its

169. See discussion *supra* note 129.

170. See H.R. REP. NO. 109-23, at 25.

171. 15 U.S.C. § 1125(c)(2)(C) (2006).

172. See *Moseley II*, 605 F.3d 382, 393 (6th Cir. 2010) (Moore, J., dissenting).

173. *Id.* at 391.

opinion that although the Colonel was offended by the ad, it did not change his conception of Victoria's Secret: "His offense was directed entirely at [the Moseleys' store], not at [Victoria's Secret]."¹⁷⁴

Had the Sixth Circuit applied the *Starbucks* reasoning to the facts at issue and focused on the junior use's potential for harm, it would have undoubtedly found this evidence lacking. As articulated by the Second Circuit in the *Starbucks* case (and as quoted by Judge Moore in her dissent):

That a consumer may associate a [negative] junior mark with a famous mark says little of whether the consumer views the junior mark as harming the reputation of the famous mark. The more relevant question, for purposes of tarnishment, would have been how a [mark with negative associations] would affect the positive impressions [about the senior mark].¹⁷⁵

Under this reasoning, the Baker affidavit fails to provide any answer to the "relevant question" in the tarnishment analysis.¹⁷⁶ Certainly, it may show that some consumers may find the goods the Moseleys were selling distasteful. Likewise, it may demonstrate that some consumers may associate "Victor's Secret" or "Victor's Little Secret" with the famous "Victoria's Secret" mark. However, the affidavit simply does not demonstrate that consumers would be likely to *transfer* their negative feelings about the Moseleys' goods to the Victoria's Secret brand and therefore does not demonstrate a likelihood of harm.

Indeed, when presented with similar evidence that merely pointed to the fact that consumers were likely to associate a negative mark with the Starbucks' famous mark, the Second Circuit in *Starbucks* held that a court should not "assume that a purportedly [negative] junior mark will likely harm the reputation of the famous mark by mere association when [a] survey

174. *Moseley I*, 537 U.S. 418, 434 (2003).

175. *Starbucks Corp. v. Wolfe's Borough Coffee, Inc.*, 588 F.3d 97, 110 (2d Cir. 2009); *Moseley II*, 605 F.3d at 392.

176. In addition, although outside the scope of this Note, there is some question as to whether the Sixth Circuit should have considered (as the Second Circuit did in the *Starbucks* case) whether the Victor's Secret mark is a parody. While, as a designation of source, the Victor's Little Secret mark cannot qualify for automatic fair use protection under the TDRA, it is possible that under the reasoning of *Louis Vuitton Malletier S.A. v. Haute Diggity Dog, LLC*, 507 F.3d 252, 266–69 (4th Cir. 2007), the potentially parodic element of this mark should have been considered in the court's analysis of whether Victoria's Secret proved its claim that Victor's Secret tarnished its mark.

conducted by the party claiming dilution could have easily enlightened [the court] on the matter.”¹⁷⁷

Further, had the court compared the goods at issue—as the Second Circuit did in *Starbucks*—it would have been forced to acknowledge that the Victoria’s Secret brand is hardly free from association with sexual themes. Thomas McCarthy noted that “it’s ironic that the ‘tarnished’ plaintiff’s VICTORIA’S SECRET mark itself is widely promoted as a source for ‘sexy little things’ intimate lingerie.”¹⁷⁸ In the same way that the fact that the Charbucks’ coffee was of a similar quality to Starbucks’ coffee “undercut” its claim of dilution by tarnishment,¹⁷⁹ here, the fact that the Victoria’s Secret brand itself is loosely associated with sex at least partially undercuts its assertion that the Moseleys’ “sexy” goods would tarnish its image in the eyes of consumers. Therefore, the amount of tarnishment likely to result from its association with sex-related goods seems to be merely speculative—as admitted by the majority itself in the Sixth Circuit *Moseley II* decision.¹⁸⁰

However, speculation alone is not enough to support a dilution by tarnishment claim:

177. *Starbucks*, 588 F.3d at 110.

178. McCarthy, *supra* note 140 (citing *Menashe v. V Secret Catalogue, Inc.*, 409 F. Supp. 2d 412 (S.D.N.Y. 2006)) (emphasis in original); see also *Moseley II*, 605 F.3d 382, 394 n.4 (6th Cir. 2010) (Moore, J., dissenting) (“Nor can the court ignore the character of the senior mark when applying the majority’s ‘rule.’ Victoria’s Secret sells women’s lingerie, and, as Victoria’s Secret readily admits, its own mark is already associated with sex, albeit not with sex novelties.”).

179. *Starbucks*, 588 F.3d at 111.

180. *Moseley II*, 605 F.3d at 389 (“We agree that the tarnishing effect of the Moseley’s [sic] mark on the senior mark is somewhat speculative . . .”). Indeed, lawmakers at the 2004 hearing before the Subcommittee on the Courts, Internet, and Intellectual Property expressed doubt (albeit light-heartedly) about the likelihood that Victoria’s Secret could actually be tarnished by the Victor’s Little Secret Mark:

Mr. STIMSON. The problem here is not a question of confusion but it is the question of blurring and diluting the value of the mark which does belong to the trademark owner. It no longer signifies a single origin or source.

You also asked about, so what if there is some small store in Kentucky? Well, dilution is designed to try to prevent this whittling away, which does start off often in a very small circumstance and protect marks in their incipency before it is too late, before things do go to the point where it is impossible to get your reputation back.

Mr. BERMAN. Yes, but Victor’s Little Secret is not Victoria’s Secret. . . .

And can one actually tarnish the image of Victoria’s Secret?

Mr. STIMSON. *I won’t get into that.*

Mr. BERMAN. *Okay.* [Laughter.]

2004 Hearing, *supra* note 54, at 52–53 (emphasis added).

Even after the 2006 revision when only a likelihood of dilution is required, . . . judges should demand persuasive evidence that dilution is likely to occur. Even the probability of dilution should be proven by evidence, not just by theoretical assumptions about what possibly occur or might happen.¹⁸¹

Indeed, the Sixth Circuit itself defined “likelihood” as more than a mere possibility: “the word ‘likely’ or ‘likelihood’ means ‘probably.’”¹⁸² Here, when the Sixth Circuit’s “rebuttable presumption” is set aside, Victoria’s Secret did not present evidence sufficient to demonstrate that tarnishment of its mark was “probable.” In sum, under an analysis more akin to the Second Circuit’s, it is possible that Victoria’s Secret’s tarnishment claim would not have passed muster.

IV. CONCLUSION

Because the Second Circuit’s reasoning assesses, rather than merely assumes, the harm likely to result from a defendant’s use of a mark, the *Starbucks Corp. v. Wolfe’s Borough Coffee, Inc.* opinion more accurately applies the evolved dilution by tarnishment standard. By contrast, the Sixth Circuit’s creation of a “rebuttable presumption,” justified primarily by a gross misreading of the TDRA’s legislative history, greatly expands the scope of trademark holders’ rights beyond what was intended by Congress.¹⁸³ Consequently, courts seeking a truer guide in future tarnishment decisions should turn to the Second Circuit’s reasoning in *Starbucks* and shelve the Sixth Circuit’s decision as a mere oddity—a reflection of the persistent ambiguity in this area of trademark law.

181. MCCARTHY, *supra* note 11, § 24:115.

182. *Moseley II*, 605 F.3d at 388.

183. See discussion *supra* Section III.B.

WHEN ENOUGH CONTROL IS NOT ENOUGH: THE CONFLICTING STANDARDS OF SECONDARY LIABILITY IN *ROSETTA STONE*

Lauren E. Sims[†]

Today, trademarked terms exist in a variety of forms in online advertising campaigns, including as keyword triggers and in the text of banner advertisements, hidden metatags, and “sponsored links” on search engine results pages. Some of these trademark uses are legitimate exercises of comparative and descriptive advertising. Nevertheless, trademark owners remain wary of the potential for increased competition on the Internet as well as the availability of counterfeit items displaying their trademarks, which may directly decrease sales and injure their marks’ goodwill. These concerns have led to a wide range of cases against Online Service Providers (OSPs), which trademark owners believe have the ability to control illegitimate trademark usage through their services.¹

In the recent case of *Rosetta Stone v. Google Inc.*,² the district court in Eastern Virginia granted summary judgment for Google after determining that AdWords, Google’s online advertising program, did not violate the Lanham Act.³ In its complaint, Rosetta Stone alleged that Google should be liable for vicarious and contributory trademark infringement for the sale and display of sponsored links containing trademarked terms, which third parties purchased and formulated.⁴ Disagreeing with the plaintiff, the court held that

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1. See, e.g., *Tiffany (NJ) Inc. v. eBay, Inc. (Tiffany II)*, 600 F.3d 93 (2d Cir. 2010) (against the online auction house); *1-800 Contacts, Inc. v. WhenU.com, Inc.*, 414 F.3d 400 (2d Cir. 2005) (against software creator that used trademark-related domain names in an index for generating pop-up advertisements); *Gov’t Emps. Ins. Co. v. Google, Inc. (GEICO)*, 330 F. Supp. 2d 700 (E.D. Va. 2004) (against a search engine operator); *Lockheed Martin Corp. v. Network Solutions, Inc. (Lockheed Martin II)*, 194 F.3d 980, 984 (9th Cir. 1999) (against domain registration service).

2. *Rosetta Stone Ltd. v. Google Inc.*, No. 1:09cv736, 2010 US Dist. LEXIS 78098, at *1 (E.D. Va. Aug. 3, 2010) (granting summary judgment for defendant search engine operator predominantly because Rosetta Stone failed to show that sponsored links were likely to cause confusion under the Lanham Act).

3. *Id.* at *2–4.

4. *Id.* at *1–2.

these sponsored links containing Rosetta Stone marks were unlikely to cause consumer confusion and emphasized that Google did not actively attempt to influence or encourage third parties to bid on trademarked terms in keyword auctions.⁵

Rosetta Stone is one of the first cases decided on the merits after the Second Circuit's landmark decision in *Rescuecom v. Google*, which held that OSPs like Google "use" trademarks in commerce in conjunction with their advertising services.⁶ Although the *Rosetta Stone* decision turned largely on the plaintiff's failure to establish that the contested sponsored links were likely to cause consumer confusion, the case raises important questions about the mechanics of holding OSPs secondarily liable for infringement due to the actions of third-party advertisers. For example, if a plaintiff establishes a likelihood of confusion based on third-party trademark usage, which test should a court apply to determine whether the service provider is contributorily liable for trademark infringement?

The predominant test for contributory liability, expounded in *Inwood Laboratories v. Ives Laboratories*,⁷ imposes liability if a defendant "intentionally induces another to infringe a trademark, or if it continues to supply its product to one whom it knows or has reason to know is engaging in trademark infringement."⁸ Although the test has traditionally been applied to cases involving manufacturers and producers, it has been expanded to apply to other circumstances, such as those involving landlords whose tenants sold infringing goods on their premises.⁹ However, *Lockheed Martin II*¹⁰ amended the *Inwood* test for cases considering online services and required that a service provider have a requisite level of control over the "infringing instrumentality" before the *Inwood* test is applied.¹¹

This Note argues that the *Lockheed Martin* test for contributory liability for online services is too stringent in light of the previous tests and conceptions of contributory liability under *Inwood*, which find liability in spite

5. *Id.* at *44–48.

6. *Rescuecom Corp. v. Google Inc.*, 562 F.3d 123, 129–31 (2d Cir. 2009) (definitively determining that "use" under the Lanham Act includes the use of trademarks as keyword triggers).

7. 456 U.S. 844 (1982).

8. *Id.* at 853–54.

9. *See, e.g.*, *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1149 (7th Cir. 1992) (holding that the *Inwood* test for contributory liability could apply to a flea market operator that allowed his tenant-vendor to sell trademark infringing goods on the property).

10. 194 F.3d 980 (9th Cir. 1999).

11. *Id.* at 984.

of a lack of control.¹² Moreover, the test does not provide adequate criteria for determining what “control” means or how much of it is required to impose liability. This lack of guidance is particularly problematic because the test for vicarious trademark liability is essentially a test for whether the defendant has control over third parties. The integration of a control standard into the consideration of contributory liability therefore creates tension between the two forms of liability: is the amount of control necessary for a finding of contributory liability enough for a finding of vicarious liability, given that OSPs only have a limited number of ways to facilitate or interrupt third-party infringers? This Note suggests that due to the features of AdWords and similar OSPs, perhaps such programs should not even be considered strictly “services or products,” and therefore adjustments to the traditional tests for contributory liability may be beneficial so long as they are well defined and can be consistently applied to a range of OSPs.

Part I of this Note discusses the evolution of contributory liability as applied in trademark cases. Part II describes Rosetta Stone’s claims against Google and summarizes the district court’s holdings regarding contributory and vicarious trademark liability. It also discusses how the opinion highlights the inadequacy of guidance for implementation of the current *Lockheed Martin* test for services. Part III discusses the inconsistencies of the application of the *Inwood* test and the test for vicarious liability in *Rosetta Stone*, illustrating the importance of understanding the meaning of “control” in secondary trademark liability claims. Part IV discusses the need for a tailored test for contributory trademark infringement for claims arising from internet activity, given that OSPs are not always easily conceptualized as either products or services. Part V employs the factors used by the district court in *Tiffany v. eBay*¹³ to analyze whether such factors would have changed the outcome in *Rosetta Stone*, and argues that a similar set of factors could be developed to provide guidance to courts considering secondary trademark liability claims involving OSPs.

12. *Inwood*, 456 U.S. at 853–54 (explaining the test for contributory liability, which applies “[e]ven if a manufacturer does not directly control others in the chain of distribution”).

13. *Tiffany (NJ) Inc. v. eBay, Inc. (Tiffany I)*, 576 F. Supp. 2d 463, 506–07 (S.D.N.Y. 2008), *aff’d*, 600 F.3d 93 (2d Cir. 2010).

I. SECONDARY TRADEMARK LIABILITY IN THE ONLINE SERVICES CONTEXT

The judicially-created theory of secondary liability in the trademark context evolved through case law over the last century.¹⁴ Trademark infringement claims arising from the unauthorized use of marks in virtual advertising campaigns, especially for counterfeit goods, grew as the Internet became a retail marketplace.¹⁵ Because courts have recently found that companies may be directly liable for utilizing competitors' trademarks in internet advertising campaigns,¹⁶ the possibility arises that a court could find an OSP contributorily or vicariously liable for enabling those uses.

A. THE EVOLUTION OF THE *INWOOD* TEST FOR CONTRIBUTORY LIABILITY

This Section will discuss the evolution of the standard for contributory trademark liability from its original application to producers and manufacturers substituting one tangible good for another to its more recent consideration in cases concerning OSPs.

1. *Inwood and the Contributory Liability of Producers and Manufacturers*

*Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*¹⁷ articulated the test for contributory liability that courts have consistently used for more than two

14. See, e.g., J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 25:17 (4th ed. 2010) (explaining that contributory liability “is a judicially created doctrine that derives from the common law of torts”).

15. See Stephan Ott, *AdWords Lawsuits in the USA*, LINKSANDLAW.COM, <http://www.linksandlaw.com/adwords-google-court-usa-greico.htm> (last visited Nov. 11, 2010) (providing a list of Lanham Act claims against Google through 2009).

16. See, e.g., *Austl. Gold, Inc. v. Hatfield*, 436 F.3d 1228, 1241 (10th Cir. 2006). In that case, the court affirmed the lower court's finding that the defendant intended to cause consumer confusion by advertising that they were authorized resellers of a product, which they were not, supporting the finding of a likelihood of initial interest confusion. See *id.* at 1238–39. The court found that initial interest confusion created by the ads might divert consumers who then purchased competing products on the defendant's website. *Id.* at 1232–33. Importantly, the first sale doctrine “does not protect resellers who use other entities' trademarks to give the impression that they are favored or authorized dealers of a product when in fact they are not.” *Id.* at 1241.

In a similar case, *Hearts on Fire Co. v. Blue Nile, Inc.*, 603 F. Supp. 2d 274 (D. Mass. 2009), the court reversed the dismissal of a claim because the purchase of Hearts on Fire marks as keyword triggers was “use” of those marks. *Id.* at 278. Moreover, the court found that this use was potentially infringing, even though the links themselves did not contain the Hearts on Fire marks. *Id.* at 288–89. However, the court did not rule on whether the marks were likely to confuse, remanding to the district court. *Id.* at 282–83.

17. 456 U.S. at 844.

decades.¹⁸ In *Inwood*, the Court considered whether a manufacturer of a generic drug, identical in appearance to its previously patented predecessor, could be held contributorily or vicariously liable for the actions of pharmacists who sold the generic drug in containers labeled with the trademark of the patented drug.¹⁹ The Court explained that

[e]ven if a manufacturer does not directly control others in the chain of distribution, it can be held responsible for their infringing activities under certain circumstances. Thus, if a manufacturer or distributor [1] *intentionally induces* another to infringe a trademark, or if it [2] *continues to supply* its product to one whom it knows or has reason to know is engaging in trademark infringement, the manufacturer or distributor is contributorially [sic] responsible for any harm done as a result of the deceit.²⁰

Thus, the analysis of a contributory trademark infringement claim requires the application of a two-part test, where liability should be imposed if either factor is established, regardless of whether a manufacturer “directly control[s] others.”²¹

Early contributory liability cases focused on the actions of manufacturers or distributors that provided products to retailers who subsequently substituted them for more expensive, trademarked goods. For instance, in *Warner & Co. v. Eli Lilly*,²² the court found that a distributor of Quin-Coco, a copycat product of Coco-Quinine, was contributorily liable for market substitutions made by pharmacists.²³ Quin-Coco salesmen suggested that their product could be substituted for Coco-Quinine products without consumer detection.²⁴ However, where the manufacturer was unaware of unauthorized substitutions made by third parties, courts have not held the manufacturer to be contributorily liable. For example, in *Coca-Cola Co. v. Snow Crest Beverages, Inc.*,²⁵ the court considered whether the manufacturer of “Polar Cola” could be liable for bartenders’ use of this cheaper concoction instead of Coca-Cola in their mixed drinks.²⁶ The court held that the Polar Cola

18. *See id.* at 853.

19. *Id.* at 849–50.

20. *Id.* at 853–54 (emphasis added).

21. *Id.*

22. 265 U.S. 526 (1924).

23. *Id.* at 531.

24. *Id.* at 529–30.

25. 64 F. Supp. 980 (D. Mass. 1946).

26. *Id.* at 987 (discussing the general concerns of the Coca-Cola Company regarding the use of the “Polar Cola” trademark by Snow Crest Beverages and the sale of “Polar Cola” in bars which Coca-Cola also supplied its product).

manufacturer was not secondarily liable under a test equivalent to that in *Inwood*²⁷ because the manufacturer did not intentionally induce bars to use the less expensive Polar Cola and did not have the requisite knowledge to trigger a duty to investigate whether bars were making such substitutions.²⁸

2. *New Applications of Inwood: The Development of the Lockheed Martin Test for Contributory Liability of Online Service Providers*

While *Warner* and *Coca-Cola Co.* are typical of many cases in which courts apply the *Inwood* test, the doctrine has evolved to address a wider range of issues. In *Hard Rock Cafe Licensing Corp v. Concession Services Inc.*,²⁹ the court held that, on remand, a flea market operator who rented space to a vendor selling counterfeit merchandise could be held contributorily liable for trademark infringement if the court found the operator to be willfully blind to the third party's infringement.³⁰ The court noted that there was potential confusion about whether the *Inwood* test could be applied to persons who did not manufacture or distribute infringing goods.³¹ In dicta, the court suggested that employees hired to help construct the space used by a vendor selling

27. Although this case preceded *Inwood*, the court asked the following questions of law:

- (a) Was defendant under a duty not to sell its product to a bar for use by that bar in filling a customer's general order for a Cuba Libre or a rum (or whiskey) and cola?
- (b) Before it had notice that some bars in filling a customer's specific order for a rum (or whiskey) and Coca-Cola used a substitute cola, was defendant under a duty to investigate possible passing off, or to take steps to safeguard against such passing off, or to eliminate or curtail sales of its product?
- (c) After it had notice that some unnamed bars in filling a customer's order for a rum (or whiskey) and Coca-Cola used a substitute cola, was defendant under a duty to investigate such passing off, or to take steps to safeguard against such passing off, or to eliminate or curtail sales of its product?

Id. at 988.

28. *Id.* at 988–89. In its analysis, the court treated “cola” as a generic term for a category of soft drink, and would have found liability only where a customer requested “Coca-Cola” and received a different kind of cola instead. *Id.* Thus, Snow Crest could have been subject to liability if its salesmen induced substitutions, or if a normal bottler would have known that most patrons asking specifically for “Coca-Cola” received Polar Cola from bartenders. *Id.* at 989. This distinction is important in the context of trademark use on the Internet. Claims involving keyword triggers often focus on the use of trademarks to trigger advertisements for competing products. *Rosetta Stone* and *Coca-Cola* can be analogized: in each, the consumer “asks” for one thing (e.g., “Rosetta Stone”) and gets another (“Berlitz”). *See id.*

29. 955 F.2d 1143, 1148 (7th Cir. 1992).

30. *Id.*

31. *Id.*

counterfeit products would likely not be liable, even if they knew of the illegal intentions of the vendor.³² This dicta thus distinguished between manufacturers and “temporary help services,” finding that under certain circumstances,³³ an errant landlord in a landlord-tenant relationship should be treated in the same way as a manufacturer if it allows a tenant “on its premises ‘knowing or having reason to know that the other is acting or will act tortuously.’”³⁴

The rise of the Internet as a medium for retail and advertising has shifted the focus to a new type of secondary liability trademark infringement action. Such infringement claims concern both the dissemination of counterfeit goods³⁵ and the misdirection of consumers to websites offering products competing with those advertised.³⁶ One of the first major cases to consider the online use of trademarks was *Lockheed II*.³⁷ Lockheed Martin claimed that Network Solutions, Inc. (NSI), a domain name registration service, infringed its trademarks by registering domain names similar or identical to Lockheed Martin’s marks.³⁸ The Ninth Circuit held that NSI was not liable for direct infringement based on the reasoning of the district court that found that NSI had not “used” the marks in commerce.³⁹ Of note is the district court’s

32. *Id.*

33. The court found that if, under the correct standard for contributory liability, the plaintiff established that defendant had suspected that the vendor would sell counterfeit products, the lower court may determine on remand that the market operator had been willfully blind and therefore contributorily liable. *Id.* at 1148–49.

34. *Id.* at 1149 (quoting RESTATEMENT (SECOND) OF TORTS § 877(c) & cmt. d (1979)).

35. *See, e.g., Tiffany II*, 600 F.3d 93, 96 (2d Cir. 2010) (explaining Tiffany’s claim against the online auction service because of the availability of counterfeit “Tiffany” merchandise for purchase).

36. *See, e.g., Austl. Gold, Inc. v. Hatfield*, 463 F.3d 1228, 1240–41 (10th Cir. 2006) (finding an unauthorized distributor liable for trademark infringement for using the plaintiff’s trademark as a metatag and for advertising plaintiff’s products through sponsored links on Overture.com, indicating an intent to cause consumer confusion).

37. 194 F.3d 980 (9th Cir. 1999).

38. *Id.* at 983. Specifically, Lockheed Martin contended that NSI registered names similar to its “Skunk Works” service mark. *Id.*

39. *Id.* at 984–85 (deferring to the district court’s “excellent analysis on the” question of whether NSI supplied a product or a service); *see also Lockheed Martin Corp. v. Network Solutions, Inc. (Lockheed Martin I)*, 985 F. Supp. 949, 961(C.D. Cal. 1997), *aff’d*, 194 F.3d 980 (9th Cir. 1999) (describing NSI as an agent and noting that “NSI is involved only in the registration of domain names, not in the use of domain names in connection with goods and services on the Internet. . . . Infringing acts occur when a domain name is *used* in a Web site or other Internet form of communication in connection with goods or services.”) (emphasis added) (relying on *Planned Parenthood Fed’n of Am. v. Bucci*, 42 U.S.P.Q.2D (BNA) 1430, 1437 (S.D.N.Y. 1997)). In its decision about “use,” the district court noted that there are two purposes of domain names—a technical purpose as an address and an identification purpose

statement that, “[b]ecause of the inherent uncertainty of a trademark owner’s right to stop others from using words corresponding to the owner’s trademark in a domain name, the Court finds that an extension of contributory liability here would improperly broaden Lockheed’s property rights in its service mark.”⁴⁰

Most significantly, the court in *Lockheed Martin II* affirmed the district court’s addition of a control prerequisite to the *Inwood* test, citing the reasoning of *Fonovisa, Inc. v. Cherry Auction, Inc.*⁴¹ and *Hard Rock Cafe*⁴²:

Hard Rock and *Fonovisa* teach us that when measuring and weighing a fact pattern in the contributory infringement context without the convenient ‘product’ mold dealt with in *Inwood Lab.*, we consider the extent of control exercised by the defendant over the third party’s means of infringement. . . . *Direct control and monitoring of the instrumentality used by a third party to infringe the plaintiff’s mark* permits the expansion of *Inwood Lab.*’s ‘supplies a product’ requirement for contributory infringement.⁴³

The court reasoned that in *Hard Rock Cafe* and *Fonovisa*, the licensing relationship established between the swap meet operators and vendors gave the market operators “direct control over the activity that the third-party alleged infringers engaged in on the premises.”⁴⁴ In the case of NSI, the court held that NSI was unable to control or monitor the websites located at the contested domain names because NSI merely registered them.⁴⁵ However, because *Lockheed Martin II* involved a very specific type of OSP—a

as an indication of the source of products—and NSI’s use was only “to designate host computers on the Internet. This is the type of purely ‘nominative’ function that is not prohibited by trademark law.” *Lockheed Martin I*, 985 F. Supp. at 957. This type of use might be differentiable from a service like sponsored links, where the advertisement text actively links to a website with infringing content. However, for a finding of trademark infringement, a trademark owner will still need to prove that particular links were likely to cause consumer confusion.

40. *Lockheed Martin I*, 985 F. Supp. at 967.

41. 76 F.3d 259, 265 (9th Cir. 1996) (finding that the plaintiff had properly stated a claim for contributory trademark liability by pleading that swap-meet operator Cherry Auction was willfully blind to the sale of bootleg copies of Latin/Hispanic music recordings and holding that “a swap meet can not [sic] disregard its vendors’ blatant trademark infringement with impugny [sic]”).

42. 955 F.2d 1143 (7th Cir. 1992).

43. *Lockheed Martin II*, 194 F.3d at 984 (emphasis added).

44. *Id.* at 985.

45. *See id.* at 984–85 (relying on *Lockheed Martin I*, 985 F. Supp. at 958). The facts of the case from the district court opinion elucidated that approximately ninety percent of domain name applications were processed without “human intervention.” *Id.* at 953.

registering agent—it is not completely clear how its iteration of the *Inwood* test is to be applied in other internet-related scenarios.

Some scholars have rejected *Lockheed Martin II*'s addition of a control prerequisite to the *Inwood* test. These scholars argue that this standard is inconsistent with prior case law and is “doctrinally unsound.”⁴⁶ For instance, Jason Kessler argues that “[w]hen the courts in *Hard Rock* and *Fonovisa* extended the *Inwood* test to apply to actors that were not manufacturers or distributors, they did not change the actual test; they changed the parties to whom they were applying the test.”⁴⁷ Kessler’s argument is consistent with the language of *Inwood*, which noted that the test should be applied “[e]ven if a manufacturer *does not* directly control others in the chain of distribution”⁴⁸ Similarly, William Barber notes that “[t]he court’s explanation of why NSI was not guilty of contributory infringement is slightly disjointed,” and points out that the application of the “direct control and monitoring” language to the case was inconsistent.⁴⁹

The addition of a control standard to contributory liability seems unnecessary given that the requirements of the “continues to supply” factor of the *Inwood* test are already difficult to meet: not only must a plaintiff prove a direct infringement claim—namely by showing that the use of the trademark was in a manner likely to confuse—but that the OSP knew or should have known that specific third parties were infringing. Moreover, one might argue that an element of “control” is already incorporated into the knowledge standard, which serves to mitigate the level of liability: if OSPs function predominantly through automated processes, then they likely have little human knowledge of how third parties are specifically using their services. Nevertheless, the augmented test from *Lockheed* continues to be applied to cases involving OSPs.

46. Jason Kessler, *Correcting the Standard for Contributory Trademark Liability over the Internet*, 39 COLUM. J.L. & SOC. PROBS. 375, 386 (2006) (offering an in-depth analysis of why the alteration of the *Inwood* test in *Lockheed Martin II* was incorrect). *See also* Kenneth A. Walton, *Is a Website Like a Flea Market Stall? How Fonovisa v. Cherry Auction Increases the Risk of Third-Party Copyright Infringement Liability for Online Service Providers*, 19 HASTINGS COMM. & ENT. L.J. 921, 944 (1997) (analogizing an OSP to the swap meet owner in *Fonovisa*, but specifically addressing copyright, not trademark, infringement).

47. Kessler, *supra* note 46, at 404.

48. *Inwood Labs. v. Ives Labs.*, 456 U.S. 844, 853 (1982) (emphasis added).

49. William G. Barber et al., *Recent Developments in Trademark Law: Cybersquatters Run for Cover, While Copycats Breathe a Sigh of Relief*, 9 TEX. INTELL. PROP. L.J. 231, 266 (2001).

3. *After Lockheed Martin: Setting the Stage for Rosetta Stone*

Since the *Lockheed Martin II* decision, rulings on technical aspects of the Lanham Act, such as what constitutes “use” in commerce,⁵⁰ have come to form the legal framework for online trademark infringement claims.⁵¹ In the landmark case of *Rescuecom Corp. v. Google Inc.*,⁵² the Second Circuit held that the purchase of trademarks as keyword triggers is “use” in commerce under the Lanham Act.⁵³ The court held that, on remand, Google could not avoid liability for the use of trademarks by advertisers through its AdWords service if the placement and content of the links caused consumers to be confused about the nature of the products that they ultimately purchased.⁵⁴

In two other significant cases, the court applied *Lockheed Martin II*'s modified *Inwood* test for contributory liability to OSPs and found insufficient control to hold them contributorily liable for third-party trademark infringement. First, in *Perfect 10, Inc. v. Visa International Service Ass'n*,⁵⁵ the court denied Perfect 10's action against Visa for processing credit card transactions for illegal purchases through third-party websites hosting

50. *See, e.g.*, *Rescuecom Corp. v. Google Inc.*, 562 F.3d 123, 129–31 (2d Cir. 2009) (finding that Google's advertising service “uses” trademarked terms in commerce, without ruling on the merits of the trademark claim).

51. One of the first cases to consider a Lanham Act claim on the Internet was the oft-cited case, *1-800 Contacts Inc. v. WhenU.com*, 414 F.3d 400 (2d Cir. 2005). That case involved the indexing of domain names containing trademarked terms and a software program that triggered pop-up advertisements for a related product triggered by a user's visit to one of those websites. *Id.* at 404–05. The court determined that the program did not “use” trademarked terms in commerce because the advertisements themselves did not contain any of the trademarked terms and the advertisements were generated randomly (advertisers could not purchase “triggering” domain names). *Id.* at 408–09.

Courts were also asked to determine what constituted “use” in commerce in *GEICO*, 330 F. Supp. 2d 700 (E.D. Va. 2004). The court found that Google may be held liable because it “used [GEICO's] trademarks by allowing advertisers to bid on the trademarks and pay defendants to be linked to the trademarks.” *Id.* at 704. On remand, however, the court dismissed claims for advertisements not containing GEICO's marks, but stayed a finding that the evidence supported the likelihood of confusion in order to allow the parties to negotiate a settlement. *See Gov't Emps. Ins. Co. v. Google, Inc.*, 2005 U.S. Dist. LEXIS 18642, at *26–27 (E.D. Va. Aug. 8, 2005).

52. 562 F.3d 123 (2d Cir. 2009). For an in-depth analysis of the impact of the *Rescuecom* decision and the types of confusion with respect to Internet trademark usage, see generally Kristin Kemnitzer, Note, *Beyond Rescuecom v. Google: The Future of Keyword Advertising*, 25 BERKELEY TECH. L.J. 401 (2010).

53. *See Rescuecom*, 562 F.3d at 131–41 (appending a survey of the history of internet trademark cases and secondary materials supporting the court's finding that particular “uses” of trademarks on the Internet constitute “use in commerce” under the Lanham Act).

54. *Id.* at 130.

55. 494 F.3d 788 (9th Cir. 2007).

copyrighted Perfect 10 content.⁵⁶ The court held that Visa did not have enough direct control over the third parties' infringement mechanisms to apply the *Inwood* test, partially because the credit card payment network "[was] not the instrument used to infringe Perfect 10's trademarks."⁵⁷ Similarly, Visa did not have enough control to be vicariously liable.⁵⁸

In the second case, *Tiffany II*,⁵⁹ the Second Circuit held that the popular online auction house was not liable for trademark infringement for the counterfeit goods sold through its website.⁶⁰ In considering the claim of contributory liability, the *Tiffany II* court applied the same reasoning as the *Lockheed Martin II* court, noting that "the Ninth Circuit concluded that *Inwood*'s test for contributory trademark infringement applies to a service provider if he or she exercises sufficient control over the infringing conduct."⁶¹ Because eBay did not dispute that it was subject to the *Inwood* test, the appellate court did not discuss the level of control necessary to apply the test. However, the Second Circuit noted the district court's conclusion that "*Inwood* applied in light of the 'significant control' eBay retained over the transactions and listings facilitated by and conducted through its website."⁶² The district court's ruling included a detailed analysis of eBay's control, noting five major reasons why the *Inwood* test should apply: (1) the company preserves control over the software for listings and "facilitates transactions between" buyers and sellers; (2) eBay "has actively promoted the sale of Tiffany jewelry items" and suggested "Tiffany" to sellers as a keyword; (3) eBay earns revenue from the sale of items on its website; (4) some categories of items are completely controlled by eBay, such as the blanket prohibitions

56. *Id.* at 792–93.

57. *Id.* at 807.

58. *Id.* at 807–08. *But see* Kelly Yang, Note, *Paying for Infringement: Implicating Credit Card Networks in Secondary Trademark Liability*, 26 BERKELEY TECH. L.J. 687 (2011) (suggesting that, had the *Perfect 10* court recognized the differences between actors in the credit card industry, it may have found that acquirers possess sufficient control over infringing merchants to be held secondarily liable).

59. 600 F.3d 93 (2d Cir. 2010).

60. *Id.* at 110.

61. *Id.* at 104–05 (relying on *Lockheed II*, 194 F.3d 980, 984 (9th Cir. 1999)).

62. *Id.* at 105–06. The court ultimately found that eBay was not contributorily liable for trademark infringement because generalized knowledge of third party infringement is not sufficient to impose liability on an OSP. *Id.* at 109. For a discussion regarding the need to develop a more dynamic framework to balance the protection of online marketplaces from counterfeiters with the practical difficulties of monitoring trademark usage without specific knowledge of offending parties, see Michelle C. Leu, Note, *Authenticate This: Revamping Secondary Trademark Liability Standards to Address a Worldwide Web of Counterfeits*, 26 BERKELEY TECH. L.J. 591 (2011).

for firearms and alcohol; and (5) eBay is more than just an online classifieds service and not privy to an “innocent infringer”⁶³ defense.⁶⁴

B. VICARIOUS TRADEMARK LIABILITY

Generally, vicarious liability cases involve the distribution of products by one or two known defendants, and the question of “joint ownership . . . or control” turns on whether the defendant exercised some control over the products after they were distributed to the third-party infringers.⁶⁵ Vicarious liability has not been clearly defined in trademark law despite the fact that courts have considered this type of liability in a number of trademark cases.⁶⁶ McCarthy’s leading treatise on trademark defers to the reasoning set forth in *Hard Rock Cafe*, in which the court held that a flea market operator could be secondarily liable for trademark infringement for allowing a vendor to sell counterfeit merchandise:

The Seventh and Ninth Circuits have characterized as ‘vicarious liability’ the responsibility of one who has an apparent or actual partnership with the infringer or who

63. 15 U.S.C. § 1114(2)(B) (2006) provides the following exception to infringement: Where the infringement or violation complained of is contained in or is part of paid advertising matter in a newspaper, magazine, or other similar periodical or in an electronic communication as defined in section 2510(12) of title 18, United States Code, the remedies of the owner of the right infringed or person bringing the action under section 43(a) [15 USCS § 1125(a)] as against the publisher or distributor of such newspaper, magazine, or other similar periodical or electronic communication shall be limited to an injunction against the presentation of such advertising matter in future issues of such newspapers, magazines, or other similar periodicals or in future transmissions of such electronic communications. The limitations of this subparagraph shall apply only to innocent infringers and innocent violators.

64. *Tiffany I*, 576 F. Supp. 2d 463, 506–07 (S.D.N.Y. 2008), *aff’d*, 600 F.3d 93 (2d Cir. 2010).

65. *See, e.g.*, *David Berg & Co. v. Gatto Int’l Trading Co.*, 884 F.2d 306, 308, 311 (7th Cir. 1989) (finding that a distributor of meat products was not vicariously liable because it did not retain control over the products after selling them to the meat broker that infringed upon the plaintiff’s trademark).

66. *See, e.g.*, Mark Bartholomew, *Copyright, Trademark and Secondary Liability After Grokster*, 32 COLUM. J.L. & ARTS 445, 446 (2009) (noting that “[c]ases like *Perfect 10 v. Visa* and *Tiffany v. eBay* show courts struggling with an unruly body of law that offers little guidance in confronting issues surrounding new technologies that are capable of facilitating mass infringement of copyrights and trademarks”).

exercises joint ownership or control over the infringing product.⁶⁷

Previous cases considering vicarious liability are most helpful for describing what vicarious liability in trademark law is not—mainly that it is not applied as broadly as vicarious liability in copyright law.⁶⁸ Moreover, vicarious liability has not been adjudicated in a number of recent cases considering secondary trademark liability for OSPs.⁶⁹ *Rosetta Stone*, being one of the first internet-related cases to consider the matter, applied the test for vicarious liability without contrasting the notion of control under vicarious liability to that under contributory liability.⁷⁰

There are few examples of the application of vicarious liability in trademark law. In *Hard Rock Cafe*, the court found that the landlord-operator of a flea market was not liable for the actions of his vendor because the landlord-tenant relationship itself did not rise to a culpable level of partnership.⁷¹ The court noted that the protection for trademark owners is much narrower than the protection for copyright holders; however, it did not elucidate a clear test for control in the context of vicarious liability.⁷²

67. MCCARTHY, *supra* note 14, § 25:22 (referring to the Seventh Circuit case *Hard Rock Cafe Licensing Corp. v. Concession Servs. Inc.*, 955 F.2d 1143 (7th Cir. 1992), and the Ninth Circuit case *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996)).

68. *See, e.g.*, *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 439 (1984); *see also Hard Rock Cafe*, 955 F.2d at 1150 (“[T]he Supreme Court tells us that secondary liability for trademark infringement should, in any event, be more narrowly drawn than secondary liability for copyright infringement.”) (relying on *Sony Corp.*, 464 U.S. at 439).

69. *See, e.g., Tiffany II*, 600 F.3d 93 (2d Cir. 2010) (considering contributory liability, but not vicarious liability).

70. *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 US Dist. LEXIS 78098, at *45–48 (considering vicarious liability without discussing the immediately preceding analysis of contributory liability). In fact, the *Rosetta Stone* court appears to impart considerations from *Inwood*’s contributory liability test, noting that

[w]ithout evidence that Google’s Keyword Tools or its employees direct or influence advertisers to bid on the Rosetta Stone Marks, Rosetta Stone has not shown that Google controls the appearance and content of the Sponsored Links and the use of the Rosetta Stone Marks in those Links. Therefore, vicarious liability cannot be imposed on Google.

Id. at *48.

71. *Hard Rock Cafe*, 955 F.2d at 1150 n.4. The court noted that this landlord-tenant relationship, without something more, such as the sharing of profits from illegal goods, would similarly not rise to a level of partnership required for liability under copyright law. This case is discussed in further detail *supra* Section I.A.2.

72. *Id.* at 1150.

II. CONTRIBUTORY AND VICARIOUS LIABILITY IN *ROSETTA STONE*

A. THE PARTIES

Rosetta Stone produces a popular line of language software for which the U.S. Patent and Trademark Office has granted a number of marks.⁷³ The company promotes its products in a variety of ways, including hosting advertisements on the Internet with services like AdWords and allowing select retailers—such as Amazon.com and eBay—to use Rosetta Stone’s marks to publicize that their sites sell Rosetta Stone products.⁷⁴

Google operates the popular search engine by the same name.⁷⁵ The company allows users to search using Google for free and relies upon associated services—such as online advertising—to garner income. These services raised approximately \$23 billion in 2009.⁷⁶ One such form of advertising is the company’s display of “sponsored links” alongside search results, which are generated in response to the specific terms entered by a user. Should a user “click” on these links, she will be taken to the website of that advertiser, which often offers products for sale. For every click-through to a sponsored link site, Google receives a small commission fee.⁷⁷ This display of sponsored links is operated by a program called “AdWords Select Advertising Program” (“AdWords Program”). Because ads appear in response to keyword searches, consumers searching for specific products or services may be attracted to the prominently-listed sponsored links and purchase items from those websites, even if they were initially searching for a different item.⁷⁸ In Google’s AdWords Program, advertisers bid, as at an auction, on a set of “keywords” from a list that is “generated algorithmically using Google’s keyword tools.”⁷⁹ There are three such tools: “(1) Keyword Tool; (2) Query Suggestion Tool; and (3) a trademark-specific version of the Query Suggestion Tool.”⁸⁰ Although Google is able to filter some trademarks

73. *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *4–5.

74. *Id.* at *5–6.

75. *Id.* at *6. Approximately seventy percent of searches on the Internet are performed using Google’s engine. *Id.* at *8.

76. *2010 Financial Tables*, Google Investor Relations, <http://investor.google.com/financial/tables.html> (last visited Nov. 10, 2010).

77. *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *9–10.

78. *Id.* at *10–11 (explaining, in part, that “advertisers are able to place their advertising in front of consumers who identify themselves as interested in certain products or services offered by the advertisers’ companies”).

79. *Id.* at *10.

80. *Id.*

and does so after receiving certain types of complaints from trademark owners, advertisers may circumvent such filters in some situations.⁸¹ AdWords generates a sponsored link if the quality of the advertisement—as determined by Google—and bid amount are “sufficiently high.”⁸²

B. GOOGLE’S TRADEMARK POLICY FOR ADWORDS

The trademark policy for Google AdWords users has changed several times since the program’s launch in 2002. Originally, Google’s policy protected only certain types of trademarks—allowing anyone to use trademarks that Google deemed generic or descriptive.⁸³ This policy allowed some trademark owners to request that Google bar some advertisers from using their marks in advertisement text.⁸⁴

The company liberalized its policy in 2004, permitting advertisers to bid on all trademarks for keyword triggers, but it continued to forbid the usage of those marks in advertisement text.⁸⁵ In 2006, Google explained that, while their trademark policy allowed owners to contest the use of their marks in advertisement text, it did not entertain complaints pertaining to the use of trademarks as keyword triggers.⁸⁶ Under the 2004 policy, individuals who wished to use a blocked trademark in ad text could obtain permission from the trademark holder through a specifically-worded letter submitted to AdWords. AdWords would then unblock use of the trademark for that advertiser.⁸⁷

81. See, e.g., Kuhlman, Nikki, *Google AdWords Trademark Policy Changes—Hooray!*, JUMPFly (May 18, 2009), <http://blog.jumpfly.com/public/item/google-adwords-trademark-policy-changes-hooray-0335>. However, Google is currently transitioning to an updated version of its Keyword Tool, a description of which is available on the Google AdWords Blog. See Kurnit, Katrina, *More Relevant Traffic Estimates Now in the Updated Keyword Tool*, INSIDE ADWORDS (April 29, 2010), <http://adwords.blogspot.com/2010/04/more-relevant-traffic-estimates-now-in.html>.

82. *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *10.

83. See Susan Kuchinskas, *Google Asks Judge to Lay Down Trademark Law*, CLICKZ (Dec. 5, 2003), <http://www.clickz.com/clickz/news/1711944/google-asks-judge-lay-down-trademark-law>.

84. Garry Przyklenk, *Google AdWords Allows Trademark Usage in Search Ads*, PPC-ADVICE.COM (May 19, 2009), <http://www.ppc-advice.com/2009/05/19/google-adwords-allows-trademark-usage-in-search-ads/>.

85. See Pamela Parker, *Google Shifts Trademark Policy*, CLICKZ (April 13, 2004), <http://www.clickz.com/clickz/news/1703954/google-shifts-trademark-policy>.

86. Judy, *AdWords Trademark Policy (Part 1 of 2)*, INSIDE ADWORDS (Dec. 13, 2006), <http://adwords.blogspot.com/2006/12/adwords-trademark-policy-part-1-of-2.html>.

87. See, e.g., Kuhlman, *supra* note 81; see also Judy, *AdWords Trademark Policy (Part 2 of 2)*, INSIDE ADWORDS (Dec. 15, 2006, 10:43 AM), <http://adwords.blogspot.com/2006/12/adwords-trademark-policy-part-2-of-2.html> (stating that, if a complaint has been received

Google most recently changed its policy in the United States in May 2009, allowing the use of trademarks without deference to requests by trademark owners not to let others use their marks.⁸⁸ The current policy explains that the company is “willing to perform a limited investigation of reasonable complaints about use of trademarks in ads,” but allows (1) use of the terms in descriptive or generic ways and (2) use of trademarks in nominative ways to refer to the trademarked goods if the website resells those goods or components for them, or if the website offers information about the products.⁸⁹

Google has stated that the change will help make “trademark use in ad text more in line with the industry standard,” explaining that not allowing trademark usage would be like creating an advertisement for a supermarket sale that only listed categories—cola, snacks—instead of the actual brands.⁹⁰ However, this statement is slightly questionable given that, as the leading search engine, Google likely has the ability to set the “industry standard” for internet advertisement programs.

C. ROSETTA STONE’S CONTRIBUTORY AND VICARIOUS INFRINGEMENT CLAIMS AGAINST GOOGLE

Rosetta Stone argued that Google should be contributorily and vicariously liable for its AdWords Program.⁹¹ A central claim was that

from a trademark owner, then “unless the trademark owner specifically grants you permission to use their trademarked term by contacting our Trademark team, we are not able to approve the use of the trademark in your AdWords ads”).

88. Kuhlman, *supra* note 81.

89. *What Is Google’s Trademark Policy for Resellers and Informational Sites?*, ADWORDS HELP, <https://adwords.google.com/support/aw/bin/answer.py?hl=en&answer=145626> (last visited Nov. 9, 2010).

90. Dan Friedman, *Update to U.S. Ad Text Trademark Policy*, INSIDE ADWORDS (May 14, 2009, 3:38 PM), <http://adwords.blogspot.com/2009/05/update-to-us-ad-text-trademark-policy.html>.

91. Rosetta Stone filed an a Notice of Appeal to the Fifth Circuit on August 31, 2010, and its corresponding brief on October 25, 2010. Brief of Appellant at *46–51, *Rosetta Stone Ltd. v. Google Inc.* (5th Cir. Oct. 25, 2010), No-10-2007, 2010 WL 4818781. In the portion of its brief contesting its claims of secondary liability, Rosetta Stone argues that the court did not adequately consider that Google induced third parties to bid on keywords to make sponsored links more profitable. *Id.* at *47. Under the “continues to supply” portion of the *Inwood* test, the appellant argues that the court did not properly consider the evidence of 200 complaints to Google about the infringing activity and allowed third parties to continue to use the AdWords service despite them. *Id.* at *47–48. On the claim of direct infringement, Rosetta Stone argues that the court erroneously found that Google does not “‘direct or influence’” third parties to bid on trademarked terms, noting that their “evidence shows that Google and its employees directed or influenced Google customers to bid on trademarks and to use those trademarks in the text of their sponsored links.” *Id.* at *50–51. Thus,

allowing the purchase of the Rosetta Stone marks to trigger advertisements encouraged third parties to infringe on its trademarks.⁹² Moreover, it argued that the links misdirected customers by taking “users to websites of companies that (i) compete with Rosetta Stone, (ii) sell language education programs from Rosetta Stone’s competitors, (iii) sell counterfeit Rosetta Stone products, or (iv) are entirely unrelated to language education.”⁹³ Rosetta Stone’s main contention was that, because Google profited on each sponsored link clicked, the AdWords keyword auction constituted trademark infringement.⁹⁴ The district court held that there was no likelihood of confusion, finding any evidence of actual confusion to be insufficient⁹⁵ and finding Google’s newly invented tools for detecting and monitoring infringing uses to have mitigated any intent to profit from Rosetta Stone’s marks.⁹⁶ In the future, for secondary liability claims to be sustained, a plaintiff must show that advertisements directly infringe the trademark owner’s marks.⁹⁷

Rosetta Stone’s appeal as to secondary liability focuses on the district court’s failure to find the evidence supportive of its contributory and vicarious liability claims, not the underlying doctrinal inconsistencies that this Note considers.

92. *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 U.S. Dist. LEXIS 78098, at *14 (E.D. Va. Aug. 3, 2010).

93. *Id.* at *14–15.

94. *See* 15 U.S.C. § 1114(1) (2006). The language of the Lanham Act relevant to the present case was provided by the court:

Any person who shall, without the consent of the registrant—(a) use in commerce any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the . . . advertising of any goods or services or in connection with which such use is likely to cause confusion, or to cause mistake, or to deceive; or (b) reproduce, counterfeit, copy or colorably imitate a registered mark and apply such . . . to be used in commerce upon or in connection with the . . . advertising of goods or services on or in connection with which such use is likely to cause confusion, or to cause mistake, or to deceive, shall be liable in a civil action by the registrant

95. Rosetta Stone presented five witnesses who had been directed to sellers of counterfeit Rosetta Stone merchandise. *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *28–29. The consumers testified that they had not been confused as to the source of the goods—they were individually aware that they were purchasing from a third-party vendor—but believed that they were buying genuine merchandise, learning only after their purchases that the vendors offered counterfeit goods. *See id.*

96. *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *24–25.

97. It should be noted that a number of corporations recently offered their support for Rosetta Stone’s efforts, filing amici curiae briefs to buttress the plaintiff’s appeal. *See* Eileen McDermott, *Industry Backs Rosetta Stone in Google AdWords Appeal*, MANAGING INTELLECTUAL PROPERTY (Nov. 10, 2010), <http://www.managingip.com/Article/2713548/Latest-News-Magazine/Industry-backs-Rosetta-Stone-in-Google-AdWords-appeal.html>.

1. *Rosetta Stone's Contributory Liability Claim*

As to Rosetta Stone's claim that the AdWords Program contributed to the distribution of counterfeit goods, the court applied the *Inwood* test and found that Google did not "intentionally induce[] or knowingly continue[]" to permit third party advertisers selling counterfeit Rosetta Stone products to use the Rosetta Stone Marks in their Sponsored Link titles and advertisement text."⁹⁸ Rosetta Stone contended that Google's Query Suggestion Tool allowed and encouraged counterfeiters to bid on its trademarks.⁹⁹ It further contended that Google had reason to know that some advertisers were promoting illegal goods, presenting evidence of 200 complaints that it made to Google and arguing that despite such notice, Google continued to allow use of the trademarks by those same advertisers.¹⁰⁰ The court found that Google had not induced third parties to misuse trademarks, especially given that Google warns its AdWords customers that the keywords chosen may be illegal. The court also noted that although Google benefits economically from the use of trademarks as keyword triggers due to the likelihood of a higher click-through rate, economic benefit is not sufficient on its own for a finding of trademark infringement.¹⁰¹ Moreover, Google actively monitored the AdWords Program to ensure that counterfeit goods were not offered through sponsored links.¹⁰² Relying on the Second Circuit's decision in *Tiffany II*,¹⁰³ the court articulated that "generalized knowledge of infringement of a seller's trademark on its website" is insufficient to provide a remedy to the plaintiff.¹⁰⁴

Some of these companies were previously plaintiffs in similar actions against Google and other Online Service Providers for their advertising programs, such as 1-800 Contacts and Tiffany & Co. *Id.* This support indicates that the alleged harm claimed by mark owners from such advertising services is not limited to one or two corporations. Thus, the small number of witnesses confused by sponsored links as presented by Rosetta Stone may not adequately evidence the level of confusion created by sponsored links in general.

98. *Rosetta Stone*, U.S. Dist. LEXIS 78098, at *37.

99. *Id.* at *39.

100. *Id.* at *40.

101. *Id.* at *47.

102. *Id.* at *24.

103. 600 F.3d 93, 107–09 (2d Cir. 2010). In *Tiffany II*, the court found that eBay, which provides an online auction service, did not itself infringe on the trademarks of Tiffany Inc., a high-end jewelry retailer, even though it had reason to know that its users sold counterfeit jewelry on its website. *Id.* at 109. Moreover, Tiffany presented evidence that almost three-quarters of the purchases of "Tiffany" jewelry made on eBay were for counterfeit goods—a stark contrast to the 200 instances of potentially infringing sponsored links that Rosetta Stone provided. *See id.* at 107.

104. *Rosetta Stone*, U.S. Dist. LEXIS 78098, at *42.

2. *Rosetta Stone's Vicarious Liability Claim*

As to the vicarious liability claim, the court found that there was no agency relationship between Google and third-party advertisers using Rosetta Stone's marks, and therefore no vicarious trademark infringement related to an agency scenario.¹⁰⁵ To establish vicarious liability, "Rosetta Stone would have [had] to show that, aside from providing a list of keywords to its AdWords advertisers to choose from, Google ha[d] joint ownership or control[led] the alleged infringing advertisements appearing on its website."¹⁰⁶ The court concluded that Google simply provides advertisement space for its AdWords customers; there was no evidence that Google instructs third parties to break the law.¹⁰⁷ It also emphasized that although Google profited from providing its service to infringing third parties, "a financial relationship with the alleged infringers does not demonstrate Google's control of the Sponsored Links appearing on its website."¹⁰⁸

III. THE ROSETTA STONE COURT'S UNCLEAR USE OF "CONTROL" IN ITS CONTRIBUTORY AND VICARIOUS LIABILITY ANALYSES

This Section argues that the application of the *Inwood* test to the contributory liability claims in *Rosetta Stone* was inconsistent with the court's finding that Google had no control over its website when discussing the vicarious liability claims. Although the court relied on *Tiffany II*, which implemented the *Lockheed Martin* control prerequisite, the *Rosetta Stone* court did not discuss a departure from or adherence to the *Lockheed Martin* test. The inconsistency of impliedly finding control under one test, but no control under another, highlights the importance of defining "control" within secondary trademark liability analysis.

Uncertain about how to extend the *Inwood* test to OSPs, the *Lockheed Martin II* court created a control prerequisite, explaining that "[d]irect control and monitoring of the instrumentality used by a third party to infringe the plaintiff's mark permits the expansion of *Inwood Lab.*'s 'supplies a product' requirement for contributory infringement."¹⁰⁹ In *Rosetta Stone*, the court's application of the *Inwood* test implies that the court felt that Google had

105. *Id.* at *45.

106. *Id.* at *45–46.

107. *See id.* at *41–42.

108. *Id.* at *47.

109. *Lockheed II*, 194 F.3d 980, 984 (9th Cir. 1999).

sufficient control under *Lockheed Martin* to support a contributory liability claim.¹¹⁰ Prior to jumping into its *Inwood* analysis, the court cited the relevant language from the district court's opinion in *Tiffany I*, which required that a service provider have enough control over the infringing activity for an OSP to fall within the reach of this test.¹¹¹ However, unlike the district court in *Tiffany I*,¹¹² the *Rosetta Stone* court did not discuss its reasons for finding that Google had enough control over the AdWords auction service and sponsored links to meet the *Lockheed Martin* test's control prerequisite. The court simply began its discussion of Rosetta Stone's claims regarding whether Google induced third parties to use trademarks as keywords and whether it had the requisite level of knowledge to be liable under the second part of the *Inwood* test.¹¹³

Whereas the court found that Google had adequate "control" to meet *Lockheed Martin*'s control prerequisite, it found that Google did not have adequate "control" to meet the control requirement for the vicarious liability claim.¹¹⁴ In fact, the court determined that Google had "no control over third party advertisers' Sponsored Links or their use of the Rosetta Stone Marks in the advertisement text."¹¹⁵

The *Rosetta Stone* court's finding of "control" for the plaintiff's contributory liability claims, but not for its vicarious liability claims, suggests that the meaning of "control" under each test is different. Unfortunately, the court's opinion does not adequately explain the differences between "control" under each test, if there is indeed a difference. Prior case law contains hints of different meanings for the two different contexts. The *Lockheed Martin* case, for example, did not consider vicarious liability; only contributory liability.¹¹⁶ However, its addition of a control prerequisite to the *Inwood* test was based on the Seventh Circuit's *Hard Rock Cafe* decision, in which the court found that a flea market operator could be contributorily

110. See *Tiffany II*, 600 F.3d 93, 104–05 (2d Cir. 2010) (requiring that the service provider must have a sufficient level of control before applying the *Inwood* test for contributory liability).

111. *Rosetta Stone*, U.S. Dist. LEXIS 78098, at *37–38.

112. See *Tiffany I*, 576 F. Supp. 2d 463, 506–07 (S.D.N.Y. 2008), *aff'd*, 600 F.3d 93 (2d Cir. 2010) (considering five factors in its determination that eBay has sufficient control over third parties to apply the *Inwood* test, discussed *infra* Part III).

113. *Rosetta Stone*, U.S. Dist. LEXIS 78098, at *38–40.

114. *Id.* at *48.

115. *Id.* at *45 (emphasis added).

116. See *Lockheed Martin I*, 985 F. Supp. 949, 950–51 (C.D. Cal. 1997), *aff'd*, 194 F.3d 980 (9th Cir. 1999) (outlining the claims against NSI, which do not include vicarious trademark liability).

liable on remand, but lacked sufficient “control” to be vicariously liable.¹¹⁷ That court held that the application of the *Inwood* test should be extended to landlords because of the common law recognition that landlords should be responsible “for the torts of those it permits on its premises ‘knowing or having reason to know that the other is acting or will act tortuously’”¹¹⁸ Thus, the *Lockheed Martin* court’s addition of a control prerequisite to contributory liability suggests that the levels of control required under contributory liability and vicarious liability should be different. Otherwise, the test for vicarious liability would be redundant in cases where there are both vicarious and contributory infringement claims.¹¹⁹

The *Rosetta Stone* opinion highlights a lack of clarity as to what “control” means. Without a clear understanding of control, courts may apply the standard inconsistently from one case to the next, especially given the variety of formulations of OSPs. For instance, is the ability to change the algorithm that allows or disallows certain functions on websites sufficient “control” for contributory liability? Or must a human approve every posting by a third party on a website’s pages for the website owner to be liable for the third party’s infringement? And should courts treat “control” differently in cases in which the plaintiff brings both contributory and vicarious liability actions, as *Rosetta Stone* did, or should plaintiffs raise only one of these claims? Based on traditional notions of vicarious liability and its stringent standards¹²⁰—often related to agency law—and the pre-*Lockheed* notion of contributory liability that excluded control, one could argue that the level of “direct control and monitoring” discussed in *Lockheed Martin* should be of a lower level or different quality than what would suffice for a vicarious liability claim. In this

117. *Hard Rock Cafe Licensing Corp. v. Concession Servs. Inc.*, 955 F.2d 1143, 1150 (7th Cir. 1992).

118. *Id.* at 1149 (quoting RESTATEMENT (SECOND) OF TORTS § 877(c) & cmt. d (1979)).

119. It is also important to note that the *Hard Rock Cafe* court did not explicitly indicate that adding a control element prior to the *Inwood* application was its intention—it stated that “[i]n the absence of any suggestion that a trademark violation should not be treated as a common law tort, we believe that the *Inwood Labs.* test for contributory liability applies.” *Id.* at 1149.

120. See Bartholomew, *supra* note 66, at 451 (explaining that “the vicarious trademark infringement cause of action has become a dead letter. It is simply too hard to satisfy the [agency] relationship requirement in light of recent precedent [like *Grokster*]”). In his article, Bartholomew considers in depth the differences between secondary liability standards under trademark and copyright law. In his analysis of vicarious trademark liability in relation to vicarious copyright liability, he determines that, “for trademark plaintiffs, demonstrating that the defendant had some supervisory role over the direct infringer is normally insufficient. Instead, they must prove that the defendant had complete individual authority to bind the direct infringer.” *Id.*

way, one might argue that “control” in the framework of secondary trademark liability operates on a sliding scale—a possible solution to this issue of potentially redundant or conflicting standards.

IV. THE NEED FOR A TAILORED CONTRIBUTORY LIABILITY TEST FOR ONLINE SERVICES

Although the addition of the “direct control and monitoring” prerequisite to OSPs for contributory liability diverges from the *Inwood* test applied to other types of defendant-third party relationships, there are reasons why a tailored test for contributory liability in this context would be valuable to protecting both plaintiff and defendant concerns. Notably, OSPs are not easily conceptualized as either products or services.

At least four categories of relationships between defendants and third parties have been defined by courts in the consideration of indirect trademark liability: manufacturers and distributors of products to retailers,¹²¹ landlord-tenant,¹²² franchisor-franchisee,¹²³ and service providers, particularly OSPs.¹²⁴ Google could be conceptualized as an actor in at least two of these groups: as a producer or manufacturer of sponsored links, or as an advertisement service provider. *Rosetta Stone* characterized Google’s search engine as a service provider.¹²⁵ However, each OSP is somewhat different

121. *See, e.g., Coca-Cola Co. v. Snow Crest Beverages, Inc.*, 64 F. Supp. 980, 988–89 (D. Mass. 1946) (applying a test equivalent to *Inwood* to a manufacturer and distributor of soft drinks).

122. *See Hard Rock Cafe*, 955 F.2d at 1149–50 (applying the *Inwood* test for contributory liability to a flea market operator); *see also Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 264–65 (9th Cir. 1996) (same).

123. *See Mini Maid Servs. Co. v. Maid Brigaid Sys., Inc.*, 967 F.2d 1516, 1521–22 (11th Cir. 1992) (holding that the correct test for contributory liability in a franchisor-franchisee relationship is an extension of the *Inwood* test, not whether the franchisor exercised “reasonable diligence” in supervising the franchisee).

124. *See Lockheed II*, 194 F.3d 980, 984–85 (9th Cir. 1999) (refusing to apply the *Inwood* test to a domain name registration service because it did not have direct control over the registered websites); *see also Tiffany II*, 600 F.3d 93, 105–06 (2d Cir. 2010) (applying the *Inwood* test to an online auction house because it controlled many elements of user interactions with third parties); *Perfect 10, Inc. v. Visa Int’l Serv. Ass’n*, 494 F.3d 788, 806–07 (9th Cir. 2007) (refusing to apply the *Inwood* test to a credit card processing company because it merely facilitated payments within the normal course of business, but did not control or participate in the infringing activity of stealing protected content).

125. *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 U.S. Dist. LEXIS 78098, at *38 (E.D. Va. Aug. 3, 2010).

from one another, and it is not clear that a blanket test should be applied to all of them regardless of their functional differences.¹²⁶

There are similarities and differences between Google and the other services considered in internet trademark infringement cases. As a “service,”¹²⁷ Google’s AdWords system provides advertisers with an instrument to create postings, much like a newspaper classified section or a billboard owner.¹²⁸ Similarly, it offers search engine users a service that presents links to products for which they may be searching.¹²⁹ Google is similar to NSI—the website registration service in *Lockheed Martin*—because Google uses the terms and text that advertisers create, just as NSI registered names based on the applications of users, without running searches for trademarked terms prior to their acceptance.¹³⁰ However, Google is different from NSI because the advertisements linking to other websites appear within its own web page, whereas NSI did not have knowledge of the use of the web pages associated with the domain names it registered.¹³¹ Google is also unlike Visa, which did not itself create or post infringing material, but only processed payments for purchase of access rights to the content on third-party websites that were infringing.¹³² Thus, while Perfect 10, the trademark holder, did not claim that Visa’s credit card processing was the instrumentality by which the infringement occurred, Rosetta Stone claimed

126. See Kessler, *supra* note 46, at 384–86 (suggesting that business models on the Internet may be conceptualized in a number of ways—such as analogous to a landlord-tenant relationship in the physical world—but that no pre-internet legal model can be easily applied to OSPs).

127. Black’s Dictionary defines a service in three applicable ways:

[1] The act of doing something useful for a person or company, usu[ally] for a fee . . . [2] A person or company whose business is to do useful things for others <a linen service> . . . [3] An intangible commodity in the form of human effort, such as labor, skill, or advice.

BLACK’S LAW DICTIONARY 1137 (8th ed. 2005).

128. See *Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *21, *47–48 (comparing Google first to magazines and newspapers that offer space in their circulations, and then to a billboard owner in New York’s Times Square).

129. See, e.g., *id.* at *10–11.

130. See *Lockheed II*, 194 F.3d 980, 982 (9th Cir. 1999) (noting that only ten percent of the time an employee for NSI reviews applications for domain name registration).

131. See *id.* at 981–82 (explaining that after registration, NSI only rerouted internet users entering a specific domain name to websites, but did not “translate” the pages nor act as a web hosting service).

132. See *Perfect 10, Inc. v. Visa Int’l Serv. Ass’n*, 494 F.3d 788, 793 (9th Cir. 2007) (noting that Visa “automatically” processes credit card transactions with accepted merchants).

that Google's links themselves infringe.¹³³ Google is most similar to eBay, facilitating the purchase of goods. But Google's relationship to counterfeit merchandise is more attenuated than that of eBay's because auction items were bought directly through eBay's website, whereas Google does not take payment for products. Google's AdWords profits are derived from impressions and click-through rates, and are not directly tied to the sale of physical goods.

Google's sponsored links might also be conceptualized as products,¹³⁴ although there is little scholarship to suggest that such an assertion would succeed in convincing the court to apply the traditional *Inwood* test for manufacturers rather than the *Lockheed Martin* test for service providers. Under this formulation, AdWords itself offers an auction service much like eBay—the products upon which the advertisers bid are the sponsored links and the chance to have those links placed above all others.¹³⁵ Although an automated process, the creation of sponsored links requires action by Google in order for links to be posted—in other words, the goods require manufacturing. While the service of linking a user from Google's results page to a website selling counterfeit or competing merchandise is part of the trademark claim, a distinct portion of the claim concerns the sponsored link itself insofar as its text contains trademarked terms. If a link, then, is considered a “product” in and of itself, the infringing activity at issue in *Rosetta Stone* is a hybrid of both products and services. The question of how to classify the allegedly infringing activity at issue illustrates the difficulty with creating multiple requirements for applying the contributory liability test. A better alternative may be to subsume those questions into factors of the test itself, such as making a lack of control a mitigating factor for the knowledge prong of the *Inwood* test.

1. *Where Properly Defined, Control May Be an Appropriate Additional Element in the Inwood Test*

Because OSPs are mostly automated, their ability to thoroughly control each working element of the website is necessarily limited. Moreover, the blurry line between whether an OSP offers a product or a service, especially

133. *See id.* at 807.

134. Black's Law Dictionary defines a product as, “Something that is distributed commercially for use or consumption and that is usu[ally] (1) tangible personal property, (2) the result of fabrication or processing, and (3) an item that has passed through a chain of commercial distribution before ultimate use or consumption.” BLACK'S LAW DICTIONARY 1012 (8th ed. 2005).

135. *See* Part II.A, *supra*, explaining the mechanics of Google's AdWords program.

now that some services on the Internet are substituted for physical products (such as streaming movies for physical DVDs), indicates that trying to apply one test to “product manufacturers” and another to “service providers” will continue to become more complicated. Such division will likely result in inconsistent contributory liability analyses of OSPs at the margins. Thus, there is a need for a tailored contributory liability test for trademark infringement claims pertaining to OSPs because the nature of the claims differs greatly from those arising in the brick-and-mortar retail context. A clearer definition of “control” is necessary to guide courts so that they do not impose upon contributory liability claims a requirement of control at as high a level as that for vicarious liability. However, the *Lockheed Martin* conception of the *Inwood* test—that control is an important consideration for determining liability—is an appropriate solution because it recognizes the distance at which OSPs and third parties transact and the difficulty with requiring OSPs to personally monitor every use of their services. That conception, however, needs to be refined.

The amount of direct control that an OSP has over how their services are used is dependent upon the business model that those OSPs themselves create.¹³⁶ However, the types of “control” available for OSPs are different than those that exist in a physical environment. Most notably, unlike the ability for a manufacturer to hire, instruct, and fire employees, hosts of internet websites and OSPs do not directly or physically control who or how people use their websites, beyond designating to which elements users have access and what can ultimately appear on their web pages.¹³⁷ OSPs do have an ability to alter the amount of control that is retained by users. For instance, if Google determined the winner of sponsored link auctions simply on the highest bid, with no weight given to quality (as per current practice),¹³⁸ Google’s control would be reduced because it would not influence how much third parties bid. On the other hand, Google might block questionable

136. See Kessler, *supra* note 46, at 394 (2006) (discussing that under the *Lockheed Martin* conception of the *Inwood* test, OSPs might be incentivized to structure their businesses in particular ways and not to monitor their websites to avoid a finding of control by the court).

137. In some contexts OSPs like Twitter have relinquished significant control to users but retain the ability to remove or hide the postings of its users, such as on comment boards or in forums where users post inappropriate material. Another interesting question to consider is whether the requirement by some OSPs that users create profiles before being able to access functional aspects of websites inures a higher level of control in the OSP.

138. *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 U.S. Dist. LEXIS 78098, at *10 (E.D. Va. Aug. 3, 2010).

postings with trademark-identifying filters, which would give it more control over who may ultimately post what in sponsored links.

The *Lockheed Martin II* decision is constructive only to the extent that it helps define what control is not: a domain-registering agent without a clear connection to the creation of infringing material on the registered websites has insufficient control over the “instrumentality used by a third party” to be contributorily liable.¹³⁹ In *Tiffany I*, the district court for the Southern District of New York began to create a framework for determining “control” through a factor analysis¹⁴⁰—an approach that may provide guidance for later courts. Part V, *infra*, suggests that the *Tiffany I* court’s application of the *Lockheed Martin* control pre-requisite provides better guidance on how “control” operates in the online services contributory liability context. More specifically, the five factors enumerated by the *Tiffany I* court provide a better means for determining whether the *Inwood* test should be applied to AdWords, as well as whether Google’s control of AdWords is adequate on its own to warrant a finding of contributory liability.

V. *TIFFANY’S FIVE FACTORS FOR ANALYZING “CONTROL” IN THE CONTRIBUTORY LIABILITY CONTEXT*

Because the *Lockheed Martin* conception of contributory liability integrates a control element, it is important to understand precisely what “control” for contributory liability means, especially given that the test for vicarious liability is essentially one of control. In other words, the level of control required for contributory liability must be differentiated from that necessary for the imposition of vicarious liability. Although the court did not consider a vicarious trademark infringement claim, the factors enumerated by the district court in *Tiffany I* provide some notion of the types of control that would be sufficient for an *Inwood* analysis within the online services contributory liability framework.

In *Tiffany I*, the district court found that eBay retained enough control over the operations of third-party sellers on its website to meet the “direct control and monitoring” standard set forth in *Lockheed Martin II*.¹⁴¹ In so

139. See *Lockheed Martin II*, 194 F.3d 980, 984 (9th Cir. 1999).

140. *Tiffany I*, 576 F. Supp. 2d 463, 506–07 (S.D.N.Y. 2008), *aff’d*, 600 F.3d 93 (2d Cir. 2010).

141. *Tiffany II*, 600 F.3d 93, 105–06 (2d Cir. 2010) (noting that it will apply the *Inwood* test because eBay did not appeal its application, and explaining that the district court “adopted . . . the reasoning of the Ninth Circuit in *Lockheed* to conclude that *Inwood* applies

holding, the court articulated five factors that this Note argues could be helpful for clarifying what “control” means in the contributory liability context: (1) the company preserves control over the software for listings and “facilitates transactions between” buyers and sellers; (2) eBay “has actively promoted the sale of Tiffany jewelry items” and suggested “Tiffany” to sellers as a keyword; (3) eBay earns revenue from the sale of items on its website; (4) some categories of items are completely controlled by eBay, such as those for firearms and alcohol; and (5) eBay is more than just an online classifieds service and not privy to an “innocent infringer” defense.¹⁴² Ultimately, the district court found that because eBay was only generally aware of the counterfeit Tiffany goods listed on the website, it did not have sufficient knowledge that it supplied its services to users committing trademark infringement.¹⁴³

These factors are helpful because they outline some of the general characteristics of OSPs and would therefore be applicable in many scenarios. For instance, the first factor could be tailored to apply generally to whether the OSP retains control over the software embedded within the website and to how users interact with the OSP and utilize its services. The second factor questions whether the OSP has promoted its website using the plaintiff’s trademarks despite an absence of a relationship between the OSP’s services or products and the marks. The third factor is closely related, asking if the OSP profits from the use of these marks. The fourth factor is somewhat particular to eBay, but it could be extrapolated to ask whether the OSP retains control over or password protects specific features of the website, such as who is allowed to post on a forum. Finally, the fifth factor recognizes that some OSPs should be able to use trademarks that they do not own for some purposes, such as to accurately describe products for sale or in a product review.

Although the *Rosetta Stone* court would likely have reached the same conclusion regarding Google’s contributory liability regardless of whether Rosetta Stone had proven a likelihood of confusion resulting from the links,¹⁴⁴ these factors may have led to a slightly different analysis regarding

to a service provider who exercises sufficient control over the means of the infringing conduct”).

142. *Tiffany I*, 576 F. Supp. 2d at 506–07.

143. *Id.* at 511.

144. *See* *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 US Dist. LEXIS 78098, at *33 (E.D. Va. Aug. 3, 2010) (having considered the evidence presented by both Google and Rosetta Stone, the court stated that, “[b]alancing all of the disputed likelihood of

vicarious liability in that the court would have recognized that Google had greater than “no” control over third parties. Rosetta Stone was unable to show that Google knew or should have known that its marks were being used to promote counterfeit products.¹⁴⁵ If Google had no knowledge of the offending links, then, under both *Inwood* and *Lockheed Martin II*, Google could not “continue to supply” an infringing product or service to third parties, and thus summary judgment would still have been proper.¹⁴⁶ Moreover, the Rosetta Stone marks present a particularly difficult case: although they would likely be considered suggestive and therefore inherently distinctive and protectable on the national register,¹⁴⁷ the “Rosetta Stone” of antiquity is a historical artifact and therefore might be used by third parties to advertise things other than language learning products. Thus, had the court applied the *Tiffany* factors to evaluate the specific level of control Google possessed over the third-party infringers, it would probably still have found that Google was not contributorily liable under either part of the *Inwood* test.

However, applying these factors reveals that Google theoretically retains at least some control over how third parties may use AdWords and how sponsored links appear, and therefore the court may not have found that Google had “no control” for purposes of vicarious liability.¹⁴⁸ The following analysis highlights at least some similarities to eBay, which is significant because the *Tiffany I* court, applying the *Lockheed Martin* prerequisite, found enough control to apply the *Inwood* test for contributory liability.¹⁴⁹ First, like eBay, Google controls the software and algorithms that generate results for both its search engine and the sponsored links. Second, Google does not itself sell products, and does not physically inspect the products that are offered by advertisers at their websites. Because Google does not offer products, it is not clear that the second factor—actively promoting the sale

confusion factors, the Court concludes that Google’s use of the Rosetta Stone Marks does not amount to direct trademark infringement”).

145. *Id.* at *43–45.

146. *Id.* at *42 (finding that “there is no evidence that Google is supplying a service to those it knows or has reason to know is engaging in trademark infringement”).

147. “Rosetta Stone” as applied to language products is suggestive because it requires that the consumer take an extra step in connecting the undecipherable historical artifact and the inability to understand a foreign language, a problem Rosetta’s programs are aimed at solving. However, when discussing the artifact, “Rosetta Stone” is not a source identifier, nor a protectable trademark. For a discussion on the fair use of terms for descriptions (not in their trademark sense), *see, e.g.*, MCCARTHY, *supra* note 14, § 10:14.

148. *See Rosetta Stone*, 2010 U.S. Dist. LEXIS 78098, at *45.

149. *See Tiffany II*, 600 F.3d 93, 105–06 (2d Cir. 2010) (applying the *Inwood* test after agreeing with the district court that eBay had sufficient control over its auction house listings).

of counterfeit items—applies. But, Google’s Keyword Tools program suggests trademarked terms to users, just as eBay “advised” its sellers that “Tiffany” may be a beneficial keyword to use on their auction pages. Third, while eBay earned revenue from the sale of goods through auctions, Google earns revenue for creating impressions¹⁵⁰ of advertisements in the sponsored results and receives additional income for each link that is clicked. Fourth, Google has demonstrated that it can control the usage of trademarks, which they did under previous trademark policies.¹⁵¹ This is equivalent to eBay’s control of certain categories of goods, such as firearms and alcohol.

Finally, although the *Rosetta Stone* court compared Google’s sponsored links to a magazine or newspaper classified section, Google’s advertisements differ in three significant ways from these services, and thus the company should not necessarily be protected by the innocent infringer exception.¹⁵² First, Google generates sponsored links based upon specific inquiries by users, whereas print advertisements are not so specifically tailored. Second and more importantly, Google’s sponsored links are active: not only do they convey to consumers available outlets for products in which they may be interested, but they transport those users directly to the tills of the advertisers. Finally, rather than earning a flat fee for posting advertisements, Google makes additional revenue based upon whether users follow those links to advertiser pages.¹⁵³ Taken together, these factors indicate that Google has significant control *over the sponsored links* that appear on its website, but does not have control over the content or the products available *on the landing pages of those links*. Given that Google has at least an equivalent amount of control over its sponsored links as eBay has over the products in its listings,¹⁵⁴ the *Rosetta Stone* court was correct in applying the *Inwood* test under

150. “Impression” refers to the display of the advertisement in the sponsored link box, regardless of whether the link is clicked. *See Impressions Per Day*, ADWORDS HELP, <http://adwords.google.com/support/aw/bin/answer.py?hl=en&answer=18262> (defining “Impressions Per Day” as “[t]he number of times an ad has been displayed to web users in the course of one advertising day”).

151. *See supra* Section II.B.

152. 15 U.S.C. § 1114(2)(B) (2006).

153. For a description of Google’s AdWords program and trademark policy, *see supra* Section II.B.

154. In fact, one might argue that Google retains more control over the transactions on its website than eBay because it receives payment directly from third parties for the creation of the advertisements and click-throughs from links, whereas eBay receives commission on goods sold from sellers to buyers, both external to eBay itself.

the *Lockheed Martin* framework;¹⁵⁵ under the *Tiffany* factors, Google's control over third-party users had met *Lockheed Martin*'s control prerequisite.

Applying a set of factors, such as those developed in *Tiffany I*, will provide consistency among courts in analyzing whether a particular defendant has the amount of control required under *Lockheed Martin* for exposure to liability. However, the problem of determining how much control, and over what types of elements, an Online Product-Service Provider needs to have legal "control" still remains, especially given that there are many different types of models that an OSP can develop. Moreover, should courts consider how much control the OSP actually exercises, or the ability of the OSP to exercise it? The *Tiffany* factors, therefore, are not exhaustive, and as the Internet continues to evolve, courts should continue to refine and add to this list to respond to new innovations in internet technology and in the way that third parties interact with online products and services. In any event, there should be a general recognition that OSPs likely have at least *more* control over what appears on their websites than the third-party users that are potentially infringing trademarks. For example, as Google's former trademark policy indicates, it has the ability not only to destroy illegitimate links and the accounts of their posters, but also to block those uses from ever occurring.¹⁵⁶ Consequently, third parties do not have ultimate control over their postings because they can be filtered or deleted. In the case of Google, because an algorithm measuring "quality," in addition to bid price, is used to select which sponsored links are generated, third parties cannot create a link by a high bid alone—some action by Google's software is required.¹⁵⁷

Regardless of the factors used to examine the control of an OSP, courts should also recognize the important role that OSPs play in increasing competition and facilitating consumer transactions.¹⁵⁸ Thus, the cost of some consumer confusion likely justifies the operation of Google AdWords. Moreover, limiting the use of trademarks in some scenarios is costly and

155. See *Tiffany II*, 600 F.3d 93, 105–06 (2d Cir. 2010) (applying the *Imwood* test after agreeing with the district court that eBay had sufficient control over its auction house listings).

156. See *Rosetta Stone Ltd. v. Google, Inc.*, No. 1:09cv736, 2010 U.S. Dist. LEXIS 78098, at *13 (E.D. Va. Aug. 3, 2010) (discussing Google's Trust and Safety Team, filtering tools, and the ability to remove postings).

157. See *id.* at *9–10 (explaining that Google's AdWords program uses a combination of bid amount and "quality" to choose which sponsored links to display).

158. See Peter S. Menell & David Nimmer, *Unwinding Sony*, 95 CALIF. L. REV. 941, 1008 (2007) (recognizing that "[m]any social activities cause harm, but simultaneously yield substantial utility").

difficult. For instance, it might be impossible, in some cases, to develop an algorithm able to differentiate between types of trademarks in order to apply the different levels of protections federally afforded to some marks as opposed to others.¹⁵⁹ Furthermore, mandating that Google disallow the use of trademarks in advertisements—except for trademark owners—could lead to an overprotection of owners’ rights by treating trademarks as property without regard to the importance of those marks as product identifiers.¹⁶⁰ Although using “control” as a standard to limit secondary liability may incentivize the structuring of web services in ways that allow for or induce illegal activity by creating completely automated interfaces or providing the defense that OSPs have “no specific knowledge” that infringement is occurring,¹⁶¹ guidelines for what kinds and levels of control will “count” for contributory liability will give all parties a clearer understanding of what behavior is prohibited under the law.¹⁶²

VI. CONCLUSION

Evaluating the application of the modified *Inwood* test for service providers under the standard set forth in *Lockheed Martin* indicates that the control element typically associated with vicarious liability has now entered the realm of contributory liability, even though the *Inwood* court articulated that the test should be applied in spite of a lack of control. The requirement that plaintiffs claiming contributory liability show that the OSP exercises direct control and monitoring over third parties recognizes that OSPs

159. For example, descriptive marks are “weaker” and afforded less protection than arbitrary marks. *See, e.g.,* MCCARTHY, *supra* note 14, § 11:2 (explaining the different types of “marks”—generic, descriptive, suggestive, and arbitrary or fanciful—and observing that “[t]he Second Circuit has noted that the spectrum of distinctiveness is an attempt to balance the grant of exclusive trademark rights against the right of competitors to use the language to characterize and describe their goods and services”).

160. *See, e.g., id.* § 25:52 (explaining that comparative advertising, where truthful and not confusing, is permitted); *see also* *Tiffany II*, 600 F.3d at 113 (dismissing claims against eBay partially because advertisements promoting Tiffany-branded products were not misleading altogether—users did sell second-hand Tiffany jewelry and were therefore using the brand in its descriptive sense, not as a source identifier).

161. *See* Kessler, *supra* note 46, at 394 (discussing that under the *Lockheed Martin* conception of the *Inwood* test, OSPs might be incentivized to not monitor their websites to avoid a finding of control by the court).

162. *See* Menell & Nimmer, *supra* note 158, at 1022 (arguing that, by failing to apply the appropriate standards for indirect liability under theories of tort law, the court “distorted the incentives of technology developers by holding out a broad safe harbor,” despite the fact that the outcome—Sony’s non-liability for use of its recording system to infringe copyrights by private users—would have been the same under such analysis).

operate at a greater distance from third-party infringers than those in trademark cases involving manufacturer-distributor, landlord-tenant, and franchisor-franchisee relationships. However, it is important to have a concrete understanding of “control” and how to evaluate its existence when faced with a range of OSPs employing diverse and evolving business models. This diversity requires that courts establish and implement a set of factors that can be consistently applied in various internet-related trademark cases. The factors developed by the *Tiffany I* court are currently the best guidance available; however, they must be abstracted and expanded from their current form to apply outside the online-auctioneer context. They should also take into account other types of control that an OSP might possess. Flexibility in the weight afforded to each factor will allow courts to consider the social benefits that services like Google provide on a case-by-case basis. Thus, courts should continue to develop these factors when considering claims of secondary trademark infringement so that plaintiffs able to show a likelihood of confusion under the Lanham Act will understand the levels of control required to prove both contributory and vicarious liability.

PAYING FOR INFRINGEMENT: IMPLICATING CREDIT CARD NETWORKS IN SECONDARY TRADEMARK LIABILITY

Kelly K. Yang[†]

The advent of the Internet has dramatically freed merchants from traditional geographic constraints. From the comfort of their homes, consumers can browse and purchase goods offered by merchants around the world. The proliferation of credit cards has facilitated this, permitting convenient and secure online transactions.¹ This development has been positive—enabling many small-businesses to expand beyond their immediate locations.² The combined growth of the Internet and the credit card industry, however, has also allowed sophisticated merchants to establish illegitimate businesses selling counterfeit goods. By registering under false information or basing their businesses in foreign countries, these merchants are sometimes practically impervious to the reach of domestic U.S. law.³ As almost eighty percent of internet retail transactions involve the use of credit cards,⁴ trademark owners are increasingly turning their attention to members of the credit card industry when filing trademark infringement suits. The enormous growth of Visa and MasterCard (the “Association”) and their acquirers⁵ suggests that the industry can afford to bear greater responsibility for the

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1. See discussion *infra* Section III.A.3.

2. See, e.g., *Etsy: A Site for Artisans Takes Off*, BLOOMBERG BUSINESSWEEK (June 12, 2007, 11:08 AM), http://www.businessweek.com/smallbiz/content/jun2007/sb20070611_488723.htm (describing how almost ten million dollars worth of goods, mostly made by stay-at-home moms and college students, have been sold on the website etsy.com in its two years of operation).

3. See discussion *infra* Section III.A.3.

4. Ronald J. Mann & Seth R. Belzley, *The Promise of Internet Intermediary Liability*, 47 WM. & MARY L. REV. 239, 280 (2005).

5. Acquirers are the entities which are responsible for reviewing merchant applicants and bringing the merchant into the Visa or MasterCard networks. *Infra* Part II of this Note discusses the different acquiring entities and their roles within the payment networks in greater detail.

merchants from whom they derive their profits.⁶ Furthermore, as more traditionally cash and personal check-based companies begin to accept credit cards, the industry's growth will likely continue.⁷

Two recent cases, *Perfect 10, Inc., v. Visa International Service Ass'n*⁸ and *Gucci America, Inc. v. Frontline Processing Corp.*,⁹ address whether courts should hold payment intermediaries contributorily liable for trademark infringement by merchants and, if so, what steps the payment intermediaries can take to avoid liability. The Ninth Circuit declined to extend secondary copyright and trademark liability to the payment intermediaries in *Perfect 10*, affirming summary judgment for the Association and acquiring entities.¹⁰ By contrast, the Southern District of New York in *Frontline* denied the acquirers' motion to dismiss Gucci's contributory trademark infringement claims. Consequently, *Frontline* has made waves as the first case to find that payment intermediaries may be liable for secondary trademark infringement.¹¹

This decision's reception has been mixed. *Frontline* has generated worry and some vitriolic criticism for its extension of liability and also for its apparent departure from *Perfect 10*.¹² Critics expressed concern that extending

6. Merchants must pay fees in order to accept credit card payments from customers. Visa and MasterCard transactions have increased by an average of thirteen percent per year between 2000 and 2005. A paper, sponsored by the Payment Cards Center of the Federal Reserve Bank of Philadelphia and based on a January 19, 2007, workshop led by Marc Abbey, a managing partner at First Annapolis Consulting, discusses this trend. See Ann Kjos, *The Merchant-Acquiring Side of the Payment Card Industry: Structure, Operations, and Challenges*, PAYMENT CARDS CENTER, Oct. 2007, at 15, available at <http://www.philadelphiafed.org/payment-cards-center/publications/discussion-papers/2007/D2007OctoberMerchantAcquiring.pdf>.

7. *Id.* at 2. Of course, there will be periods of negative growth during market downturns. For example, during the recent recession, Visa-branded credit card volume decreased thirteen percent in 2009. PACKAGED FACTS, REWARDS CARDS IN THE U.S. 174 (3d ed. 2010).

8. 494 F.3d 788 (9th Cir. 2006).

9. 721 F. Supp. 2d 228 (S.D.N.Y. 2010).

10. *Perfect 10*, 494 F.3d at 793.

11. A search of Lexis and Westlaw within all state and federal cases for "trademark" & "credit card" & "contributor! liab!" on February 7, 2011, found only two (*Perfect 10* and *Frontline*) relevant cases which address secondary trademark liability for credit card companies.

12. See, e.g., Eric Goldman, *Payment Service Providers May Be Liable for Counterfeit Website Sales--Gucci v. Frontline*, ERIC GOLDMAN TECHNOLOGY & MARKETING LAW BLOG (June 29, 2010, 12:19 PM), http://blog.ericgoldman.org/archives/2010/06/payment_service.htm (arguing that *Frontline's* ruling is terrible on both a doctrinal and normative level); Mike Masnick, *Gucci Allowed To Sue Credit Card Processors For Contributory Infringement Over Counterfeit Goods*, TECHDIRT (July 6, 2010, 10:27 PM), <http://www.techdirt.com/articles/20100627/1124369974.shtml> (worrying about the chilling effects to service providers "when courts

liability to payment intermediaries will shift the policing of trademarks to service providers and create “deputization of private vendors into content cops.”¹³ Other commentators, however, have seen this decision as a natural extension of secondary trademark liability and a reinforcement of incentives for service providers to refrain from conducting business with illegal enterprises.¹⁴

This Note argues that *Frontline* is not as shocking a departure from established case law as some commentators have posited, and that the *Frontline* court’s careful consideration of the background of the credit card industry and the realities of the internet marketplace is a more nuanced analysis than the Ninth Circuit majority’s analysis in *Perfect 10*. Part I examines the history of contributory trademark liability. It also briefly considers secondary copyright liability cases to highlight the theories that have led to the expansion of liability over time. Part II explains the complex relationship between the Association, the acquiring industry, and merchants within the financial network. Analyzing these different entities together as simply “credit card companies”—as the majority in *Perfect 10* did—obscures the parties’ very different roles within the Visa and MasterCard networks. Such obfuscation could lead to an improper assessment of whether a party truly possesses the knowledge and control elements necessary for liability. Furthermore, the existence of multiple business models within the acquiring

start effectively demanding that third parties have detailed knowledge and understanding of their partners’ business practices”).

13. Goldman, *supra* note 12.

14. See Ronald D. Coleman, *Give the Man Credit*, LIKELIHOOD OF CONFUSION (June 28, 2010, 1:00 AM), <http://www.likelihoodofconfusion.com/?p=6035> (expressing approval for Judge Harold Baer, Jr.’s decision in *Frontline*); Jane Coleman, *Gucci v. Frontline Processing: Giving Credit for Infringement Where It’s Due*, LIKELIHOOD OF CONFUSION (July 12, 2010, 8:05 AM), <http://www.likelihoodofconfusion.com/?p=6112> (arguing that *Frontline* correctly recognizes the “essential role played by credit card companies in online trademark infringement”); Richard L. Santalesa, *SDNY Court Holds Credit Card Processors May Be Contributorily Liable for Trademark Infringement*, INFORMATION LAW GROUP (July 5, 2010), <http://www.infolawgroup.com/2010/07/articles/trademarks/sdny-court-holds-credit-card-processors-may-be-contributorily-liable-for-trademark-infringement/> (arguing that *Frontline* “is merely the natural result of a steady thirty year-old expansion in trademark infringement liability”); Robert L. Weigel & Howard S. Hogan, *Important New Decision Establishes That Credit Card Processors May Be Held Liable as Contributory Trademark Infringers for Knowingly Servicing Merchants Who Sell Counterfeits*, GIBSON DUNN PUBLICATIONS (June 25, 2010), <http://www.gibsondunn.com/publications/pages/Decision-CreditCardProcessorsMayBeHeldLiableAsContributoryTrademarkInfringers.aspx> (the writers are counsel for the plaintiffs, Gucci America, Inc., in *Frontline*) (“This decision reinforces the incentives that most credit card companies have already perceived to avoid doing business with merchants engaged in unlawful activities, and it gives trademark and copyright owners a powerful new weapon in battling counterfeiters.”).

industry necessitates a very fact-specific inquiry into any issues of secondary trademark liability. Part III considers *Perfect 10* and *Frontline* in light of the legal and payment industry backgrounds and argues that *Frontline* undertook a more nuanced analysis than *Perfect 10*, and that *Frontline* correctly denied summary judgment to the defendants. Finally, Part IV contemplates the possible administrative ramifications of extending liability to the entities within the Visa and MasterCard networks. Specifically, Section IV.B evaluates the feasibility of extending more merchant monitoring responsibilities to the Association.

I. THE HISTORY OF SECONDARY LIABILITY IN TRADEMARKS

Trademark law developed from the Lanham Act, enacted in 1946, which forbids the unauthorized use in commerce of “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, or to cause mistake, or to deceive.”¹⁵ In order to succeed in a claim for trademark infringement, a plaintiff must be able to demonstrate (1) that it has a valid mark, which qualifies for protection under the Lanham Act, and (2) the defendant is using a similar mark in a way that is likely to cause confusion to the relevant consumer group.¹⁶

Neither the statutory nor the constitutional sources for either trademark or copyright law explicitly authorize inclusion of secondary liability.¹⁷ Despite this lack of explicit authorization, courts have developed secondary liability regimes for both trademark and copyright law.¹⁸ Within this sphere, the two bodies of law derive their origin from the same source: common law torts.¹⁹

A. VICARIOUS LIABILITY

Within the tort system, there are two forms of secondary liability: vicarious liability and contributory liability. Vicarious liability focuses on the

15. 15 U.S.C. § 1114 (2006).

16. *Id.*

17. *See, e.g.*, J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 25:17 (4th ed. 2011); ROBERT P. MERGES ET AL., INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 582 (5th ed. 2010).

18. *See* MCCARTHY, *supra* note 17, at § 25:17; MERGES ET AL., *supra* note 17, at 582.

19. Elizabeth K. Levin, Note, *A Safe Harbor for Trademark: Reevaluating Secondary Trademark Liability After Tiffany v. Ebay*, 24 BERKELEY TECH. L.J. 491, 504 (2009); *see also* Mark Bartholomew & John Tehranian, *The Secret Life of Legal Doctrine: The Divergent Evolution of Secondary Liability in Trademark and Copyright Law*, 21 BERKELEY TECH. L.J. 1363, 1366 (2006).

relationship between the direct infringer and the defendant, and does not contain a knowledge requirement.²⁰ For a third party to be liable for vicarious trademark infringement, a plaintiff must establish that “the defendant and the direct infringer have an apparent or actual partnership, have authority to bind one another in transactions with third parties, or exercise joint ownership or control over the infringing product.”²¹ In copyright law, a third party could be liable if it “has the right and ability to supervise the infringing activity and also has a direct financial interest in such activities.”²²

B. CONTRIBUTORY LIABILITY

Both trademark and copyright regimes recognize the doctrine of contributory liability. Section I.B.1 traces the development of contributory liability in trademark law. Section I.B.2 then briefly compares this trademark doctrine to copyright law’s more expansive doctrine.

1. *Contributory Trademark Liability*

Scholars identify *William R. Warner & Co. v. Eli Lilly & Co.*²³ as the first case in which the Supreme Court recognized the doctrine of contributory trademark liability.²⁴ In *Eli Lilly*, the plaintiff and defendant both produced products with similar ingredients including quinine and chocolate.²⁵ Their products were respectively named Coco-Quinine and Quin-Coco. Although the Court did not find the defendant liable for direct trademark infringement, reasoning that a name that is merely descriptive of the ingredients cannot be claimed as a trademark,²⁶ the court nonetheless assessed liability based on the deceptive practices of the defendant’s salesmen.²⁷

Two decades later, *Coca-Cola Co. v. Snow Crest Beverages, Inc.*²⁸ established the reasonable person knowledge standard that is still in force today.²⁹ In this

20. Bartholomew & Tehranian, *supra* note 19, at 1366.

21. *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1150 (7th Cir. 1992).

22. *Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc.*, 433 F.2d 1150, 1162 (2d Cir. 1971); *see also* *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996) (finding that the plaintiff sufficiently plead facts to meet the control and financial benefit prongs of the vicarious copyright infringement test against the owner of a swap meet).

23. 265 U.S. 526 (1924).

24. *See, e.g.*, MCCARTHY, *supra* note 17, § 25:18; Levin, *supra* note 19, at 506.

25. *Eli Lilly*, 265 U.S. at 527.

26. *Id.* at 529.

27. *Id.* at 530 (describing how defendant’s salesmen “suggested that, without danger of detection, prescriptions and orders for Coco-Quinine could be filled by substituting Quin-Coco”).

28. 64 F. Supp. 980 (D. Mass. 1946).

29. Bartholomew & Tehranian, *supra* note 19, at 1379.

case, both the plaintiff and defendant sold dark brown carbonated drinks. The defendant, Snow Crest, supplied its Polar Cola to bars. Some of these establishments unscrupulously provided Polar Cola to customers who requested Coca-Cola specifically. The court emphasized that liability would be assessed only if a “reasonable person in the defendant’s position”³⁰ would recognize that they had “created a situation likely to result in infringement or was transacting with a customer that she should know would be particularly likely to use her product wrongfully.”³¹ Based on the facts of this case, the court determined that the defendant did not meet this standard³² and ultimately held that Snow Crest was not liable for the culpable behavior of the bar owners.³³

In 1982, the Supreme Court established the modern test for contributory trademark liability.³⁴ In *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*,³⁵ the Court broadened the knowledge requirement beyond that of actual knowledge.³⁶ The plaintiff in *Inwood*, Ives, filed suit against a group of manufacturers who produced generic substitutes in capsules substantially similar to Ives’s drug, Cyclospasmol.³⁷ Ives wanted the manufacturers to be held liable for the actions of certain pharmacists who dispensed generic versions under the label Cyclospasmol.³⁸ The Court reasoned that “[e]ven if a manufacturer does not directly control others in the chain of distribution,” this manufacturer can be found liable for the direct infringer’s actions in certain situations.³⁹ These circumstances are “if a manufacturer or distributor intentionally induces another to infringe a trademark, or if it continues to supply its product to one whom it knows *or has reason to know* is engaging in trademark infringement.”⁴⁰

Although the Court’s test specifically addressed manufacturers and distributors, in the wake of *Inwood*, lower courts have applied the *Inwood* standards outside these narrow categories. The Seventh Circuit in *Hard Rock Cafe Licensing Corp. v. Concession Services, Inc.*, partially basing its reasoning on

30. *Coca-Cola*, 64 F. Supp. at 989.

31. Bartholomew & Tehranian, *supra* note 19, at 1379–80.

32. *Coca-Cola*, 64 F. Supp. at 989 (stating that the defendant was “not under a duty to investigate possible passing off by bartenders, or to take steps to safeguard against such passing off, or to eliminate or curtail sales of its product”).

33. *Id.* at 991.

34. Levin, *supra* note 19, at 507.

35. 456 U.S. 844 (1982).

36. Levin, *supra* note 19, at 508 (citing *Inwood*, 456 U.S. at 861 (White, J., concurring)).

37. *Inwood*, 456 U.S. at 848–50.

38. *Id.*

39. *Id.* at 853–54.

40. *Id.* at 854 (emphasis added).

the common law duty of landlords and licensors,⁴¹ determined that a flea market owner could be contributorily liable for trademark infringement.⁴² In *Fonovisa, Inc. v. Cherry Auction, Inc.*, the Ninth Circuit relied on *Hard Rock's* reasoning to similarly find that a flea market could be contributorily liable for being willfully blind to its vendors' infringement.⁴³ Such cases have been rare, however, and scholars have suggested that courts are reluctant to extend the scope of secondary trademark liability beyond the parameters of *Inwood*.⁴⁴ The specter of excessively expansive liability has led to the development of an additional element in the contributory liability test for defendants outside of the products manufacturing and distribution realm: control.

In *Lockheed Martin Corp. v. Network Solutions, Inc.*,⁴⁵ the Ninth Circuit summarized *Hard Rock's* and *Fonovisa's* reasoning and explicitly adopted an additional control element to determine the contributory liability of service providers. The defendant, NSI, a registrar of domain names, permitted the third party registration of multiple domain names related to Lockheed's federally registered mark "SKUNK WORKS."⁴⁶ The district court cautioned that extending contributory trademark liability beyond the manufacturer or distributor context involves "careful examination of the circumstances to determine whether knowledge of the infringement should be imputed."⁴⁷ Outside of the distribution and manufacturing *Inwood* scenario, contributory liability will be assessed only if there is "[d]irect control and monitoring of the instrumentality used by a third party to infringe the plaintiff's mark"⁴⁸ The Ninth Circuit compared NSI's service to that of the postal service as merely a routine translation and routing procedure, and determined that NSI's rote service did not implicate the kind of direct control and monitoring necessary to extend liability.⁴⁹

Over time, the courts' interpretation of the knowledge standard has evolved to reflect the basic principal that there is no affirmative duty to either investigate or adopt precautions against third-party infringement unless circumstances suggest knowledge of the underlying infringement.⁵⁰ These

41. *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1148–49 (7th Cir. 1992) (citing RESTATEMENT (SECOND) OF TORTS § 877(c) cmt. d (1979)).

42. *Hard Rock*, 955 F.2d at 1150.

43. *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 265 (9th Cir. 1996).

44. *E.g.*, *Bartholomew & Tehranian*, *supra* note 19, at 1389.

45. 192 F.3d 980 (9th Cir. 1999).

46. *Lockheed Martin Corp. v. Network Solutions, Inc.*, 985 F. Supp. 949, 954 (C.D. Cal. 1997), *aff'd*, 192 F.3d 980 (9th Cir. 1999).

47. *Lockheed*, 985 F. Supp. at 961.

48. *Id.* at 984.

49. *Id.* at 984–85.

50. *Bartholomew & Tehranian*, *supra* note 19, at 1380.

circumstances involve instances where the defendant knew or was aware of facts under which a reasonable person would know about the direct infringement.⁵¹

At the same time, however, several courts have emphasized that a defendant cannot escape liability by being “willfully blind.”⁵² The Seventh and Second Circuits defined willful blindness as suspecting wrongdoing but then failing to investigate.⁵³ Recently, in *Tiffany v. Ebay*, the Second Circuit held that generalized knowledge about the existence of infringing behavior, without more specific information as to particular infringements, is insufficient to result in liability.⁵⁴

2. Comparing Contributory Trademark and Copyright Liability

Although trademark and copyright secondary liability both derive from common law torts, copyright’s secondary liability is more broadly drawn than the trademark equivalent. In declining to apply the *Inwood* test of inducement to a copyright case, the Supreme Court noted in *Sony Corp. of America v. Universal City Studios, Inc.*⁵⁵ that it has “consistently rejected the proposition that a similar kinship exists between copyright law and trademark law.”⁵⁶ Moreover, the Court characterized the *Inwood* trademark rule as a “narrow standard” and suggested that its application to the *Sony* facts would leave plaintiffs without much ground for a claim of contributory liability.⁵⁷ Lower

51. *Id.* at 1380–81 (referencing *Coca-Cola Co. v. Snow Crest*, 64 F. Supp. 980 (D. Mass. 1946)).

52. *Tiffany (NJ) Inc. v. Ebay Inc.*, 600 F.3d 93, 109 (2d Cir. 2010) (“A service provider is not . . . permitted willful blindness. When it has reason to suspect users of its service are infringing a protected mark, it may not shield itself from learning of the particular infringing transactions by looking the other way.”); *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1149 (7th Cir. 1992) (“[W]e have held that willful blindness is equivalent to actual knowledge for purposes of the Lanham Act.”).

53. *Hard Rock*, 955 F.2d at 1149.

54. *Tiffany*, 600 F.3d at 110. The Second Circuit highlighted eBay’s existing policies to detect and terminate illegal listings. For a detailed discussion about the case, see Michelle C. Leu, Note, *Authenticate This: Revamping Secondary Trademark Liability Standards to Address a Worldwide Web of Counterfeits*, 26 BERKELEY TECH. L.J. 591 (2011).

55. 464 U.S. 417 (1984).

56. *Id.* at 439 n.19 (“Given the fundamental differences between copyright law and trademark law, in this copyright case we do not look to the standard for contributory infringement set forth in *Inwood*, which was crafted for application in trademark cases.”) (internal citation omitted).

57. *Sony*, 464 U.S. at 439 n.19 (“If *Inwood*’s narrow standard for contributory trademark infringement governed here, respondents’ claim of contributory infringement would merit little discussion.”); see also *Perfect 10 v. Visa*, 494 F.3d 788, 806 (9th Cir. 2006) (“The tests for secondary trademark infringement are even more difficult to satisfy than those required to find secondary copyright infringement.”).

courts have followed the Supreme Court's dicta and have declined to apply copyright's "more expansive doctrine" to trademark cases.⁵⁸

Although secondary trademark liability is narrower than secondary copyright liability, the reasoning behind the latter's history of expansion may be useful to assess the expansion of trademark liability. For example, in the 1966 case *Screen Gems-Columbia Music, Inc. v. Mark-Fi Records, Inc.*,⁵⁹ Judge Weinfeld expressed concern for a particular type of "fly-by-night" counterfeiters.⁶⁰ He was worried about the reality of enforcement against illegal operations that were "carried on by small unreliable operators of dubious financial background who stay[ed] in business only long enough to reap their ill-gotten gains and disappear[ed] when legal action against them appear[ed] imminent."⁶¹ This anxiety ultimately resulted in a decision to extend liability to the advertising agency and radio stations which broadcast the advertisements for counterfeit records. Almost half a decade later, Judge Weinfeld's concern may also be valid for cases like *Perfect 10*, where the direct infringers operated anonymously from foreign countries and, as a result, were practically impossible to reach for judgment.

II. UNDERSTANDING THE VISA AND MASTERCARD "FOUR-PARTY NETWORKS"

Gaining a clear understanding of how the Visa and MasterCard networks function and the very different roles the parties within the networks perform will enable a clearer assessment of a particular defendant's connection to the infringing merchant. Section II.A examines the Association's duties and considers how it is removed from direct merchant interactions. Section II.B.1 outlines the three primary acquirer business structures which may expose the same party to different liability assignments. Section II.B.2 evaluates the high-volume profit model of the acquiring industry. Familiarity with this model is necessary to understand why the acquirers' current merchant monitoring methods primarily focus on data analysis, a topic explored in Section II.B.3.

Advances in technology have resulted in a payment market dominated by specialized entities operating in large-scale.⁶² Although there are multiple

58. *See, e.g.*, *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1150 (7th Cir. 1992).

59. 256 F. Supp. 399 (S.D.N.Y. 1966).

60. *Id.* at 401.

61. *Id.* at 404.

62. RONALD J. MANN, CHARGING AHEAD: THE GROWTH AND REGULATION OF PAYMENT CARD MARKETS 25 (2006); Kjos, *supra* note 6, at 7.

credit card systems, the Visa and MasterCard networks⁶³—sometimes referred to as the “four-party networks”⁶⁴—dominate the market.⁶⁵ Because they are the dominant networks, and because only the four-party networks are implicated in *Perfect 10* and *Frontline*, this Note’s scope is limited to those networks.

The “four-party network,”⁶⁶ illustrated in Figure 1, *infra*, includes the following key participants:

- (1) The cardholder;
- (2) The network authorized *merchant*;
- (3) The *issuing bank*⁶⁷ that has the relationship with the consumer and issues the cards to the consumer;
- (4) The *acquirer*⁶⁸ that reviews merchant applicants, brings the merchant into the network, and coordinates processing for the merchant.⁶⁹ In the Visa and MasterCard payment networks, only banks can technically qualify to be “acquirers.”⁷⁰ These banks are called the “*acquiring bank*” because the term “acquirer” has been used broadly to apply to other merchant service providers. Some banks will enter into joint ventures or sponsor *third-party firms*. These firms provide such an extensive scope of services that they are often known as “acquirers” even though some of them are simply third-party processors.⁷¹ This

63. The merchant acquiring industry is generally associated with the Visa and MasterCard four-party network. See Kjos, *supra* note 6, at 3. For purposes of this note, the payment cards under discussion are general purpose cards such as Visa and MasterCard. Private-label cards issued by retailers such as Macy’s or Nordstroms will not be discussed.

64. Ramon P. DeGennaro, *Merchant Acquirers and Payment Card Processors: A Look Inside the Black Box*, 91 FED. RES. BANK OF ATLANTA ECON. REV. 27, 31 (2006), available at http://www.frbatlanta.org/filelegacydocs/erq106_degennaro.pdf. In the three-party network, the card issuer and the merchant acquirer is the same entity, such as American Express and Discover. *Id.* at 28; see also Kjos, *supra* note 6, at 3. For a quick summary on the American Express system, see PACKAGED FACTS, *supra* note 7, at 115–16.

65. Visa had 52.12% of the U.S. market share and MasterCard had 27.47% as of 2005. THE NILSON REPORT, No. 863, at 1 (2006).

66. There are more than four parties within the “four-party network.” Various scholars selectively highlight different entities within the network. For example, some scholars identify the four parties as: The (1) cardholder, (2) card issuer, (3) merchant, and (4) acquirer. See Howard H. Chang, *Payment Card Industry Primer*, 2 PAYMENT CARD ECONOMICS REVIEW 29, 37 (2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=653882; MANN, *supra* note 62, at 20.

67. Sometimes referred to as the “card issuer.”

68. Sometimes called the “merchant acquirer.”

69. MANN, *supra* note 62, at 20.

70. DeGennaro, *supra* note 64, at 31.

71. Kjos, *supra* note 6, at 2–3. Most large-scale acquirers provide processing services in-house. DeGennaro, *supra* note 64, at 30–31. Other times the acquiring bank contracts out

Note uses “acquirers” as an all-encompassing term, indicating the entire category of nonbank and bank acquirers. When distinction is needed, this Note uses specific terms such as “acquiring bank,” “third-party firm,” or “processor.” Section II.B.1, *infra*, discusses this in greater depth;

- (5) The *processors*⁷² that are responsible for transaction authorization. They electronically route a transaction from the point of sale to the network.⁷³ Later, processors use this point of sale electronic information to deposit funds in the merchant’s account.⁷⁴ Acquiring banks may perform payment processing in-house or contract the work out. Section II.B.1, *infra*, discusses this in greater depth;
- (6) The *service providers* that are third-party specialized companies such as independent sales organizations. They provide additional services to merchants via contract with acquirers and are discussed in greater depth in Section II.B.1, *infra*; and
- (7) *The Association*⁷⁵ consisting of the network providers Visa and MasterCard.

the processing services to third parties. These third parties are called “third-party processors.” As previously mentioned the latter party will be covered under the umbrella term “acquirers.” Chang, *supra* note 66, at 45 n.48 (“The available statistics on acquirer shares report the volume of processors such as FDC as though they were acquirers, even though technically the acquirer is the bank member of the card associations that signs up the merchant.”) (referencing THE NILSON REPORT, No. 783 (2003)).

72. Processors are sometimes referred to as “card processor” or “payment processor.” DeGennaro, *supra* note 64, at 27–28. At times the term “third-party processor” is used if the processing service is contracted out by an acquirer to a third party. *Id.* at 31.

73. This process is called “front-end processing.” *Id.* at 31–32.

74. This process is called “back-end processing.” *Id.* at 30–31. Processors may perform both front-end and back-end processing, or only one.

75. Various terms are used interchangeably with “the Association.” Visa and MasterCard are frequently referred to as the “network providers,” “card association,” or “credit card association.” See e.g., MANN, *supra* note 62, at 20–21; Joshua S. Gans & Stephen P. King, *The Neutrality of Interchange Fees in Payment Systems*, 3 TOPICS IN ECON. ANALYSIS & POLICY 1, 1 (2003), available at <http://www.bepress.com/cgi/viewcontent.cgi?article=1069&context=bejeap>.

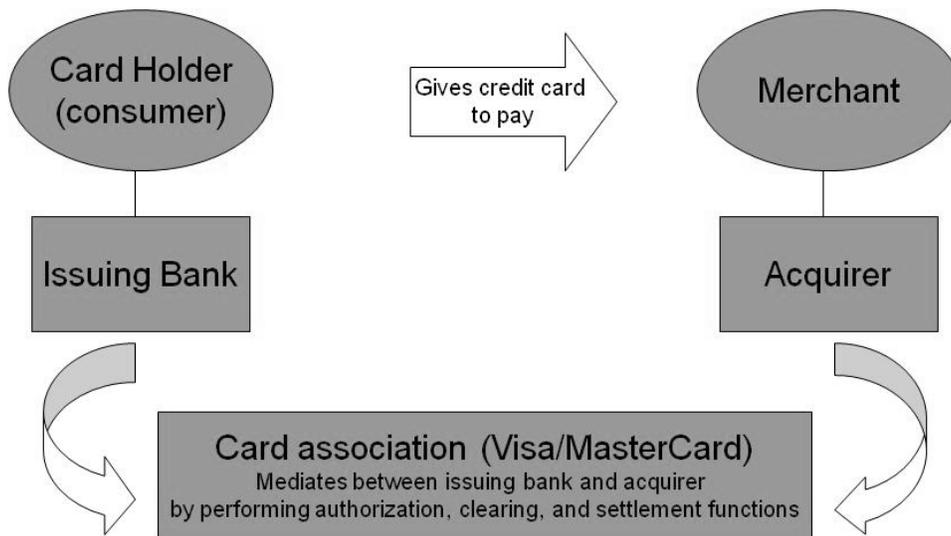


Figure 1: Four Party Visa/MasterCard System

A. THE ASSOCIATION: ATTENUATED MERCHANT CONTACT

Visa and MasterCard administer four primary functions within the system. First, they establish the ground rules, including liability assignments, for the transactions involving their brands.⁷⁶ Second, the Association mediates between the issuing banks and acquiring banks by performing the authorization, clearing, and settlement functions.⁷⁷ Third, the Association establishes the main fees—such as the interchange fee—that affect acquirers’ and issuers’ profits.⁷⁸ Lastly, the Association promotes and develops network innovations to improve processing services for customers and merchants.⁷⁹

These duties suggest that Visa and MasterCard do not personally screen which merchants enter their networks.⁸⁰ Even after the acquirers perform the initial screening, the Association assigns many aspects of continual monitoring and disciplining to the acquirers or third parties.⁸¹ For example,

76. MANN, *supra* note 62, at 21.

77. DeGennaro, *supra* note 64, at 31; *see also* Kjos, *supra* note 6, at 2. Visa, for example, requires acquirers to use VisaNet to communicate with the issuing bank when a transaction involves Visa cards. MANN, *supra* note 62, at 20–21.

78. The card networks set the interchange fee that acquirers must pay issuers per transaction. Although network providers do not set the acquirers fees, this interchange fee affects the minimum that acquirers will charge merchants. *See* Chang, *supra* note 66, at 43; *see also* Adam J. Levitin, *Payment Wars: The Merchant-Bank Struggle for Control of Payment Systems*, 12 STAN. J.L. BUS. & FIN. 425, 444 (2007).

79. Chang, *supra* note 66, at 43.

80. That is primarily the acquirer’s responsibility and will be discussed in detail *infra* Section II.B.

81. *Infra* Part IV.

the Association's current complaint system for illegal merchant activity assigns the burden of initiating the process to the complaining individual or business.⁸² The complainant needs to approach the payment system with clear, documented, and substantial evidence of illegal activity that adequately identifies the responsible merchant.⁸³ The network provider then assesses the legality of the activity under issue.⁸⁴ Because the network provider does not have the expertise of courts, they usually only determine illegality for the clearest cases of violations.⁸⁵ As the Association does not work directly with merchants, they usually contact the acquirer and pass on the duties from there.⁸⁶ Typically, the acquirer will bring the merchant into compliance or will terminate the business relationship.⁸⁷ If the merchant thinks that its activity is legal, the merchant can go to court to establish legality.⁸⁸

B. ACQUIRERS: DIRECT RELATIONSHIPS WITH MERCHANTS

Acquirers bring merchants into the card network, have primary merchant vetting responsibilities, and are direct liaisons between merchants and the Association. Section II.B.1 introduces the primary acquiring organizational structures. Section II.B.2 discusses the acquiring industry's standardized services and its influence on a business model focused on maximizing economies of scale. Section II.B.3 then examines how these factors contribute to the industry's data-centered merchant monitoring programs.

1. *Multiple Acquirer Organizational Structures*

A complicated entanglement of relationships has developed as a result of Visa and MasterCard's bank-centered networks. Because of the Association's requirement that only acquiring banks can be "acquirers," a number of third-party specialized processing services and other merchant service providers have formed alliances with sponsoring acquiring banks in order to participate in the Visa and MasterCard networks.⁸⁹ However, regardless of any other third-party firm that the acquiring bank may contract with, the Association

82. Mark MacCarthy, *What Payment Intermediaries Are Doing About Online Liability and Why It Matters*, 25 BERKELEY TECH. L.J. 1037, 1091 (2010).

83. *Id.*

84. *Id.* at 1091–92.

85. *Id.* at 1092.

86. *Id.*

87. *Id.*

88. *Id.*

89. DeGennaro, *supra* note 64, at 31; *see also* Kjos, *supra* note 6, at 2–3.

holds the acquiring bank ultimately responsible for both direct and indirect merchant transactions.⁹⁰

There are numerous structural combinations possible for performing acquiring responsibilities.⁹¹ Depending on the organizational model, the acquiring bank and any additional service providers may be responsible for different degrees of merchant oversight. Three basic models are illustrated, *infra* Figure 2. One such model is an acquiring bank that administers most of the relevant merchant services and, as a result, has a direct relationship with the merchant.⁹² There are also firms, jointly owned by banks and nonbank acquirers, where the bank is the banking sponsor for Visa and MasterCard.⁹³ At the other end, a nonbank acquirer may provide access to the card networks and almost all other relevant merchant services under contract with a sponsoring bank.⁹⁴ Under this last scenario, the acquiring bank will probably have very little direct exposure to merchants.⁹⁵

90. See Kjos, *supra* note 6, at 2–3 (referring to “member financial institution” as the acquiring banks); see also Meeting Documents, Federal Reserve Staff and the Electronic Transactions Association, Aug. 18, 2010, at *4 (citing FEDERAL FINANCIAL INSTITUTIONS EXAMINATION COUNCIL, RETAIL PAYMENT SYSTEMS IT EXAMINATION HANDBOOK 68 (Feb. 2010), available at <http://ithandbook.ffiec.gov/it-booklets/retail-payment-systems.aspx> (“Regardless of the presence of . . . third parties, the credit card networks expect the acquiring bank to be the risk-controlling entity throughout the credit card process.”)), available at http://www.federalreserve.gov/newsevents/files/eta_20100818.pdf.

91. The market used to be run by acquiring banks but now has become dominated by large technology companies with contract with acquiring banks. MANN, *supra* note 62, at 25. First Data Corporation is an example of such a large technology company. See generally FIRST DATA CORPORATION, http://www.firstdata.com/en_us/home (last visited Feb. 9, 2011).

92. Chase Paymentech is an example of a merchant service subsidiary of a bank, JP Morgan Chase Bank. See PACKAGED FACTS, *supra* note 7, at 139; see also *How Chase and First Data are Splitting Chase Paymentech*, DIGITAL TRANSACTIONS (May 27, 2008), <http://www.digitaltransactions.net/index.php/news/story/1796>. Some scholars have also listed Fifth Third as an example of a merchant service subsidiary of a bank. See e.g., Kjos, *supra* note 6, at 7. However, Fifth Third appears more similar to the second model. Fifth Third Bank offers merchant services via Fifth Third Processing Solutions, a joint venture with private-equity firm Advent. See generally FIFTH THIRD PROCESSING SOLUTIONS, <http://www.ftpsllc.com/> (last visited Feb. 9, 2011). The company appears to be expanding its service efficiency as it is planning on buying National Processing. See *Fifth Third Processing Buying National Processing*, BLOOMBERG BUSINESSWEEK (Sept. 15, 2010, 6:58 PM), <http://www.businessweek.com/ap/financialnews/D9I8KV000.htm>.

93. Kjos, *supra* note 6, at 7. Kjos lists Paymentech as an example but the company announced in 2008 that Chase Merchant Services and First Data Corporation were ending their joint venture. Paymentech is now the merchant services subsidiary of JPMorgan Chase Bank and operated in-house. See *How Chase and First Data are Splitting Chase Paymentech*, *supra* note 92.

94. Kjos, *supra* note 6, at 7. Heartland Payment System, for example, is sponsored by the Bancorp Bank. *The Bancorp Bank to Provide Sponsor Bank Services for Heartland Payment*

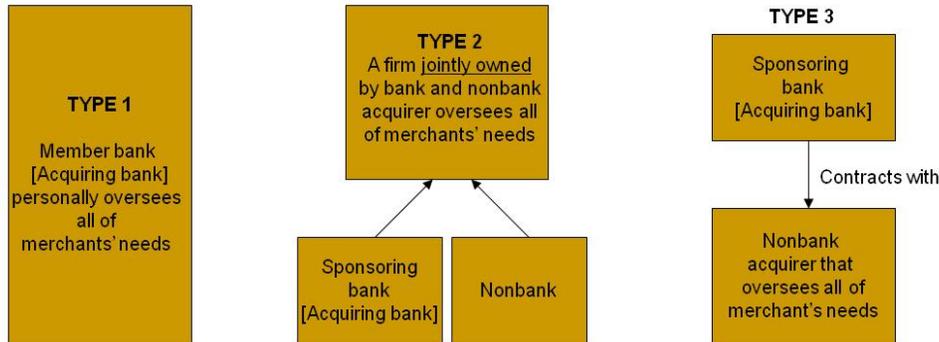


Figure 2: Three Basic Acquirer Structures

Specialized third-party service providers support these main business models via contract. Figure 3 illustrates how a business model may look if it contracts out certain services to third-party service providers. The inclusion of these latter groups in a business model provides yet another layer of buffered interaction with merchants. In particular, acquirers often contract with *independent sales organizations* (“ISOs”). ISOs solicit new merchants, sign up merchants for network access, and manage merchant relationships.⁹⁶ Carmody & Bloom, a management consulting firm, conducted a study for MasterCard and determined that 1,800 to 2,700 U.S. ISOs were responsible for sixty to eighty percent of merchant sign-ups.⁹⁷ The study highlighted three primary areas where ISOs and acquirers share risk managing duties: (1) “[s]creening of ISOs prior to entering a business relationship[;]” (2) “[s]creening of merchants’ financial and credit information as part of making the ultimate underwriting decision[;]” and (3) “[p]erforming back-end risk monitoring, which involves tracking merchant-level and ISO-level transaction data to identify out-of-pattern transactions that may be signs of merchant fraud or credit problems.”⁹⁸

Systems, PYMNTS.COM NEWS (Apr. 19, 2010), <http://www.pymnts.com/the-bancorp-bank-to-provide-sponsor-bank-services-for-heartland-payment-systems-20100419005763>.

95. Issues of formation may complicate liability assessments. For example, whether an acquirer is a corporation, a limited liability company, or etc. may affect liability.

96. Kjos, *supra* note 6, at 8. See, e.g., MASTERCARD MEMBER SERVICE PROVIDER RULES MANUAL (Apr. 7, 2006), http://www.mastercard.com/us/wce/PDF/13000_MSP-Entire_Manual.pdf.

97. *MasterCard Research Outlines Best Practices to Help ISOs and Acquirers Attain New Business Opportunities*, BUSINESS WIRE (Apr. 11, 2002), <http://www.thefreelibrary.com/MasterCard+Research+Outlines+Best+Practices+to+Help+ISOs+and...-a084661996>.

98. *Id.*

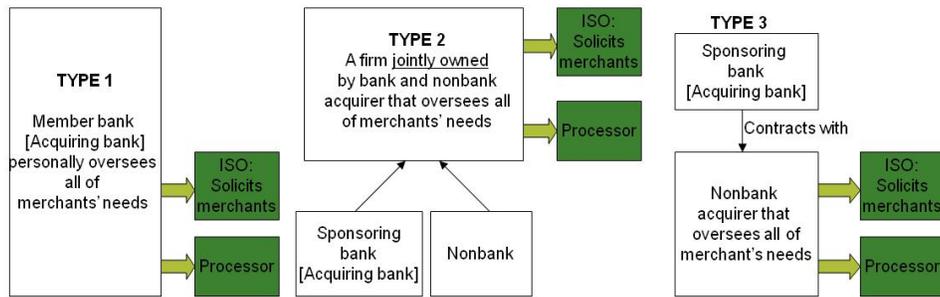


Figure 3: Three Basic Structures May or May Not Contract Out Certain Services to ISOs or Third-Party Processors

2. *The Acquiring Industry's Focus on High-Volume Processing*

The acquiring industry is fractured, specialized, and highly competitive.⁹⁹ This environment may provide incentives to service illegal, yet profitable, merchants.

Large-scale banks and third-party processors, whose profit margins are primarily affected by the volume of transactions they process, have come to dominate the acquiring industry due to economies of scale, technological advances, and the low-risk business model of acquiring institutions.¹⁰⁰ Acquirers derive almost all their revenue from standard processing functions.¹⁰¹ Because of this, they do not have the ability to significantly differentiate their services, and as a result, the services they provide are akin to commodities.¹⁰² Moreover, “[b]ecause commodities compete solely on price, their sellers tend to have low margins and rely on volume for profit.”¹⁰³ These operating models have spurred the development of large firms with enormous processing power that can maximize “economies of scale.”¹⁰⁴ By comparison, issuing banks profit mostly from the credit they extend to

99. Meeting Documents, Federal Reserve Staff and the Electronic Transactions Association, *supra* note 90, at *2.

100. MANN, *supra* note 62, at 25 (pointing to First Data Corporation as an example); *see also* Chang, *supra* note 66, at 31, 45; Kjos, *supra* note 6, at 11.

101. Kjos, *supra* note 6, at 10.

102. *Id.* at 8–10.

103. Levitin, *supra* note 78, at 443. Because price is a big factor for acquirers in winning merchant accounts, acquirers operate on a relatively small profit margin. Chang, *supra* note 66, at 44; *see also* Levitin, *supra* note 78, at 444. The acquirers’ relationship with the merchant extends beyond the basic processing services previously described. Due to the competitiveness of the industry, and the increasing complexity of the fee structure from the card networks and issuing banks, most major acquirers provide services such as transactional data analysis. Kjos, *supra* note 6, at 6; *see also* DeGennaro, *supra* note 64, at 34. Merchant acquirers may also install card terminals, record transactions, provide reports, and handle other card processing problems. Kjos, *supra* note 6, at 19.

104. MANN, *supra* note 62, at 25; *see also* Kjos, *supra* note 6, at 10.

customers because they compete for customers through differentiated credit product services.¹⁰⁵

Acquirers cannot differentiate their credit services because they have learned to manage the primary merchant risk—chargebacks. Chargebacks are customer transactional disputes that result in a reversal of the transaction.¹⁰⁶ The Association established liability rules where merchants, and ultimately acquirers, are responsible for absorbing the costs involved with chargebacks.¹⁰⁷ If the merchant cannot pay, the acquirer is responsible for paying.¹⁰⁸ This exposes acquirers to a high risk of fraud.¹⁰⁹ But, the industry has generally learned to manage this primary risk¹¹⁰ through financial vetting processes discussed *infra* Section II.B.3.¹¹¹ Its success, though, has left few options for risk-based pricing and contributes to a lack of service differentiation.¹¹² Ultimately, this has helped shape the industry's bottom line emphasis on maximizing economies of scale.¹¹³

3. *Merchant Vetting Focuses on the Merchant Applicant's Financial Health*

Because of the industry's central risk, chargebacks, the acquirers typically focus their screening efforts on assessing factors relevant to the individual merchant's financial health.¹¹⁴ The acquirer's careful evaluation of the merchant applicant's credit and financial statements, and continual monitoring of the credit quality of its current merchant clients protects the acquirer from the risk of chargebacks if the merchant defaults. Such evaluation usually comprises of assessing firm-specific effects and the nature of individual transactions.¹¹⁵

When evaluating firm-specific effects, the acquirer will use general methods such as analysis of financial ratios.¹¹⁶ The acquirer also considers the

105. Kjos, *supra* note 6, at 10.

106. DeGennaro, *supra* note 64, at 34.

107. *Id.*

108. *Id.* at 35.

109. DeGennaro discusses an example where a merchant fraudulently accepts payments without the intention of delivering goods. As a result, when customers challenge the transaction, the acquirer is left with the responsibility of compensating the customers. *Id.*

110. Kjos, *supra* note 6, at 11 (“[T]he cost of chargebacks has been consistently around 1.5 to 2.5 basis points (0.015–0.025 percent) of volume.”).

111. DeGennaro, *supra* 64, at 34–41.

112. Kjos, *supra* note 6, at 11.

113. *Id.* at 10.

114. *See* DeGennaro, *supra* 64, at 34–41.

115. *Id.* at 37.

116. *Id.* at 39. DeGennaro explains that:

For unincorporated businesses, financial statements are often unaudited, so acquirers might use business tax returns to supplement the unaudited

nature of individual transactions such as whether purchases are made in-person or over the Internet.¹¹⁷ Person-not-present transactions pose a higher risk of fraud and result in a higher likelihood that a customer will contest the transaction.¹¹⁸

The acquirer's initial financial assessment, however, does extend beyond data analysis. A careful screening factor is the nature of the merchant's type of industry—described as “industry effects.”¹¹⁹ The merchant's type of industry is important because some industries are more prone to chargebacks than others. For example, a health club membership is more likely to result in “buyer's remorse.”¹²⁰ Also, merchants selling high-priced goods with uncertain or debatable value usually have a higher rate of chargebacks.¹²¹

statements. Especially for small firms, acquirers even proceed beyond the firm level and use information about the owners and managers of companies, especially for unincorporated businesses. Acquirers can use credit scores from the Fair Isaac Corporation, commonly known as FICO scores, at the personal level as well as at the business level. Acquirers also use credit report information and the number of years that a potential customer has been in business to gauge risk.

Id.

117. DeGennaro discusses this more in a section on “transaction-related risks.” *Id.* at 40–41.

118. *Id.* at 41. Acquirers help deal with this problem by giving merchants discount rates depending on the number of “hurdles” the merchant sets up during the check-out process. The more “hurdles,” the higher the discount rate. A common hurdle, for example, is requiring entry of the billing address for the credit card. This ostensibly gives more assurance that the actual cardholder is completing the transaction. In this realm, the hand of the card associations can be seen again. The Association has established procedures to improve network efficiency which acquirers must follow. For example, Visa and MasterCard have a MATCH list (Member Alert to Control High Risk Merchants) of “problem” companies. An acquirer would be liable for losses of another acquirer if the former withholds services from a merchant because of “adverse processing behavior” and does not add that merchant to the MATCH list. *Id.*

119. *Id.* at 37. Also, merchant acquirers charge merchants different fees based on merchant compliance with transaction procedures. *Id.*

120. *Id.*

121. Internet Secure—an acquirer—lists a number of “prohibited businesses” that they will not establish a relationship with. The list includes businesses prohibited by law, such as gambling and drugs. The list also includes businesses which are legal but have a high risk of “buyer's remorse,” such as fortune telling, which lead to chargebacks. INTERNET SECURE, <http://www.internetsecure.com/solutions-faq.htm#2> (last visited Feb. 9, 2011).

a) Continual Merchant Monitoring: Predominantly Data and Pattern Based

The industry is aware of and attempts to self-police merchants who have fraudulently gained access to the card networks.¹²² Outside of the initial screening, though, only certain data patterns or deviations from the respective merchant's usual business patterns triggers a closer investigation. The Electronic Transaction Association's ("ETA")¹²³ trade publication warns against "bait and switch criminal fraud," where merchants set up seemingly legitimate businesses for a few months and then switch to processing fraudulent transactions once the acquirer's scrutiny lessens.¹²⁴ ETA recommends prevention through careful initial screening of financial statements and continual monitoring of changes in transaction patterns.¹²⁵

ETA also advises that random customer calls, "ghost shopping,"¹²⁶ and transactional monitoring techniques¹²⁷ may prevent "business format change," where merchants lie about the format of their company in order to gain access to the networks.¹²⁸ ETA's recommendation, however, does not note "ghost shopping's" effectiveness. For an industry so dependent on volume transactions, acquirers may face difficulties in ghost shopping all of their merchants.

The acquirer's risk department is responsible for this monitoring.¹²⁹ Acquirers review most merchants' financial accounts at least once a year.¹³⁰ As previously discussed,¹³¹ the risk department tracks certain patterns and uses specific criteria in order to monitor each merchant's transactions.¹³²

122. See generally 2:1 ELECTRONIC TRANSACTIONS ASSOCIATION: WHITE PAPER, RISK MANAGEMENT 11 (April 2006) [hereinafter *White Paper*] (industry publication that published articles regarding combating merchant fraud), available at http://www.electran.org/docs/whitepapers/White%20Paper%20_Spring%2006_%20Final.pdf.

123. ETA is a trade association that primarily represents companies involved with merchant services and the distribution and sale of electronic payments products.

124. *White Paper*, *supra* note 122, at 4.

125. *Id.*

126. An acquirer, without disclosing its official purpose, can order a product or service from the merchant. *Id.* at 9.

127. For example, if a merchant initially processes larger payments but then many of the payments become smaller and consistently appears once a month on cardholder records, this may suggest a subscription to an adult website has been sold. *Id.* at 5.

128. *Id.* at 4–5.

129. *Id.* at 6.

130. DeGennaro, *supra* note 64, at 37.

131. *Supra* Section II.B.3.a.

132. *White Paper*, *supra* note 122, at 11.

Typically, such monitoring includes processing limits, average tickets, chargebacks, credits, and batch monitoring.¹³³

III. EXAMINING *FRONTLINE* AND *PERFECT 10*

A. *PERFECT 10*: DOES NOT DISTINGUISH BETWEEN THE ASSOCIATION'S AND ACQUIRERS' DIFFERENT FUNCTIONS

In *Perfect 10, Inc., v. Visa International Service Ass'n*,¹³⁴ the Ninth Circuit granted summary judgment for all the defendants, dismissing the plaintiff's secondary copyright and trademark infringement claims.¹³⁵ The plaintiff, Perfect 10, distributed "adult-oriented" images through magazines and a subscription website.¹³⁶ The company owned the copyright to these images of "the world's most beautiful natural models"¹³⁷ and held the federally registered trademark "PERFECT 10" and "PERFECT10.com."¹³⁸ Several hundred websites (the "Stolen Content Websites") directly infringed Perfect 10's copyright and trademark rights by publishing Perfect 10's copyright images while also using Perfect 10's mark.¹³⁹ Perfect 10 filed lawsuits against the Association, acquiring bank, third-party processor, and ISO¹⁴⁰ responsible for soliciting and processing the Stolen Content Websites' credit card sales, instead of the direct infringer, because of the alleged difficulty involved with filing lawsuits against the Stolen Content Websites.¹⁴¹

133. Acquirers place a monthly *processing limit* on merchants that permits the merchant to accept credit card transactions up to that limit. The acquirer is able to monitor the merchant's transactional volume during the month to ensure that the merchant does not exceed the approved limit. An *average ticket*, which is an average of the merchant's product price, is calculated during the merchant account approval process. The acquirer conducts an investigation of any transactions which exceed the average ticket. Acquirers also monitor the number of *chargebacks*, percentages and reason codes in order to profile merchants' business practices. At the conclusion of each day, acquirer's risk department reviews each batch of submitted processing for transactions exceeding the average ticket, chargebacks, excessive authorization, and many other items. *Id.* at 11.

134. 494 F.3d 788 (9th Cir. 2006).

135. *Id.* at 792–93.

136. Plaintiff and Appellant Perfect 10, Inc.'s Opening Brief at 6, *Perfect 10*, 494 F.3d 788 (No. 05-15170).

137. *Id.* at 1.

138. *Id.* at 6.

139. *Id.*

140. Defendants are Visa, MasterCard, First Data Corporation and its wholly-owned subsidiary CardService International, as well as Humboldt Bank. Plaintiff and Appellant Perfect 10, Inc.'s Opening Brief, *supra* note 136, at 1. CardService International has since merged and is now "First Data Independent Sales." See CARDSERVICE INTERNATIONAL, <http://www.cardserviceinternational.com/> (last visited Feb. 9, 2011).

141. Plaintiff and Appellant Perfect 10, Inc.'s Opening Brief, *supra* note 136, at 2.

The majority dismissed Perfect 10's claim for contributory trademark infringement because the defendants supposedly lacked "[d]irect control and monitoring of the instrumentality used by a third party to infringe the plaintiff's mark."¹⁴² The majority was not persuaded by Perfect 10's argument that the credit card payment network, which processed the sales of the infringing material, was the "instrumentality" in question.¹⁴³ Instead, the Ninth Circuit took a very literal view, focusing on the fact that direct infringement—the illegal websites' use of the Perfect 10 mark—could and did occur without involving the payment intermediaries.¹⁴⁴ The court reasoned that even though the defendants' refusal to process payments might have the "practical effect" of reducing or halting the infringing activity, it did not by itself constitute "direct control."¹⁴⁵ Thus, the majority reasoned, as Perfect 10 did not allege that the defendants had the direct ability to remove infringing material from the website, or the ability to "directly stop" the distribution of such material over the Internet, the financial intermediaries did not have sufficient control to be liable.¹⁴⁶

1. *Secondary Liability May Not Require Absolute Control over Direct Infringer*

The cases discussed in Part I, *supra*, extended liability to indirect actors without considering if the indirect actors were an *essential* factor for the direct infringement. *Fonovisa*¹⁴⁷ and *Hard Rock*,¹⁴⁸ for instance, extended liability to the flea market owners despite the fact that the flea market owners could not absolutely prevent the direct infringers from selling and using the mark elsewhere. This case law complicates the majority's finding in *Perfect 10* that the defendants did not have sufficient control because the direct infringement could theoretically take place without credit cards.

In addition, although *Perfect 10*'s majority attempted to distinguish *Perfect 10* from *Fonovisa* and *Hard Rock*, their analysis may be further complicated by the majority's failure to consider the unique features of the payment industry. To support its departure from *Fonovisa* and *Hard Rock*, the majority relied on *Lockheed Martin*'s statement that "[w]hile the landlord of a flea market might

142. *Perfect 10, Inc., v. Visa Int'l Serv. Ass'n*, 494 F.3d 788, 807 (9th Cir. 2006) (citing *Lockheed Martin Corp. v. Network Solutions, Inc.*, 194 F.3d 980, 984 (9th Cir. 1999)).

143. *Id.*

144. *Id.*

145. *Id.* at 807 (citing *Lockheed*, 194 F.3d at 985).

146. *Id.*

147. *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996).

148. *Hard Rock Cafe Licensing Corp. v. Concession Servs., Inc.*, 955 F.2d 1143, 1150 (7th Cir. 1992); *see also supra* Section I.B.1.

reasonably be expected to monitor the merchandise sold on his premises, [the defendant] . . . cannot reasonably be expected to monitor the Internet.”¹⁴⁹ For two key reasons, monitoring the legality of the merchants within the four-party network is very different from “monitoring the Internet.” First, Perfect 10 only sought to extend liability to merchants whose businesses were solely based on infringement, not to persecute predominantly legitimate merchants who may have had a few false transactions. The network entities, then, would not be required to guarantee the legality of every internet transaction. Second, as *supra* Section II.B demonstrates, each acquirer already supposedly conducts a legitimizing review of merchant applicants before admitting them into the payment network. This review is manual, personal, and very different from the automatic registration system at issue in *Lockheed Martin*. Thus, the majority’s comparison of *Perfect 10* to *Lockheed Martin* highlights the precipitous dismissal of claims when the payment intermediary’s individual role in the network is overlooked. In his dissent, Judge Kozinski noted that treating the Association the same as acquirers and payment processors is simplistic.¹⁵⁰ Such generalized categorization, Kozinski surmised, may obscure the assignment of liability since the defendants with little merchant interaction may be absolved of liability.¹⁵¹

2. *Plaintiff Failed to Consistently Maintain Distinctions Between the Defendants*

The Ninth Circuit’s treatment of all the defendants under one analysis may have been influenced by Perfect 10’s inconsistent evaluation of the defendants. In its opening brief, Perfect 10 at times distinguished between the Association and the acquiring entities—Humboldt Bank, First Data Corp. and CardService International, Inc.—stating that the acquirers are supposed to “verify and process” the credit card charges according to network rules.¹⁵² However, Perfect 10 inconsistently maintained these distinctions and its brief intermingled allegations against the Association and the acquirers. For example, in the control element section of its opening brief, Perfect 10 jumps from a description of MasterCard’s Black List, which

149. *Perfect 10*, 494 F.3d at 807 (citing *Lockheed*, 192 F.3d at 985).

150. *Perfect 10*, 494 F.3d at 810 n.2 (Kozinski, J., dissenting) (arguing that referring “to defendants collectively as credit card companies or credit cards . . . adopt[s] the same simplifying assumptions as the majority”).

151. *Id.* (“I am aware that Visa and MasterCard don't deal directly with merchants It may well be that some of the defendants will be absolved of liability because they have no direct contact with merchants or consumers . . .”).

152. Plaintiff and Appellant Perfect 10, Inc.’s Opening Brief, *supra* note 136, at 7.

essentially bans all listed merchants from acquiring reputable credit card processing services, to listing the requirement that “defendants” must inspect merchants’ websites, premises, financial statements, and other information before accepting them into the payment network.¹⁵³ From Perfect 10’s description of these powers and responsibilities, it is unclear whether the Association or the acquirers are responsible for such an inspection.¹⁵⁴ The Black List’s possible illustration of control would arguably only implicate the Association. Similarly, the acquirers’ merchant review function arguably only implicated the acquirers. Subsuming these facts under a discussion about all the defendants clouds the issue of liability. As discussed, *supra* Section II.B, if the Ninth Circuit had considered the acquirer’s merchant vetting duties, *Perfect 10* may have been more difficult to distinguish from *Fonovisa* and *Hard Rock*.

Additionally, in its allegations intended to demonstrate knowledge, Perfect 10 failed to consistently distinguish between the defendants. For example, Perfect 10 alleged that “the defendants” charged higher rates for the Stolen Content Websites.¹⁵⁵ A reader, relying solely on the pleadings, would be hard-pressed to guess whether the Association, the acquiring bank, the processor, or the ISO was responsible for this categorization. Also, Perfect 10 ambiguously alleged that they notified “the defendants” about the infringing content of particular websites but the “defendants” failed to act.¹⁵⁶ This language fails to clarify which of the defendants actually received notification from Perfect 10.

3. *Online Marketplace Reality: Credit Cards are Prerequisite for Profitability*

The Ninth Circuit’s dismissal of secondary liability claims based on the defendants’ lack of literal direct control over the contents of the Stolen Content Websites ignores the reality of the internet marketplace. These

153. *Id.* at 9.

154. Perfect 10 stated that the Association “imposes many rules and regulations on merchants, which they require acquirers and ISOs to enforce.” *Id.* at 8. Asides from this statement, however, the control element section of the brief does not consistently and clearly delineate between the Association’s acts and the acquirers’ acts. *See id.*

155. *Id.* at 11. Although Perfect 10 does specify that Visa charged “High Risk” merchants an additional \$500 to join the network, Perfect 10 does not clarify how Visa knows that the Stolen Content Websites are “High Risk.” The brief also alleges that “Association members” are supposed to perform a review of the website and financial statement, and specifies that acquirers are supposed to investigate and terminate merchants known to be engaging in infringing activity. *Id.* However, Perfect 10 fails to clearly piece together the relevance of these different points and also fails to consistently maintain distinctions between the different roles of the defendants.

156. *Id.* at 2–3, 13; *see also Perfect 10*, 494 F.3d at 793.

websites are primarily set up to be profitable ventures. Credit card networks provide an essential function for businesses to enter this marketplace because they make transactions significantly easier for consumers. Removing the ability to process transactions through credit card payment systems would threaten the commercial viability of the Stolen Content Websites.¹⁵⁷ For example, the instant gratification of accessing images after payment would be hampered by the use of personal checks.¹⁵⁸ Consumers might also doubt the security of mailing cash or sending money orders. Another payment option, PayPal, is becoming an increasingly important alternative online payment player. PayPal, however, has been more diligent than the Association in severing ties with illegal merchants.¹⁵⁹ Thus, although the majority argued that Perfect 10 “conflate[d] the power to stop profiteering with the right and ability to control infringement,”¹⁶⁰ this distinction seems thin given that: credit cards facilitated almost all the direct infringers’ transactions; the acquirers play[ed] a gatekeeping role in reviewing merchant applications; and the Association and acquirers could have discontinued service at any time and thus cut off financial incentives for the direct infringers.¹⁶¹

157. See Alex Kozinski & Josh Goldfoot, *A Declaration of the Dependence of Cyberspace*, 32 COLUM. J.L. & ARTS 365 (2009), for a general discussion about how cyberspace crimes’ “real-life motives” and fulfillment of “real-life needs” expose online criminals’ key weakness—a dependency on real-world institutions to achieve their aims. Kozinski and Goldfoot argue that without real-world institutions such as banks and credit card companies to transform online transgressions into cash, online criminals would not be able to benefit from cyberspace crimes in the real world.

158. Perfect 10 discusses the example of a website which is hosted in a foreign country in their opening brief. The consumer would need to send a personal check and wait several weeks for the check to clear before gaining access to said website. Plaintiff and Appellant Perfect 10, Inc.’s Opening Brief, *supra* note 136 at 32.

159. For example, PayPal stopped processing TheBagAddiction.com’s sales when they found out that the website sold counterfeit goods. See Plaintiff Gucci Am., Inc.’s Memorandum of Law in Support of A Motion for Summary Judgment Against Defendants Durango Merchant Services, LLC and Woodforest National Bank at 6, Gucci Am., Inc. v. Frontline Processing Corp., 721 F. Supp. 2d 228 (S.D.N.Y. 2010) (No. 09-CV-6925-HB) [hereinafter *Gucci’s Motion for Summary Judgment*].

160. *Perfect 10*, 494 F.3d at 806. This is under the court’s vicarious copyright liability analysis of defendants’ “right and ability to control the infringing activity.” However, although this may be a different standard from contributory trademark liability’s control prong, the quote highlights the court’s consistent distinction between financial control and the direct ability to control the websites’ stealing and infringing use of Perfect 10’s images and mark.

161. For a discussion on why the *Perfect 10* defendants may be secondarily liable for *copyright* infringement, see Bryan V. Swatt, Pamela C. Laucella & Ryan M. Rodenberg, *Perfect 10 v. Visa, MasterCard, et al.: A Full Frontal Assault on Copyright Enforcement in Digital Media or a Slippery Slope Diverted?*, 8 CHI. KENT J. OF INTELL. PROP. 85 (2008); see also Jonathan Lee, *Piracy by Plastic: Why the Ninth Circuit Should Have Held Credit Cards Liable for Secondary Copyright*

In addition, although credit cards have contributed to the increasing globalization of commerce, they have also shielded some direct infringers from legal judgment. As was the case in *Perfect 10*, direct infringers are often based overseas, are judgment proof, and may not even be identifiable because they disguise their true identities with false contact information.¹⁶² As discussed, *supra* Section I.B.2, copyright law's expansion of secondary liability to include third parties that lacked the ability to directly stop the infringing behavior partly reflected concern with the realities of enforcement against illegal operations.¹⁶³ Although secondary trademark liability is more narrowly drawn than that of secondary copyright liability, the reasoning behind the history of expanding copyright law's scope may be useful to assess the expansion of trademark liability.¹⁶⁴

B. *FRONTLINE: EXTENDING BEYOND THE NETWORK PROVIDER AND ACQUIRER BINARY SPLIT*

In *Gucci America, Inc. v. Frontline Processing Corp.*,¹⁶⁵ the Southern District of New York granted the defendants' request to dismiss Gucci's charge of direct and vicarious liability, but held that Gucci had stated a cause for contributory liability under the Lanham Act.¹⁶⁶ The direct infringers operated a website, "TheBagAddiction.com," that sold counterfeit luxury products using Gucci's registered trademarks for a significantly lower price than the authentic version.¹⁶⁷ The website explicitly noted that their products were "replicas" and not authentic.¹⁶⁸ Gucci pursued litigation against the companies affiliated with the website (Laurette), and Laurette ultimately admitted liability for Gucci's counterfeiting claims.¹⁶⁹ *Frontline* is an extension

Infringement, 2 J. BUS. ENTREPRENEURSHIP & L. 211 (2008). *But cf.* Robert A. McFarlane, *The Ninth Circuit Lands a "Perfect 10" in Applying Copyright Law to the Internet*, 38 GOLDEN GATE U. L. REV. 381, 405–06 (2008) (arguing that the Visa case is consistent with policy goals and highlights the importance of balancing copyright protection against public interest in "unfettered access to information and ideas").

162. Plaintiff and Appellant Perfect 10, Inc.'s Opening Brief, *supra* note 136, at 2.

163. *See* Peter S. Menell & David Nimmer, *Unwinding Sony*, 95 CALIF. L. REV. 941, 1005 (2007) ("[C]ourts . . . [wove] a sophisticated web of indirect liability doctrines to address the distinctive challenges of enforcing copyright law.").

164. *Id.* at 1004 (referencing *Screen Gems-Columbia Music, Inc. v. Mark-Fi Records, Inc.*, 256 F. Supp. 399, 404 (S.D.N.Y. 1966)).

165. 721 F. Supp. 2d 228 (S.D.N.Y. 2010).

166. *Id.* at 246–47.

167. *Id.* at 237.

168. *Id.* at 249.

169. *Id.* at 237.

of the Laurette case. In *Frontline*, Gucci sought to extend liability to Laurette’s acquiring bank, processor, and ISO.¹⁷⁰

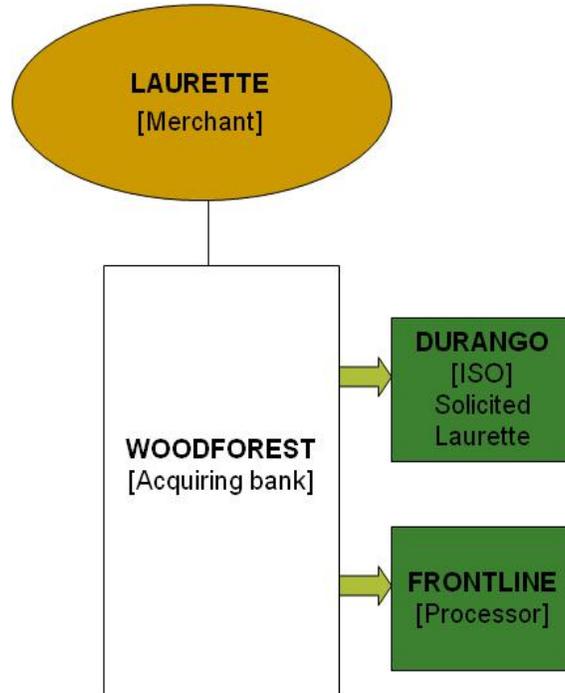


Figure 4: The *Frontline* Acquiring Entities

The Southern District of New York dismissed the claims for direct liability because the court determined that there was no proof that the defendants “used the mark in commerce.”¹⁷¹ Gucci’s claim for vicarious trademark infringement also failed because the facts pleaded did not demonstrate that the defendants had the “type of control over a company like Laurette as a whole, i.e. akin to joint ownership, necessary for vicarious liability.”¹⁷²

However, the court found that the ISO (Durango),¹⁷³ the processor, and the acquiring bank could be held contributorily liable based on different

170. *Id.*

171. *Id.* at 247 (“Knowledge alone of another party’s sale of counterfeit or infringing items is insufficient to support direct liability.”).

172. *Id.*

173. *See* NATIONAL BANKCARD SYSTEMS OF DURANGO, <http://durangomerchant services.com/> (last visited Feb. 9, 2011). Durango lists on the bottom of its webpage that it is a registered ISO for Wells Fargo. It is not clear whether Durango still acts as an ISO for Woodforest.

prongs of the test.¹⁷⁴ The court found that Durango may have intentionally induced Laurette to infringe based on evidence that Durango assisted Laurette in establishing a system where customers had to check a box that said: “I understand these are replicas.”¹⁷⁵ The court reasoned that such assistance suggested “affirmative steps taken to foster infringement” or “that [d]efendants promoted their payment system as a means to infringe.”¹⁷⁶ Ultimately, the court held that these actions suggested Durango’s liability for intentional inducement because the company “crafted ‘advertisement[s] or solicitation[s] that broadcast[] a message designed to stimulate others to commit violations.’”¹⁷⁷

Although the court determined that the acquiring bank (Woodforest) and processor (Frontline) did not intentionally induce Laurette’s illegal behavior,¹⁷⁸ the two defendants may be contributorily liable based on the second prong of the synthesized test: control and knowledge.¹⁷⁹ To constitute the necessary knowledge, “a service provider must have more than a general knowledge or reason to know that its service is being used to sell counterfeit goods . . . [s]ome contemporary knowledge of which particular listings are infringing or will infringe in the future is necessary.”¹⁸⁰ Evidence of willful blindness also fulfills this element. For Frontline¹⁸¹ (the processor), the court reasoned that the company’s alleged understanding of replica companies’ difficulty in obtaining services coupled with Frontline’s investigation of the website’s products as part of its chargeback reviews are enough to suggest that Frontline knew or was willfully blind to the illegal nature of the website’s business.¹⁸² Frontline, although a registered ISO, in this situation appears to have primarily provided only data processing services.¹⁸³ The court reasoned

174. *Frontline*, 721 F. Supp. 2d at 249–53.

175. *Id.* at 249.

176. *Id.*

177. *Id.* (citing *Perfect 10, Inc., v. Visa Int’l Serv. Ass’n*, 494 F.3d at 801).

178. *Id.*

179. *Id.* at 249–53.

180. *Id.* at 249 (citing *Tiffany (NJ) Inc. v. Ebay Inc.*, 600 F.3d 93, 107 (2d Cir. 2010)).

181. *See* FRONTLINE PROCESSING, <https://www.frontlineprocessing.com/Information> (last visited Feb. 9, 2011). Frontline is a registered ISO and MSP with Visa and MasterCard. However, in this situation Frontline appears to have primarily performed just data processing functions for Laurette.

182. *Frontline*, 721 F. Supp. 2d at 250.

183. Defendants’ Reply Memorandum in Support of Motions to Dismiss Under FED. R. CIV. P. 12(b)(6) and 12(b)(2) at 3, *Gucci Am., Inc. v. Frontline Processing Corp.*, 721 F. Supp. 2d 228 (No. 09-6925-HB) [hereinafter *Defendants’ Reply Memorandum*] (“There is no dispute that, in their processing of the credit card transactions, defendants [Woodforest] and Frontline do no more than transmit authorization requests from the merchant’s terminals to a network.”).

that Woodforest¹⁸⁴ (the acquiring bank) could be similarly liable because Woodforest reviewed the website and “even a cursory review of the TheBagAddiction.com would indicate that they claimed to sell replica Gucci products.”¹⁸⁵ Moreover, like Frontline, Woodforest also investigated chargeback disputes.¹⁸⁶

The court also determined that Frontline and Woodforest had sufficient control over Laurette.¹⁸⁷ The court reasoned that the credit card processing services were “a necessary element for the transaction of counterfeit goods online, and were essential to sales from TheBagAddiction.com.”¹⁸⁸ For example, the counterfeit items were “delivered to the buyer only after [the acquirers] approve[d] the transaction This [was] not just an economic incentive for infringement; it’s an essential step in the infringement process.”¹⁸⁹

The district court distinguished *Frontline* from the Ninth Circuit’s *Perfect 10* by emphasizing that the infringing conduct in the latter case was the website’s unauthorized publication of trademarked images, and that the distribution was simply any individual’s viewing and/or downloading of such images.¹⁹⁰ Thus, the *Frontline* court reasoned that Perfect 10 did not allege that the defendants had sufficient authority to remove the infringing material or directly cease distribution because “the infringement occurred on the website itself and a credit card transaction was not needed for the website to continue to infringe.”¹⁹¹ The Southern District of New York’s distinction, however, focused on the Ninth Circuit’s interpretation of the control factor being an essential element of the direct infringement. As discussed, *supra* Section I.B.1, that focus is not necessarily the correct interpretation of case law.

184. See WOODFOREST NATIONAL BANK, <http://www.woodforest.com/business/Banking/creditCardMerchantProgram/default.aspx?id=151> (last visited Feb. 9, 2011).

185. *Frontline*, 721 F. Supp. 2d at 250.

186. *Id.*

187. *Id.* at 253.

188. *Id.* at 251.

189. *Id.* at 252 (citing *Perfect 10, Inc., v. Visa Int’l Serv. Ass’n*, 494 F.3d 788, 810 (9th Cir. 2006) (Kozinski, J., dissenting)).

190. *Id.*

191. *Id.*

1. *Frontline's Individual Analysis of Each Acquiring Defendant*

In both *Perfect 10* and *Frontline*, the direct infringers relied heavily on credit cards to make their business viable. Around ninety-nine percent of TheBagAddiction.com's transactions were processed through the credit card network.¹⁹² Furthermore, when PayPal and Card Services¹⁹³ stopped processing TheBagAddiction.com's sales after finding out that the website sold counterfeit goods, TheBagAddiction.com had to suspend sales for several weeks since it lost its ability to process credit cards.¹⁹⁴

The *Frontline* court recognized the complex relationships between the different acquirer organizations and focused on the fact-specific allegations at issue, leaving factual determinations for trial.¹⁹⁵ Even though *Perfect 10* involved both the Association and members of the acquiring industry—two groups that perform very different functions within the network—the Ninth Circuit subsumed both industries under the same analysis.¹⁹⁶ *Frontline's* defendants, by contrast, were all members of the acquiring industry.¹⁹⁷ But despite this general categorization, the *Frontline* court analyzed each defendant individually and relied on a very fact-specific analysis. The court not only recognized the multilayered relationships between the different acquirer entities themselves, but also acknowledged the acquirers' varied relationships with the infringing merchant. An analysis that obscures the distinctions between the defendants could lead a court to only focus on the impersonal data processing elements of the credit card industry.

Frontline highlights how the structural organization of acquirers may expose the various acquiring entities to different levels of merchant interaction and consequently lead to distinct liability assignments. For example, the ISO's (Durango) inclusion within the acquirer's business structure made the ISO the entity with the closest merchant ties. In this situation, the ISO should have arguably the most familiarity with the merchant's business, possibly shielding the acquirer. However, as discussed, *supra* Section II.B.1, both the ISO's and the acquirer's risk departments may

192. *Gucci's Motion for Summary Judgment, supra* note 159, at 6.

193. Card Services is a company that formerly provided payment processing services for TheBagAddiction.com. *Id.*

194. *Id.*

195. The defendants, for example, argue that knowledge that Laurette's goods are "replicas" do not necessarily mean the same thing as knowing that the goods are counterfeit. This issue should be decided by the finder of fact. *Defendants' Reply Memorandum, supra* note 183, at 9.

196. *See generally* *Perfect 10, Inc., v. Visa Int'l Serv. Ass'n*, 494 F.3d 788 (9th Cir. 2006).

197. *See generally* *Gucci America, Inc. v. Frontline Processing Corp.*, 721 F. Supp. 2d 228 (S.D.N.Y. 2010).

be expected to share the risk managing duty of screening merchants. This industry expectation may prevent an acquirer from shirking its vetting duties and arguing that it lacks sufficient knowledge about the merchant's infringement.

Frontline's relationships also underscores the high level of intimacy that is possible between merchants and certain acquiring entities. These relationships are not necessarily automatic and rote. To the contrary, some of these business transactions appear very personal. In this situation, because Durango (the ISO) acted as Woodforest and Frontline's agent to solicit potential customers,¹⁹⁸ Durango had the most direct contact with the infringing merchant. For example, Gucci alleged that Durango's sales agent Nathan Counley exchanged confidences with Jennifer Kirk, one of the owners of TheBagAddiction.com.¹⁹⁹ Kirk allegedly confided to Counley that TheBagAddiction.com "had to close because we were selling replicas,"²⁰⁰ and she also informed him that other processors had terminated her account because of this fact.²⁰¹ A response from Counley allegedly said: "Good news! I just found out that our US bank can do replica accounts now."²⁰² It is uncertain whether the confiding nature of Kirk's and Counley's correspondences are typical of ISO and merchant relationships. However, Durango and TheBagAddiction.com's correspondences nonetheless illustrate the direct and personal contact which occurs between merchants and ISOs. Such personal business relationships may suggest that an ISO would have to be willfully blind to not know which industries its merchants belong to.²⁰³

IV. POLICY CONSIDERATIONS: COSTS AND BENEFITS OF EXTENDING LIABILITY TO THE ACQUIRING INDUSTRY AND THE ASSOCIATION

Although Part III argues that acquiring entities may be secondarily liable under current case law, Part IV contemplates the policy implications of extending such liability to the four-party network. Specifically, Section IV.A

198. Plaintiff Gucci Am., Inc.'s Memorandum of Law in Support of A Motion for Summary Judgment Against Defendants Durango Merchant Services, LLC and Woodforest National Bank at 6, *Gucci Am., Inc. v. Frontline Processing Corp.*, 2010 WL 2541367 (S.D.N.Y.) (No. 09-CV-6925-HB).

199. *Id.*

200. *Id.* at 7.

201. *Id.* at 20.

202. *Id.* at 7.

203. The Southern District of New York found that Durango could be liable under the inducement prong and did not evaluate Durango under the control and knowledge prong. *Supra* Section III.B.

highlights administrative issues that ought to be considered when assessing whether the acquiring industry should be exposed to secondary liability. Section IV.B examines the possibility of assigning greater merchant monitoring responsibility to the Association.

A. ACQUIRING INDUSTRY'S LIABILITY: CONSIDERATIONS OF ADMINISTRATIVE PRACTICALITY

Considering the actual rules and mechanics of the Visa and MasterCard payment system illustrated, *supra* Part II, requiring the acquiring industry to police infringing merchants may seem to be the most practical scenario on an administrative level. The Association has already assigned acquirers the role of vetting merchants and bringing them into the networks. Furthermore, because of this system, members of the acquiring entities already have a close and direct working relationship with the merchants. Increasing the emphasis on the acquirer's gatekeeping role of screening and monitoring their merchants would cause the least disruption to the existing system.

In addition to administrative suitability, the acquiring industry's lack of coherence and focus on volume-driven transactions may suggest the necessity of legal oversight to force the industry to pay more attention to their merchants' activities. Legal oversight would push acquirers to recognize that they cannot profit from infringing merchants without costly consequences. Given the competitive nature of the acquiring industry, liability exposure will incentivize acquirers to uniformly implement more careful vetting procedures that they otherwise might not adopt.

Despite the appearance of administrative ease, however, certain aspects of the acquiring industry discussed, *supra* Section II.B, suggest that assigning consistent gatekeeping roles within this industry may be a difficult task.²⁰⁴ First, the various acquirer business structures and the intertwined relationships between the multiple acquiring entities resist a standardized assignment of responsibility.²⁰⁵ For any one merchant, as more acquiring entities become involved, the possibility of oversight gaps or inefficient redundancy increases. Furthermore, as the number of parties increase, any one entity's nexus to the merchant becomes unclear.

Second, the acquiring industry's high-volume profit model would mean that increased monitoring responsibilities will have far reaching implications—extending both to merchants and consumers. Partially resulting from the industry's focus on high-volume processing, the extent of

204. If payment intermediaries are exposed to secondary trademark liability, they need to consider the assignment of consistent roles in order to prevent liability.

205. *Supra* Section II.B.1.

existing monitoring has focused on unusual changes in transaction patterns which can be managed with electronic programs that require relatively minimal individual review and company resources.²⁰⁶ If more personal screening measures are used, such as “ghost shopping,” the cost of monitoring would likely increase. Although the acquiring industry can potentially absorb the increase in internal costs, the acquirers may also pass on the additional monitoring cost to the merchants. These increased costs would add to the already high cost that merchants incur for participating within the card networks. Merchants pay around fifty-seven billion dollars a year in the United States to accept payment card transactions.²⁰⁷ Moreover, accepting credit card transactions has become the fastest growing cost of doing business for many merchants.²⁰⁸ Ultimately, increased monitoring costs may create higher barriers to enter the payment networks, which in turn may be detrimental to market growth.²⁰⁹

If acquirers do pass the additional costs on to merchants, and merchants in turn spread the cost to consumers, it will be important to consider whether this is a justifiable solution under trademark theory. For the privilege of potentially keeping a trademark forever, would it be unfair for the trademark owner to shift the burden of policing onto someone else?

B. THE FEASIBILITY OF ASSOCIATION MONITORING

Another possibility, not necessarily conflicting with mandating increased responsibility for the acquiring industry, is to have the Association undertake greater *monitoring* responsibilities for merchants already in the network.²¹⁰ After all, the Association wields considerable power in setting and

206. *Supra* Section II.B.2, II.B.3.

207. *See* Levitin, *supra* note 78, at 427 (“In 2006, U.S. merchants paid nearly \$57 billion to accept payment card transactions.”).

208. *Id.* at 429. For example, Levitin notes that during 2002 to 2005, the volume of payment card transactions increased forty-three percent from \$1,852.38 billion to \$2651.39 billion whereas the cost to merchants of accepting such transactions increased by sixty-seven percent, from \$29.08 billion to \$48.58 billion. *Id.* at 441 (citing THE NILSON REPORT, No. 877, at 7 (2006)). One report identified debit and credit card fees as gas stations’ and convenience stores’ fourth largest expense after labor, rent, and utility costs. DeGennaro, *supra* note 64, at 28.

209. For example start-up companies often operate at a loss in the early stages before seeing their profit margins increase. *See, e.g.,* Bryant Urstadt, *Amazon’s Challenger Is Only in Its Diapers*, BLOOMBERG BUSINESSWEEK (Nov. 15, 2010, 9:24 PM), http://www.msnbc.msn.com/id/39633906/ns/business-bloomberg_businessweek (reporting that Quidsi operated at a loss in the initial year of launching *diapers.com* before they saw a return on their investments after developing a customer base).

210. Visa and MasterCard do not actively participated in vetting merchants before they enter their networks. *Supra* Section II.A.

establishing costs and rules for the network. Consequently, the Association is the best possible entity, at least within the network, to implement system-wide uniform changes.

Some scholars have suggested that imposing a “hot-list” requirement on the Association would be effective in preventing the purchase of illegal goods.²¹¹ In practice, for certain illegal businesses such as child pornography, law enforcement and the Association have already worked together to develop voluntary agreements to monitor such activity.²¹² Most recently, MasterCard announced that it will cease processing services for sites trafficking in pirated music, movies, games, and other digital copyrighted content.²¹³ The Recording Industry Association of America applauded MasterCard for its “proactive” measures.²¹⁴ MasterCard’s actions in this instance may serve to deter the legislature from imposing more stringent formal regulations.²¹⁵ Scholars have speculated that the Association’s general proactive measures may have been motivated by this concern.²¹⁶

Visa and MasterCard’s current monitoring programs suggest the feasibility of shifting greater merchant monitoring responsibility to the Association.²¹⁷ There are two main monitoring categories: data security monitoring and voluntary and government required regulation.

1. *Data Security Monitoring:*

The Association instituted security guidelines for merchants in order to ensure a minimal level of security for cardholders when merchants store credit card and other personal information for transactions.²¹⁸ The major credit card companies formed The Payment Card Industry Security Standards

211. For a discussion evaluating the imposition of “hot-lists,” see Mann & Belzley, *supra* note 4, at 269–98. A “hot-list” identifies particular businesses which payment intermediaries should not process payments for. *Id.* at 280.

212. *Id.*

213. Greg Sandoval, *MasterCard Willing to Cut Off Pirate Sites*, CNET NEWS (Dec. 16, 2010), http://news.cnet.com/8301-31001_3-20025879-261.html#ixzz18hEN0q7x.

214. Sandoval, *supra* note 213.

215. Mann & Belzley, *supra* note 4, at 280.

216. *Id.*

217. *Perfect 10, Inc., v. Visa Int’l Serv. Ass’n*, 494 F.3d 788, 824 (9th Cir. 2006) (Kozinski, J., dissenting) (arguing that “credit cards already have the tools to police the activities of their merchants, which is why we don’t see credit card sales of illegal drugs or child pornography”).

218. See *Requirements and Security Assessment Procedures: Version 2.0*, PAYMENT CARD INDUSTRY (PCI) DATA SECURITY STANDARD 5 (Oct. 2010), available at https://www.pcisecuritystandards.org/documents/pci_dss_v2.pdf.

Council that established the Payment Card Industry Data Security Standard (PCI DSS).²¹⁹

Under this system, though, a significant amount of responsibility is placed on acquirers.²²⁰ For example, acquirers are responsible for assigning the “merchant validation level” based on the number and type of transactions processed by that acquirer.²²¹ Within this numbered validation system, merchants are separated by categories of high/low volume traffic (Visa Levels One–Four) and, depending on volume, different monitoring standards are required.²²² For example, acquirers must notify Visa of new Level One and Two merchants annually.²²³ In the event of a security breach, acquirers may incur serious penalties, such as fines and restrictions.²²⁴

The success²²⁵ of the data security monitoring program may not be replicable by imposing a similar system for tracking trademark infringement. Because requiring personal review of all transactions is impractical, assessors²²⁶ frequently measure data security compliance by using a sampling

219. *Visa PCI DSS Compliance Validation Framework*, DATA SECURITY BULLETIN 1 (Nov. 18, 2008), available at <http://usa.visa.com/download/merchants/cisp-bulletin-visa-pci-dss-framework-111808.pdf>.

220. See, e.g., *Cardholder Information Security Program: Merchants*, VISA, http://usa.visa.com/merchants/risk_management/cisp_merchants.html (last visited Mar. 23, 2011) (“Acquirers are responsible for ensuring that all of their merchants comply with the PCI [DSS] requirements.”).

221. *Visa PCI DSS Compliance Validation Framework*, *supra* note 219, at 2.

222. *Cardholder Information Security Program: Merchants*, *supra* note 220.

223. *Visa PCI DSS Compliance Validation Framework*, *supra* note 219, at 2.

224. See *Cardholder Information Security Program: If Compromised*, VISA, http://usa.visa.com/merchants/risk_management/cisp_if_compromised.html (last visited Mar. 23, 2011) (“Members are subject to fines, up to \$500,000 per incident, for any merchant or service provider that is compromised and not compliant at the time of the incident.”); *Visa PCI DSS Compliance Validation Framework*, *supra* note 219, at 2.

225. See *Silver Lining Among the Data Security Clouds: 2010 Saw Decrease in Card Data Breaches*, PCI DSS COMPLIANCE BLOG (Jan. 18, 2011, 8:55 AM), http://blog.elementps.com/element_payment_solutions/2011/01/2010-saw-decrease-in-data-breaches.html (“The number of records known to have been exposed in a security breach decreased significantly, from 223.1 million in 2009 to 16.2 million in 2010.”) (The views expressed may be biased as Element Payment Services, a member of the PCI Security Standards Council, maintains this blog.)

226. Depending on the merchant’s status, PCI DSS requires Approved Scanning Vendors (ASVs) and Qualified Security Assessors (QSAs) to conduct the vulnerability scans and certify security compliance. See *Requirements and Security Assessment Procedures*, *supra* note 218. Although ASVs and QSAs primarily monitor the merchants, their methodology is nonetheless relevant to the problem of developing successful and efficient merchant monitoring models to prevent against trademark infringement.

methodology of representative systems and processes.²²⁷ Industry experts note that “[a]lthough it is feasible that an assessor may detect a breach, it is not the focus of their efforts in conducting a compliance assessment.”²²⁸ Instead, “incident response and security monitoring functions internal to the service provider or merchant”²²⁹ bear the responsibility of prevention and/or detection.²³⁰ PCI DSS’ requirements for merchants to maintain up-to-date software²³¹ (prevention), system activity logs²³² (documentation), and frequent “testing”²³³ (assessing compliance) of the merchant’s components, processes, and software²³⁴ support this conclusion.

The data security program appears to share many components similar to current network methods for monitoring illegal merchant activity. Scans for security breaches are like the data monitoring methods acquirers use to prevent “bait and switch criminal fraud” discussed *supra* Section II.B.3.a. In addition, sample “testing” resembles the “ghost-shopping” method used to prevent against “business format change” discussed *supra* Section II.B.3.a. These automatic and random sampling systems have little commonality with the type of individual scrutiny that would be necessary to consistently and accurately assess whether a merchant is infringing another’s trademark. Moreover, the data security program has faced criticism on many fronts. Critics argued that the system only provides baseline security that inadequately protects consumer data.²³⁵ In addition, small businesses’

227. See Peter Spier, *The QSA’s Perspective: PCI Compliance Risks Abound*, BANKING INFORMATION SECURITY BLOGS—THE EXPERT’S VIEW (Mar. 22, 2010), <http://blogs.bankinfosecurity.com/posts.php?postID=492>. For more information about ASVs and QSAs, see *Approved Companies & Providers*, PCI SECURITY STANDARDS COUNCIL, https://www.pcisecuritystandards.org/approved_companies_providers/index.php (last visited Mar. 23, 2011).

228. Spier, *supra* note 227.

229. *Id.*

230. *Id.* Spier goes on to state that “[i]t is the QSA’s role to conduct this point-in-time assessment[,] . . . it’s the service provider’s and merchant’s responsibility to achieve, demonstrate and maintain their PCI compliance at all times.” *Id.*

231. See *Requirements and Security Assessment Procedures*, *supra* note 218, at 38. Requirement Six specifies that “[a]ll critical systems must have the most recently released, appropriate software patches to protect against exploitation and compromise of cardholder data.” *Id.*

232. *Id.* at 55.

233. Scans and “physical/logical inspections” may be used to fulfill the “testing” requirement. *Id.* at 59. In fact, no particular methodology is specifically required. *Id.* PCI DSS only specifies that “[w]hichever methods are used, they must be sufficient to detect and identify any unauthorized devices.” *Id.*

234. *Id.*

235. See Spier, *supra* note 227 (referring to the criticism voiced during a U.S. House of Representatives hearing).

compliance remains questionable as they can perform “self evaluations”²³⁶ in lieu of third-party assessments. Acquirers also may not rigorously police small businesses’ compliance because of concern that this may drive the latter out of business and affect profit margins.²³⁷ This issue may be particularly important when assigning primary vetting duties to acquirers who are mostly concerned with volume processing. The combination of these factors suggest that there are serious complications with implementing a broad sweeping program that aims to monitor *all* merchants.

2. *Voluntary and Government-Required Regulation of Criminal Activities*

To monitor child pornography, acquirers are responsible for the initial screening to prevent such merchants from entering the network.²³⁸ However, child pornography merchants can often deceive financial institutions and gain access to the payment systems.²³⁹ To remedy this, the Association developed a follow-up monitoring program to find any merchants that have entered the networks fraudulently.²⁴⁰ This process has detected nine sites since 2006.²⁴¹

The monitoring of controlled substances involves an initial screening and follow-up monitoring that is similar to child pornography detection.²⁴² The follow-up monitoring was implemented because coding the nature of the transaction to block did not work.²⁴³ This is because available codes can only identify the business of the website and does not determine the nature of the pharmaceuticals.²⁴⁴ Since implementing this program, MasterCard has shut down 500 websites selling illegal substances.²⁴⁵

236. For example, Visa merely “recommends” that Level Four merchants perform an Annual Self-Assessment Questionnaire and a quarterly scan by ASVs “only if applicable.” *See Cardholder Information Security Program: Merchants*, *supra* note 220. *See also* Sherri, *PCI Threatens Small Business and Web Hosting Companies*, PHILOSECURITY (Feb. 8, 2010), <http://philosecurity.org/2010/02/08/pci-stresses-small-business-and-web-hosting-companies> (arguing that small businesses would lie about their compliance in order to avoid paying the heavy cost of actual compliance and avoid being kicked out of the credit card networks).

237. *See, e.g.*, Sherri, *supra* note 236 (discussing the acquirers’ financial incentive to believe small merchants and not revoke credit card processing privileges).

238. MacCarthy, *supra* note 82 at 1076.

239. *Id.*

240. *Id.* Visa uses an advanced web crawling and filtering technology to detect such websites. *Id.*

241. *Id.* at 1078.

242. *Id.*

243. *Id.* at 1079.

244. *Id.*

245. *Id.* at 1080.

The Association tracks online gambling through a merchant coding and manual blocking scheme.²⁴⁶ Congress has provided a statutory safe harbor for “reasonably designed” procedures.²⁴⁷ The Association’s methods have been hypothesized to be effective in cutting down on internet gambling.²⁴⁸

For tobacco, the Association has relied on law enforcement notification to cease financial relationships.²⁴⁹ Visa and MasterCard do not conduct their own investigations.²⁵⁰

The Association’s methods for tracking the above areas suggest that continual monitoring, not initial screening, may be an area that the Association can feasibly undertake more responsibility for. However, child pornography, controlled substances, gambling and tobacco are specific goods categories. Monitoring for the sale of counterfeit goods—which can exist in a broad range of categories—may be significantly more burdensome and require additional monitoring procedures than those currently in practice. Whether this is a desirable outcome may be an interesting question to explore for future scholarship.

V. CONCLUSION

The Internet has become a bustling marketplace where online merchants offer practically every conceivable consumer good.²⁵¹ Just a few strokes of the keyboard can connect consumers to counterfeit products. For instance, a quick Google search for “replica Chanel bags” returns links for dozens of merchants that sell “replica” designer handbags.²⁵² These illegal merchants

246. *Id.* at 1064.

247. *Id.* at 1065. For an in-depth treatment of the current state of internet gambling laws, see Charles P. Ciaccio, Jr., Note, *Internet Gambling: Recent Developments and State of the Law*, 25 BERKELEY TECH. L.J. 529 (2010).

248. MacCarthy, *supra* note 82 at 1069.

249. *Id.* at 1082–83.

250. *Id.* at 1083.

251. See, e.g., Erick Schonfeld, *Forrester Forecast: Online Retail Sales Will Grow To \$250 Billion By 2014*, TECH CRUNCH (Mar. 8, 2010), <http://techcrunch.com/2010/03/08/forrester-forecast-online-retail-sales-will-grow-to-250-billion-by-2014/> (discussing Forrester Research’s five-year forecast predicting steady ecommerce growth).

252. A Google search for “replica Chanel bags” on Mar. 6, 2011, returned <http://www.runwayhandbags.net/>, <http://www.echanelbags.com/>, and <http://www.hichanelbags.com/chanel-handbags-c-1.html> as its top three results. The runwayhandbags.net website has since ceased sales and has a notice posted stating: “The previous operators of this website were found to be selling replica goods in violation of Federal laws. A Court ordered this domain name transferred to Chanel and Louis Vuitton and awarded damages of more than \$1,000,000.00 against the website operators.” RUNWAY HANGBAGS, <http://www.runwayhandbags.net/> (last visited Mar. 16, 2011).

are not only prolific, but oftentimes are near-impossible to identify and reach for judgment. Thus, for trademark owners such as Perfect 10 and Gucci America, targeting the payment entities that facilitate these merchants' businesses may become a necessary method for trademark enforcement.

For many, the commonsense reaction to extending secondary trademark liability to financial intermediaries may be a visceral negative. The Ninth Circuit, for example, attempted to highlight the absurdity of this scenario by analogizing credit card entities to the electric company.²⁵³ This Note, however, argues that a careful assessment of the four-party network may result in a different conclusion. Although the Association may be removed from direct merchant interaction, depending on the business structure at issue, liability exposure levels varies for the different acquirers involved. Many entities within the acquiring industry, such as ISOs, maintain close working relationships with merchants. For example, the alleged correspondence between Durango (the ISO) and Laurette (the merchant) in *Frontline* illustrates how intimate these relationships can be. Moreover, the level of personal review merchant applicants such as Laurette undergo before admission into the Visa and MasterCard networks contrasts sharply with the type of automatic registration system that was crucial to the Ninth Circuit's analysis in *Lockheed Martin Corp. v. Network Solutions, Inc.*²⁵⁴ As a result, a failure to consider the relevant defendant's role within the four-party network may result in an improper comparison of the four-party network to dissimilar processing platforms.

Despite the industry's apparent susceptibility to secondary trademark liability based on current case law, careful consideration should be given to the policy implications of this result. Although legal oversight may be necessary to counter the competitive and volume-driven acquiring industry's incentives to sign on infringing merchants, those same industry characteristics may implicate an undesirable increase in merchant operating costs that will ultimately be filtered down to consumers. Furthermore, the variety within acquirers' business structures prevents an easy standardized assignment of responsibility. These characteristics and other administrative difficulties suggest that if liability is to be assessed, separate duties of initial merchant applicant screening versus continual merchant monitoring may

253. See *Perfect 10, Inc., v. Visa Int'l Serv. Ass'n*, 494 F.3d 788, 800, 806 (9th Cir. 2006). Although the Ninth Circuit's reference to the electric company takes place within its secondary copyright infringement analysis, the reference is applicable to its trademark discussion.

254. 192 F.3d 980 (9th Cir. 1999).

need to be assigned to acquirers and the Association respectively.²⁵⁵ Ultimately, the decision to hold payment intermediaries secondarily liable for their merchant's trademark infringement should be guided by case law, the payment industry's unique dynamics, and a careful balancing of the relevant policy implications.

255. Consideration should also be given to whether the courts or Congress ought to be responsible for defining the legal liability boundaries of the payment networks.

ADDITIONAL DEVELOPMENTS— TRADEMARK LAW

AU-TOMOTIVE GOLD, INC. V. VOLKSWAGEN OF AMERICA, INC.

603 F.3d 1133 (9th Cir. 2010)

The Ninth Circuit held that the “first sale” doctrine did not provide a defense to trademark infringement where a maker of marquee license plates used an automobile manufacturer’s actual logo in their products. The court reasoned that the license plates create a likelihood of confusion as to their origin.

Au-Tomotive Gold Inc. (“Auto Gold”) was a maker of marquee license plates and other automobile accessories. One of their plates bore the Volkswagen (“VW”) trademark. Auto Gold purchased actual VW badges on the open market, then altered and mounted them onto the plates. The packaging for these plates had labels explaining that the plates were not produced or sponsored by Volkswagen.

Auto Gold received three letters from a Volkswagen representative between September 1999 and February 2001 requesting that Auto Gold cease using the VW trademarks. In response, Auto Gold filed suit seeking a declaratory judgment that its products did not infringe or dilute the Volkswagen trademarks. Volkswagen counterclaimed, alleging federal trademark counterfeiting and infringement under Section 32 of the Lanham Act, 15 U.S.C. § 1114, as well as false designation, trademark dilution and related state-law claims. Both parties moved for summary judgment. The district court granted summary judgment to Auto Gold, holding that under the doctrine of “aesthetic functionality” the trademarks were functional and therefore not protected by trademark law. The Ninth Circuit reversed, holding that Auto Gold’s use of the trademarks was neither aesthetic nor an independent source of identification. On remand, the district court granted summary judgment and an injunction to Volkswagen.

Auto Gold contended that because it purchased actual Volkswagen badges on the open market for use on the license plates, the “first sale” doctrine provided a defense to trademark infringement. The court explained that the first sale doctrine has generally focused on the likelihood of creating confusion among consumers, and that trademark infringement may also be found where there is a likelihood of confusion with non-purchasers. The

court also addressed the free-rider problem that post-purchase confusion creates. When a trademarked product is purchased, it is not the trademark that has been purchased, but a product which has been trademarked. A free-rider problem exists where a producer profits from its use of the trademark, because of post-purchase confusion about the product's origin. In response to Auto Gold's argument that there was no trademark infringement because its license plates were of high quality, the court explained that likelihood of confusion—not quality control—is the “key-stone” of trademark law. Finally, in addressing Auto Gold's contention that the public interest was served by the market competition their products created, the court explained that trademark law protects trademark holders from the competition that results from trademark infringement, irrespective of its effect on market competition.

GOOGLE FRANCE SARL v. LOUIS VUITTON MALLETIER SA

Case C-236/08, 2010 ECJ EUR-Lex LEXIS 119 (Mar. 23, 2010)

The European Court of Justice held that Google, a search engine (or, according to the Court, “referencing service provider”), is not the “user” of a trademark through the sale and display of keywords, as provided by Council Directive 89/104, art 5(1), 1988 O.J. (L 040) (EC) and Council Regulation 40/94, art. 9(1)(a), (b), 1993 O.J. (L 011) (EC). Additionally, the Court of Justice held that a referencing service provider is not liable to the proprietor of a trademark for the combination of their trademark with words like imitation or copy under Council Directive 89/104, art. 5(2) or Council Regulation 40/94, art. 9(1)(c). Finally, the Court of Justice held that an internet-referencing service provider, such as Google, cannot be held liable for its stored data when it has not taken an active role in controlling the data or does not have knowledge of its unlawful nature, according to Council Directive 2000/31, art. 14, 2000 O.J. (L 178).

Google, in conjunction with its functions as a referencing service provider, offers a paid service called “AdWords.” AdWords allows an advertiser to reserve the placement of an advertising link when a user searches for a particular keyword. Multiple advertisers can reserve the same keyword and Google determines the order in which various advertising links will be displayed through an automated process. The automated process weighs the amount that a particular advertiser has agreed to pay Google when a user clicks on its link, the number of previous clicks on any given link, and the general quality of the ad as assessed by Google. In 2003, Louis Vuitton—a maker of luxury goods—became aware that when internet users

searched on Google for its trademarks, AdWords produced advertising links to sites offering imitation versions of its products.

As a result, Louis Vuitton brought a proceeding against Google in the *Tribunal de grande instance de Paris* on the claim that Google had infringed its trademarks. On February 4, 2005, Google was found guilty of infringement and appealed to the *Cour d'appel de Paris*, which affirmed the lower courts decision on June 28, 2006. Subsequently, Google appealed the decision to the *Cour de cassation* as a matter of law. The *Cour de cassation* put the proceedings on hold and referred three substantive legal questions to the European Court of Justice, resulting in this judgment. On remand, the *Cour de cassation* supported the ruling of the European Court of Justice.

The Court of Justice, in applying Article 5 of Directive 89/104 or Article 9 of Regulation No. 40/94, assessed Google's use to determine whether or not it (1) was use in the course of trade, (2) was use in relation to goods or services, (3) had an adverse effect on the function of indicating origin, and (4) had an adverse effect on the advertising function of the trademark. On the first point, the Court found that although Google operated in the course of trade, since selling keywords was commercial activity, Google was not the user of those marks according to the terms of the statute. The Court stated that being paid to create the necessary technical conditions for a mark's use is not the same as using that mark. The Court also found that because Google was not using the mark itself, the remaining question is whether or not Google is an intermediary referencing service provider under Section 4 of Directive 2000/31 and, as a result, is exempt from liability. The court held that Google does fall under the definition of an intermediary referencing service provider because of its automated process. Even though Google does have control of the data that it stores, the Court found that there was not enough evidence to suggest that Google had knowledge of the stored data.

However, the European Court of Justice also declared that advertisers cannot use keywords corresponding to their competitor's trademarks and "arrange for Google to display ads that do not allow Internet users easily to establish [where the] goods or services covered by the ad in question originates."

REDEFINING NET NEUTRALITY AFTER *COMCAST V. FCC*

Alexander Reicher[†]

Critics sometimes describe James Joyce's modernist epic *Ulysses* as the most discussed, least read novel in the world.¹ Net neutrality may be the most discussed, least understood concept in the world of internet policy. Consequently, the term has so many definitions advancing so many different goals that the net neutrality debate seems at times only about *what* net neutrality is, not *why* it should (or should not) be. The debate was reopened this past year with the D.C. Circuit's decision in *Comcast Corporation v. Federal Communications Commission*, which invalidated the FCC's jurisdiction over broadband internet service providers (ISPs), including its jurisdiction to enforce a policy statement of net neutrality principles.² Although the court focused exclusively on Comcast's procedural challenge to the FCC's jurisdiction, the FCC and the policy community subsequently have engaged in a process of redrafting not only the jurisdictional basis but also the net neutrality principles themselves. In late December 2010, the FCC adopted a set of net neutrality rules for the first time through a formal rulemaking process—going beyond the general policy statement of net neutrality principles invalidated in *Comcast* by requiring transparency and forbidding most blocking and discrimination.³ This Note analyzes and affirms the importance of mandating full ISP transparency, as the FCC has done in this recent regulation. Given that ISPs will now be required to disclose whether they discriminate among content, services, and applications, this Note also proposes a two-step analysis to determine whether a given practice should be considered reasonable or unreasonable network management.

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1. JAMES JOYCE, *ULYSSES* (Hans Walter Gabler, ed., Vintage Books 1986) (1922); *see, e.g.*, Barbara Leckie, "Short Cuts to Culture": Censorship and Modernism; or, Learning to Read *Ulysses*, 17 *European Joyce Studies* 9, 25 (2006).

2. *Comcast Corp. v. FCC*, 600 F.3d 642, 661 (D.C. Cir. 2010).

3. Preserving the Open Internet Broadband Industry Practices, Report and Order, WC Docket No. 07-52 (Dec. 23, 2010), http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf [hereinafter *Open Internet Rules*].

The term “net neutrality” refers to a bundle of open access principles enforced in a variety of legal and technical ways. According to one common definition, “[n]et neutrality means simply that all like internet content must be treated alike and move at the same speed over the network.”⁴ As used by scholars, lawyers, and engineers, the term “net neutrality” can refer simultaneously to three different understandings. First, the term can address a collection of theoretical “net neutrality principles”—mainly, the principles that we should protect innovation, free speech, and competition on the Internet.⁵ Second, it can encompass the set of legal rules and policies that the FCC enforces, first adopted in the “Internet Policy Statement” and, more recently, in the “Open Internet Rules.”⁶ Lastly, it can refer to the network protocols and internet architecture that can direct, on the technical level, how ISPs discriminate among content, services, or applications. Of course, the theoretical, legal, and technical definitions are related in that theoretical net neutrality principles often inform the legal codification and technical execution of net neutrality. This Note argues, however, that an operational legal definition of net neutrality must encompass not only the theoretical principles underlying the term but also the technical realities of the Internet, such as its physical architecture and interconnections. This Note will also suggest that the debate over the very definition of net neutrality and what constitutes reasonable network management may be resolved through the FCC’s enforcement of a transparency principle. Requiring ISPs to disclose how they discriminate will force them to compete on how they define net neutrality and reasonable network management.

This argument proceeds in three parts. Part I, THEORETICAL NET NEUTRALITY, introduces the major net neutrality principles, which include protections for innovation, free speech, and competition. It also introduces various types of discrimination undertaken by ISPs. Not all forms of discrimination necessarily violate all of the net neutrality principles; the

4. Lawrence Lessig & Robert W. McChesney, *No Tolls on the Internet*, WASH. POST, June 8, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/06/07/AR2006060702108.html>.

5. See, e.g., *Hearing on “Network Neutrality,” Before the Senate Comm. on Commerce, Science and Trans.*, 110th Cong. 4 (2006) (statement of Lawrence Lessig, C. Wendell and Edith M. Carlsmith Professor of Law Stanford Law School) [hereinafter *Lessig Senate Hearing*]; Al Franken, *Net Neutrality Is Foremost Free Speech Issue of Our Time*, CNN.COM (Aug. 5, 2010), <http://www.cnn.com/2010/OPINION/08/05/franken.net.neutrality/>; Philip J. Weiser, *The Next Frontier for Network Neutrality*, 60 ADMIN. L. REV. 273, 277 (2008).

6. See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 FCC Rcd. 14986 (2005) [hereinafter *Internet Policy Statement*]; *Open Internet Rules*, *supra* note 3, ¶¶ 43–115.

internet community accepts some discriminatory practices because they are technically necessary or because they do not violate the net neutrality principles in any substantial way.⁷ Collectively, these discriminatory, but generally accepted, practices are known as “reasonable network management.” Part II, LEGAL NET NEUTRALITY, surveys the history of the FCC’s jurisdiction and enforcement of net neutrality through *Comcast v. FCC*. However, because all FCC actions have involved ISPs that completely block competitors’ services and applications, these cases do not help distinguish reasonable network management practices from unreasonable ones in instances where ISPs only delay the delivery of certain content. To facilitate drawing this distinction, Part III, TECHNICAL NET NEUTRALITY, examines the technical realities of the Internet by reviewing the physical architecture, interconnection agreements among service providers, and protocol layers of the Internet. After considering the definition of net neutrality and reasonable network management from these three perspectives, this Note concludes that mandating ISP transparency is an essential part of an enforceable definition of net neutrality that accounts for the Internet’s technical realities.

I. THEORETICAL NET NEUTRALITY

Articulating net neutrality principles serves the important purpose of envisioning the Internet as if it were, and has always been, a fully neutral network. This theoretical mode of discussion is important in forming a set of ideals for the Internet, which includes the principles of innovation, free speech, and competition, as well as the idea of reasonable network management.

A. NET NEUTRALITY PRINCIPLES

Net neutrality principles represent what we value most about the Internet: its ability to produce innovation, foster free speech, and promote competition. As such, these principles should always serve as a framework for understanding and enforcing legal and technical net neutrality. Although this Note ultimately concludes that these theoretical principles are inadequate as an enforceable definition of net neutrality, they are an essential starting point.

7. Scarce network resources may force network administrators to violate certain net neutrality principles. At peak times of network congestion, for example, a network administrator may need to limit a highly innovative but bandwidth-intensive application to maintain a reliable network.

1. *Transparency*

Transparency is the idea that ISPs should disclose how they manage their networks. Mandating that ISPs disclose their network management practices is not itself a separate principle, since a network service provider may maintain a perfectly neutral network while (for whatever reason) failing to disclose how the network is managed. Transparency is rather a subservient concept to the other net neutrality principles, but it is nonetheless the most important component of a net neutrality definition. Encouraging ISPs to disclose “meaningful information” about their service plans, former FCC Chairman Michael Powell observed that the importance of such information is that it is “necessary to ensure that the market is working.”⁸

Transparency is not only necessary to maintain honest competition in the market for the provision of broadband service, it is also essential to *create* new forms of competition among service providers on the basis of how they define net neutrality and reasonable network management. The transparency principle acknowledges that the theoretical net neutrality principles are ideals and that providers should be required to disclose how and when they deviate from those ideals—in essence, how they define net neutrality and reasonable network management. This empowers consumers with the opportunity to choose the form of net neutrality they value and the type of reasonable network management they can tolerate.

2. *Innovation*

It is now universally acknowledged that the Internet has become the platform for some of the most impressive innovations of the past several decades. According to one widely-accepted theory, this type of disruptive innovation occurs when users are able to adapt older technologies to entirely new purposes.⁹ Based on this proposition, some conclude that the Internet’s neutral design—its equal treatment of content, services, and applications—has allowed innovators to freely adapt it to entirely new uses with nearly no restrictions imposed by ISPs.¹⁰ This argument that net neutrality protects innovation draws upon the engineering concept known as the end-to-end (e2e) principle, which provides that the middle, or “core,” of the Internet

8. Michael K. Powell, Chairman, FCC, Remarks at the Silicon Flatirons Symposium on “The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age,” University of Colorado School of Law: Preserving Internet Freedom: Guiding Principles for the Industry 5 (Feb. 8, 2004).

9. See JONATHAN L. ZITTRAIN, THE FUTURE OF THE INTERNET AND HOW TO STOP IT 86 (2008) (citing ERIC VON HIPPEL, DEMOCRATIZING INNOVATION 19 (2005)).

10. See, e.g., *Lessig Senate Hearing*, *supra* note 5, at 4.

should provide only general processing services so as not to favor one type of content, service, or application over another.¹¹ This principle is sometimes referred to as the “dumb pipe” argument, since an e2e network has little network “intelligence” between, for example, a user and a website.¹² Therefore, the network (and the service provider that controls it) cannot favor, disfavor, or otherwise disrupt the connection. Though the e2e principle originated as an engineering principle, it now stands for a theory that delegates the role of innovating new services, content, and applications to end-users rather than to ISPs.¹³ This creates a competitive environment among the uncountable number of internet end-users, who develop applications that a smaller group of core ISPs could never have anticipated. Email, for example, was the “unintended by-product” of early internet users, rather than a central purpose envisioned by the original network service providers.¹⁴ Net neutrality thus ensures that the Internet remains open to this kind of disruptive innovation from end-users.

3. *Free Speech*

As a net neutrality principle, protecting free speech on the Internet is related to, but conceptually separate from, protecting innovation. Both innovation and free speech are protected by a non-discriminating, e2e network, but the free speech principle is more concerned with censorship of perspectives than with barriers to entry for new companies. Senator Al Franken calls net neutrality “the most important First Amendment issue of our time.”¹⁵ He wrote in a guest column on CNN.com: “You’re reading this op-ed online; it’ll load just as fast as a blog post criticizing it. That’s what we mean by net neutrality.”¹⁶ From this perspective, there is harm to free speech not only when content is censored entirely, but also when some points of view are prioritized over others. Thus, if one news source is “throttled” (slowed) by an ISP, over time users might migrate to other, faster-loading

11. See BARBARA VAN SCHEWICK, INTERNET ARCHITECTURE AND INNOVATION 378 (2010). This engineering design principle was first articulated in J.H. Saltzer et al., *End-to-End Arguments in System Design*, 2 ACM TRANSACTIONS ON COMPUTER SYS. 277 (1984).

12. Cf. David S. Isenberg, *The Rise of the Stupid Network*, COMPUTER TELEPHONY 16–26 (Aug. 1997) (calling the same phenomenon a “stupid network”).

13. See Tim Wu, *The Broadband Debate, A User’s Guide*, 3 J. ON TELECOMM. & HIGH TECH. L. 69, 73–74 (2004).

14. See Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 932 (2001).

15. Franken, *supra* note 5.

16. *Id.*

sources. This form of discrimination, in addition to the wholesale blocking of content, violates the free speech net neutrality principle.

Courts have also recognized that the Internet is now *the* platform for both public and private speech. In *Reno v. American Civil Liberties Union*, the Supreme Court quoted Judge Dalzell of the Eastern District of Pennsylvania, who described the Internet as “the most participatory form of mass speech yet developed.”¹⁷ Indeed, some net neutrality supporters suggest that as social networks become fixtures of communication, the increasingly complicated human interactions that occur on those networks are becoming the central purpose of the Internet.¹⁸ Net neutrality, based on this view, protects free speech on the Internet’s blogs and social networks, some of which have become the new town square or the new Pruneyard Shopping Center.¹⁹

4. *Competition*

The net neutrality principle of maintaining competition concerns two separate but related markets: the market for the provision of internet service and the market for content, services, and applications. Under the competition principle, the call for net neutrality regulation responds to alleged failures in both of these markets.²⁰ Failure in the broadband services market means higher prices for subscribers. Failure in the content, services, and applications market means higher barriers for new (and potentially innovative) entrants. The latest data from the FCC Wireline Competition Bureau indicate that roughly half of households in the United States have access to just two choices of broadband ISPs.²¹ The discussion about regulating this duopoly echoes debates over public utility regulation from the last one hundred years. According to this history, “a provider of basic infrastructure—a railroad or a telecommunications network—will often seek

17. *Reno v. ACLU*, 521 U.S. 844, 863 (1997) (quoting *ACLU v. Reno*, 929 F. Supp. 824, 883 (E.D. Penn. 1996)).

18. See Susan P. Crawford, *The Internet and the Project of Communications Law*, 55 UCLA L. Rev. 359, 362, 363 n.12 (2007).

19. See generally *Pruneyard Shopping Ctr. v. Robins*, 447 U.S. 74 (1980) (affirming that a state, through its own constitutional free speech protections, can prohibit a privately-owned space from suppressing peaceful expressive activity).

20. See J. Gregory Sidak, *What Is the Network Neutrality Debate Really About?*, 1 INT’L J. OF COMM. 377, 380 (2007).

21. WIRELINE COMPETITION BUREAU: INTERNET ACCESS SERVICES: STATUS AS OF DECEMBER 31, 2009, FCC 7, available at http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1208/DOC-303405A1.pdf (indicating that 44 percent of U.S. households have a choice of two broadband service providers and 7 percent have a choice of only one broadband service provider).

some share of the available rents from the goods or services carried on their platform.”²² Without regulatory oversight, the monopolist (or duopolist) will charge supra-competitive prices to end-users, raising the cost of internet service.²³ On the consumer end, paying supra-competitive prices for internet service is, on its face, more of an antitrust harm than a net neutrality violation. This becomes a neutrality issue, however, when ISPs, which have a de facto monopoly (a “terminating access monopoly”) over each end-user, charge supra-competitive prices to *websites*, *services* and *applications*, particularly bandwidth-intensive ones.²⁴ This is a form of discrimination against certain content providers that may chill the growth of those products and services.

The second alleged market failure, in the content, services, and application market, concerns the vertical integration of these products with ISPs themselves, giving providers the incentive to prioritize their own integrated products over their competitors. This is known as the “next Google” argument, since it envisions a “pair of entrepreneurs who would make the next Google,” but are deterred by the threat that the incumbent Google will join with a service provider to obtain prioritized service.²⁵ The net neutrality concerns in this respect are essentially the same as the concerns over protecting innovation.

B. TYPES OF DISCRIMINATION AND REASONABLE NETWORK MANAGEMENT

Though this Note has referred to network discrimination as any ISP practice that “violates” one of these net neutrality principles, there are in fact a number of categorically different discriminatory practices. Edward Felten, now Chief Technologist of the Federal Trade Commission, offers a framework that sorts network discrimination into four useful categories: minimal, non-minimal, minimal delay, and non-minimal delay discrimination.²⁶ These categories help to distinguish between more and less harmful practices on a theoretical level, and they will provide the basis for developing an operational definition of network neutrality. In particular, understanding how to categorize various forms of network discrimination is essential in determining what constitutes “reasonable network management.”

22. Weiser, *supra* note 5, at 302.

23. *See id.*

24. *See id.* at 307.

25. Sidak, *supra* note 20, at 383.

26. *See* Edward W. Felten, *Nuts and Bolts of Network Neutrality* 3–5 (July 6, 2006), <http://itpolicy.princeton.edu/pub/neutrality.pdf>.

Network administrators face the challenge of dealing with the “bursty” nature of internet traffic. Internet traffic patterns are characterized by periods of low activity followed by sudden “bursts” in transmissions.²⁷ During surges, internet servers may become overwhelmed and may be forced to drop a certain amount of network traffic because they reach their capacity to process incoming data. Discarding transmissions only when it is an absolute technical necessity is known as “minimal discrimination.”²⁸ In contrast, discarding internet traffic for any other reason is known as “non-minimal discrimination.”²⁹ When a server does not drop but merely delays the transmission, this is known as “delay discrimination,” and delay discrimination can also be “minimal” (required by a server’s capacity constraints) or “non-minimal” (delayed for any other reason).³⁰ To distinguish minimal from non-minimal discrimination, therefore, is to ask a purely technical question: “Is this discrimination a technical necessity?”

Practices that are technically necessary to prevent an ISP’s network from failing during traffic surges (“minimal discrimination” and “minimal delay discrimination”) should always be considered “reasonable network management.” Even if such discrimination temporarily violates a net neutrality principle, it would be far worse if the network failed entirely during surges in traffic. Thus, the concept of reasonable network management is an important one because it bridges the theoretical definition of net neutrality with the technical reality that network discrimination is justified at certain times. Reasonable network management is not a part of a strictly theoretical definition of net neutrality that contemplates the Internet as a completely neutral, e2e network, because the exclusion allows discrimination that is either justified for technical reasons, imperceptible to the end-user, or sometimes even requested by the end-user.

Although there should be a bright-line rule defining minimal discrimination as reasonable network management, non-minimal discrimination is not so easily defined as reasonable or unreasonable. Some forms of non-minimal discrimination, particularly small amounts of delay discrimination, may not be noticeable to the end-user and therefore may not harm any of the net neutrality principles in any substantial way. Moreover, some users may want their ISPs to prioritize certain traffic. Consumers may prefer that their ISPs guarantee a higher quality of service (QoS) for certain

27. *See id.* at 4.

28. *Id.* at 3.

29. *Id.*

30. *Id.* at 3–4.

applications, such as online video, at the expense of slower speeds for other web content.³¹ In allowing broadband service providers to deviate from a strict application of the nondiscrimination principle, reasonable network management accounts for a variety of acceptable discriminatory practices and is part of the FCC's net neutrality language discussed in the following section.

II. LEGAL NET NEUTRALITY

Because net neutrality principles fail to account for the technical realities of the Internet, it is important, as Tim Wu encourages, “to differentiate sharply between the *principle* of network neutrality and a network neutrality *law*.”³² The history of the FCC's enforcement of net neutrality will help to develop a rough outline of reasonable network management, as its two major enforcement actions both involved clear cases of unreasonable practices.

A. MADISON RIVER

The FCC first enforced net neutrality through a 2005 consent decree involving Madison River Communications, LLC, a North Carolina-based digital subscriber line (DSL) broadband ISP and telephone service provider.³³ Vonage, an early Voice over Internet Protocol (VoIP) provider, complained that Madison River was blocking Vonage's application, which allows users to place calls over the Internet.³⁴ At that time, Madison River served over 180,000 subscribers with telephone service, making Vonage's advance into the voice market a potential threat.³⁵ Vonage alleged that Madison River persistently blocked VoIP services not just during bursts in network traffic, but at all times.³⁶ If this allegation is accurate, Madison River's non-minimal blocking represents a clear case of unreasonable network management. It violated all of the net neutrality principles by chilling innovation and

31. See Wu, *supra* note 13, at 76–77.

32. NETWORK NEUTRALITY FAQ, http://timwu.org/network_neutrality.html (last visited Feb. 14, 2011).

33. Madison River Commc'ns, LLC, 20 FCC Rcd. 4295 (2005).

34. *Id.* at 4297; see also Ben Charny, *Vonage Says Broadband Provider Blocks Its Calls*, CNET.COM (Feb. 14, 2005), http://news.cnet.com/Vonage-says-broadband-provider-blocks-its-calls/2100-7352_3-5576234.html.

35. See Declan McCullagh, *Telco Agrees to Stop Blocking VoIP Calls*, CNET.COM (Mar. 3, 2005), http://news.cnet.com/Telco-agrees-to-stop-blocking-VoIP-calls/2100-7352_3-5598633.html.

36. See Charny, *supra* note 34.

restraining competition in the VoIP market, without being transparent about its practices.³⁷ The FCC's investigation ended early with a settlement in which Madison River agreed to cease blocking users from using VoIP applications and to pay a fine.³⁸

In the *Madison River* settlement, the FCC enforced net neutrality principles during a time when DSL broadband ISPs were regulated as "telecommunications services" under Title II of the Communications Act of 1934 (as amended by the Telecommunications Act of 1996).³⁹ Title II imposes a number of common carrier duties on telecommunications services, such as reasonable rates (§ 201), non discrimination (§ 202), and unbundling and interconnection obligations (§§ 251, 252).⁴⁰ Title I of the Communications Act, by contrast, applies to "information services" and contains no specific duties for carriers.⁴¹ Rather, it grants the FCC the authority to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions."⁴² Although the FCC reclassified *cable* broadband internet providers under Title I three years prior to *Madison River*, the agency left DSL providers under Title II as common carriers.⁴³ Shortly after *Madison River*, however, the FCC reclassified DSL broadband ISPs under Title I.⁴⁴

B. *BRAND X*

In *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, the Supreme Court decided a challenge to the reclassification of cable internet providers under Title I.⁴⁵ This case is important because it contains the dicta

37. Since Madison River blocked essentially the use of a VoIP application, its discriminatory practice was less aimed at suppressing a particular perspective, though it certainly blocked the free transmission of speech generally.

38. *Madison River*, 20 FCC Rcd. at 4297.

39. 47 U.S.C. § 201 (2006).

40. 47 U.S.C. §§ 201, 202, 251, 252 (2006).

41. 47 U.S.C. § 154(i) (2006).

42. *Id.*

43. Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 17 FCC Rcd. 4798, 4802–03 (2002) [hereinafter *Cable Order*].

44. Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, 20 FCC Rcd. 14853 (2005) [hereinafter *DSL Order*].

45. *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005).

language upon which the FCC built its jurisdictional foundation to enforce net neutrality after cable and DSL broadband deregulation.⁴⁶

In the initial administrative action, the FCC issued an order that re-categorized cable broadband Internet as an “information service” (one that transforms or processes the communication) instead of a “telecommunications service” (one that does not change the form or content of the communication).⁴⁷ The FCC’s re-categorization effectively deregulated cable broadband. Applying the deferential test developed in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* to evaluate an agency’s authority to interpret statutory ambiguities (here, surrounding the terms “telecommunications service” and “information service”), the Supreme Court held that the reclassification was within the FCC’s jurisdiction.⁴⁸

While affirming the FCC’s decision to move cable broadband Internet out of Title II regulation, Justice Thomas, writing the majority opinion, also commented on the FCC’s Title I authority. Comparing “telecommunications services” to “information services,” Justice Thomas wrote: “Information-service providers . . . are not subject to mandatory common-carrier regulation under Title II, though the Commission has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.”⁴⁹ This language goes beyond the holding in *Brand X*, as the Court was only reviewing whether the FCC had the authority to resolve the cable broadband classification ambiguity; the Court was not interpreting Title I. However, this language became the jurisdictional foundation of the FCC’s authority to enforce net neutrality after it deregulated both cable and DSL broadband.⁵⁰

C. “INTERNET POLICY STATEMENT”

With the encouragement of *Brand X*, the FCC embarked upon the enforcement of net neutrality principles with the publication of its “Internet Policy Statement” in 2005.⁵¹ Citing the key dicta language from *Brand X*, the

46. *See id.* at 976 (“[T]he Commission has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction to regulate interstate and foreign communications.”).

47. *Cable Order*, *supra* note 43, at 4802–03.

48. *Brand X*, 545 U.S. at 1002–03 (citing *Chevron, U.S.A. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 865–66 (1984)).

49. *Id.* at 976 (emphasis added).

50. *See* Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, 20 FCC Rcd. 14986, 14988 (2005) [hereinafter *Internet Policy Statement*].

51. *See id.*

FCC concluded that it had the “jurisdiction necessary to ensure that providers of telecommunications for Internet access or Internet Protocol-enabled (IP-enabled) services are operated in a neutral manner.”⁵² The FCC adopted four principles to encourage broadband deployment and preserve the open and interconnected nature of the public Internet. Under these principles, consumers are entitled to:

- [1] . . . access the lawful Internet content of their choice;
- [2] . . . run applications and use services of their choice, subject to the needs of law enforcement;
- [3] . . . connect their choice of legal devices that do not harm the network; [and]
- [4] . . . competition among network providers, application and service providers, and content providers.⁵³

Importantly, the FCC made clear that these principles are also subject to “reasonable network management.”⁵⁴ Principles 1, 2, and 3—each a form of nondiscrimination rule—embody the theoretical net neutrality principles of protecting innovation and free speech in the respective markets of internet content, services, applications, and devices. Principle 4 articulates the net neutrality competition principle, and it notably reaches both the market for broadband service providers and the market for applications, services, and content. Ultimately, however, the adoption of these principles in a policy statement rather than through a rule-making or through a grant of authority by Congress undermined the FCC’s ability to enforce net neutrality.

D. *COMCAST V. FCC*

In April 2010, five years after the adoption of the “Internet Policy Statement,” the D.C. Circuit decided *Comcast Corp. v. Federal Communications Commission*, which held that the FCC did not have jurisdiction over broadband service providers to enforce neutrality principles.⁵⁵ The case involved Comcast’s non-minimal blocking of peer-2-peer (p2p) file networking applications. The holding, however, did not reach the FCC’s technical argument against Comcast’s unreasonable network management practice. Rather, *Comcast* reflects the application of the D.C. Circuit’s jurisdictional doctrine developed in earlier cases to determine the boundaries of the FCC’s Title I authority.

52. *Id.*

53. *Id.*

54. *See id.* at 14988 n.15.

55. *Comcast Corp. v. FCC*, 600 F.3d 642, 661 (D.C. Cir. 2010).

1. *Facts and Procedural History*

In 2007, several subscribers to Comcast's high-speed internet service noticed that the company was slowing or blocking traffic through peer-to-peer networking applications, including those relying on BitTorrent.⁵⁶ That same year, the Associated Press conducted nationwide tests confirming that Comcast "actively interfere[d] with attempts by some of its high-speed Internet subscribers to share files online."⁵⁷ In response, two non-profit organizations, Free Press and Public Knowledge, filed a complaint with the FCC alleging that Comcast violated the FCC's "Internet Policy Statement" by interfering with users' internet access.⁵⁸ After first denying any responsibility for the disrupted peer-to-peer access,⁵⁹ Comcast later acknowledged and defended its practice as necessary for reasonable management of its network's limited capacity.⁶⁰

2. *Comcast's Network Management Practices*

After a period of public comment, the FCC issued an order finding that Comcast's practice "unduly squelches the dynamic benefits of an open and accessible Internet and does not constitute reasonable network management."⁶¹ When Comcast detected that BitTorrent users were attempting to share files, Comcast issued a "reset packet" that would terminate the connection.⁶² Because the packet looked like it came from the other user's computer, Comcast was "falsifying network traffic" through a process that was very difficult to circumvent.⁶³ The FCC observed that Comcast was determining how to route its connections (or, more precisely, whether to *terminate* some of its connections) based "not on their destinations but on their contents."⁶⁴ Thus, as the FCC noted, Comcast was "open[ing] its customers' mail because it want[ed] to deliver mail not based on the address

56. *Id.* at 644.

57. Peter Svensson, *Comcast Blocks Some Internet Traffic*, WASH. POST (Oct. 19, 2007), <http://www.washingtonpost.com/wp-dyn/content/article/2007/10/19/AR2007101900842.html>.

58. Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13028 (2008) [hereinafter *Complaint Against Comcast*].

59. Marguerite Reardon, *Comcast Denies Monkeying with BitTorrent Traffic*, CNET.COM (Aug. 21, 2007), http://www.news.com/8301-10784_3-9763901-7.html.

60. *Comcast*, 600 F.3d at 645.

61. *Complaint Against Comcast*, *supra* note 58, at 13028.

62. *Id.* at 13031.

63. *Id.*

64. *Id.* at 13051.

or type of stamp on the envelope but on the type of letter contained therein.”⁶⁵ Moreover, the majority of experts the FCC consulted found that inserting a “reset packet” into consumer traffic did not constitute reasonable network management and did not conform to any standard practice in network engineering.⁶⁶ As a result, the order required Comcast to disclose its network management practices, construct a plan to amend its discriminatory practice, and disclose its new practices to the public.⁶⁷

3. *D.C. Circuit’s Analysis*

After complying with the order, Comcast appealed the FCC’s decision on jurisdictional, procedural, and Due Process grounds. In April 2010, the D.C. Circuit ruled that the FCC lacked sufficient statutorily-mandated responsibility and vacated the FCC’s order on jurisdictional grounds alone.⁶⁸

As the FCC had no express statutory authority to regulate Comcast’s purportedly unreasonable network management, it relied on Title I of the Communications Act, which states in relevant part that the FCC may “perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the executions of its functions.”⁶⁹ This section has come to be known as the FCC’s “ancillary jurisdiction.”⁷⁰ Prior to *Comcast*, the D.C. Circuit held that the FCC “may exercise ancillary jurisdiction only when two conditions are satisfied: (1) the Commission’s general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.”⁷¹

Before applying this test to the facts of *Comcast*, the D.C. Circuit first addressed the FCC’s two threshold arguments, both of which asserted that the normal jurisdictional test should not apply. First, the FCC argued that Comcast should be judicially estopped from challenging the FCC’s jurisdiction since Comcast had acknowledged the FCC’s jurisdiction over

65. *Id.*

66. *Id.* at 13055.

67. *Id.* at 13060.

68. *Comcast Corp. v. FCC*, 600 F.3d 642, 661 (D.C. Cir. 2010).

69. 47 U.S.C. § 154(i) (2006).

70. *Comcast*, 600 F.3d at 644.

71. *Id.* at 646 (quoting *Am. Library Ass’n v. FCC*, 406 F.3d 689, 691–92 (D.C. Cir. 2005)).

peer-to-peer services in a district court case two years earlier.⁷² The D.C. Circuit disagreed, finding that Comcast's admission in the prior case applied only to the first part of the jurisdictional test—the “regulated subject” element of the two-part test—and did not preclude Comcast from disputing the FCC's jurisdiction for other reasons.⁷³ Second, the FCC argued that the Supreme Court had already decided the jurisdictional question in *Brand X*.⁷⁴ Acknowledging that this language from *Brand X* is technically dicta, the D.C. Circuit also dismissed this argument by examining a line of Supreme Court decisions directly defining the FCC's ancillary jurisdiction.⁷⁵ Based upon those cases, the D.C. Circuit concluded that *Brand X* does nothing to eliminate the requirement that ancillary authority must be independently justified.⁷⁶

Comcast conceded, and the D.C. Circuit accepted, that the FCC's action satisfied the first element of the two-part jurisdictional test because Comcast's internet service qualified as “interstate and foreign communication by wire” as that term is used in Title I.⁷⁷ Turning to the second element—the “statutorily mandated responsibilities” element—the D.C. Circuit found that none of the FCC's cited provisions of the Communications Act delegated sufficient regulatory authority over broadband Internet.⁷⁸ The court divided these provisions into two general categories: those that articulate only congressional policy and those that potentially delegate regulatory authority.⁷⁹ Congressional policy statements alone, the court said, “cannot provide the basis for the Commission's exercise of ancillary authority,” since it is an “axiomatic principle” that “administrative agencies may [act] only pursuant to authority delegated to them by Congress.”⁸⁰ Thus, the sections of the Communications Act relied upon by the FCC that express only policy could not support the FCC's jurisdiction to regulate Comcast's network

72. *Id.* at 647 (citing *Hart v. Comcast of Alameda*, No. 07-6350, 2008 WL 2610787 (N.D. Cal. June 25, 2008)).

73. *Id.* at 648.

74. *Comcast*, 600 F.3d at 649; see *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 996–97 (2005).

75. *Comcast*, 600 F.3d at 650–51 (citing *United States v. Sw. Cable Co.*, 392 U.S. 157 (1968); *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972)).

76. *Id.* at 651.

77. *Id.* at 646.

78. *Id.* at 661.

79. *Id.* at 651. The court designated sections 230(b) and 1 of the Communications Act statements of policy, and sections 706, 256, 257, 201, and 623 plausible delegations of regulatory authority. *Id.* at 651, 658–61.

80. *Id.* at 654 (quoting *Am. Library Ass'n v. FCC*, 406 F.3d 689, 691 (D.C. Cir. 2005)).

management practices.⁸¹ Although the remaining provisions upon which the FCC relied could have “arguably delegate[d] regulatory authority to the Commission,” the court found that each failed to deliver a specific delegation of jurisdiction over broadband Internet.⁸² None of the provisions, therefore, could provide the FCC with the appropriate, independently justified authority required by the two-part jurisdictional test. Thus, the court overturned the FCC’s order.⁸³

E. “OPEN INTERNET RULES”

About eight months after *Comcast* invalidated the FCC’s jurisdiction over broadband Internet, the FCC responded with a reassertion of authority and a new set of net neutrality rules in the “Open Internet Rules.”⁸⁴ In these new rules, the FCC adopted a new jurisdictional theory by relying heavily on section 706 of the Telecommunications Act of 1996, which directs the FCC to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans.”⁸⁵ “Advanced telecommunications capability,” as defined in the 1996 Act, includes broadband Internet.⁸⁶ Thus, the FCC argued that section 706 provides authority for the net neutrality regulation because the “Open Internet Rules” will encourage broadband Internet deployment.⁸⁷

In order to adopt this theory, the FCC had to reconcile it with the *Comcast* court’s earlier interpretation of section 706. In *Comcast*, the D.C. Circuit considered section 706 to be a provision that could “at least arguably be read to delegate regulatory authority.”⁸⁸ However, because the FCC had acknowledged that section 706 “does not constitute an independent grant of authority” in a separate, earlier order (the “Advanced Services Order”), the FCC could no longer use section 706 as a basis for their jurisdiction.⁸⁹ Responding to this holding in *Comcast*, the FCC asserted a different reading of section 706 and the Advanced Services Order in the “Open Internet Rules.” Specifically, the FCC clarified that the Advanced Services Order only meant that section 706 conferred no authority upon the FCC “over and

81. *Id.*

82. *Id.* at 659–61.

83. *Id.* at 661.

84. See generally *Open Internet Rules*, *supra* note 3.

85. 47 U.S.C. § 1302(a) (2009); see *Open Internet Rules*, *supra* note 3, ¶ 116.

86. § 1302(d)(1); see *Open Internet Rules*, *supra* note 3, ¶ 117.

87. § 1302(d)(1); see *Open Internet Rules*, *supra* note 3, ¶ 117.

88. *Comcast Corp. v. FCC*, 600 F.3d 642, 658 (D.C. Cir. 2010).

89. *Id.* (quoting *Deployment of Wireline Servs. Offering Advanced Telecomms. Capability*, 13 FCC Rcd. 24012, 24047 (1998) [hereinafter *Advanced Services Order*]).

above what it otherwise possessed” (in other words, “independent” of what it already had).⁹⁰ Consequently, the FCC argued, section 706 still “authorizes the [FCC] to address practices, such as blocking VoIP communications, degrading or raising the cost of online video, or denying end users material information about their broadband service, that have the potential to stifle overall investment in Internet infrastructure and limit competition in telecommunications markets.”⁹¹ Two wireless providers, Verizon and Metro PCS, have already filed complaints challenging the “Open Internet Rules.”⁹²

Aside from a new jurisdictional basis, the FCC also adopted three net neutrality rules. These include a rule for ISP transparency and rules against blocking and discrimination as follows:

[Transparency rule:] A person engaged in the provision of broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient for consumers to make informed choices regarding use of such services and for content, application, service, and device providers to develop, market, and maintain Internet offerings.⁹³

[No blocking rule:] A person engaged in the provision of fixed broadband Internet access service, insofar as such person is so engaged, shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.⁹⁴

[Non discrimination rule:] A person engaged in the provision of fixed broadband Internet access service, insofar as such person is so engaged, shall not unreasonably discriminate in transmitting lawful network traffic over a consumer’s broadband Internet access service. Reasonable network management shall not constitute unreasonable discrimination.⁹⁵

By incorporating a transparency principle, these rules represent a significant advancement over the “Internet Policy Statement” for reasons discussed in Section I.C, *supra*. The “Open Internet Rules” further define a network management practice as reasonable “if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the

90. *Open Internet Rules*, *supra* note 3, ¶ 118.

91. *Id.* ¶ 120.

92. *See FCC Seeks to Dismiss Net Neutrality Challenges*, HUFFINGTON POST, Jan. 28, 2011, http://www.huffingtonpost.com/2011/01/28/fcc-net-neutrality-news_n_815626.html.

93. *Open Internet Rules*, *supra* note 3, ¶ 54.

94. *Id.* ¶ 63.

95. *Id.* ¶ 68.

particular network architecture and technology of the broadband Internet access service.”⁹⁶ The FCC offered a few examples of legitimate network management practices, which include “ensuring network security and integrity . . ., addressing traffic that is unwanted by end users . . ., and reducing or mitigating the effects of congestion on the network.”⁹⁷ To the extent that these examples clarify the concept of “reasonable network management,” they do so only in a generalized way. The FCC acknowledged that they will “develop the scope of reasonable network management on a case-by-case basis, as complaints about broadband providers’ actual practices arise.”⁹⁸ In the end, therefore, while the adoption of the “Open Internet Rules” introduces an important transparency rule, it does little to develop the concept of reasonable network management.

F. LEGAL NET NEUTRALITY AND REASONABLE NETWORK MANAGEMENT

By failing to adequately elaborate criteria for reasonable network management in the “Open Internet Rules,” the FCC left the concept wide-open to interpretation by future litigants. This is particularly so given the *Madison River* and *Comcast* decisions, which define reasonable network management in only the bluntest way: both cases involved the persistent, non-minimal blocking of internet applications, which could not be justified by a continuing technical necessity. The FCC and the D.C. Circuit, therefore, offer little guidance in analyzing more subtle forms of discrimination, such as the delay discrimination that occurs when an ISP does not block but merely delays a transmission.⁹⁹ The next Part argues that reasonable network management is best defined through a technical analysis of the Internet because determining whether a discriminatory practice is “minimal” (and thus reasonable) should be rooted in whether the practice is a “technical necessity” for broadband network administrators.

III. TECHNICAL NET NEUTRALITY

The decentralized architecture of the Internet—a network of networks—requires ISPs to enter into service provider agreements for exchanging traffic. These agreements dictate the cost of sending traffic. Using them, ISPs

96. *Id.* ¶ 82.

97. *Id.*

98. *Id.* ¶ 83.

99. *See* Types of Discrimination and Reasonable Network Management, *supra* Section I.B.

often manipulate protocols to route transmissions along the lowest-cost paths. The following Part examines the physical architecture of the Internet, interconnection agreements among ISPs, and the technical protocols that define connections and routing—revealing a number of potential ways that network owners can discriminate among content, services, and applications. Understanding how network administrators discriminate on a technical level and why they would decide to deviate from full neutrality will help in classifying ISP discrimination practices as reasonable or unreasonable.

A. PHYSICAL ARCHITECTURE AND SERVICE PROVIDER AGREEMENTS

At its most basic level, the Internet is divided into a three-level hierarchy of “last mile” ISPs, regional ISPs, and internet backbones. This tripartite structure tracks the original hierarchy of the early Internet, which went online as the NSFNET backbone in 1986 to provide universities nationwide access to federally funded supercomputers located at a small number of universities.¹⁰⁰ Originally, ISPs entered into two general forms of interconnection agreements: *transit agreements* and *peering agreements*. In a transit agreement, one ISP agrees to deliver internet traffic from another ISP for a fee, often because there is an unequal exchange of traffic. In peering agreements, by contrast, ISPs agree to exchange roughly equal traffic free of charge.¹⁰¹ Internet backbones originally entered into settlement-free peering agreements based on an approximate determination that their packet exchange was symmetrical. Because of the high transaction costs associated with precise measurement of the exchange, service providers during the early days of the Internet still favored free peering relationships even when the exchange was not completely equal.¹⁰²

Today, there are still the three levels of service providers. However, these providers no longer connect exclusively through one-to-one relationships. This is because a hierarchical Internet consisting of one-to-one relationships among the three levels of service providers made each network participant completely dependent upon the level above them—providing internet

100. Christopher S. Yoo, *Innovations in the Internet's Architecture That Challenge the Status Quo*, 8 J. ON TELECOMM. & HIGH TECH L. 79, 81 (2010). For a discussion of the parallels between the divestiture arrangement with the long distance telephone companies and the three-level hierarchy of the Internet, see Juan D. Rogers, *Internetworking and the Politics of Science: NSFNET in Internet History*, 14 INFO. SOC'Y 213, 219 (1998).

101. Stanley Besen et al., *Advances in Routing Technologies and Internet Peering Agreements*, 91 AM. ECON. REV. 292, 292 (2001).

102. Peyman Faratin et al., *The Growing Complexity of Internet Interconnection*, 72 COMM'NS & STRATEGIES 51, 52–57 (2008).

backbones at the top of the hierarchy with the potential power to charge monopoly rents.¹⁰³ As a result, service providers entered into new arrangements, through *secondary peering* and *multiboming*, in which lower-level ISPs could connect to more than just the ISP directly above them. Regional ISPs, for example, no longer needed to connect to an internet backbone through a transit agreement; they could also connect to another regional ISP for free on the basis of roughly equal exchange. This process is known as *secondary peering*.¹⁰⁴ Regional ISPs could also connect to more than one internet backbone, which is known as *multiboming*.¹⁰⁵ As a result, while service providers still enter into peering and transit agreements, those arrangements now represent just two among a variety of contractual arrangements.¹⁰⁶

In addition, ISPs now draft increasingly sophisticated peering and transit agreements. *Paid peering*, for example, resembles normal peering in almost every respect, except that one network pays the other network even when the exchange of traffic is roughly the same. These more sophisticated agreements reflect the fact that while the traffic exchange may be equal, the cost of maintaining the networks' respective infrastructures may be unequal.¹⁰⁷ ISPs serving a smaller number of large internet content websites (known as "content networks") have lower costs in maintaining their infrastructure than ISPs serving home users ("eyeball networks"), since residential neighborhoods require more equipment investment (such as wiring) and maintenance than commercial areas.¹⁰⁸ These interconnection agreements create the economic incentives for ISPs to route internet traffic along the lowest-cost paths, which can sometimes have a discriminatory effect on certain types of content, applications, and services.

B. THE PROTOCOL LAYERS OF THE INTERNET

Interconnection agreements are realized on a technical level through network protocols. As service provider agreements provide strong economic incentives for ISPs to discriminate in ways that keep transit costs low, network administrators can discriminate by manipulating certain protocols in a variety of minimal and non-minimal ways. For example, a network administrator can send a signal to both ends of a connection that has the effect of resetting the connection and effectively blocking traffic between

103. See Yoo, *supra* note 100, at 83.

104. *Id.* at 86.

105. *Id.*

106. See *id.* at 61.

107. See *id.* at 96.

108. See *id.*

two end users.¹⁰⁹ Administrators can also prioritize traffic based on traffic class designations, adjust routing tables to send traffic along faster or slower routes, adjust routes based on cost, and block sending or receiving traffic from certain networks altogether.¹¹⁰ These practices represent some (though certainly not all) of the network administrator's "tools" for network discrimination. This Article proposes, *infra* Section III.C, that determining whether these practices constitute reasonable or unreasonable network management should involve two inquiries. First, are the practices technical necessities? If they are not, then second, do they violate any of the theoretical net neutrality principles of innovation, free speech, and competition in any serious way?

Unlike the Internet's physical infrastructure, which is largely privately owned, protocols are, for the most part, community assets. As a network comprised of smaller networks, the Internet is not governed by any one entity. Rather, it is advised by a voluntary group of users known as the Internet Engineering Task Force (IETF). Through online working groups, the IETF produces technical and engineering documents to "influence the way people design, use, and manage the Internet."¹¹¹ Among the different types of documents it produces, the IETF circulates memoranda describing protocol standards known as Requests for Comments (RFCs). In this way, the Internet is "governed" by individual networks' voluntary adherence to a complex set of protocols defining the format and order of messages sent and received by devices on the network.¹¹²

The Internet's complex protocols can be understood as a system of *layers*—a conceptual aid that allows engineers to envision the transmission of a message from one computer to another as a series of wrappings and unwrappings of the message. In a typical exchange between two end-users, a message is sent from an application, such as an email program, using a protocol in the *application layer*. It is then wrapped according to a protocol that defines how it will be transported in the *transport layer*. The message is then further encapsulated according to a protocol that will determine how the

109. See, e.g., Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13028, 13031 (2008).

110. See, e.g., Scott Bradner & Allison Mankin, *The Recommendation for the IP Next Generation Protocol*, RFC 1752, at 3 (Jan. 1995), <http://www.rfc-editor.org/rfc/pdf/rfc1752.txt.pdf>.

111. Harald Tveit Alvestrand, *A Mission Statement for the IETF*, RFC 3935, at 1 (Oct. 2004), <http://www.ietf.org/rfc/rfc3935.txt>.

112. JAMES F. KUROSE & KEITH W. ROSS, *COMPUTER NETWORKING: A TOP-DOWN APPROACH FEATURING THE INTERNET* 8 (3d ed. 2005).

message will move from one host to another in the *network layer*. Finally, the message is wrapped according to a protocol in the *link layer* based on whether it is traveling on an Ethernet network or through some other system. The first two protocols developed on the Internet were the *Transmission Control Protocol (TCP)*, which is a transport layer protocol, and the *Internet Protocol (IP)*, which is a network layer protocol. These two protocols, along with a growing set of other protocols, form the TCP/IP protocol suite on the Internet today, which determines how a message will be transported from one end of a network to another.

This Section will focus on the transport and network layers because ISPs have used these layers to implement discrimination practices. ISPs can, for example, interfere with traffic using transport layer protocols by “posing” as an end-user. The network layer is also critically important because it determines the input and output decisions of individual routers and the global coordination of internet routing.

1. *Transport Layer*

TCP is one of two common transport layer protocols.¹¹³ With TCP, the transport layer establishes a logical connection between, for example, a user’s computer and an internet email provider’s server.¹¹⁴ Over a logical connection, an email application running on a server makes a direct connection to software on the user’s computer (a web browser, for example), even if the application and software are actually separated by thousands of miles.¹¹⁵ A digital “handshake” between the two ends establishes the connection and creates a reliable transfer in which TCP ensures that all data is delivered correctly and in order.¹¹⁶

The transport layer is generally implemented only at the ends of the network. According to the layered approach to protocols, this means that transport layer protocols (such as TCP) are packaged inside network layer protocols (such as IP) when traveling through the Internet’s core. This raises the question: how can an ISP interfere using a protocol layer with which it does not communicate? Revisiting the facts of *Comcast* may be helpful here. In *Comcast*, the ISP blocked peer-to-peer networking applications by sending a message to both sides of a connection such that the message looked like it

113. The other is the User Datagram Protocol (UDP), defined in Jonathan Postel, *User Datagram Protocol*, RFC 768 (Aug. 1980), <http://www.rfc-editor.org/rfc/pdf/rfc/rfc768.txt.pdf>.

114. See KUROSE & ROSS, *supra* note 112, at 184.

115. See *id.*

116. See *id.* at 188.

was being sent by the other end-user to reset the connection.¹¹⁷ TCP reserves a field, the RST flag bit, in the header of every message to allow one side of the communication to reset the connection.¹¹⁸ By posing as an end-user and repeatedly sending reset messages, an ISP can effectively block a connection. Jon Peha, former Chief Technologist for the FCC, condemned Comcast's practice, stating that he was "unaware of any technical literature that has proposed that ISPs adopt this particular practice as a way of dealing with congestion."¹¹⁹ This observation does not preclude the possibility that RST blocking could be used in some minimal way to control congestion during surges in activity, but it certainly suggests that it is unconventional and thus more likely to be indicative of non-minimal discrimination.

2. *Network Layer*

Like reset packet blocking in the transport layer, discriminatory practices in the network layer can be used in minimal and non-minimal ways. Network layer protocols control routing and forwarding on the Internet. Forwarding refers to transfers that take place *within* a router, from the input to the output link. Routing, on the other hand, refers to the process of determining the network-wide path for the data.¹²⁰ Every router contains a forwarding table, which tells the router where to output its data based on the address assigned to the incoming data. Routing protocols compute these forwarding tables.¹²¹ Though there are many forwarding and routing protocols, there is one dominant forwarding protocol—Internet Protocol (IP)—and there are three dominant routing protocols.

As a forwarding protocol, IP describes how a single internet router should deal with data inputs and outputs. IP directs a server to attach a "header" to the data it receives from the layer above it (the transport layer). This can be roughly understood as taking a letter, folding it, and putting it in the envelope with a stamp, destination, and return address. The format of the IP protocol header (the "envelope") requires certain categories of information. There are two IP versions—the older IPv4 and the newer IPv6—each with slightly different header formats containing different required categories. Both IPv4 and IPv6, however, have required bits

117. See Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13028, 13031 (2008).

118. See KUROSE & ROSS, *supra* note 112, at 254.

119. Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13028, 13055 (2008).

120. KUROSE & ROSS, *supra* note 112, at 302.

121. *Id.* at 324.

designating the type of service (TOS) (in IPv4 and IPv6) or “traffic class” (in IPv6), which allow routers to distinguish among different types of data.

The design of this forwarding protocol suggests that priority designation—and thus the ability for ISPs to discriminate—has been a part of the Internet since the beginning.¹²² The TOS field has been a part of the IP since RFC 791, which first defined the protocol in 1981.¹²³ Cisco, for example, uses the first three TOS bits to define different levels of service within its routers.¹²⁴ The TOS bits are significant in that they are mandatory and would be an inefficient use of network resources if they were not used.¹²⁵ As a result, ISPs have the potential to implement non-minimal discrimination practices into their network management.

The newer version of IP (IPv6) has also increased the potential for ISP discrimination by expanding rather than eliminating the fields dedicated to flagging priority levels for different types of data. IPv6 allocates a separate field, known as “flow,” to allow applications to designate data that require special handling, higher quality, or real-time service.¹²⁶ Like TOS bits, “flow” designations might be employed for minimal discrimination if used to select higher priority traffic and drop or delay lower priority traffic during congested periods. They might equally be employed for non-minimal discrimination if used to favor a certain application, content, or service at all times.

The network layer’s second function is data routing. Broadly speaking, a routing protocol finds a “good” path from the origin of the data to the destination.¹²⁷ But what is a “good” path? RFC 1058 describes how routing protocols calculate (and tabulate) the best paths, which are recorded as a set of “hops” between routers:

[I]n order to define which route is best, we have to have some way of measuring goodness. This is referred to as the “metric.” . . . In more complex networks, a metric is chosen to represent the total amount of delay that the message suffers, the cost of sending it, or

122. See Kai Zhu, *Bringing Neutrality to Network Neutrality*, 22 BERKELEY TECH. L.J. 615, 634 (2007) (quoting Information Sciences Institute, *Internet Protocol: Darpa Internet Program Protocol Specification*, RFC 791, at 11 (Sept. 1981), <http://www.ietf.org/rfc/rfc0791.txt>).

123. See generally Information Sciences Institute, *Internet Protocol: Darpa Internet Program Protocol Specification*, RFC 791 (Sept. 1981), <http://www.ietf.org/rfc/rfc0791.txt> (defining the Internet Protocol).

124. KUROSE & ROSS, *supra* note 112, at 326.

125. See Zhu, *supra* note 122, at 634–35, n.135.

126. See Bradner & Mankin, *supra* note 110, at 3.

127. See KUROSE & ROSS, *supra* note 112, at 351.

some other quantity which may be minimized. The main requirement is that it must be possible to represent the metric as a sum of “costs” for the individual hops.¹²⁸

On the Internet, there are three main routing protocols that roughly correspond to the three hierarchical levels of the Internet’s architecture, discussed in Section III.A, *supra*. The *Routing Information Protocol (RIP)* coordinates routing within the networks of the “last mile” providers; the *Open Shortest Path First (OSPF)* protocol manages routing within the regional ISPs; and the *Border Gateway Protocol (BGP)* coordinates routes between regional and “last mile” providers, which often includes routes across internet backbones.¹²⁹

All three routing protocols decide how to route data as a function of a route’s cost, but they all compute cost in different ways. In a network using RIP, every “hop” between intermediate devices on the way to a destination costs the same amount by default.¹³⁰ This default can be changed to account for differences in cost between individual “hops,” but RIP does not allow much freedom to customize the cost metric, nor does it allow for real-time metric updating to account for delays further down the path.¹³¹

In a network using OSPF, by contrast, the network administrator can configure the individual costs per hop so that the protocol will automatically choose the minimum-cost hop route or avoid certain paths.¹³² Quite predictably, the lower a hop costs, the more likely that the network administrator will use that hop to send traffic.¹³³ OSPF does not generate its routing tables exclusively from its own cost-based algorithms; OSPF derives some of its routing data from external sources, including route calculations by BGP, which, as discussed *infra*, can be set by network administrators.¹³⁴

Finally, in a network using BGP, network administrators’ discretion plays an even larger role. As RFC 1164 explains, BGP can be used in response to

128. C. Hedrick, *Routing Information Protocol*, RFC 1058, at 7 (June 1988), <http://www.rfc-editor.org/rfc/pdfrfc/rfc1058.txt.pdf>.

129. RIP, OSPF, and BGP are technically implemented at the application layer, but because they control routing on the Internet, are often associated with the network layer. *See, e.g.*, KUROSE & ROSS, *supra* note 112, at 370–83.

130. *See* Hedrick, *supra* note 128, at 4; *see also* KUROSE & ROSS, *supra* note 112, at 371.

131. *See* Hedrick, *supra* note 128, at 4.

132. *See* John Moy, *OSPF Version 2*, RFC 2178, at 18 (July 1997), <http://www.rfc-editor.org/rfc/pdfrfc/rfc2178.txt.pdf>; *see also* KUROSE & ROSS, *supra* note 112, at 384.

133. *See* Moy, *supra* note 132, at 18.

134. *See id.*

“non-technical” concerns.¹³⁵ This is because BGP policies are set by the administrator of the network running BGP (usually an internet backbone), and these administrators can manipulate the selection of paths based on cost, for example, when multiple paths are available.¹³⁶ This can result in a wholesale refusal to carry traffic from a particular regional network or simply “favoring” or “disfavoring” traffic from certain networks.¹³⁷ Christopher Yoo provides the following illustration of the effects of lower transit costs on routing:

[A]ssume that an end user is downloading content from both CNN.com and MSNBC.com. Assume further that the end user’s regional ISP has a secondary peering relationship with the regional ISP serving CNN.com, but does not have a secondary peering relationship with the regional ISP serving MSNBC.com. The absence of a secondary peering relationship means that traffic from MSNBC.com will have to pay transit charges, while traffic from CNN.com will not. The result is that traffic that is functionally identical will end up paying different amounts.¹³⁸

The fact that traffic to these two functionally identical websites (both fall into the category of “mainstream news”) can cost ISPs different amounts incentivizes ISP administrators to employ non-minimal discrimination by slowing traffic going to content or services for which the transit costs are greater. Correspondingly, network administrators may encourage traffic going to content or services for which the transit costs are lower due to the free peering agreement between ISPs. As such, ISPs can encourage users to switch websites by slowing traffic to websites involving more expensive transit costs.

To take this example one step further, as Yoo does, we may also consider a situation in which the same end-user’s regional ISP connects to CNN.com *both* through a slower, often-congested secondary peering arrangement and a faster, higher capacity transit agreement.¹³⁹ Once again, the end user’s regional ISP would have every economic incentive to route traffic through the slower (but free) secondary peering connection. In this scenario, the end-user is provided with a slower connection to CNN.com that costs the regional ISP nothing in transit fees. This end user also retains a connection to

135. Jeffrey C. Honig et al., *Application of the Border Gateway Protocol in the Internet*, RFC 1164, at 6 (June 1990), <http://www.rfc-editor.org/rfc/pdfrfc/rfc1164.txt.pdf>.

136. *See id.*

137. *Id.*

138. Yoo, *supra* note 100, at 87.

139. *See id.*

MSNBC.com, but since the regional ISP has to pay transit fees, it remains in the ISP's interest to encourage the user to choose CNN.com for his news.

By manipulating routing protocols, network administrators can also route traffic to *overlay networks*, which are physical additions to the Internet in the form of servers deployed widely across the Internet.¹⁴⁰ Content Distribution Networks (CDNs) are some of the most popular overlays on the Internet today. They consist of servers distributed geographically across the Internet that retain a cache of the most frequently demanded content and services from publishers and providers. CDNs work by shortening the physical distance between the end-user and the content, enabling CDNs to optimize content delivery based on different criteria, including faster response time or optimal bandwidth costs.¹⁴¹ In 2007, Akami, one of the world's largest CDNs, was estimated to manage approximately 20,000 servers in 70 countries and to deliver approximately 15 percent of the world's internet content.¹⁴² Because CDNs are networks separate from the three-tier system, they are outside the minimal versus non-minimal classification of discrimination that this Note adopts to analyze net neutrality. However, because CDNs can also have the effect of prioritizing certain routing, they also constitute a potentially discriminatory routing practice.

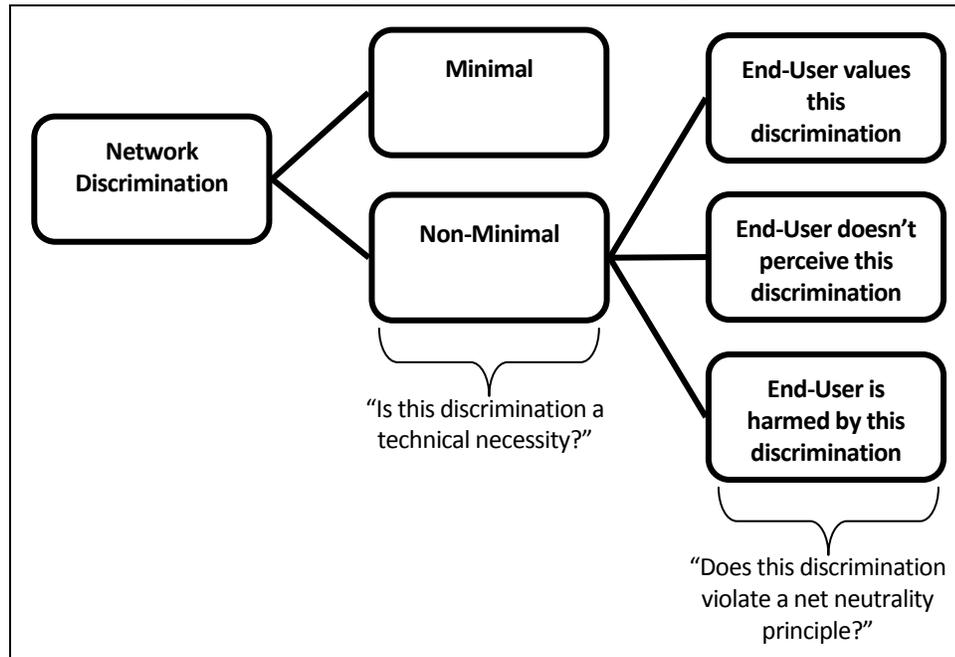
140. See Dave Clark et al., *Overlay Networks and the Future of the Internet*, 63 COMM'NS & STRATEGIES 1, 3–4 (2006).

141. See KUROSE & ROSS, *supra* note 112, at 610.

142. Peyman Faratin, *Economics of Overlay Networks: An Industrial Organization Perspective on Network Economics* 2, http://netecon.seas.harvard.edu/NetEcon07/Papers/faratin_07.pdf (last visited Dec. 21, 2010).

C. TECHNICAL NET NEUTRALITY AND REASONABLE NETWORK MANAGEMENT

Figure 1: Defining Reasonable Network Management



In order to evaluate whether these potentially discriminatory practices fall into the category of reasonable or unreasonable network management, one must answer two questions (shown in Figure 1): is this discrimination a technical necessity? If not, does this discrimination violate a net neutrality principle? As explained, Section III.B, *supra*, the same protocol-level tools available to network administrators can be used for both minimal and non-minimal discrimination. These questions are impossible to answer, therefore, if ISPs are not transparent about when and why they discriminate on a technical level. Indeed, as Kevin Martin, then Chairman of the FCC, observed in his order reviewing Comcast's network management practices: "A hallmark of whether something is reasonable is whether a provider is willing to disclose to its customers what it is doing."¹⁴³

The first inquiry classifies the discrimination as either "minimal" or "non-minimal." Minimal discrimination should always be considered reasonable network management, because it is an absolute technical necessity

143. Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13028, 13059 (2008).

to prevent network failures during bursts in internet traffic. If minimal discrimination happens to temporarily violate one of the net neutrality principles, this is comparatively less harmful to consumers than total network failure.

Non-minimal discrimination, by contrast, requires a second inquiry into how the particular form of discrimination affects net neutrality principles. This inquiry can conclude in three possible ways:

First, end-users may value the discrimination. Using IP TOS or “flow” designations, an ISP could guarantee that certain types of traffic—such as video content or VoIP calls—will be prioritized on the network at all times. An ISP might offer a similar guarantee by routing certain content through more expensive, but less congested, paths using a manipulation of the BGP (undoubtedly passing along the premium cost to the consumer). This kind of quality of service (QoS) guarantee at first appears to violate net neutrality principles, but consumers may value QoS at the expense of innovation, free speech, and competition on the Internet. Moreover, depending on how QoS is implemented at the technical level, it may actually promote net neutrality values by fostering innovation, free speech, and competition in products and services that would otherwise not function without internet service guarantees. If ISPs perceive this change in consumer priorities, they should not be prohibited from offering QoS guarantees, provided they are fully transparent about their network discrimination. Through this disclosure, therefore, ISPs would essentially compete based on how they define reasonable network management.

Alternatively, some forms of non-minimal discrimination may be imperceptible to the end-user. In this case, slight delays because of small amounts of discrimination through either TOS/flow designations or inferior routing may not significantly affect access to content, services, and applications. This kind of non-minimal discrimination would have essentially no effect on net neutrality principles. This discrimination, however, may be very important to ISPs in reducing transit costs by routing traffic along lower cost (or free) paths through peering and secondary peering relationships. Given that this kind of non-minimal discrimination does not violate any of the net neutrality principles in any perceptible way, it should be included within the definition of reasonable network management.

Finally, some forms of non-minimal discrimination may harm the user by violating one (or more) net neutrality principle(s) with no compensating QoS benefit. Non-minimal blocking, through TCP reset packet blocking or

through the manipulation of routing tables to avoid interconnection with certain networks, will frequently fall into this category.¹⁴⁴ Both *Madison River* and *Comcast* were clear cases of non-minimal blocking that were held to be unreasonable network management.¹⁴⁵ Similarly, non-minimal delay discrimination that prioritizes one application (violating the innovation and competition principles) or one perspective (violating the free speech principle) should be considered unreasonable. Mandating that ISPs disclose all discriminatory practices, as the FCC requires in the recent Open Internet Rules, discussed in Section II.E, *supra*, will be particularly effective in reducing unreasonable delay discrimination, since it is unlikely that ISPs will continue chilling innovation, free speech, and competition if such practices are publicized.

IV. CONCLUSION

The concept of reasonable network management calibrates net neutrality principles to the technical realities of the Internet. Reasonable network management, in turn, should be defined first by whether or not the discriminatory practice is technically necessary, and, if not technically necessary, by the discrimination's effect on net neutrality principles. As theoretical ideals, net neutrality principles articulate what we value most in the Internet: its ability to foster innovation, free speech, and competition. This list of values, however, should remain open to new additions. With a strongly enforced requirement that ISPs disclose all discriminatory practices, some forms of non-minimal discrimination could be considered reasonable network management. This could include certain types of QoS guarantees, provided that disclosure makes consumers fully aware of the network discrimination. With this transparency, ISPs would then compete to define QoS in a way that conforms to consumers' preferences. Through this kind of development, demand for QoS internet service would show either that consumers value QoS guarantees higher than the other net neutrality principles or that QoS guarantees actually facilitate the net neutrality principles by supporting otherwise impossible innovations that demand a

144. It should be noted that discrimination for blocking certain types of illegal content such as child pornography and for security purposes should still be permissible. For more on these exceptions, see Jon M. Peha, *The Benefits and Risks of Mandating Network Neutrality, and the Quest for a Balanced Policy*, 1 INT'L J. COMM. 644, 648–49 (2007).

145. See *Madison River Commc'ns, LLC*, 20 FCC Rcd. 4295, 4297 (2005); *Formal Complaint of Free Press & Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd. 13028, 13060 (2008).

high quality connection to the Internet. Conversely, demand for neutral (non-QoS) internet service would confirm that consumers value the ideals protected by the current set of net neutrality principles. In either case, mandating transparency represents a significant step forward from the current state of competition in the provision of broadband internet service. Unlike the opacity of *Ulysses*, in which James Joyce's literary challenges define his style, ISPs should be open books.

ADDITIONAL DEVELOPMENTS— CYBERLAW

DEVELOPMENTS WITHIN THE COMMUNICATIONS DECENCY ACT

47 U.S.C. § 230

Section 230 of the Communications Decency Act provides immunity from liability for providers and users of an “interactive computer service” who publish information provided by others. The past two years has seen numerous interpretations of the statute, with several trends emerging.

Section 230 immunity has provided a powerful safe harbor for websites, protecting them from liability for their users’ torts. In many recent cases, plaintiffs’ claims that defendants were tortfeasors because they had materially contributed to the torts have been denied. *Nemet Chevrolet, Ltd. v. Consumeraffairs.com, Inc.*, 591 F.3d 250, 260 (4th Cir. 2009) (affirming dismissal of plaintiff’s claims due to Section 230 immunity and holding that the mere possibility that defendant’s business rating website contributed to the creation or development of the allegedly defamatory content does not establish Section 230 immunity); *Phan v. Pham*, 105 Cal. Rptr. 3d 791, 795 (Ct. App. 2010) (affirming dismissal and holding that defendants who forwarded a defamatory email with their own non-defamatory introductory commentary did not materially contribute to the alleged defamation); *Goddard v. Google, Inc.*, 640 F. Supp. 2d 1193, 1197–98 (N.D. Cal. 2009) (holding that defendant Google’s practice of suggesting recommended keywords for sponsored link advertisers does not make it a creator or developer of the resulting ads); *Jurin v. Google Inc.*, 695 F. Supp. 2d 1117, 1123 (E.D. Cal. 2010) (same); *Finkel v. Facebook, Inc.*, 2009 N.Y. Misc. LEXIS 3021, at *3 (N.Y. Sup. Ct. Sept. 15, 2009) (holding that defendant Facebook is immune from a defamation suit based on the ownership of defamatory content); *Novins v. Cannon*, 2010 WL 1688695, at *2 (D.N.J. Apr. 27, 2010) (holding that defendants who have re-published a defamatory web posting or e-mail are protected by Section 230 immunity in online defamation suit).

However, Section 230 immunity has been denied in situations where defendants themselves allegedly committed torts instead of merely contributing to them and where plaintiffs have alleged promissory estoppel. *Barnes v. Yahoo!, Inc.*, 2009 U.S. Dist. LEXIS 116274, at *9–11 (D. Or.

2009) (holding that Section 230 immunity does not bar a promissory estoppel claim based on reliance on defendant's promise to remove indecent profiles of plaintiff which had been posted by her former boyfriend); *Cornelius v. DeLuca*, 709 F. Supp. 2d 1003, 1023 (D. Idaho 2010) (holding that defendant's interactive computer service is not entitled to Section 230 immunity with regards to the statement posted by online forum moderator allegedly acting as a representative of defendant to control and edit the forum).

Furthermore, website operators' solicitation of offensive material has sometimes been fatal to Section 230 immunity. *FTC v. Accusearch Inc.*, 570 F.3d 1187, 1200–01 (10th Cir. 2009) (rejecting Section 230 immunity and affirming summary judgment in favor of plaintiff, where defendant solicited third parties to provide illegal information to post on its website and sold telephone records and other various personal information). However, sometimes courts have held that solicitation is merely a factor for the jury to consider in deciding Section 230 immunity. *Doctor's Assocs., Inc. v. QIP Holder LLC*, 2010 WL 669870, at *23–24 (D. Conn. 2010) (holding that whether defendants are responsible for creating or developing the contestant videos is an issue of material fact, given that plaintiff claims defendants solicited disparaging material and shaped the eventual content of the contestant videos). And yet in other cases, courts have found solicitation and inducement irrelevant altogether. *Dart v. Craigslist, Inc.*, 665 F. Supp. 2d 961, 968–70 (N.D. Ill. Oct. 20, 2009) (granting the motion for judgment on the pleadings, holding that defendant's website has immunity for inducing prostitution postings by creating the Craigslist's erotic services category).

DEVELOPMENTS IN PERSONAL JURISDICTION FOR ONLINE ACTIVITIES

In 2010, the Seventh and Ninth Circuits applied the “express aiming test” to online activities, making it easier for courts to exercise personal jurisdiction over the operators of websites in foreign jurisdictions.

In *Tamburo v. Dworkin*, 601 F.3d 693 (7th Cir. 2010), John Tamburo, an Illinois resident and operator of a dog-breeding software business, alleged that individual Canadian and American defendants had engaged in tortuous conduct by posting defamatory information about him on their websites and through “blast emails.” All of the defendants hosted and operated their websites outside of the forum state. The Seventh Circuit applied the “express aiming test” from *Calder v. Jones* and reversed the district court’s dismissal for lack of personal jurisdiction. Under *Calder*, a court evaluates the purposeful direction requirement of personal jurisdiction by looking at whether the defendant engaged in intentional conduct that was “expressly aimed” at the forum state with the defendant’s knowledge that the plaintiff would be injured in the forum state. In *Tamburo*, the Seventh Circuit found that the defendants “specifically aimed” their website postings and emails at Tamburo and his business in Illinois, and that they did so with the knowledge that Tamburo would suffer the “brunt of his injury” in the state. Even though the statements were not aimed solely at forum-state readers, the Seventh Circuit held that the web postings and the blast emails were aimed at a target in the forum state, and thus satisfied *Calder’s* express-aiming requirement.

In *Brayton Purcell, LLP v. Recordon & Recordon*, 606 F.3d 1124 (9th Cir. 2010), Brayton Purcell, a Northern California law firm specializing in elder abuse law, filed a copyright infringement suit against Recordon & Recordon, a Southern California law firm. Brayton Purcell maintained a website containing copyrighted information about its elder abuse practice. Recordon created its own website by copying information, verbatim, from Brayton Purcell’s site. Brayton filed its suit in the Northern District of California; Recordon sought dismissal for lack of personal jurisdiction or, alternatively, for improper venue. The district court denied Recordon’s motion. In affirming the district court’s ruling, the Ninth Circuit focused most of its analysis on *Calder’s* express-aiming test. The Ninth Circuit started with the observation that the “maintenance of a passive website alone cannot satisfy the express aiming prong.” However, the prong is satisfied if the defendant’s conduct in operating the website was expressly aimed at the forum. The Ninth Circuit found that Recordon engaged in “individualized targeting” by plagiarizing Brayton Purcell’s website verbatim, which placed the two law

firms in competition for the same customers. This conduct satisfied the express aiming test.

INTERNET TAX DEVELOPMENTS

A Canadian court issued a judgment authorizing the Minister of National Revenue to require eBay Canada to provide information about high volume sellers (“PowerSellers”) whose eBay account registration indicates a Canadian address. *eBay Canada Ltd. v. Canada (National Revenue)*, 2008 FCA 141. The required information includes names, contact information, and amount of gross annual eBay sales. The court dismissed eBay’s appeal, reasoning that, even though information was stored on servers in the United States, eBay could easily access the information from anywhere in Canada.

The Direct Marketing Association won a preliminary injunction against Colorado House Bill 10-1193 on the grounds that the bill violates the *Commerce Clause*. *Direct Marketing Ass’n v. Huber*, No. 10-cv-01546-REB-CBS, 2011 WL 250556 (D. Colo. Jan. 26, 2011). Colorado enacted HB 10-1193 in March 2010. The statute requires out-of-state retailers to disclose to the Colorado Department of Revenue the name, address, and purchase amounts of each Colorado customer and to notify Colorado customers of the customer’s obligation to self-report use tax. On June 30, 2010, the Direct Marketing Association (DMA), a trade association of businesses that market products to customers via mail order, telephone, and the internet, filed a complaint for declaratory and injunctive relief on the grounds that the Act violates both the United States Constitution and the Colorado Constitution under the *Commerce Clause*, the *Right to Privacy*, and *Freedom of Speech*.

The court granted the preliminary injunction on two bases. First, the court explained there was a substantial likelihood that the DMA could demonstrate that the reporting requirement discriminated against out of state retailers by imposing notice and reporting obligations that are not imposed on Colorado retailers. Second, the court concluded that there was a substantial likelihood that the Act imposed improper and burdensome regulation of interstate commerce and that retailers are likely protected from such burdens under *Quill Corp. v. North Dakota By and Through Heitkamp*, 504 U.S. 298 (1992). The court also concluded that the other equitable preliminary injunction factors weighed in favor of granting the injunction. The court did not address the privacy and First Amendment arguments in granting the preliminary injunction.

On October 25, 2010, the Western District of Washington granted Amazon.com’s motion for summary judgment and ruled that the North Carolina Department of Revenue’s (“DOR”) request for detailed sales

information violated the First Amendment and the Video Privacy Protection Act. *Amazon.com LLC v. Lay*, No. C10-664-MJP, 2010 WL 4262266 (W.D. Wash. Oct. 25, 2010). Amazon.com's motion stemmed from a North Carolina Department of Revenue request for customer information during an ongoing dispute over Amazon's sales tax liability. Maintaining that it could not calculate Amazon's tax liability without the names and addresses of specific purchasers, the DOR repeatedly requested "all information for all sales to customers with a North Carolina shipping address." The DOR also refused to return data containing details of what users purchased, which had already been provided by Amazon, in exchange for more general data that would still allow tax liability determination.

The court held that the North Carolina Department of Revenue violated the First Amendment in its request that Amazon provide "all information as to all sales" because it would disclose customer identities and detailed information about the expressive content of their purchases. The court also characterized Amazon as a "video tape service provider" and ruled that disclosure of identifiable information would violate the Video Privacy Protection Act. The VPPA states that a video tape service provider may only disclose such information pursuant to a civil court order, upon a showing of compelling need, and only if the consumer is given notice and afforded the opportunity to appear and contest the claim.

THE TRUTH CAN CATCH THE LIE: THE FLAWED UNDERSTANDING OF ONLINE SPEECH IN *IN RE ANONYMOUS ONLINE SPEAKERS*

Musetta Durkee[†]

In the early years of the Internet, many cases seeking disclosure of anonymous online speakers involved large companies seeking to unveil identities of anonymous posters criticizing the companies on online financial message boards.¹ In such situations, Internet service providers (ISPs)—or, less often, online service providers (OSPs)²—disclosed individually-identifying information, often without providing defendants notice of this disclosure,³ and judges showed hostility towards defendants’ motions to quash.⁴ Often these subpoenas were issued by parties alleging various civil causes of action, including defamation and tortious interference with business contracts.⁵ These cases occurred in a time when courts and the general public alike pictured the Internet as a wild west-like “frontier society,”⁶ devoid of governing norms, where anonymous personalities ran

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1. Lyrisa Barnett Lidsky, *Anonymity in Cyberspace: What Can We Learn from John Doe?*, 50 B.C. L. REV. 1373, 1373–74 (2009).

2. As will be discussed below, there has been some conflation of two separate services that allow users to access the Internet, on the one hand, and engage in various activities, speech, and communication, on the other. Most basically, this Note distinguishes between Internet Service Providers (ISPs) and Online Service Providers (OSPs) in order to separate those services and companies involved with providing subscribers access to the infrastructure of the Internet (ISPs, and their subscribers) and those services and companies involved with providing users with online applications, services, platforms, and spaces on the Internet (OSPs and their users).

3. *See, e.g.*, *Doe v. 2TheMart.com, Inc.*, 140 F. Supp. 2d 1088, 1095 n.5 (W.D. Wash. 2001) (discussing problem of lack of notice in cases involving subpoenas for unmasking anonymous speakers), *cited in* Lidsky, *supra* note 1, at 1374 n.5.

4. *See, e.g.*, *2TheMart.com*, 140 F. Supp. 2d at 1095 n.5, *cited in* Lidsky, *supra* note 1, at 1374 n.5. *See generally* Lee Tien, *Who’s Afraid of Anonymous Speech? McIntyre and the Internet*, 75 OR. L. REV. 117 (1996).

5. *See, e.g.*, *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231 (Cal. Ct. App. 2008); *Doe v. Cahill*, 884 A.2d 451 (Del. 2005); *Dendrite Int’l, Inc. v. Doe, No. 3*, 775 A.2d 756 (N.J. Super. Ct. App. Div. 2001).

6. *See* Lyrisa Barnett Lidsky, *Silencing John Doe: Defamation & Discourse in Cyberspace*, 49 DUKE L.J. 855, 863 (2000) (“The fact that many Internet speakers employ online

rampant,⁷ and no one would know whether their fellow conversant was, in real life, a dog.⁸

However, these general statements defining the Internet as a singular space governed by one set of characteristics and resulting in one kind of phenomenon are descriptively inaccurate. These statements conflate the Internet understood as infrastructure with online user platforms and services,⁹ and from this presumption, courts generally derive a dual narrative of the Internet: on the one hand, the Internet is a beacon of opportunity for diverse viewpoints and truly inclusive democratic dialogue; on the other, it is a harbinger of lies, characterized by anonymity and the corresponding inherent lack of accountability, at a magnitude unparalleled in human history.¹⁰ By contrast, today ISPs and OSPs are distinct entities and codes

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.”); *see also* David Allweiss, Note, *Copyright Infringement on the Internet: Can the Wild, Wild West Be Tamed?*, 15 *TOURO L. REV.* 1005, 1005 (1999) (“The Internet . . . seems easily comparable to the old Western American frontier.”); Steven R. Salbu, *Who Should Govern the Internet?: Monitoring and Supporting a New Frontier*, 11 *HARV. J.L. & TECH.* 429, 430 (1998) (“Lawyers, legal scholars, and other commentators are only beginning to explore the challenges of the interactive computer capabilities that comprise this new technological frontier.”). *But see* Jonathan D. Bick, *Why Should the Internet Be Any Different?*, 19 *PACE L. REV.* 41, 43 (1998) (disputing the wild west characterization).

7. LAWRENCE LESSIG, *CODE, VERSION 2.0*, 19 (2006) (“[C]yberspace is different because of the reach it allows. But it is also different because of the relative anonymity it permits.”).

8. *See* Peter Steiner, *On the Internet, Nobody Knows You’re a Dog*, *THE NEW YORKER*, July 5, 1983, at 61; *see also* Glenn Fleishman, *Cartoon Captures Spirit of the Internet*, *N.Y. TIMES*, Dec. 14, 2000, available at <http://www.nytimes.com/2000/12/14/technology/cartoon-captures-spirit-of-the-internet.html>. *But see* JOMC 50/EIS RESEARCH INITIATIVE, *On the Internet, Nobody Knows You’re a Dog* (Aug. 27, 1997), <http://www.unc.edu/depts/jomc/academics/dri/idog.html>.

9. Typically, the defining characteristics courts adopt of the Internet as infrastructure derive from the underlying presumptions of the two qualities associated with virtues of “the Internet”: that the Internet is free and that it is open. *See, e.g.*, Julius Genachowski, Prepared Remarks, *Preserving a Free and Open Internet: A Platform for Innovation, Opportunity, and Prosperity* (Sept. 9, 2009), <http://www.openinternet.gov/read-speech.html>; SAVE THE INTERNET, <http://www.savetheinternet.com/about> (last visited Feb. 21, 2011) (“We’re working together to preserve Net Neutrality, the First Amendment of the Internet, which ensures that the Internet remains open to new ideas, innovation and voices.”). It seems these two presumptions have encouraged the image of “the Internet” as a space where speech, activities, and communications move at a faster speed, with a larger reach, and with a more diverse group of speakers than ever before seen in human history.

10. *See, e.g.*, John Perry Barlow, *A Declaration of the Independence of Cyberspace* (Feb. 8, 1996), <https://projects.eff.org/~barlow/Declaration-Final.html> (last visited Mar. 13, 2011); *see also* Janet Morahan-Martin & Phyllis Schumacher, *Incidence and Correlates of Pathological Internet Use among College Students*, 16 *COMPUTERS IN HUMAN BEHAVIOR* 13 (2000), available at

governing behaviors in online spaces are diverse and malleable.¹¹ As such, online spaces where individuals speak, interact, and communicate are not a homogeneous virtual world.¹² Rather, the Internet is comprised of many different kinds of spaces, platforms, communities, and services, each of which has its own attendant characteristics, values, norms, and internal systems of accountability and regulation.¹³

In cases involving anonymous online speech, misunderstanding the nature of speech in online spaces has grave consequences for harmed parties and anonymous speakers alike. When faced with discovery requests and subpoenas to unmask anonymous speakers' identities, courts must weigh the harmed parties' rights to redress against the anonymous online speakers' Constitutional rights of speech.¹⁴ Though there exist competing jurisdictional standards which require varying burdens on the plaintiff to show magnitude

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VDC-3YGDD58-2&_user=4420&_coverDate=01/31/2000&_rdoc=1&_fmt=high&_orig=search&_origin=search&_sort=d&_docanchor=&view=c&_searchStrId=1634668443&_rerunOrigin=google&_acct=C000059607&_version=1&_urlVersion=0&_userid=4420&md5=76b9c905b1d098935b32b5bbd2f093fd&searchtype=a.

11. See *Comcast Corp. v. FCC*, 600 F.3d 642, 644 (D.C. Cir. 2010) (the structure of the Internet can actually change insofar as its regulated); BARBARA VAN SCHEWICK, *INTERNET ARCHITECTURE AND INNOVATION*, 83–112 (2010) (discussing choice of architects of the Internet and alternate choices, that are still a possibility). However, just as real-world architecture is difficult and costly to change and rebuild, so would be the underlying Internet infrastructure. By contrast, online services and the technologies/codes that govern available interactions can be altered in the time it takes to write the code and roll-out the changes. See Nick O'Neill, *Massive Facebook Privacy Changes Are Imminent*, ALLFACEBOOK.COM (May 23, 2010), <http://www.allfacebook.com/massive-facebook-privacy-changes-are-imminent-2010-05>; see also LESSIG, *supra* note 7, at 102 (“[A]s Jennifer Mnookin says of LambdaMOO, ‘politics [is] implemented through technology.’”) (quoting Jennifer Mnookin, *Virtual(hy) Law: The Emergence of Law in LambdaMOO*, 2 J. COMPUTER-MEDIATED COMM’N 1, 14 (June 1996)).

12. See generally YOCHAI BENKLER, *THE WEALTH OF NETWORKS* (2006); JACK GOLDSMITH & TIM WU, *WHO CONTROLS THE INTERNET?: ILLUSIONS OF A BORDERLESS WORLD* (2006); HENRY JENKINS, *CONVERGENCE CULTURE* (2006).

13. See generally LESSIG, *supra* note 7; JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET AND HOW TO STOP IT* (2008).

14. In *In re Anonymous Online Speakers*, No. 09-71205, 2011 WL 61635, at *6 (9th Cir. Jan. 7, 2011), the Ninth Circuit explicitly recognized the need to “to balance the rights of anonymous speakers in discovery disputes” and used the *Cabill* standard accordingly. See *Doe v. Cahill*, 884 A.2d 451, 461 (Del. 2005) (“The fourth *Dendrite* requirement, that the trial court balance the defendant’s First Amendment rights against the strength of the plaintiff’s *prima facie* case is . . . unnecessary” because “[t]he summary judgment test is itself the balance.”). But see Charles Dosko, *Peek-A-Boo I See You: The Constitution, Defamation Plaintiffs, and Pseudonymous Internet Defendants*, 5 FLA. A. & M. U. L. REV. 197, 198 (2010) (rejecting the balancing approach as “unworkable, unnecessary, and inappropriate”).

of harm prior to discovering the identities of the defendants,¹⁵ accurately applying these standards is nearly impossible without assessing the nature, meaning, and scope of harm. In online speech cases, this entails an accurate understanding of speech online.¹⁶

Recently, the Ninth Circuit was the first circuit court to address a discovery request to unmask anonymous speakers in a case involving online speech.¹⁷ Given the competing standards developed by courts over the past decade,¹⁸ it seemed that *In re Anonymous Online Speakers* would provide a singular standard to guide the lower courts in anonymous online speech cases. However, not only did the Ninth Circuit decline to clarify competing standards, it mistakenly characterized the online nature of the defendant's speech as a separate factor in the aforementioned balancing test, finding that the allegedly harmful speech occurred on the Internet inherently weighed against the anonymous speaker.¹⁹ In making this assumption, the Ninth Circuit failed to accurately understand the effect of various online spaces on the accuracy, verifiability, and correct-ability of anonymous online speech. In light of the Ninth Circuit's decision, this Note argues that regardless of the standard employed in balancing the rights of the anonymous online speakers with the rights of allegedly harmed plaintiffs,²⁰ courts cannot afford to

15. Currently, there are four competing standards used by court in online, and offline, defamation cases. One is the good faith standard. *See, e.g., In re Subpoena Duces Tecum to AOL, LLC*, 550 F. Supp. 2d 606 (E.D. Va. 2008). The second is the prima facie standard. *See, e.g., Highfields Capital Mgmt. L.P. v. Doe*, 385 F. Supp. 2d 969 (N.D. Cal. 2005); *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231 (Cal. Ct. App. 2008). The third standard falls somewhere between a good faith and prima facie standard. *See, e.g., Doe v. 2TheMart.com, Inc.*, 140 F. Supp. 2d 1088, 1095 n.5 (W.D. Wash. 2001). And the fourth, most stringent standard is the summary judgment standard. *See, e.g., Doe v. Cahill*, 884 A.2d 451 (Del. 2005); *Dendrite Int'l, Inc. v. Doe, No. 3*, 775 A.2d 756 (N.J. Super. Ct. App. Div. 2001). For in-depth discussions of competing standards, *see generally* Lidsky, *supra* note 1; Susanna Moore, *The Challenge of Internet Anonymity: Protecting John Doe on the Internet*, 26 J. MARSHALL J. COMPUTER & INFO. L. 469 (2009); Jonathon 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).

16. *See infra* Section I.B.

17. *See Anonymous Online Speakers*, 2011 WL 61635.

18. *See supra* note 15.

19. *Anonymous Online Speakers*, 2011 WL 61635, at *6 (“The district court here appropriately considered the important value of anonymous speech balanced against a party's need for relevant discovery in a civil action . . . and that particularly in the age of the Internet, the ‘speed and power of internet technology makes it difficult for the truth to ‘catch up’ to the lie.’” (quoting *Quixtar Inc. v. Signature Mgmt. Team, LLC*, 566 F. Supp. 2d 1205, 1213 (2008))).

20. *Krinsky* expressed skepticism in the plausibility of choosing one standard for all jurisdictions, stating: “We find it unnecessary and potentially confusing to attach a

misunderstand the nature of the Internet nor, by extension, the nature of speech occurring in online contexts.

Speech on the Internet does not occur in one vast, undifferentiated expanse. Rather, Internet speech occurs within a variety of online contexts, each one of which facilitates distinctive kinds of expression, interaction, and activity among users. Therefore, in order to accurately assess the “specific circumstances surrounding the speech,”²¹ courts must distinguish between the single, interconnected infrastructure of the Internet and the online platforms, services, and applications that use that Internet infrastructure. In addition to providing a background distinguishing Internet infrastructure (“the Internet”) from online spaces, applications, platforms, and services (“online contexts”), this Note will provide an overview of a variety of online spaces particularly pertinent to anonymous speech cases and their specific characteristics affecting the nature, meaning, and potential harmfulness of the anonymous speech at issue.²² Armed with this understanding of online speech, courts faced with discovery orders for disclosing anonymous speakers’ identities will be better equipped to balance the relative rights of both anonymous speakers and harmed parties.²³

Before proceeding, it should be emphasized that in offering descriptions of these different online spaces, this Note in no way suggests that online speech should be a third category of protection under the First Amendment nor that online spaces and user expectations within these spaces are unaffected by practice or nonmalleable through either user norms or code. This Note is not, in other words, arguing for a change in First Amendment jurisprudence such that, for example, First Amendment protection be highest for political, artistic, literary, religious speech, next highest for online speech, and least highest for commercial speech. Nor, in similar vein, is this Note arguing for different standards to be applied depending on the particular forum of the online speech; for example, a higher burden for the plaintiff if the allegedly harmful speech was uttered on a review site and a lower burden

procedural label, whether summary judgment or motion to dismiss, to the showing required of a plaintiff seeking the identity of an anonymous speaker on the Internet.” *Krinsky*, 72 Cal. Rptr. 3d at 244. For example, the *Krinsky* court continued, “California subpoenas in Internet libel cases may relate to actions filed in other jurisdictions, which may have different standards governing pleading and motions.” *Id.*

21. See *Anonymous Online Speakers*, 2011 WL 61635, at *6.

22. See *infra* Section II.C.

23. This understanding will also benefit courts in other online speech and Internet-related cases. See, e.g., *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) (net neutrality case); *D.C. v. R.R.*, 106 Cal. Rptr. 3d 399 (Cal. Ct. App. 2010) (cyberbullying case).

if the speech were uttered on an individual's blog. Rather, this Note argues that in order to accurately characterize the nature of the speech and level of First Amendment protection on the one hand, and the meaning of the speech and the scope of the harm on the other, courts must understand online speech as occurring in a multitude of very different platforms, communities, and spaces, each with its own distinguishing and malleable characteristics and verification mechanisms.

In so arguing, this Note shows that highlighting the online context of the speech is not only necessary for combating the misconception of the Internet as a wild, undifferentiated frontier, but is also in line with established precedent in both anonymous speech cases and cases involving online speech. Furthermore, this Note summarizes recent efforts of a number of district and state courts to take the context of online speech into account when balancing the rights of anonymous speakers with the rights of harmed plaintiffs.²⁴ These cases reveal that, though good efforts at capturing the nature of speech in a variety of online spaces, courts fail to understand the particularly malleable and fast-changing characteristics of specific online sites. As such, this Note will show that online speech cases occur in situations of a peculiarly malleable nature for two main reasons, and that both reasons must be taken into account in anonymous online speech cases. Not only are the different categories of online spaces themselves constantly developing,²⁵ but the user norms and technological codes governing speech, actions, and communications within and between these spaces are also constantly (and sometimes abruptly) changing.²⁶ Thus, courts' investigations of the meaning and effect of online speech require a nuanced understanding of both the heterogeneity of online spaces as well as the malleable nature of particular sites and services within different categories of online spaces.

Part I of this Note outlines the background of anonymous speech jurisprudence in both offline and online cases. In so doing, it shows courts' emphases on context, as well as content, in assessing First Amendment protection and granting subpoenas or discovery orders for unmasking

24. *See Doe v. Cahill*, 884 A.2d 451 (Del. 2005); *Highfields Capital Mgmt. L.P. v. Doe*, 385 F. Supp. 2d 969 (N.D. Cal. 2005); *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231 (Cal. Ct. App. 2008); *Indep. Newspapers, Inc. v. Brodie*, 966 A.2d 432 (Md. 2009).

25. *See Reno v. ACLU*, 521 U.S. 844, 851 (1997) ("Anyone with access to the Internet may take advantage of a wide variety of communication and information retrieval methods. These methods are constantly evolving and difficult to categorize precisely.")

26. LESSIG, *supra* note 7, at 113 ("In places where community is not fully self-enforcing, norms are supplemented by rules imposed either through code or by the relevant sovereign.")

anonymous speakers. It also describes some of the shortcomings of online speech jurisprudence. Part II analyzes *Anonymous Online Speakers* against this precedent, highlighting the implications of the Court's failure to distinguish between Internet infrastructure and online platforms, services, and applications. This attempts to explain an underlying reason for courts' inaccurate analyses in online speech cases and provide clarity for future cases. Part III describes a number of online spaces relevant to anonymous speech cases and highlights particularities that affect the nature, meaning, and potential harmfulness of the anonymous speech at issue. This Note concludes that an enhanced understanding of online speech, recognizing the distinction between Internet infrastructure and online spaces, and attention to the context surrounding online spaces, will better equip courts to balance the rights of anonymous speakers and the rights of harmed parties.

I. ANONYMOUS SPEECH: OFFLINE AND ONLINE CONTEXTS

The Internet has drastically changed the possibilities for publishing speech, disseminating ideas, and communicating with others. Nonetheless, context remains important in determining the nature and meaning of speech in both offline and online cases.²⁷ In cases establishing constitutional rights to different types of speech, courts have focused on the context in which the speech occurs.²⁸ Notably, First Amendment jurisprudence consistently emphasizes not only the content of the speech but also the context of the speech in determining the level of First Amendment protection afforded. Furthermore, in the online context, the seminal case extending these protections to online speech, *Reno v. ACLU*,²⁹ implicitly characterizes online speech according to both its content and context. Importantly, some district court subpoena and discovery cases involving anonymous online speech follow the lead of *Reno* and balance the competing rights of harmed plaintiff

27. See *infra* Sections I.A. and I.B.

28. See *infra* Section I.A.

29. 521 U.S. 844, 870 (1997) (concluding that there is “no basis for qualifying the level of First Amendment scrutiny that should be applied to the medium”). Other courts have explicitly extended offline free speech protections to online speech. See, e.g., *Sony Music Entm't Inc. v. Does 1–40*, 326 F. Supp. 2d 556, 562 (S.D.N.Y. 2004); *Doe v. 2TheMart.com, Inc.*, 140 F. Supp. 2d 1088, 1092 (W.D. Wash. 2001); *Doe v. Cahill*, 884 A.2d 451, 456 (Del. 2005); *Indep. Newspapers, Inc. v. Brodie*, 966 A.2d 432, 439–40 (Md. 2009); *Dendrite Int'l, Inc. v. Doe, No. 3*, 775 A.2d 756, 760–61 (N.J. Super. Ct. App. Div. 2001).

and anonymous defendant by assessing, if not the particular online context, at least the online platform within which the speech was uttered.³⁰

Though applauding the democratizing effects of the Internet as a medium of communication,³¹ courts have also struggled with its perceived dangers.³² First, courts worry that because online speech is often anonymous by default, there is an inherent lack of accountability built into the medium.³³ Secondly, courts fear that the Internet's increased speed of dissemination makes it difficult for unverified speech to be corrected.³⁴ These fears converge in a spate of recent cases involving requests to discover the identities of anonymous online speakers by potentially harmed plaintiffs.³⁵

This Part examines precedent in offline and online anonymous speech cases, focusing on the wealth of instances in which courts have relied on the context of the speech in order to determine the nature of the speech in question. In so doing, this Part will not choose between the standards currently employed in balancing these competing rights.³⁶ In fact, the effect of different pleading standards in different jurisdictions may well render a singular standard implausible.³⁷ Instead, this Part emphasizes the importance of assessing anonymous online speech within the context in which it was uttered as background for later observations about the Ninth Circuit's approach in *Anonymous Speakers Online*. Especially in light of *Reno*'s precedent,

30. See *Krinsky*, 72 Cal. Rptr. 3d at 247; *Cahill*, 884 A.2d at 463.

31. See *Reno*, 521 U.S. at 873 (“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.”).

32. See, e.g., *Krinsky*, 72 Cal. Rptr. 3d at 237–38 (“[T]he relative anonymity afforded by the Internet forum promotes a looser, more relaxed communication style. Users are able to engage freely in informal debate and criticism, leading many to substitute gossip for accurate reporting and often to adopt a provocative, even combative tone.”).

33. *Id.* at 238 (“It is this informal ability to ‘sound off,’ often in harsh and unbridled invective, that opens the door to libel and other tortious conduct.”).

34. See *Quixtar Inc., v. Signature Management Team, LLC*, 566 F. Supp. 2d 1205, 1213 (D. Nev. 2008); *Indep. Newspapers, Inc.*, 966 A.2d 432, 458 (Adkins, J., concurring) (suggesting that a summary judgment test may require courts “to set additional barriers to a person seeking to assert a legitimate cause of action to remedy the damage inflicted by a defamatory Internet communication”).

35. See *supra* note 11.

36. For this discussion, see generally Lidsky, *supra* note 6; Moore, *supra* note 15; Jones, *supra* note 15.

37. See *Krinsky*, 72 Cal. Rptr. 3d at 244 (“California subpoenas in Internet libel cases may relate to actions filed in other jurisdictions, which may have different standards governing pleading and motions.”); see also Michael S. Vogel, *Unmasking “John Doe” Defendants: The Case Against Excessive Hand-Wringing Over Legal Standards*, 83 OR. L. REV. 795 (2004).

assessing the context of online speech—more so than a jurisdictionally-consistent standard—should guide courts’ balancing of anonymous online speech when faced with subpoenas and discovery orders to unmask anonymous speakers.

A. RECOGNIZING THE RIGHT TO ANONYMOUS SPEECH: LOOKING AT CONTEXT

The benefits of free speech, and of anonymous speech, have been well-recognized in the history of United States society and jurisprudence. Anonymous speech is protected under the Constitution because of its “honorable tradition of advocacy and of dissent” and because of the valuable public discourse it affords.³⁸ Even the authors of the Federalist Papers published their views in support of the Constitution under pseudonyms.³⁹ The Supreme Court reasoned that “identification and fear of reprisal might deter perfectly peaceful discussions of public matters of importance” and was therefore contrary to free speech and the social benefits such speech affords.⁴⁰ Furthermore, even without the threat of persecution to the author, anonymity may force readers to focus on the ideas expressed and not on the identity of the source.⁴¹ As such, anonymity may prevent prejudice against speakers who are personally unpopular or known as affiliated with a particular political party or action group and force readers to evaluate the ideas themselves and not the messenger.⁴²

Nonetheless, anonymous speech does pose some dangers. For example, particular to anonymous speech is the fear that unaccountable, fraudulent,

38. See *McIntyre v. Ohio Election Comm’n*, 514 U.S. 334, 357 (1995); *Talley v. California*, 362 U.S. 60, 64 (1960) (“Persecuted groups and sects from time to time throughout history have been able to criticize oppressive practices and laws either anonymously or not at all.”).

39. See *Talley*, 362 U.S. at 65; *McIntyre*, 514 U.S. at 342 (“Justice Black . . . reminded us that even the arguments favoring the ratification of the Constitution advanced in the Federalist Papers were published under fictitious names.”) (citing *Talley*, 362 U.S. at 64–65).

40. *Talley*, 362 U.S. at 65.

41. *McIntyre*, 514 U.S. at 342 (“On occasion, quite apart from any threat of persecution, an advocate may believe her ideas will be more persuasive if her readers are unaware of her identity.”).

42. “Anonymity thereby 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.” *Id.* This particular benefit of anonymity is especially relevant for online speech. Online users are increasingly able to control their exposure to online information. See CASS R. SUNSTEIN, *REPUBLIC.COM 2.0* at 1–5 (2007). As this “daily me” becomes more prevalent, exposure to different viewpoints may well depend on “chance encounters” with opposing viewpoints via anonymous speech; that is, an online user will not be able to filter out certain viewpoints based on the identity or affiliation of the speaker.

and vitriolic speech will result from the ability to speak without identification.⁴³ Furthermore, anonymous speech may also lack accountability and thereby embolden speakers to spread lies or uncharitable expression.⁴⁴ Absent public repercussions for uncivil behavior, speakers can hide behind anonymity to express vitriolic views, instead of publicly valuable and diverse ones.⁴⁵ However, even though anonymity “may be abused when it shields fraudulent conduct,” it is also an important “shield from the tyranny of the majority.”⁴⁶ Also, not only do the benefits of anonymous speech often outweigh the potential harms,⁴⁷ there are alternate protections and safeguards available to limit fraudulent or deceptive speech that can result from anonymous speech.⁴⁸

As with speech attributable to a source, the Constitution does not prohibit all regulation of anonymous speech.⁴⁹ For example, in commercial speech cases, the dangers posed by anonymous speech—i.e., unaccountable or misleading speech—are often outweighed by the states’ vested interests in

43. In his dissent in *McIntyre*, Justice Scalia wrote that anonymity “facilitates wrong by eliminating accountability, which is ordinarily the very purpose of the anonymity.” *McIntyre*, 514 U.S. at 385 (Scalia, J., dissenting); see also Julie Zhou, *Where Anonymity Breeds Contempt*, N.Y. TIMES, Nov. 30, 2010, at A 31, available at <http://www.nytimes.com/2010/11/30/opinion/30zhuo.html?scp=1&sq=Where%20Anonymity%20Breeds%20Contempt&st=cse>.

44. As Justice Scalia writes in his dissent in *McIntyre*, “[t]he principal impediment against [character assassination in political campaigns] is the reluctance of most individuals and organizations to be publicly associated with uncharitable and uncivil expression.” 514 U.S. at 383 (Scalia, J., dissenting).

45. *Id.* at 385 (Scalia, J., dissenting).

46. See *id.* at 357 (citing JOHN STUART MILL, ON LIBERTY AND CONSIDERATIONS ON REPRESENTATIVE GOVERNMENT 1, 3–4 (R. McCallum ed. 1947)); see also ERWIN CHEMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES 8 (2006) (“[T]he Constitution needs to be understood as an intentionally anti-majoritarian document . . . [and] should be appraised from the perspective of whether it has succeeded in restraining the majority, especially in times of crisis, and successfully protecting minorities’ rights.”).

47. “[O]ur society accords greater weight to the value of free speech, than to the dangers of its misuse.” *McIntyre*, 514 U.S. at 357 (citing *Abrams v. United States*, 250 U.S. 616, 630–31 (1919) (Holmes, J., dissenting)). But see *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 563 (1980) (“The government may ban forms of communication more likely to deceive the public than to inform it.”). Nonetheless, courts have found First Amendment protections for anonymous commercial speech. See *Lefkoe v. Jos A. Bank Clothiers, Inc.*, 577 F.3d 240 (4th Cir. 2009); *NLRB v. Midland Daily News*, 151 F.3d 472 (6th Cir. 1998).

48. See *McIntyre*, 514 U.S. at 350 (“Ohio’s prohibition of anonymous leaflets is not its principal weapon against fraud.”).

49. See *id.* at 344 (“We must, therefore, decide whether and to what extent the First Amendment’s protection of anonymity encompasses documents intended to influence the electoral process.”).

protecting consumers against fraudulent or misleading advertising practices.⁵⁰ As such, just as commercial speech lacks the same public value as political speech, and is thereby afforded less Constitutional protection than political speech when weighed against other parties' interests, the same is true for anonymous commercial speech cases.⁵¹ Therefore, though the Court explicitly recognized the importance of anonymous speech, it also recognized its limitations. In determining the correct level of First Amendment protection, the Court has looked to the content and context of the speech,⁵² characterized the speech as political or commercial,⁵³ assessed the importance of anonymity in the particular interaction,⁵⁴ and considered safeguards in place to protect against fraud that can result from anonymous speech.⁵⁵

For example, in *McIntyre v. Ohio Election Commission*, the Court struck down an Ohio statute prohibiting the distribution of anonymous campaign literature as violating First Amendment protections to anonymous speech.⁵⁶ The Court situated its inquiry in a long history protecting the right to anonymous speech and cited precedent recognizing the importance of anonymous speech in avoiding persecution or oppression of unpopular viewpoints.⁵⁷ The *McIntyre* Court also mentioned the benefit of anonymous speech in advocacy, stating that “[o]n occasion, quite apart from any threat of

50. See *Cent. Hudson Electric Corp.*, 447 U.S. at 563; see also *Lefkoe*, 577 F.3d 240.

51. See, e.g., *Lefkoe*, 577 F.3d at 248; *NLRB*, 151 F.3d at 475.

52. See, e.g., *McIntyre*, 514 U.S. at 347; *Talley*, 362 U.S. at 65; *Meyer v. Grant*, 486 U.S. 414, 422 (1988); *Buckley v. Valeo*, 424 U.S. 1, 16–17 (1976).

53. While the right to free political speech has a long history, see *Buckley*, 424 U.S. at 45 (holding that limitations on political speech are subject to exacting scrutiny) and *Meyer*, 486 U.S. at 423, the right to commercial speech, by contrast, is more recent. Commercial speech is defined as “expression related solely to the economic interests of the speaker and its audience.” *Va. Bd. of Pharmacy v. Va. Citizens Consumer Council*, 425 U.S. 748, 762 (1976), cited in *Central Hudson*, 447 U.S. at 562. It is protected from unwarranted government regulation so long as it “concern[s] lawful activity and [is] not . . . misleading.” *Central Hudson*, 447 U.S. at 566. The rationale underlying this, albeit limited, protection is that “[c]ommercial expression not only serves the economic interest of the speaker, but also assists consumers and furthers the societal interest in the fullest possible dissemination of information.” *Id.* at 561–62. For more on this, see generally Alexander D. Baxter, Note, *IMS Health v. Ayotte: A New Direction on Commercial Speech Cases*, 25 BERKELEY TECH. L.J. 649 (2010).

54. See *McIntyre*, 514 U.S. at 342 (“On occasion, quite apart from any threat of persecution, an advocate may believe her ideas will be more persuasive if her readers are unaware of her identity.”).

55. See *id.* at 350 (“Ohio’s prohibition of anonymous leaflets is not its principal weapon against fraud.”).

56. *Id.* at 357.

57. *Id.* at 341 (“Anonymous pamphlets, leaflets, brochures and even books have played an important role in the progress of mankind” (quoting *Talley*, 362 U.S. at 64)).

persecution, an advocate may believe her ideas will be more persuasive if her readers are unaware of her identity.”⁵⁸ Turning to the particular speech at issue, the Court highlighted both the content and the context of speech in determining its status as protected anonymous political speech.⁵⁹ In addition to the context of the particular speech (i.e. leaflets), the *McIntyre* Court looked to the larger societal context, political atmosphere, and other prohibitions that would fulfill the state’s interest in preventing fraud.⁶⁰ Furthermore (and similar to safeguards in online contexts to protect against fraud, below), the Court emphasized that “Ohio’s prohibition of anonymous leaflets plainly is not its principal weapon against fraud.”⁶¹ As such, the Court acknowledged that the potential disadvantages of anonymous speech (i.e. fraud, lack of accountability, and vitriolic speech) could be ameliorated by other means; in other words, the Court rejected the intimation that protecting anonymous speech also necessarily allows for unaccountability and fraud. The Court reasoned that even though “[t]he right to remain anonymous may be abused when it shields fraudulent conduct[,] . . . our society accords greater weight to the value of free speech than to the dangers of its misuse.”⁶² Working under that presumption, the Court concluded that “Ohio has not shown that its interest in preventing the misuse of anonymous election-related speech justifies a prohibition of all uses of that speech.”⁶³

Similarly, in *Meyer v. Grant*,⁶⁴ the Court was charged with determining the level of First Amendment protection afforded to ballot-initiative petitions. The Court looked at both the content and context of the speech. It concluded that because petition circulation involved “interactive communication [i.e. context] concerning political change [i.e. content],” it constituted “core political speech” subject to the strictest scrutiny.⁶⁵ Even in commercial speech, courts look to the context of the speech in order to

58. *Id.* at 342.

59. *See id.* at 347 (“[T]he speech in which Mrs. McIntyre engaged—handing out leaflets [i.e., context] in the advocacy of a politically controversial viewpoint [i.e., content]—is the essence of First Amendment protection.”).

60. *See id.* at 347 (finding that Mrs. McIntyre’s “advocacy occurred in the heat of a controversial referendum vote only strengthens the protection afforded to Mrs. McIntyre’s expression.”).

61. *Id.* at 350.

62. *Id.* at 357 (citing *Abrams v. United States*, 250 U.S. 616, 630–31 (1919) (Holmes, J., dissenting)).

63. *Id.*

64. 486 U.S. 414, 415 (1988) (striking down a Colorado statute prohibiting of payment for the circulation of ballot-initiative petitions).

65. *Id.* at 422 (1988); *see also* *Buckley v. Valeo*, 424 U.S. 1, 45 (1976) (holding that limitations on political speech are subject to exacting scrutiny).

determine whether the speech is subject to Constitutional protection. Interestingly, the *McIntyre* Court clarified that even though “[t]he specific holding in *Talley* related to advocacy of an economic boycott”—i.e., the content of the speech—the Court’s reasoning looked at particular context and method of distribution of the speech in question and “embraced a respected tradition of anonymity in the advocacy of political causes.”⁶⁶ The *McIntyre* Court similarly looked to particular context of the speech, in addition to the content of the speech, in determining the level of First Amendment protection.⁶⁷

Likewise, in *Central Hudson Gas & Electric Company v. Public Service Commission of New York*,⁶⁸ which articulated the reigning standard for commercial speech protection, the Court determined whether the commercial speech was “misleading” by looking for a number of external factors and conditions (i.e. context) “that would distort the decision to advertise.”⁶⁹ Almost a decade later, the Court described these limiting factors on commercial speech protection as affording commercial speech “a limited measure of protection, commensurate with its subordinate position in the scale of First Amendment values.”⁷⁰

More recently, in *Buckley v. American Constitutional Law Foundation, Inc.*,⁷¹ the Court reasoned that requiring name-identifying badges “discourages participation in the petition process by forcing name identification without sufficient cause.”⁷² In reaching its conclusion, the Court likened the context of political speech in the Colorado statute with the political speech at issue in *McIntyre*.⁷³ Both circulating petitions and distributing handbills “involve a one-on-one communication;” however, “the restraint on speech” in *Buckley* was “more severe.”⁷⁴ The Court highlighted the difference in context of political speech as it related to the effect of restraint on speakers rights to anonymous speech, stating that “[p]etition circulation is the less fleeting encounter, for the circulator must endeavor to persuade electors to sign the

66. *McIntyre*, 514 U.S. at 343.

67. *Id.* at 347.

68. 447 U.S. 557, 571 (1980) (holding ban of electric utility from advertising unconstitutional because violates right to commercial speech).

69. *Id.* at 567.

70. *See* *Bd. of Trs. of N.Y. v. Fox*, 492 U.S. 469, 477 (1989).

71. 525 U.S. 182, 187 (1999) (holding that CO statute requiring initiative-petition circulators wear name-identifying badges violated First Amendment right to anonymous political speech).

72. *Id.* at 200.

73. *Id.* at 199.

74. *Id.*

petition.”⁷⁵ The Court thereby concluded that “[t]he injury to speech is heightened for the petition circulator [in relation to the handbill distributor] because the badge requirement compels personal name identification at the precise moment when the circulator’s interest in anonymity is greatest.”⁷⁶

The above precedent shows that, in recognizing the right to anonymous speech, the Court assessed both the content and the context of the speech in question. In determining both the nature of the speech in question and also the level of First Amendment protection afforded to the particular speech, the Court looked at the method of distribution, kind of interaction, and form of the speech—in addition to the actual content of the speech. Furthermore, as the *Buckley* Court explained, some situations involve longer interactions in which the need for anonymity (in order to convince the electorate based on the message and not on personal bias against the deliverer of the message) is greater than in other contexts.⁷⁷

B. ONLINE ANONYMOUS SPEECH CASES: LOOKING AT PUBLICATION PLATFORM BUT MISSING CONTEXTUAL CHARACTERISTICS

As shown above, in offline cases recognizing the right to anonymous speech, assessing the speech in context was essential for courts to determine the nature of the speech, its meaning, and potential harmfulness.⁷⁸ The same is true for anonymous online speech.⁷⁹ Therefore, in order for courts to clearly, fairly, and comprehensively apply current standards for balancing the rights of online speakers with harmed parties, online speech must be evaluated in the context of the online space within which the speech was uttered.

In the seminal online speech case, *Reno v. ACLU*, the Court ruled that online speech is afforded the same First Amendment protections as non-online speech.⁸⁰ *Reno* involved a challenge to the anti-decency provisions of the Communications Decency Act of 1996, which the Court struck down as violating free speech provisions of the First Amendment.⁸¹ In the course of its reasoning, the Court distinguished the Internet as a medium of

75. *Id.*

76. *Id.*

77. *See id.*

78. *See supra* Section I.A.

79. *See infra* Section I.B.

80. *Reno v. ACLU*, 521 U.S. 844, 870 (1997).

81. *Id.* at 846.

communication from more “invasive”⁸² broadcast media, following established precedent conducting medium-specific inquiries.⁸³ Furthermore, the Court recognized that the factors in broadcast media inquiries “are not present in cyberspace”⁸⁴ and explicitly highlighted the different online contexts available for different kinds of online speech.⁸⁵ For example, in an often-quoted passage, the Court explained: “[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.”⁸⁶ In so declaring the protections involved in online speech, the *Reno* Court enumerated a number of online spaces in which speech can be uttered. It also recognized that, because of continuously developing technologies, the categories of online spaces courts may face in the future could not be fully enumerated at the time of the decision.⁸⁷

However, though the *Reno* Court’s examples were helpful illustrations of options for online speech, given the proliferation of online platforms and online services that have no strict real world counterparts, the Court failed to emphasize that online speech is not limited to a one-to-one correlation with real world communities, platforms, and publication opportunities. For example, since the early 2000s, online-only communities have developed—e.g., Second Life⁸⁸—and services based on real-life social contexts have developed online-only characteristics—e.g., Facebook’s geographically disparate social networks.⁸⁹ Furthermore, the *Reno* court failed to acknowledge the opportunity for particular sites within the different categories of online spaces to have differentiated norms and effects of speech. For example, depending on user expectations or specific technological codes in specific online sites at a given time, anonymous speech in these spaces may have different meanings and different potentials

82. *See id.* at 869 (“[T]he Internet is not as ‘invasive’ as radio or television” because “[u]sers seldom encounter content ‘by accident.’”); *see generally* LESSIG, *supra* note 7; TIM WU, *THE MASTER SWITCH* (2010); ZITTRAIN, *supra* note 13.

83. *Reno*, 521 U.S. at 868; *see also* Sw. Promotions, Ltd. v. Conrad, 420 U.S. 546, 557 (1975); Red Lion Broad. Co. v. FCC, 395 U.S. 367, 399–400 (1969).

84. *Reno*, 521 U.S. at 868.

85. *Id.* at 870.

86. *Id.*

87. *See id.* at 851 (“Anyone with access to the Internet may take advantage of a wide variety of communication and information retrieval methods. These methods are constantly evolving and difficult to categorize precisely.”).

88. *See* SECOND LIFE, <http://www.secondlife.com> (last visited April 17, 2011).

89. *See* FACEBOOK, <http://www.facebook.com> (last visited April 17, 2011).

for harm. That is, not every instance of sending an electronic newsletter necessarily has the effect of being a pamphleteer, nor does every chatroom or every user's speech within a particular chatroom make the online speakers town criers. As such, the *Reno* court offers a preliminary, though by no means exhaustive (nor up-to-date given the malleability and speed of innovation in online applications, platforms, and services)⁹⁰ explanation of online spaces within which anonymous speech can occur.⁹¹

Nonetheless, despite these shortcomings of the *Reno* opinion, the Court did recognize the variety of particular online spaces in which speech is uttered online and the different kinds of speech that result from these different spaces. Though some courts have failed to follow this particular aspect of the *Reno* opinion and did not look at the online context of the speech in anonymous speech cases,⁹² some courts drew standards governing the unmasking of a speaker's identity by explicitly looking to the publication platform of the online speech. For example, *McIntyre*,⁹³ *Doe v. Cabill*,⁹⁴ and *Krinsky v. Doe*⁹⁵ all define and highlight the different kinds of online platforms in which online speech occurs.⁹⁶ However, though *Cabill* and *Krinsky*, following *Reno*, recognize the online platforms in which the online speech is initially published, each court mistakenly ascribes certain inherent

90. See LESSIG, *supra* note 7, at 44 (calling the "end-to-end principle . . . a core principle of the Internet's architecture and, in my view, one of the most important reasons that the Internet produced the innovation and growth that it has enjoyed.").

91. This is not to say that different categories of online speech should receive different levels of First Amendment protection; indeed, the Court strongly warns that its "cases provide no basis for qualifying the level of First Amendment scrutiny that should be applied to this medium." *Reno*, 521 U.S. at 870. However, as the Court recognized, the kind and meaning of speech online depends on the particular online context. An online pamphleteer may enjoy the same rights of anonymity as handbill distributors; by contrast, an online advertiser using chat rooms for misleading commercial speech forfeits First Amendment protections. *Id.*

92. See, e.g., *Quixtar Inc. v. Signature Mgmt. Team, LLC*, 566 F. Supp. 2d 1205 (D. Nev. 2008); *Doe v. 2TheMart.com, Inc.*, 140 F. Supp. 2d 1088, 1095 n.5 (W.D. Wash. 2001); *Dendrite Int'l, Inc. v. Doe*, No. 3, 775 A.2d 756 (N.J. Super. Ct. App. Div. 2001).

93. See *supra* Part I.A.

94. 884 A.2d 451 (Del. 2005).

95. 159 Cal. Rptr. 3d 231 (Cal. Ct. App. 2008).

96. Similar to *Cabill* and *Krinsky*, there are other cases that address the context of online speech when assessing whether to unmask the identities of anonymous speakers. See, e.g., *Highfields Capital Management v. Doe*, 385 F. Supp. 2d 969 (N.D. Cal. 2005); *Indep. Newspapers v. Brodie*, 966 A.2d 432 (Md. 2009). However, like *Cabill* and *Krinsky*, these courts also suffer from similar problems, including enumerating online spaces without understanding the particularity of speech on a case-by-case basis as well as the possibility for these spaces to change according to user norms.

characteristics to each space, ascribing some online spaces with greater de facto legitimacy and others with lesser de facto legitimacy. Though a good first step in looking at context of online speech, giving each online space its own set of inherent characteristics threatens to automatically condemn anonymous speech as harmful in some platforms and not others. Though anonymous speech could turn out to be harmful in a particular instance, courts' presumption that all speech on blogs, for example, has particular characteristics, distinct from all speech on message boards, mistakenly ascribes inherent characteristics to all speech on particular platforms regardless of the particular platform, specific norms or user expectations, or user or external means of verification and correction.

As a result, the chilling effects for anonymous speech could be true for certain online platforms and not others. Similarly, courts risk misunderstanding the meaning and effect of the speech—that is, whether the speech is fact or opinion, commercial or political—by failing to recognize that, for example, some blogs host factual information while others host opinions intermixed with facts.⁹⁷ Online spaces are developing rapidly and different examples of similar online platforms may have different opportunities for verifying and correcting speech: consider different blogs, which may have different technological opportunities for correction—metacritics, flagging comments, etc.—as well as different governing norms from the users' expectations, societal or otherwise. For example, these characteristics of a blog embedded in a well-established site could differ greatly from those of an independent blog. Therefore, if courts follow *Krinsky* and *Cabill* without further acknowledging that online spaces can have changing and case-specific characteristics that must be taken into account, then the effects could be similarly undesirable as the Ninth Circuit's decision. Nonetheless, *Krinsky* and *Cabill* are moving in the right direction at least by highlighting the importance of context.

97. Many blogs have developed an authoritative, legitimate, and factual tone. *See, e.g.*, GIZMODO, <http://www.gizmodo.com> (last visited April 17, 2011) (gadget reviews); TECHCRUNCH, <http://www.techcrunch.com> (last visited April 17, 2011) (group-edited technology blog); THE HUFFINGTON POST, <http://www.huffingtonpost.com> (last visited April 17, 2011) (began as a blog, now an "Internet newspaper" with embedded blogs). Others, by contrast, are recognized and relied upon more as mere opinion and gossip, but still have some factual elements. *See, e.g.*, GAWKER, <http://www.gawker.com> (last visited April 17, 2011) ("Today's gossip is tomorrow's news."); *Opinionator Blogs*, N.Y. TIMES, <http://opinionator.blogs.nytimes.com/> (last visited April 17, 2011) (offering commentary on news).

In *Cabill*, the Delaware Supreme Court performed a *de novo* review of the standard the lower court employed in ordering the ISP to disclose the identity of the anonymous online speaker who posted allegedly defamatory remarks on a community website sponsored by the local newspaper.⁹⁸ Recognizing that “[t]he [I]nternet is a unique democratizing medium unlike anything that has come before,” and repeating the *Reno* Court’s description of the different kinds of online political speech, the *Cabill* court also remarked that “Internet speech is often anonymous.”⁹⁹ *Cabill* thereby addressed the difficult tension inherent in anonymous speech that can be beneficial to public discourse but can also encourage vitriolic and defamatory statements violating the rights of harmed plaintiffs. The court, like the *Meyer*, *McIntyre*, and *Buckley* Courts,¹⁰⁰ was especially “concerned that setting the standard too low [would] . . . chill potential posters from exercising their First Amendment right to speak anonymously.”¹⁰¹ The court began by alluding to the difference between the Internet understood as infrastructure and the online spaces layered on the Internet in which users communicate and interact. It wrote, in stark contrast to the district court and Ninth Circuit in *Anonymous Online Speakers*, that “we do not rely on the nature of the [I]nternet as a basis to justify our application of the legal standard.”¹⁰² That is, it declined to assume that speech on the Internet is of a particular nature that requires the application of a particular legal standard (the way that courts look at the nature of political versus commercial speech). Instead, the *Cabill* court explained that the online spaces on and through which users interact, publish, communicate, and interact bear characteristics that may be relevant to determining a balancing standard. It wrote: “[w]hile as a form of communication the [I]nternet is not legally distinct . . . , it is worth noting that

98. *Doe v. Cahill*, 884 A.2d 451 (Del. 2005).

99. *See id.* at 455–56.

100. *See id.* at 456.

101. *See id.* at 457. In this particular case, because the claim at issue was a defamation claim, and because often unmasking leads to dropping the case and instead “engag[ing] in extra-judicial self-help remedies,” the need to protect to the anonymous speakers was especially important. *Id.* However, there are non-defamation case instances where the plaintiff’s intent in unmasking the anonymous speaker is not to engage in self-help; rather, there could be real psychological or reputational harm for which the plaintiff seeks compensation. *See In re Application of Cohen*, No. 09-10012 (N.Y. Sup. Ct. Aug. 17, 2009) (granting request to identify a speaker who called plaintiff “skank” and “ho” on a blog because plaintiff “sufficiently established the merits of her proposed cause of action for defamation against that person or persons, and that the information sought is material and necessary to identify the potential defendant”).

102. *See Cabill*, 884 A.2d at 465.

certain factual and contextual issues relevant to chat rooms and blogs are particularly important in analyzing the defamation claim itself.”¹⁰³

In another case concerning anonymous speech on online message boards, *Krinsky*, the court also looked to the online context within which the speech occurs and concluded that the statements made were offered as opinions, not as fact, and therefore the defamation claim was without merit.¹⁰⁴ *Krinsky* involved ten anonymous commentators on a Yahoo! Message board who posted unflattering statements about the former president, CEO, and chairman of a company.¹⁰⁵ In discerning that the comments were not factual, the court engaged in an extensive and detailed analysis of the use of online message boards.¹⁰⁶ The court asserted that “[i]n this case, Doe 6’s messages, viewed *in context*, cannot be interpreted as asserting or implying objective facts.”¹⁰⁷ Had the *Krinsky* court not understood the kind of speech uttered on message boards (for example, recognizing message boards as a common forum for users to make satirical, juvenile remarks),¹⁰⁸ then the court may have mistaken those statements for facts and compelled disclosure of the speaker’s identity. By contrast, if reasonable online users relied on this speech uttered on the message boards as fact, instead of mere opinion, then the court could have seriously barred a harmed plaintiff from access to redress.

Both the *Cabill* and *Krinsky* courts successfully took the publication platforms of the online speech into account in their decision-making, and further recognized the existence of a variety of online contexts within which speech can occur. In *Cabill*, the court described several relevant characteristics of online speech, including: the potential for harmed plaintiffs to “instantly” respond to defamatory attacks and “generally set the record straight;”¹⁰⁹ the “spectrum of reliability of sources on the [I]nternet;”¹¹⁰ and the lack of controls on the postings, unlike in traditional media.¹¹¹ In

103. *See id.*

104. *Krinsky v. Doe 6*, 72 Cal. Rptr. 3d 231, 248 (Cal. Ct. App. 2008).

105. *Id.* at 234–35.

106. *Id.* at 249–51.

107. *Id.* at 248 (emphasis in original).

108. The court might also have made a mistake had it not understood that on online message boards, all users interpreted speech to take on a certain kind of meaning. *See Cabill*, 884 A.2d at 467 (“Given the context, no reasonable person could have interpreted these statements as being anything other than opinion.”).

109. *Cabill*, 884 A.2d at 464.

110. *Id.* at 465.

111. *Id.* (quoting *Global Telemedia Int’l, Inc. v. Doe 1*, 132 F. Supp. 2d 1261, 1264 (C.D. Cal 2001)).

assessing the merit of the defamation claim against the right to anonymity of the online speaker, the court stated this would depend on “the words and the context in which they were published.”¹¹² After looking at the words within the online context in which they were uttered, the court continued, “the summary judgment standard imposes no heavier burden than would any other standard” in regards to whether the words were fact or opinion.¹¹³ Similarly, the *Krinsky* court, like the *McIntyre* Court, looked to “the surrounding circumstances—including the recent public attention to [the company’s] practices and the entire . . . message-board discussion over a two-month period [devoted to the company-plaintiff].”¹¹⁴ In looking at the larger societal context of the speech, as well as the context of the online space (i.e. message board) in which the speech was uttered, the court concluded that the allegedly defamatory speech was mere opinion and therefore not actionable.

Nonetheless, neither the *Cabill* nor *Krinsky* courts successfully acknowledged the particularized, and sometimes changing, characteristics of these online spaces. For example, certain message boards may develop governing etiquette norms or web programmers may write code that limits the length of posts or the ability to respond to others’ comments as the needs of the site and users change.¹¹⁵ User norms can develop from repeated interactions and internal monitoring or external governing of particular sites.¹¹⁶ These norms can also change, resulting both in differentiated online spaces within one type of platform (e.g. blogs, message boards, chat rooms) and also particular online sites with characteristics that can change from day to day or year to year.¹¹⁷ That is, changes in the norms governing the particular online context or various technological modifications may alter the characteristics of these spaces.¹¹⁸

112. *Id.* at 463.

113. *Id.*

114. *See* *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 250 (Cal. Ct. App. 2008).

115. *See* LESSIG, *supra* note 7, at 113; *see also* LESSIG, *supra* note 7, at 102 (quoting Mnookin).

116. *See* Lawrence Lessig, *The Laws of Cyberspace* (1998), available at http://www.lessig.org/content/articles/works/laws_cyberspace.pdf.

117. *See, e.g.*, Paul Boutin, *Engadget editor: Why I turned off comments*, VENTUREBEAT (Feb. 2, 2010), <http://venturebeat.com/2010/02/02/engadget-comments/>.

118. Interestingly, *Reno* was successful in acknowledging this characteristic of online spaces. *See Reno v. ACLU*, 521 U.S. 844, 851 (1997) (“Anyone with access to the Internet may take advantage of a wide variety of communication and information retrieval methods. These methods are constantly evolving and difficult to categorize precisely.”); *see also* LESSIG, *supra* note 7, at 113 (“In places [i.e., online spaces] where community is not fully self-

Failure to understand context on a case-by-case basis can lead to a mistaken impression of the characteristics of speech in a given online space. The *Cabill* and *Krinsky* courts looked to the particular online platforms within which the allegedly harmful speech occurred, but both courts failed to understand the particular characteristics of each online context. In so misunderstanding the characteristics of speech in online spaces, these courts made a similar mistake as the district court and the Ninth Circuit in *Anonymous Online Speakers*, explored *infra* Part II: the courts presumed that speech, uttered in either online spaces or the Internet, was marked with inherent characteristics. Though the *Cabill* court correctly recognized that there are different online spaces in which users speak and that these online spaces have distinct characteristics, it also wrongly attributed inherent characteristics to each of these online spaces.¹¹⁹ Not all online spaces, as the *Cabill* court claimed, would enable a harmed plaintiff to “instantly” respond and correct the harmful speech.¹²⁰ For example, some blog sites do not accept comments.¹²¹ Similarly, merely because some anonymous online speech could “promote[] a looser, more relaxed communication style,” as the *Krinsky* court asserted, does not mean that all online speech must be “relaxed” or “combative” in tone.¹²² Finally, simply because some online platforms *generally* host a certain kind of speech—e.g., “[b]logs and chat rooms tend to be vehicles for the expression of opinions”¹²³ and message boards were generally thought to “substitute gossip for accurate reporting”¹²⁴—does not mean that all speech on these platforms are necessarily one kind of speech or another.

Therefore, both the *Cabill* and *Krinsky* courts mistakenly attached inherent characteristics to these different online spaces similar to the Ninth Circuit’s mistaken presumption that speech “on the Internet” is inherently fast-moving and far-spreading. Given that there are many different online spaces for speech, some of which have sophisticated mechanisms to ensure that comments are accurate and some of which serve as forums for factual

enforcing, norms are supplemented by rules imposed either through code or by the relevant sovereign [i.e., site administrator, host, or developer].”).

119. See *Cabill*, 884 A.2d at 464; see also LESSIG, *supra* note 7; Lessig, *supra* note 116; Glen R. Shilland, *Influencing and Exploiting Behavioral Norms in Cyberspace to Promote Ethical and Moral Conduct of Cyberwarfare* (June 2010) (unpublished thesis, School of Advanced Air and Space Studies, Air University) (on file with Maxwell Air Force Base).

120. See *Cabill*, 884 A.2d at 464.

121. See, e.g., Boutin, *supra* note 117.

122. See *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 238 (Cal. Ct. App. 2008).

123. See *Cabill*, 884 A.2d at 465.

124. See *Krinsky*, 72 Cal. Rptr. 3d at 238.

discourse,¹²⁵ merely asserting that speech occurred “on the Internet” is insufficient in assessing both the level of First Amendment protections and the scope or severity of harm. Without assessing online speech within the context of the online platform, courts fail to adequately address the interests of both parties involved; the nature of the speech (commercial versus political), scope of harm, intent of the speaker, and even meaning and accuracy of comments depend on the embedded, contextual, relative space in which the speech is published and made available to the public.

As this Part shows, Supreme Court precedent recognizes the right to anonymous speech. In its reasoning, the Court looked to the context within which the anonymous speech was uttered and the general societal understanding of the particular kind of speech, finding these options for assessing the speech in context essential for courts to determine the nature of the speech, its meaning, and the potential harmfulness of the speech. The same should apply to anonymous online speech. In order for courts to clearly, fairly, and comprehensively apply current standards for balancing the rights of online speakers with harmed parties, they must evaluate online speech in the context of the online space within which the speech was uttered. If courts fail to look at the online context, the societal understanding of that online context, and the governing norms or possibilities for mitigation of harmful anonymous speech within those contexts, courts would not only be turning their back on long-established precedent protecting the rights of anonymous speech, they would also be failing to understand the nature, meaning, and scope of that speech’s potential harm accurately. This would make it nearly impossible for courts to accurately weigh the rights of harmed parties against the Constitutional rights of the speakers, regardless of the particular jurisdictional standard.

II. *IN RE ANONYMOUS ONLINE SPEAKERS: MESSING THE STANDARDS AND MISSING THE CONTEXT*

Though many have discussed the harm in having competing standards to deploy in balancing the rights of anonymous online speakers with the plaintiffs’ rights of redress,¹²⁶ the only Circuit Court decision on the topic, *In*

125. For example, it is not the case that there are no controls on postings in online spaces: some spaces require named postings; others review comments before publishing or actively police postings; many close the commenting period for certain stories; and most recently, some spaces are using users to act as “metacritics” who police comments and postings.

126. *See supra* Section I.B.

re Anonymous Online Speakers, failed to provide a unifying standard. Especially in online cases involving unmasking anonymous speakers, both the district court and Ninth Circuit, like other courts beforehand, struggled to accurately assess the nature, meaning, and potential harmfulness of speech uttered in online contexts.¹²⁷ Nonetheless, as the Ninth Circuit explained, “[t]he district court here appropriately considered the important value of anonymous speech balanced against a party’s need for relevant discovery in a civil action.”¹²⁸ Furthermore, instead of looking to the “specific circumstances surrounding the speech . . . to give context to the balancing exercise,” as the Ninth Circuit itself suggested, the district court and Ninth Circuit both contented with ascribing online speech a singular characteristic. The Ninth Circuit wrote: “in the age of the Internet, the ‘speed and power of internet technology makes it difficult for the truth to ‘catch up’ to the lie.”¹²⁹ That is, the district court asserted, and the Ninth Circuit affirmed, that the mere fact the anonymous speech occurred online is *de facto* more harmful to the plaintiff than if the speech had occurred offline. Such a gross misunderstanding of the nature and meaning of online speech both threatens to undermine long-standing Constitutional protections for anonymous speech and to muddy existing standards employed by lower courts in balancing the rights to such speech with harmed plaintiffs’ rights of redress.

A. *ANONYMOUS ONLINE SPEAKERS: FACTS*

In *Anonymous Online Speakers*, the Ninth Circuit faced a discovery request to unmask the identities of anonymous bloggers posting potentially harmful comments regarding a competitor’s business.¹³⁰ *Anonymous Online Speakers* involved five anonymous bloggers who allegedly made defamatory comments about Quixtar, a cosmetic and nutritional product distribution company.¹³¹ An employee from successor-company Amway Corporation, and Signature Management TEAM (“TEAM”), with which Quixtar was in an on-going business dispute, knew the identities of the anonymous bloggers.¹³² The employee refused to disclose the identities of the bloggers during testimony and the district court ordered the employee to disclose three of the

127. *See id.*

128. *In re Anonymous Online Speakers*, No. 09-71205, 2011 WL 61635, at *6 (9th Cir. Jan. 7, 2011).

129. *Id.* (quoting *Quixtar, Inc., v. Signature Mgmt. Team, LLC*, 566 F. Supp. 2d 1205, 1214 (D. Nev. 2008)).

130. *Id.* at *1.

131. *Id.*

132. *Id.*

five speakers.¹³³ The bloggers then sought a writ of mandamus to vacate the order.¹³⁴ Quixtar cross-petitioned for a writ of mandamus to reveal the identities of the remaining two speakers.¹³⁵

The Ninth Circuit wrote that “[t]he district court here appropriately considered the important value of anonymous speech balanced against a party’s need to relevant discovery in civil action.”¹³⁶ In this element of its analysis, the Ninth Circuit followed established precedent recognizing that civil discovery orders and subpoenas seeking to unmask anonymous speakers’ identities, online or offline, involves balancing the competing rights of anonymity and redress. However, the Ninth Circuit seemingly went on to add another element for consideration in this balancing: the fact that the anonymous speech occurred online. Adopting the district court’s words, the Ninth Circuit recognized that the Internet permitted “’great potential for irresponsible, malicious, and harmful communication’ and that particularly in the age of the Internet, the ‘speed and power of internet technology makes it difficult for the truth to ‘catch up’ to the lie.’”¹³⁷

As the first circuit court to face the particular question of the right to anonymous online speech, it seemed the Ninth Circuit would provide a coherent standard to govern lower courts in such cases. Instead, the court in *Anonymous Online Speakers* reasoned that the stringent *Cabill* standard placed too high a burden on the plaintiff in cases involving commercial, instead of political, speech, although the outcome in this case was not affected.¹³⁸ In rejecting the *Cabill* standard,¹³⁹ and supporting different standards for different kinds of anonymous speech,¹⁴⁰ the Ninth Circuit did not, in fact, adopt a lesser standard. Instead, it held that the higher *Cabill* standard was permissible in this case because the speech, though commercial (and therefore afforded less First Amendment protection) occurred online (therefore posing a greater threat for harm).¹⁴¹ In other words, the Ninth Circuit concluded that *all* online speech, regardless of specific online publication platform and regardless of particular characteristics of the

133. *Id.*

134. *Id.* at *2.

135. *Id.*

136. *Id.* at *6.

137. *Id.* (quoting *Quixtar, Inc., v. Signature Management Team, LLC*, 566 F. Supp. 2d 1205, 1214 (D. Nev. 2008)).

138. *Id.*

139. *Id.* at *6–7.

140. *Id.* at *6.

141. *Id.*

context in this particular case, inherently weighed against the anonymous speaker. That is, all online speech, by default, increases the harm incurred by the plaintiff.

B. *ANONYMOUS ONLINE SPEAKERS: THE IMPORTANCE OF EVALUATING ONLINE CONTEXT*

In *Anonymous Online Speakers*, the Ninth Circuit uncritically adopted and applied without explanation the presumption that the Internet is a singular, borderless world in which there is but one set of characteristics that apply equally to all forms and contents of online activity, interaction, and speech.¹⁴² Approving of the district court's treatment of the online speech at issue, the Ninth Circuit in *Anonymous Online Speakers* echoed the district court's acknowledgment of the "great potential for irresponsible, malicious, and harmful communication" in an Internet-age where the "speed and power of internet technology makes it difficult for the truth to 'catch up' to the lie."¹⁴³ In reaching this decision, the Ninth Circuit affirmed the ruling of the district court, but criticized its use of the stringent *Cabill* standard.¹⁴⁴ Nonetheless, under the auspice of assessing the level of First Amendment protection based on nature of the speech—commercial versus political—, the Ninth Circuit allowed for application of the more stringent, political-speech standard in a commercial-speech case because of, what the Ninth Circuit perceived as, the inherent and increased threat posed by speech occurring on the Internet.¹⁴⁵ Therefore, in declining to assess the forum in which the allegedly harmful speech took place, the Court failed to assess the discovery request for identifying information based on the actual nature of the speech. The Court did not acknowledge the potential differences between online forums and considered only that the speech occurred online.¹⁴⁶

As such, in *Anonymous Online Speakers*, not only did the Ninth Circuit miss an opportunity to clarify competing standards, it also missed an even greater opportunity to highlight the particular characteristics of online speech depending on the various spaces within which the speech was uttered. For example, depending on the publication and governing technological or user

142. *Id.*

143. *Id.* (quoting *Quixtar, Inc., v. Signature Management Team, LLC*, 566 F. Supp. 2d 1205, 1214 (D. Nev. 2008)).

144. *Id.* ("Because *Cabill* involved political speech, that court's imposition of a heightened standard is understandable. In the context of the speech at issue here . . . however [i.e., commercial speech], *Cabill's* bar extends too far.").

145. *Id.*

146. *Id.*

norms, a lie may be corrected in a number of ways. A lie may be discredited instantaneously by vigilant users or tagged for removal as erroneous.¹⁴⁷ Alternately, a lie may be taken in the aggregate with other opinions so that the truth is determined in a sort of democratic weighing of comments (the most repeated comment is “true”).¹⁴⁸ Also, a correction may be highlighted after the initial publication went live.¹⁴⁹ Or a lie may indeed gather so much popularity that it is revealed near the top of popular search results.¹⁵⁰ Ignoring these varied contextual characteristics, and instead of further clarifying *Cahill* and *Krinsky* to say that kinds of online spaces do not necessarily have inherent characteristics, the Ninth Circuit, asserted that *regardless* of the online space, *all* speech uttered online moves so fast and so far that lies run rampant and the truth is left behind.

The Ninth Circuit’s decision, in so egregiously describing the characteristics and effects of speech online, threatens to both automatically render defendants’ online speech more harmful than similar offline speech and misidentify the character of the defendants’ online speech—for example, fact versus opinion¹⁵¹ or commercial versus political speech.¹⁵² This chills anonymous online speech—which serves a publicly-valuable function—but could also make it difficult to identify the urgent instances of real harm that can result from anonymous online speech.¹⁵³ For example, if individuals

147. See, e.g., *Template: Flag-templates*, WIKIPEDIA, http://en.wikipedia.org/wiki/Template:Flag-templates#Flag_templates_for_deletion_warnings (last visited Feb. 20, 2011).

148. See generally CLAY SHIRKY, *HERE COMES EVERYBODY* (2008); JAMES SUROWIECKI, *THE WISDOM OF CROWDS* (2005).

149. See Stephen Baker, *Blog Corrections: A New Literary Style?*, BUSINESS WEEK, Aug. 8, 2005, <http://blogs.businessweek.com/mt/mt-tb.cgi/1424.1234112340>.

150. See, e.g., THE BIRTHERS, <http://www.birthers.org> (last visited April 17, 2011), cited in Kay Rand, *Political Blogs Not Always Factual: Opinion Masquerades as “Truth”*, MORNING SENTINEL, Aug. 21, 2010, available at <http://www.onlinesentinel.com/opinion/KAY-RAND-Political-blogs-not-always-factual-opinion-masquerades-as-truth.html> (“While this story [Obama’s birthplace] has been thoroughly debunked by CNN and other reputable news sources, it persists.”).

151. For example, under Florida law, “pure opinion,” in distinction from mixed opinion and fact or pure fact, will not support a defamation action. See *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 251 (Cal. Ct. App. 2008) (“We thus conclude that Doe 6’s online messages, while unquestionably offensive and demeaning to plaintiff, did not constitute assertions of actual fact and therefore were not actionable under Florida’s defamation law.”).

152. Commercial speech is afforded less First Amendment protection, both in anonymous and nonanonymous cases, than political speech. See *supra* Section I.A.

153. See *Doe v. Cahill*, 884 A.2d 451, 457 (Del. 2005) (The “‘sue first, ask questions later’ approach, coupled with a standard only minimally protective of the anonymity of defendants, will discourage debate on important issues of public concern as more and more

feared their identities could be exposed on public record and their names attached to otherwise anonymous statements, anonymous speakers may be dissuaded from valuable critical political and commercial speech. Alternately, if courts mistakenly understand the meaning of speech uttered in a particular online space as necessarily opinion, as opposed to an informal statement that other reasonable online users would nevertheless rely upon as fact, then defamed plaintiffs lose access to redress for the harmful speech in question. Therefore, failure to accurately understand the online context of the allegedly harmful speech—that is, presuming that the worries of unaccountability of anonymous speech in general are only amplified by the speed and power of the Internet—could both unjustly unmask a lawfully anonymous speaker and deny harmed parties rights to redress and compensation.

In order to balance the benefits of anonymous online speech while also ensuring that harmed parties can consistently seek redress, courts must be vigilant in understanding the nature, meaning, potential for harm, and actual harmfulness of anonymous speech in varying online contexts. In order to succeed in this endeavor, courts must understand the difference between the Internet infrastructure on online services, platforms, and spaces within which users communicate and interact.

C. CONFLATION OF INTERNET INFRASTRUCTURE AND ONLINE SPACES

The most egregious consequence of the confusion between Internet infrastructure and online services and platforms¹⁵⁴—as evidenced in the Ninth Circuit decision—is courts adopting the presumption that “the Internet” exists as a single, borderless space and presuming that all speech in this single space has an underlying, inherent characteristic. Though the Internet understood as infrastructure can correctly be envisioned as singular and compatible in the same way the interstate highway system or telephone

anonymous posters censor the online statements in response to the likelihood of being unmasked.”).

154. Adding to the confusion surrounding the Internet, ISPs, OSPs, and online spaces is that scholars of the Internet and cyberspace often use overlapping and sometimes contradictory language. Lawrence Lessig calls online spaces cyberspaces and refers to these cyberspaces as architecture. *See* LESSIG, *supra* note 7, at 45 (mentioning the “difference in architectures of real space and cyberspace”). By contrast, Barbara van Schewick refers to the Internet as architecture and online spaces as applications. *See* SCHEWICK, *supra* note 11, at 84–112. Therefore, this Note will refer to the Internet (i.e., that open, end-to-end IP network through which data is sent; what Schewick calls the “Internet layer”) as the “infrastructure”; ISPs as the hosts at the end of the IP network that provide access to the Internet via assigned IP addresses; and OSPs as the hosts/administrators of online spaces.

network is singular and compatible (they have to be for efficiency's sake),¹⁵⁵ online spaces, platforms, and applications are as decidedly diverse and varied as real-world spaces in which people interact, communicate, publish speech, and conduct business. This is not to insinuate that there is a one-to-one relationship between real-world and virtual spaces; far from it. There are characteristics of online spaces that encourage certain kinds of activity, behavior, and communication just as there are characteristics of real-world spaces that are better suited to other kinds of activity, behavior, and communication. For example, online speech allows for large-scale aggregations of material that would be nearly impossible in offline cases. Similarly, offline interactions may allow for a more nuanced understanding of individual or group emotions than online speech.

Despite these differences, courts addressing online activities and speech have often uncritically and mistakenly adopted the presumption that the Internet—infrastructure and online spaces alike—is a singular, borderless, virtual space that presents one unified set of opportunities and consequences.¹⁵⁶ One of the reasons for courts' confusion could be the historical development of Internet services and attendant online platforms. The Internet was created as an open end-to-end connected network. As such, it does not discriminate the data that is sent to the end hosts.¹⁵⁷ The infrastructure of the Internet simply “delivers datagrams from one host to another”¹⁵⁸ and allows different applications to reside on the network and communicate with each other (accounting for the interconnectedness of the variety of users, platforms, and services on the Internet).¹⁵⁹ Though the Internet's infrastructure allows for the creation of many different online spaces, as well as norms and standards to develop and govern these spaces,¹⁶⁰ courts including the Ninth Circuit have failed to make this distinction.¹⁶¹ In

155. LESSIG, *supra* note 7, at 44 (calling the “end-to-end principle . . . a core principle of the Internet's architecture and, in my view, one of the most important reasons that the Internet produced the innovation and growth that it has enjoyed”). For more information see generally Wendy Seltzer, *The Imperfect Is the Enemy of the Good: Anticircumvention versus Open User Innovation*, 25 BERKELEY TECH. L.J. 910 (2010).

156. *See In re Anonymous Online Speakers*, No. 09-71205, 2011 WL 61635, at *6 (9th Cir. Jan. 7, 2011); *Dendrite Int'l, Inc. v. Doe*, No. 3, 775 A.2d 756, 706–61 (N.J. Super. Ct. App. Div. 2001).

157. SCHEWICK, *supra* note 11, at 84–85.

158. *Id.* at 86.

159. *Id.* at 87 (“The application layer contains a range of protocols that let applications communicate with one another.”).

160. *See supra* note 11.

161. *See supra* Sections I.B. and II.A.

so doing, the courts mistakenly ascribe some characteristics of the infrastructure of the Internet—openness and non-hierarchical sharing of information¹⁶²—to all online spaces.

A second possible source of courts' misunderstanding of speech on the Internet is a more general confusion between ISPs and OSPs. In the early years of the Internet being commercially available, often the companies providing consumers with home Internet access (i.e. assigning an IP address through which to access the Internet networks *and* the online applications layered on this network), were *the same companies* providing the online services, platforms, and spaces in which consumers "used" (i.e. communicated, spoke, or interacted through) the Internet. For example, in the early 1990s, AOL was the ISP which provided consumers with dial-up Internet access; it was also the OSP which provided these consumers with emailing services, searching capabilities, and chat rooms.¹⁶³ Today, by contrast, AOL/Time Warner provides consumers with broadband Internet access, while AOL, Yahoo!, and Google provide online search, email, message board, chat room, and other online services.¹⁶⁴ The proliferation of "websites" has often been

162. These ideas about the characteristics of the Internet infrastructure seem to develop from the prevalence of "net neutrality" in discussions regarding information flows on the Internet. The net neutrality debate centers on an idea of an "open Internet," adopting the views of the early Internet pioneers who envisioned a decentralized, borderless network as the ultimate democratizing medium. Unfortunately, some of the underlying rhetoric of freedom and openness in the net neutrality context, as they accurately apply to the infrastructure of the Internet, has been uncritically adopted by scholars as equally applying to online activities, platforms, and services. The idea of "open networks" could have been confused by courts with individual users' experience online as borderless. However, the openness of the Internet network is only peripherally linked to the ease of access to and movement between various online spaces within which most online users interact, communication, and create.

163. See generally *History of Ecommerce*, ECOMMERCELAND, http://www.ecommerceland.com/history_ecommerce.html (last visited April 17, 2011).

164. This confusion between Internet infrastructure and OSPs is offered as a corrective to a messy and unclear conflation of these two layers involving Internet and cyberspace issues. The consequences of this confusion are discussed below. However, before moving on, it would be wise to emphasize that this particular characterization of a fairly stark divide between ISPs and OSPs could easily change in the future. For example, if Comcast and Yahoo! merged, the company would be both an Internet and online service provider. Or, if the interconnectedness of online spaces were too insecure for a group or individual's purpose (or even for simplicity's sake, for example, an elderly couple who only wants directory search and email capacities like the early AOL ISP/OSP provided), one could imagine a particularized ISP/OSP company which, for lower costs than current ISPs, provided home Internet access as well as limited OSP services. Lower costs, increased security, and simplicity could very well be an attractive package for some individuals.

cited with awe;¹⁶⁵ however, these websites are not merely individual creations, but rather products of a number of developing online spaces and services (for example, Facebook, as an OSP and an online space, has its own website; members of Facebook also have their own Facebook-assigned webpages). Facebook, YouTube, Twitter, Blogger, Digg, Yahoo! message boards, AOL chat rooms, Google search, Flickr, FourSquare, and Skype, among many others, are all OSPs creating online spaces through which users can speak or otherwise interact online. None, however, are ISPs; that is, in order for individuals to use any of these OSPs, users must have Internet access provided through an ISP.

The stakes in continuing this false presumption are wide reaching. As more activities and interactions are conducted in online spaces, courts must assess the speech and activity in the online context within which the speech is uttered or the activity takes place. In so doing, courts must look to the online spaces, characteristics, user norms, and societal understandings in each particular instance, but must also caution against what Lawrence Lessig describes as fact-finding endeavors.¹⁶⁶ He writes, in contrast to courts' tendency to "discover" online spaces as static forums, that "[w]hat data can be collected, what anonymity is possible, what access is granted, what speech will be heard—all these are choices, not 'facts.' All of these are designed [by the administrators, hosts, or product developers of the online spaces], not found [by courts]."¹⁶⁷

Lessig's claim may be overreaching in that there is no reason a court could not identify certain online spaces while still allowing for other online spaces to be developed or simultaneously coexist.¹⁶⁸ However, there is a danger, as demonstrated in *Cabill* and *Krinsky*, that courts could characterize

165. See Marcha Walton, *Web reaches new milestone: 100 million sites*, CNN.COM (Nov. 1, 2006) http://articles.cnn.com/2006-11-01/tech/100millionwebsites_1_web-site-cern-tim-berners-lee?_s=PM:TECH.

166. LESSIG, *supra* note 7, at 318.

167. *Id.*

168. Even though the *Cabill* court is singling out chat rooms and blogs, this should not, I would argue, imply that the court is engaged in fact-finding at odds with simultaneously acknowledging that online spaces are malleable and develop at fast rights. Instead, the courts are highlighted the relevant online spaces for the case at hand; it would be nearly impossible and also irrelevant to provide an overview of all kinds of online spaces within which speech occurs before assessing the character, meaning, and potentially harmfulness of the speech. In fact, the *Reno* Court explicitly realized that online spaces were constantly changing, but nonetheless decided to describe the relevant online spaces at the time. See *Reno v. ACLU*, 521 U.S. 844, 851 (1997) ("Anyone with access to the Internet may take advantage of a wide variety of communication and information retrieval methods. These methods are constantly evolving and difficult to categorize precisely.").

certain online spaces as, “by their very nature,” involving certain kinds of speech over others. For example, though in 2005 (when *Cabill* was decided), blogs were a fairly novel, and un-institutionalized, online platform for free-of-charge online speech, today they are also highly institutionalized. *The Atlantic*, *The New Yorker*, and *The New York Times* all have online “blogs” embedded within their larger news sites.¹⁶⁹ Furthermore, even un-institutionalized blogs can be sources of fact or opinion—the independent blogs of many professors from respected research universities are sources upon which most reasonable persons would rely.¹⁷⁰ As online spaces, the norms and code governing these spaces, and new technologies (i.e. mobile devices and applications, “cloud” storage and access to personal information, etc.) change, determining the nature, meaning, and effect of speech occurring in online spaces will require pointed, fact and time-specific, and technologically-nuanced assessments.

Therefore, in addition to mistakenly attributing inherent characteristics to online spaces, this understanding of online spaces as inherently and unalterably constructed and used as they currently are discourages courts from looking at the specific cases and uses of the spaces at issue on a case-by-case basis. As such, in resolving these issues, courts should resist treating online spaces as non-malleable with inherent characteristics. Rather, courts should look into the particular uses, governing norms, user interactions, and societal understandings of specific online speech uttered in each instance for which an allegedly harmed plaintiff issues a discovery request.

III. ONE STRUCTURE, MANY SPACES: A MODEL OF ONLINE SPEECH ON THE (HETEROGENEOUS) WEB

As described above, “the Internet,” which is best understood as the actual infrastructure enabling wired and wireless Internet capabilities, is often misapplied to describe online services and platforms developed in order to enable online users to interact, communicate, disseminate, and publish information. However, as seen in *Cabill*, *Krinsky*, and *Anonymous Online Speakers*, in order for courts to fully and accurately assess the nature of the

169. See *The Atlantic Blogs*, THE ATLANTIC, <http://www.theatlantic.com/magazine/archive/2008/01/the-atlantic-blogs/6623/> (last visited Feb. 21, 2011); *Blogs*, THE NEW YORKER, <http://www.newyorker.com/online/index/blogs> (last visited Feb. 21, 2011); *Blogs*, N.Y. TIMES, <http://www.nytimes.com/interactive/blogs/directory.html> (last visited Feb. 21, 2011).

170. See *100 Best Professors Who Blog*, ONLINECOLLEGE.ORG (Oct. 12, 2009), <http://www.onlinecollege.org/2009/10/12/100-best-professors-who-blog/>; LEITER REPORTS, <http://leiterreports.typepad.com/> (last visited Mar. 13, 2011).

speech as well as the harmfulness of questionable speech at issue, courts must assess the speech within the online context in which the speech was published, considering case-by-case norms—technological or user-created—for not only that particular online space, but also any context(s) to which speech was disseminated. If the latter applies, courts must also take into account whether the speaker knew or had reason to know the speech would disseminate to these secondary platforms. As argued above, *supra* Part II, the district court and Ninth Circuit made the mistake of thinking speech uttered online occurs in a borderless and undifferentiated space, called “the Internet.” By contrast, the courts should have taken into account the online context of the speech, the platforms on which this speech occurs, and the borders of the online spaces within which the speech is contained. This Part explores various categories of online spaces that represent the diversity of services used to speak anonymously online, as a means of guiding courts in developing more nuanced analysis of online speech. It further reflects on the implications of adopting such a contextual analysis for anonymous speech, and specifically explores how such an approach might have changed the outcome in *Anonymous Online Speakers*.

A. ONLINE SPACES FOR SPEECH

As this Note addresses issues of anonymous online speech, and not protections for online speech more generally, it only focuses, in detail, on a limited number of categories of online spaces. These categories are offered merely as guidance for courts in both discerning the nature of the speech as well as assessing the harmfulness of the questionable speech. In no way is this a comprehensive summary of different online platforms. Across each of these categories exist sub-issues that courts should also consider, such as built-in mechanisms for expressing the relevance of comments, searchability of the speech, access via mobile devices, visible documentation of changes and corrections made to already-published speech, ability to comment on published speech, and likelihood (and knowledge that) speech would be disseminated to other platforms. If future dissemination does occur in a particular case, then courts must likewise assess the characteristics of those platforms. As such, this Section also explains how and for what purposes individuals use these online spaces. Furthermore, the Section will also explain the boundaries of each of these spaces and opportunities for overlap (multiple postings), ease-of-access (search engines, mobile access), and

dissemination of speech (email¹⁷¹ and search engines¹⁷²) outside of the original space where the speech was uttered.

B. BLOGS AND INDIVIDUAL PLATFORMS FOR PUBLICATION

Blogs, perhaps the most basic online platform, are a free and neutral template (similar to a blank document in a word processing program) that provides individuals opportunity for self-expression in an identifiable and searchable online space. Blogs and even personal webpages (made user-friendly by various templates and webpage services) provide individuals with online forums to publish and thereby make accessible to others their speech, thoughts, expressions, creative content, and other material. In general, blogs provide a permanent, virtual location to which an author can point others to access the blog. Though blogs require bloggers to register in order to use the service,¹⁷³ the individual blogger chooses the extent of his or her anonymity. For example, the individual could choose to post information under a single-word pseudonym with no other “about me” information (essentially anonymous speech); or the individual could choose to post under a real name and include truthful and complete “about me” information. One question, therefore, for courts to consider is not merely whether the speech uttered occurred on a blog, but what measures, if any, the blogger took to preserve anonymity.

A significant misconception of blogs, reflected in the reasoning of the *Cahill* court,¹⁷⁴ is that speech on blogs is mere opinion and that no reasonable reader would rely on blogs for verified, accurate, or factual information.¹⁷⁵ In some instances, a blog can serve as an aggregation site, simply linking to

171. Email *may* have the potentially fast and far-reaching effect the district court described. But, either speech was originally uttered in email form (in which case it is proper to describe the characteristic of the speech as somewhat fast-spreading and far-reaching; but even then, how far/fast do chain emails actually spread) or the speech was taken out of its original context and put in email (i.e., easily disseminated form).

172. Search engines have the ability to reproduce anonymous statements, out of the original online context, and in an ordered list. In most cases, a high position on popular search engines, like Google, adds legitimacy and reliability to a statement or source. A statement which, in its original context, would not be relied upon as fact may be relied upon as fact if reproduced and displayed prominently in a particular search query.

173. This is the case unless someone creates an individual webpage registering a domain name. In such cases, the web programmer has full control over the template and code governing speech in that particular space.

174. *See Doe v. Cahill*, 884 A.2d 451 (Del. 2005).

175. *See id.* at 465 (“[B]logs and chat rooms tend to be vehicles for the expression of opinions; by their very nature, they are not a source of facts or data upon which a reasonable person would rely.”).

other sources (verified or not) with varying amounts and kinds of commentary. Other blogs serve as a free-of-charge publishing platform for highly respected academics, journalists, and other researchers. Whether these blogs are anonymous may depend on professionals wanting to keep a separate, but still factually accurate, platform for non-professional speech. Regardless, on all blogs, the individual blogger (or the parent company for which the blog is written) controls the quantity, quality, and kind of information posted to the public. This information could be factually accurate, unverified opinion, or merely aggregate other people's speech. Norms governing online spaces change quickly; as such, in assessing nature, meaning, and harmfulness of this online speech, courts would thereby need to assess the particular blog's function and how particular reasonable readers, within the current online landscape and accepted norms of behavior, would understand the speech uttered in that particular online space.

1. *Special Interest Blogs*

Another misconception surrounding blogs, especially blogs as the prototypical example of low-cost online speech that allows previously unheard voices to have a platform, is that speech on these individual platforms are disseminated widely to others.¹⁷⁶ However, many blogs are not read more widely than by a circle of close friends or family. In other cases, the subject matter of the blog will attract a small group of followers with similar interests; with the geographic diffusion of online users, these interests may draw readers to special-interest blogs authored by people physically located far away. Whether the blogs are anonymous rarely matters (the "real" name of a person 3,000 miles away is about as informative as a pseudonym).¹⁷⁷ In both instances, readers with similar interests will evaluate the accuracy of the bloggers speech based on their own expertise in the area.

Often, the appeal of a blog is its service as a noninvasive space where an individual can post thoughts, updates, reflections, etc. and where those whom the individual has identified as being interested in such content are able to access the information on their own time and without an invasion of posts sent to personal email. In such circumstances, the fear of speech on "the Internet" as somehow widely and quickly disseminating to so many people such that the speech poses a greater threat than speech that could be widely and quickly repeated through a phone call seems unlikely. Surely, there

176. See SUNSTEIN, *supra* note 42.

177. There may be instances where a pseudonym instills more trust in the blogger than anonymity.

is little built-in mechanism for accountability (save the group of followers leaving comments correcting posts, or adding more information), but there is as much accountability as there would be in a repeated conversation among different groups or friends, colleagues, and family. In other words, the fear of unbridled lies seems no more justified in these situations merely because the content is posted in an online space rather than published in an email newsletter or communicated in a face-to-face gathering.

2. *Blogs with Wider Reach*

However, though courts are correct that blogs are not limited to individuals with a small group of followers and some blogs have large groups of followers, thereby widely and quickly sharing information, these wider-reach blogs normally have sophisticated verification mechanisms and are often not anonymous. For example, blog platforms often serve as low-cost and easy forum for groups and organizations to provide topical information, advertise events, or rally support for a cause, and can sometimes have a substantial following. In these cases, the worry about the speed and ease of dissemination is somewhat more substantial only insofar as there are more people following the blog. However, in terms of actively disseminating the address to the blog (i.e. access to the blog), the means for such dissemination are no more sophisticated than large-scale listserv emails or traditional advertising avenues. Similarly, accountability in these situations could be more sophisticated than non-online speech given the ability for comments, documented corrections, and ability to update already published material. Furthermore, given the increased viewership of the content, there could be a wider range of knowledge and ability to correct.¹⁷⁸

Finally, in contrast to blogs in their earliest forms, which were almost exclusively independent, discrete, unaffiliated platforms for individual expression, currently established institutions (that either started online and exist entirely online, e.g. HuffingtonPost,¹⁷⁹ or that started in analog and exist both online and off, e.g. The N.Y. Times¹⁸⁰) have blogs embedded within their larger online platform. In such cases, these bloggers are often understood in an online only op-ed capacity: they are selected, vetted, edited, and retained by the companies running the larger entity and as such the bloggers answer to the companies that consist of these larger online service

178. See generally SUROWIECKI, *supra* note 148; SHIRKY, *supra* note 148.

179. See THE HUFFINGTON POST, <http://www.huffingtonpost.com> (last visited April 17, 2011).

180. See *Blogs*, N.Y. TIMES, <http://www.nytimes.com/interactive/blogs/directory.html> (last visited Feb. 21, 2011).

platforms. These blogs are far from the independent publishing platforms in which anyone with a computer and Internet access could have a voice that would be disseminated, with no identification, no gatekeepers, and no barriers.

By contrast, such embedded blogs represent an interesting reality in the online world, one unanticipated by early Internet-utopia narratives. Instead of online platforms serving as a low-cost soapbox where every hitherto unheard voice could be heard far and wide across the land, with embedded blogs, just as in real-world spaces, the voice most heard and most frequently accessed is the voice speaking from within an already-established institutional voice replete with gatekeepers and editors. In these situations, the speech is heard and read by as many people as voluntarily access the blog through the many services' webpage. Furthermore, the speech is highly verified, edited before going "live" online and then further edited as more information comes out or new stories develop,¹⁸¹ and often open for reader comments and corrections.

3. *Micro-Blogs and the Innovation*

Twitter¹⁸² is an example of a hybrid online service that shares common characteristics with other online platforms and is constantly innovating and developing. Though billed more as a social networking service than a blog because it includes a social component (for example, users can respond to other Twitter users, individuals sign up to follow particular Twitter feeds), it shares some characteristics with email newsletters, short-form blogs, and social networking platforms. As such, understanding the nature of the speech at issue, the meaning of the speech (almost learning how to "read" Twitter feeds), and the potential scope of harm from these "tweets"—or 140 character messages sent via Twitter's online service—is a complex endeavor and must take into account many particular characteristics of speech uttered via tweets and read by followers on an individual's feed.

Perhaps more than any other current online platform, speech via Twitter's online service is readily identified as a tweet even if not read on Twitter because of the 140 character limit as well as certain conventions common to most tweets (including addressing other Twitter users). In this case, the context of the speech and the content of the speech are inextricably

181. See, e.g., BOINGBOING, www.boingboing.com (last visited April 17, 2011); TECHDIRT, www.techdirt.com (last visited April 17, 2011); ENGADGET, www.engadget.com (last visited April 17, 2011).

182. TWITTER, <http://www.twitter.com> (last visited April 17, 2011).

linked which, consequently, adds a layer of accountability especially helpful if tweets are taken out of context. If, for example, a comment seems oddly spelled, incomplete, or inaccurate, but it also contains characteristic elements of a tweet (not longer than 140 characters, directed at another Twitter user, including a hyperlink), it could become apparent to those reading the speech that it was originally part of a short-form update service. As such, the speech may be understood or reasonably expected to be understood as shorthand, not complete or authoritative on the subject, or expressed by an individual with no requisite expertise on the particular subject at hand.

Furthermore, Twitter's service exemplifies some of misconceptions regarding the fast and furious spread of speech uttered online and the lack of accountability attached to anonymous online speech. Typically, courts have discussed these two characteristics of online speech as a sort of package deal: if online speech, then broader and faster reach *and* increased opportunities for anonymity and therefore for unaccountable speech.¹⁸³ However, this presumption is misguided. As Kevin Rose, founder of Digg (discussed below) and investor in Twitter, described: if you want to increase your Twitter followers (that is, if you want to increase the scope of influence of your speech and the speed with which it will be accessed), “[f]ill out your bio.”¹⁸⁴ In other words, do not remain anonymous. Online services such as Twitter complicate courts' presumption that the increased speed and reach of online speech are always accompanied by anonymity and a lack of accountability.

As reflected in the blog example, online speech is actually *not* universally wide, far, or fast reaching; most speech online is read by few and when it is widely disseminated is usually disseminated through platforms that have built-in mechanisms for verifying or holding the speech accountable. And there are often tradeoffs made between speed and reach of speech and pure anonymity. Even posting partially-identifying information, such as occupation or location, without disclosing one's name can increase accountability and increase the reach of this anonymous speech.

183. *See* Quixtar Inc. v. Signature Mgmt. Team, LLC, 566 F. Supp. 2d 1205, 1213 (D. Nev. 2008); *Krinsky v. Doe* 6, 72 Cal. Rptr. 3d 231, 238 (Cal. Ct. App. 2008).

184. Kevin Rose, *10 Ways to Increase Your Twitter Followers*, TECHCRUNCH (Jan. 25, 2009), <http://techcrunch.com/2009/01/25/kevin-rose-10-ways-to-increase-your-twitter-followers/>.

C. SOCIAL NETWORKING PLATFORMS

Social networking platforms are another kind of online space in which individuals can publish personal thoughts, expressions, and creative content. Unlike blogs, where the platform is relatively neutral, social networking platforms have more complex interfaces and incorporate a sharing and interactive component into both the use of and access to the information contained on these sites. Common to all social networking services is that in order for others to access posted information, they must be registered users of the service (and therefore bound by terms of service agreements). They also must access the information within the password-protected and regulated-via-company policy space of the social networking platform. Not only is the reach of individual speech uttered within a social networking platform thereby limited to users who will see their posts and information, users who do see this information can respond through integrated voting components such as “like” buttons or post responsive comments. In this way, individual speech can be verified, corrected, or flagged to other readers as potentially offensive or inaccurate.

However, though social networking sites are de facto (at least for users adhering to terms of service) not anonymous online platforms, information from these sites can be replicated outside of the social networking platform and posted or distributed anonymously. For example, information from a social networking site could be copied and disseminated via email, posted on blog platforms or repeated in message boards. When this happens, quotes from friends can be taken out of the context of a conversation post made in relation to a friend’s published link. A comment could seem particularly malicious even though it was original uttered as an inside joke between friends. Or it could lose some extra-accountability mechanisms—for example, a “like” button added to the comment could be deleted, thereby removing the fact that others verified the comment. In such situations, the originally uttered, but now decontextualized speech could be widely disseminated, causing harm that would not have been caused had the speech remained contextualized. This is one good example of the nuanced analysis courts would have to take in determining whether to unmask the anonymous speaker, and, if so, who to unmask—the original speaker who uttered the speech within a closed, non-anonymous but password-protected online platform, or the anonymous disseminator of that speech. Nonetheless, information posted through these social networking sites are most often either accessed within the original context of its posting or retain characteristics that identify it as uttered within a social networking space.

D. COMMUNITY SITES, MESSAGE BOARDS, AND CHAT ROOMS

Community sites, message boards, and chat rooms are specific online sites organized around a specific interest or subject. The subject of the particular community site, message board, or chat room is determined by the administrator or creator of the message board or chat room. For example, Yahoo! maintains message boards devoted to financial information of companies¹⁸⁵ and AOL maintains chat rooms for users of various interests.¹⁸⁶ Similarly, community organizations or local newspapers often maintain sites for community members to post opinions, events, and other community-related speech.¹⁸⁷

More than blogs (where bloggers choose if and how much anonymity they want) and social networking sites (where most sites' terms of service agreements require accurate identifying information in order to use the service), community sites, message boards, and chat rooms generally allow pseudonymous or anonymous users. These anonymous users can start conversation threads and post responses to others' posts (message boards), have real-time conversations with a number of other users (chat rooms), post opinions regarding community issues (political, commercial, educational, or social fora), share links to other sources, or provide factual information regarding community events (community sites).

These kinds of free-for-all posting sites have resulted in a number of situations involving harmful speech.¹⁸⁸ Though later users generally have an opportunity to correct or mitigate harmful or hateful remarks, there is no guarantee that these later users will be successful. For example, if there is a presumption that the users are connected online by interests but are otherwise geographically dispersed, there may be no incentive to heed corrections to harmful speech. By contrast, participants of community sites in which most users are expected to share a geographic area may be more

185. See *Finance Message Boards*, YAHOO!, http://messages.yahoo.com/yahoo/Business_Finance/ (last visited Feb. 21, 2011).

186. See *AOL Help Desk*, AOL, <http://help.aol.com/help/microsites/microsite.do?cmd+displayKCPopup&docType=kc&externalId=223492> (last visited Mar. 7, 2011) (creating your own AOL chat room).

187. See, e.g., MY COMMUNITY NOW, <http://www.mycommunitynow.com/> (last visited April 17, 2011); COMMUNITY NEWSPAPERS, <http://www.communitynewspapers.com/> (last visited April 17, 2011); MERCURY NEWS, <http://www.mercurynews.com/my-town> (last visited April 17, 2011); PORTLAND TRIBUNE, <http://www.portlandtribune.com/news/index.php> (last visited April 17, 2011).

188. Zhou, *supra* note 43 (citing examples regarding anonymous comments posting hateful comments on the online tribute page of a 17-year-old suicide victim).

sensitive to corrections from users who are connected to the anonymous poster by both interest and geographic location.

Even if “corrective” posts by other users are successful, the “feeling” of the particular message board takes on a particular tone that may discourage continued correction of the harmful or hateful postings.¹⁸⁹ In some cases, this has led administrators or the sites’ hosts to explicitly intervene when an anonymous user interferes with the norm of civility or cooperation the administrator and the users desire in that online space.¹⁹⁰ In others, proprietors of certain companies or services badmouthed in online forums have responded to concerns and criticisms with helpful, more accurate information.¹⁹¹ In many cases, hosts of certain online services make clear, in their terms of service, that a particular level of discourse is expected within the community space online.¹⁹² If users fail to comply with these standards and codes of conduct, the host reserves the right to censor the anonymous speaker’s comments, independent of any legal action.¹⁹³

189. LESSIG, *supra* note 7, at 104–06 (describing a scenario where an anonymous user posted “vicious” attacks on a student, the victim responded, but then, when the anonymous poster continued, the harmful speech changed the feeling of the online conversation).

190. *See, e.g.*, Ellyn Angelotti, *Feedback Overload: Handling User Comments on the Shootings*, POYNTER (Apr. 17, 2007, 6:22 PM, updated Mar. 3, 2011, 5:16 PM), <http://www.poynter.org/latest-news/top-stories/81834/feedback-overload-handling-user-comments-on-the-shootings/> (describing *The Roanoke Times*’ efforts to monitor comments on a message board dedicated to the Virginia Tech shootings); Lizzie Davis, *Moderated by the Guardian*, MANAGING ONLINE COMMUNITIES (Feb. 28, 2011, 9:36 AM), <http://managingcommunities.wordpress.com/2011/02/28/online-community-guardian-moderation/> (describing author’s own experience of having a message board comment moderated); *see also infra* Part III.F.

191. *See* David H. Freedman, *Responding to Reader Comments*, N.Y. TIMES (Oct. 15, 2010, 12:22 AM), <http://boss.blogs.nytimes.com/2010/10/15/tech-talk-responding-to-reader-comments/>.

192. *See* LESSIG, *supra* note 7, at 91–92 (“AOL explains in its Community Guidelines that . . . AOL enjoys the unfettered discretion to censor constitutionally-protected speech in its discussion forums and other online spaces”) (internal citations omitted); *see also* Richard Perez-Pena, *News Sites Rethink Anonymous Online Comments*, N.Y. TIMES, April 12, 2010 at B1, *available at* <http://www.nytimes.com/2010/04/12/technology/12comments.html>.

193. *See* Marci Alboher, *Some Comments About Reader Comments*, N.Y. TIMES, Aug. 14, 2009, 7:35 PM, <http://shiftingcareers.blogs.nytimes.com/2008/08/14/some-comments-about-reader-comments/>; *see also* LESSIG, *supra* note 7, at 91–92. Nonetheless, this is not to say that host of online chat rooms are enemies of free speech; in fact, AOL defended its users right to anonymous speech in an early free speech case. *See In re Subpoena Duces Tecum to AOL, Inc.*, No. 40570, 2000 WL 1210372, at *5 (Va. Cir. Ct. Jan. 31, 2000) (reasoning that because if the OSP “did not uphold the confidentiality of its subscribers, as it has contracted to do, absent extraordinary circumstances, one could reasonably predict that subscribers would look to AOL’s competitors for anonymity”).

Unfortunately, though anonymity on these message boards and chat rooms may lead to harmful or hateful speech (perhaps because they can offer a volatile mix of lack of accountability and ability to start any thread topics or conversations), most courts have found comments on such sites to be mere opinion and rarely actionable.¹⁹⁴ Though revised legal standards may be one remedy for victims of harmful online speech currently lacking means for redress, addressing comments on these sites within the online context may allow courts to more accurately assess the kind of speech uttered and find actionable speech in warranted situations. For example, perhaps some message boards are actually sites for underground information posted by anonymous industry leaders. Or perhaps, if some kind of speech that would look like opinion had it been uttered in a more institutionalized print source (for example, a post replete with misspellings, swearing, name-calling) was *relied on* by readers of a chat room as fact—not opinion—and if the poster reasonably knew this would be the case, then this speech should actually be assessed as an actionable assertion of fact. It might also be the case that a particular pseudonymous user or anonymous user with distinctive posts or grammar has established expertise in a certain area that regular users of that message board appreciate, but that no reasonable person outside of the particular message board community would think of as factual because of the informality of the speech.¹⁹⁵

Furthermore, depending on the subject at issue, some topics may encourage more fact-based comments (say, a chat room for mothers with children having particular diseases) while others may necessarily invite mere opinion (say, celebrity gossip sites). As such, determining the nature, meaning, and potential harmfulness of the speech depends on a nuanced and extremely pointed assessment of the particular online context as well as the content of the speech itself and the understanding of speech in that space by the reasonable online user (who may be different than a reasonable offline person reading this speech out of the online context). It is necessary, though

194. *See* Doe v. Cahill, 884 A.2d 451 (Del. 2005); Krinsky v. Doe 6, 72 Cal. Rptr. 3d 231 (Cal. Ct. App. 2008); Dendrite Int'l, Inc. v. Doe, No. 3, 775 A.2d 756 (N.J. Super. Ct. App. Div. 2001).

195. *But see* Lidsky, *supra* note 6, *cited with approval in In re Anonymous Online Speakers*, No. 09-71205, 2011 WL 61635, at *6 (9th Cir. Jan. 7, 2011). It is as inaccurate to characterize online speech as inherently more informal as it is to characterize online speech as inherently faster and further spread than real-world speech. Some online spaces allow for certain informalities (some email, some chat rooms); however, others develop their own kind of formality that *looks* different from real-world formality but services similar purposes (i.e., signifying expertise, authoritativeness, etc.).

insufficient, to assess the anonymous speech as uttered within a community site, message board, or chat room. Beyond this, courts must look to the norms and expectations of the speech uttered in these spaces as created and understood by the users themselves, the terms of service agreements, other means of correction by the host of the sites, and self-help opportunities for harmed plaintiffs to respond to false information.

E. RATINGS SITES AND OTHER AGGREGATING INFORMATION SITES

Ratings sites and tools for ranking various companies, services, and businesses present complications for anonymous online speech similar to the complications for community sites, message boards, and chat rooms described above. On ratings sites, such as Yelp,¹⁹⁶ users post reviews of businesses using objective measures (assigning one to five stars) as well as subjective measures (comments describing the experience, service, or product). Ratings tools like Digg,¹⁹⁷ by contrast, provide primarily an objective measure, although sometimes accompanied by users' subjective assessments. If an anonymous user "diggs" an article, a business, or a site, then that, when combined with other users' "diggings," propels that article, business, or site to the top of the relevant section on the Digg website. Unlike the online spaces described above, the accurateness of ratings sites is more dependent upon the aggregate evaluation (by anonymous, pseudonymous, and non-anonymous users) of the company or service at issue, and less on individual posts.¹⁹⁸ Other aggregated information sites, such as Wikipedia or other wiki pages, are created and corrected by anonymous contributors, unidentifiable to the readers of the wiki site.¹⁹⁹ And though there are live editors who assess posts, as well as tools enabling users to "flag" certain posts, most Yelp users (and this would likely extend to the reasonable online user) would first look to the average objective rating (inherently anonymous because it is an aggregation of individual anonymous users). Next, the Yelp user would look to individual postings, objective

196. YELP, <http://www.yelp.com> (last visited April 17, 2011).

197. DIGG, <http://www.digg.com> (last visited April 17, 2011).

198. Ratings tools pose an interesting problem in assessing potentially harmful online speech. It is unclear whether the act of "digging" would count as speech (independent from any accompanying speech).

199. Though anonymous, there is not a free-for-all character to Wikipedia. Similar to norms governing certain message boards, *see supra* note 190, Wikipedia's "contributing to Wikipedia" guide suggests helpful ways in which anonymous contributors can provide helpful information and contributions. *See Contributing to Wikipedia*, WIKIPEDIA, http://en.wikipedia.org/wiki/Wikipedia:About#Contributing_to_Wikipedia (last visited Feb. 21, 2011).

ratings, and comments. Often the Yelp user can distinguish between helpful and unhelpful posts, either because the posts focus on an aspect of the business that is not important to him or her, or because the content of the post seems more like airing a grudge than a measured review.

However, comments on ratings sites are not uniformly opinion, nor uniformly unreliable. Certain individual posts may be rejected by the Yelp user as unreliable while others may persuade the Yelp user whether to try the product or service being reviewed. As such, the meaning or effect of an individual post within an aggregated ratings site, though perhaps word-for-word identical to a posting on a message board discussing the same company, may be different. A particularly vicious post on a message board can, with some work on the part of the user, be identified as an outlier in the overall conversation of the message board. However, comparing the aggregated objective rating of the company or service with drastically opposite ratings may be discredited, in practice, from assessments of the reliability of the overall rating. For example, overly enthusiastic ratings with little factual information may be identified as posted by company representatives themselves; similarly, overly invective ratings may be identified as mere anomalies in service or reactions from an overly sensitive patron.

Ratings sites and aggregated information sites also pose a challenge to underlying presumptions of speech on the Internet as spreading fast and far. Reviews are contained within the particular site, and even within the particular page of the company or service being reviewed. In recent years, collective efforts (often of anonymous contributors and posters, for example Wikipedia) have proved to be as accurate if not more accurate in a variety of situations.²⁰⁰ As such, it is often not difficult for the truth to catch up to the lie; in fact, the point of these contained aggregation sites is to *encourage* verification, correction, and legitimacy of anonymously-contributed information. Furthermore, in such instances, what may have begun as an individual user's opinion may, through repeated verification by fellow users, be relied upon as fact. Finally, collective action may depend on the option of anonymity—the publicly-valuable speech recognized by the Court may be chilled if individuals were required to be identifiable for their contributions to aggregation sites. And also, corrective posts or responses to previous-posted material may be preempted if the critics were forced to be identifiable. For

200. *See generally* SUROWIECKI, *supra* note 148; SHIRKY, *supra* note 148.

example, this may especially be true on particularly volatile political wiki pages or even on honest reviews of commercial companies or services.

Online spaces enable large aggregates of users to contribute their speech to a particular whole. In the offline world, the ability for large-scale aggregation is limited because of geography, operation and monitoring costs, and organizational hurdles. Online aggregated information sites were originally described as doomed; it was impossible, so it was thought, for a world of anonymous speakers to collaborate in a civil and collaborative way to produce accurate information.²⁰¹ These early naysayers of the plausibility of wiki-type speech and resulting accurately created information seemed to embrace the presumption that anonymous speech is unaccountable speech; a free-for-all forum for online speech would only encourage the worst in persons. However, Wikipedia's and other wiki-type sites' successes reveals that anonymous speech in particular online spaces can actually be more productive of truth and accurate information than speech attributable to a source (albeit with a Terms of Service-type agreement similar to the AOL service agreement described above).

F. COMMENTS

Most blogs, news sites, and social networking sites have the option for online readers to post comments. Though often similar in content and form as posts on community sites, message boards, chat rooms, and ratings sites, comments in response to already-published speech is itself speech that can have harmful effects. Derogatory or unfounded anonymous comments, or "trolling,"²⁰² have been criticized for being particularly harmful and uncivil. Similar to presumptions of online speech being inherently unaccountable, some commentators charge online anonymity as "increas[ing] unethical behavior" resulting in a sort of "online disinhibition effect."²⁰³

However, not all anonymous comments are derogatory; additionally, more so than many critics of online speech seem to recognize, online sites

201. See Charles Cazabon, *Why Wikipedia Can't Work*, PYROPUS TECHNOLOGY, <http://pyropus.ca/personal/writings/wikipedia.html>.

202. See Zhou, *supra* note 43. There is a history of the use of the word "trolling" in patents, referring to persons who challenge, without foundation, lawful patent holders in order to force a settlement (which is less costly than legal fees). This misuse of patents, similar to the "misuse" of anonymous commenting online, is also facing reform. See generally Robert Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1584 (2009).

203. See Zhou, *supra* note 43.

are already developing technological solutions to trolling.²⁰⁴ For example, many online spaces have extensive and developed technological mechanisms to protect against and correct trolling comments.²⁰⁵ In some cases, the comment period is opened only for a limited time. In others, readers are encouraged to “flag” inappropriate posts. Similarly, some sites have readers rating the comments to push the most helpful (according to the other readers of the site) comments to the top of the site, and the least helpful toward the bottom.²⁰⁶

Furthermore, the online contexts within which these anonymous comments are posted already govern the nature, meaning, and effect of these comments. For example, comments on a news story, if completely irrelevant, are often rejected by fellow readers as unfounded; by contrast, invective though relevant remarks could result in harmful effects by connecting the trolling comments to a subject of interest for the readers. Also, comments accompanying already-published speech are secondary to the original posting; as such, the authoritative voice is already established prior to any trolling comments. Different than vitriolic comments on message boards and chat rooms (in which all comments exist on an equal plane), comments to already-published stories are less authoritative than the original posting (often because the original posting is name- or otherwise reputation-identified).

G. FUTURE IMPLICATIONS

What does understanding the differences between these online spaces mean for courts? How should courts use this information? The online spaces mentioned above are by no means exhaustive of the kinds of online experiences available to Internet users. Online innovation is characteristic of the growth in popularity and use of the Internet; undoubtedly, new platforms and services will develop that will provide the opportunity for anonymous

204. See e.g., Jason Kincaid, *Facebook Rolls Out Overhauled Comments System (Try Them on TechCrunch)*, TECHCRUNCH.COM (Mar. 1, 2011), <http://techcrunch.com/2011/03/01/facebook-rolls-out-overhauled-comments-system-try-them-now-on-techcrunch/> (discussing Facebook’s comment monitoring system); Kaushik, *Use Shutup.css to remove comments from websites*, INSTANTFUNDAS.COM (Feb. 4, 2011), <http://www.instantfundas.com/2010/02/use-shutupcss-to-remove-comments-from.html>. See also DISQUS, <http://www.disqus.com> (last visited April 17, 2011) (“Discus is a comments platform that helps you build an active community from your website’s audience.”); ECHO, <http://www.aboutecho.com> (last visited April 17, 2011) (providing “real-time commenting” service, including “[s]pam and bad word filtering, advanced monitoring[,] and more”).

205. See Alboher *supra* note 193; Freedman, *supra* note 191.

206. See Perez-Pena, *supra* note 192 (outlining examples of a number of news sites revising their comments policy).

online speech and will require courts to assess the characteristics of that anonymous speech within these new contexts.

This Note urges courts to examine the publication forum, embedded context, and governing norms of the online speech, and not merely the fact that the speech occurred online, in order to correctly and accurately assess the rights of the anonymous speakers balanced against the rights of the harmed parties to seek redress. Without such acknowledgment, the mistaken apprehension of anonymous speech on the Internet being spread so quickly that the truth cannot catch up to the lie will prejudice the application of standards against defendants. In commercial cases, this could grossly favor the commercial interests of plaintiffs (large companies) over critical, en masse consumer speech. And in the political speech context, this could weigh in favor of political insiders and effectively silence oppositional online speech. In both situations, this could chill publicly-valuable, critical speech that could improve consumer products and hold political actors accountable. Similarly, examining the online context of the speech could determine the meaning or nature of the speech as fact, rather than opinion, thereby granting otherwise barred plaintiffs' access to redress.

As such, in the marketplace of ideas, the more and more varied opinions of many users will vet false ideas and reveal the truth.²⁰⁷ The integrity of such a marketplace depends on anonymous speakers—we want varied speech in such contexts so that the false statements can be vetted by true statements and public debate. Therefore, the balancing test in anonymous online speech cases is between the benefit of the marketplace (which depends on anonymous speakers) and the supposed harm resulting from the anonymous commercial speech. If the Ninth Circuit had examined the context of the online speech in *Anonymous Online Speakers*, and distinguished between Internet infrastructure and online spaces, services, applications, and platforms, it could have more accurately assessed the harmfulness of the questionable speech. Adopting such an approach, the court likely would have remanded the motions for more fact-finding; there is no indication in either the district court or Ninth Circuit opinions of the particular content of the speech, of the context of the speech within each blog, or of the larger context of the blog postings (as the courts examined in *McIntyre* and *Cahill*).²⁰⁸ Furthermore, it is likely the Ninth Circuit would have incorporated the fact that the speech occurred online into whatever standard or inquiry it

207. See *Abrams v. United States*, 250 U.S. 616, 630–31 (1919) (Holmes, J., dissenting).

208. See *McIntyre v. Ohio Election Comm'n*, 514 U.S. 334 (1995); *Doe v. Cahill*, 884 A.2d 451 (Del. 2005).

undertook as opposed to assessing it as a separate factor to balance along with the right to anonymity and the right to redress. Instead of attributing certain standards to different kinds of speech (political versus commercial), the Ninth Circuit could have incorporated both the limited protections of commercial speech and the sometimes heightened potential for harm of online speech in creating online contexts and circumstances into its standard or balancing test. However, without the actual content of the allegedly defamatory blog postings, and without any knowledge of the characteristics of the particular blogs, it is nearly impossible to assess the accuracy of the Ninth Circuit's holding.

IV. CONCLUSION

Courts' worries surrounding anonymity seem to be motivated by a mistaken presumption: that identifying information is the *only* source of accountability for harmful online speech. This constructs a false choice between anonymity and civility. Either online speech is accurate (or at least good-faith opinion), civil, and publicly valuable *or* it is vitriolic, unfounded, and full of lies. The argument is that the supposedly inherent underlying characteristics of the Internet—its capacity for quick and wide-reaching dissemination of information—only make the benefits of anonymous speech more beneficial (i.e. a larger, free-of-charge, completely open platform for publicly valuable, otherwise unpopular or minority speech) and the harmful speech more harmful (i.e. a larger, free-of-charge, completely open platform for derisive and derogatory speech). However, as shown above, this narrative is inaccurate for two main reasons: (1) speech occurs, not on “the Internet,” but rather in a variety of online spaces with differing characteristics (some of which encourage fast and wide-reaching dissemination of content; others encouraging highly regulated speech contained within a particular platform or application); and (2) just as the supposedly inherent characteristics of the Internet are a product of engineering choices, the characteristics governing speech in online spaces are the result of choices by space designers and of norms developed within the particular online space by the users themselves. As online speech becomes a more integral part of the social, political, commercial, educational, and artistic landscape, it is essential that courts correctly understand the characteristics governing online speech and user experiences in these spaces.

Although the Supreme Court has yet to address the issue of anonymous online speech, its anonymous speech jurisprudence has long recognized the importance of context in weighing the competing interests of speakers and audience. In *Meyer*, *McIntyre*, and *Buckley*, the Court highlighted the context of

anonymous speech in determining its level of First Amendment protection.²⁰⁹ The Court continued to recognize the importance of context when it addressed online speech in *Reno*.²¹⁰ It concluded that online speech deserves the same level of protection as real world speech. The *Reno* opinion applauded the equality of online speech with real world speech by listing a variety of real world platforms for speech alongside similarly varied online counterparts.²¹¹ The Court did not describe online speech as an undifferentiated, virtual expanse where previously silent individuals have a free space where their voices can be heard, nor did the Court describe it as a dangerous, monolithic desert where no checks or balances restrain even the most malicious of speech. Instead, the Court, even in its first case recognizing the equal protection afforded to online speech, described a variety of online spaces, one where anyone could become a pamphleteer or public orator.²¹² Nevertheless, identifying *Reno* as an understanding of online speech occurring not on “the Internet” but rather on a variety of online platforms, services, and communities lays the groundwork for other courts to follow and actively engage in understanding online speech as occurring in specific and varied contexts.

Courts’ appreciation of the varied context of online spaces is essential, not only to accurately apply discovery standards in civil cases involving the unmasking of anonymous speakers, but also to soundly adjudicate future cases involving online behavior. The reasonable person may soon become the reasonable online user. And though no reasonable online user would likely rely on anonymous message board posts on a gripe site containing misspellings and juvenile name-calling, a reasonable online user may rely on well-reasoned, persuasive anonymous reviews of a repeat-poster on a commercial site. Courts cannot, in other words, use the kind of online space as a proxy for the kind of speech uttered in the space. Instead, courts must look at the online context within which the speech was uttered and the technological and user norms governing the particular online space. Online, anyone can be a town crier. But, like the real world, some town criers expose publicly valuable information. Others merely utter their own opinions. As in the real world, the context and content of the speech in online spaces, and

209. See *McIntyre*, 514 U.S. 334, 347; *Meyer v. Grant*, 486 U.S. 414, 423 (1988); *Buckley v. Valeo*, 424 U.S. 1, 16-17 (1976).

210. See *Reno v. ACLU*, 521 U.S. 844, 851 (1997).

211. See *id.*

212. See *id.*

not the mere fact that the speaker is a town crier, determine whether the reasonable person will listen.

LOCATING LOCATION PRIVACY

David H. Goetz[†]

The Fourth Amendment protects citizens of the United States from unreasonable search or seizure.¹ The framers of the Constitution enacted the Fourth Amendment to curb the government's power to interfere with a citizen's right to keep his private life hidden from government view.² Specifically, the framers did not trust that a government unchecked in its ability to peer into its citizens' private lives would wield that power judiciously.³ At the same time, the government must also balance this privacy interest against the public's interest in peace and security, which may be served through the gathering of evidence and enforcement of law.⁴

Today, this balancing between privacy protection and law enforcement must also consider the growing ability of the government to use technology to peer into the private lives of individuals. Consider the cellular telephone and the global positioning system (GPS) device. The government at both the local and national level is increasingly seeking routine access to location information derived from cell phone and GPS devices.⁵ In the case of cell phones, the government can request both real time and historical information related to a cell phone's location from a service provider without

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1. U.S. CONST. amend. IV ("The 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 warrants shall issue, but upon probable cause, supported by oath or affirmation and particularly describing the place to be searched, and the persons or things to be seized.").

2. THOMAS N. MCINNIS, *THE EVOLUTION OF THE FOURTH AMENDMENT* 4 (2009) ("To help ensure that there will be limits on the power of the American government to arbitrarily interfere in the lives of its citizens the first Congress proposed and in 1791 the states ratified the Fourth Amendment to the Constitution.").

3. *Boyd v. United States*, 116 U.S. 616, 641 (1886) ("[T]he framers of the Constitution had their attention drawn, no doubt, to the abuses of this power of searching private houses and seizing private papers . . .").

4. *See, e.g., United States v. Place*, 462 U.S. 696, 703 (1983) ("We must balance the nature and quality of the intrusion on the individual's Fourth Amendment interests against the importance of the governmental interests alleged to justify the intrusion.").

5. Michael Isikoff, *The Snitch in Your Pocket Law Enforcement Is Tracking Americans' Cell Phones in Real Time—Without the Benefit of a Warrant*, NEWSWEEK, Mar. 1, 2010, at 40 ("[C]ompanies are now getting 'thousands of these requests per month,' and the amount has grown 'exponentially' over the past few years.").

a warrant.⁶ In the case of GPS devices, law enforcement agencies in many jurisdictions may attach them to a private citizen's vehicle without a warrant and track the movements of that vehicle continuously and for months at a time.⁷ As the state becomes increasingly able to gather and use information on its citizens, some argue that there is a risk that the government will be able to monitor and control vast areas of private life.⁸ Others argue, however, that because modern crimes have become increasingly complex, there is a greater need for the government to access personal information in the pursuit of its peace-keeping and law enforcement duties.⁹

This Note addresses the imbalance between the public's interest in privacy protection and law enforcement's interest in evidence gathering activities resulting from the rise of facile electronic communication and surveillance technologies, specifically GPS tracking.¹⁰ It argues that warrantless and continuous tracking by law enforcement is an encroachment on basic Fourth Amendment rights due to the intrusive and private nature of the information thus obtained, information that could never be obtained by more traditional methods.¹¹ This Note distinguishes government surveillance

6. *In re* United States for Order for Disclosure of Telecomm. Records, 405 F. Supp. 2d 435, 449 (S.D.N.Y. 2005) (holding that warrantless access to cell site location information by the government is not a violation of the Fourth Amendment). *But see In re* United States *ex rel.* Historical Cell Site Data, No. H-10-998M, 2010 WL 4286365, at *14 (S.D. Tex. Oct. 29, 2010) (holding that warrantless access by the government to cell site location information is a violation of the Fourth Amendment).

7. *United States v. Maynard*, 615 F.3d 544, 549 (D.C. Cir. 2010); *United States v. Pineda-Moreno*, 591 F.3d 1212, 1213 (9th Cir. 2010); *United States v. Marquez*, 605 F.3d 604, 607 (8th Cir. 2010); *United States v. Garcia*, 474 F.3d 994, 995 (7th Cir. 2007); Mina Kim, *FBI's GPS Tracking Raises Privacy Concerns*, NPR (Oct. 27, 2010), <http://www.npr.org/templates/story/story.php?storyId=130833487>.

8. Katherine Strandburg, *Freedom of Association in a Networked World: First Amendment Regulation of Relational Surveillance*, 49 B.C. L. REV. 741, 747 (2008) ("The potential chilling effect [of government] surveillance poses serious risks . . . to individual privacy").

9. *See, e.g.*, Christopher Nolin, *Telecommunications as a Weapon in the War of Modern Organized Crime*, 15 COMM.LAW CONSPECTUS 231, 242-45 (2007) (describing the necessary use of technological means by law enforcement to intercept communications to combat the increasingly complex criminal schemes perpetrated by organized crime).

10. To be sure, such balancing between regulating the government's use of intrusive surveillance technologies and protecting its citizens is not limited to the use of GPS tracking devices. Consider, for example, the privacy issues at stake during routine airport screening in the age of backscatter X-ray and mm wave radar scanners capable of seeing through a person's clothes.

11. For example, it is commonly assumed that GPS and cell phone tracking merely make it easier for the government to follow or track a person around during his public travel. However, as this Note will make clear, no law enforcement agency in the United States has the ability to follow even a single individual day and night for months on end

using a GPS tracking device that is limited in duration and scope from the continuous drag-net type surveillance that represents an abuse of governmental power.

Part I provides a brief historical overview of information privacy law relating to the use of surveillance technology, with an emphasis on how the courts have addressed the ability of advancing technology to peer into the private lives of citizens. Part II provides a brief overview of cell phone and GPS technologies. This Part examines how these technologies differ from each other and how these differences affect the government's access to the location information they produce. Part III contrasts three cases in which the courts find that warrantless GPS tracking is not a Fourth Amendment violation with the recent District of Columbia Circuit opinion that places important limits on the ability of the government to engage in unlimited warrantless GPS tracking. Part IV then proposes application of the D.C. Circuit's totality of the information (TOI) theory to warrantless GPS tracking by law enforcement agencies and shows how this legal theory is consistent with historical Fourth Amendment jurisprudence.

I. PRIVACY LAW AND SURVEILLANCE TECHNOLOGY

The Fourth Amendment is the foundation that protects citizens' privacy interests from government intrusion. Accordingly, this Part reviews important milestones in Fourth Amendment jurisprudence with emphasis on how the courts have dealt with the emergence of new surveillance technologies.

The Fourth Amendment provides that “[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 Warrants shall issue, but upon probable cause, supported by Oath or affirmation and particularly describing the place to be searched, and the persons or things to be seized.”¹² In the context of the Fourth Amendment, a search is the act of looking for a person or gathering evidence of a crime by a law enforcement officer in a place where a citizen has a reasonable expectation of privacy.¹³ In contrast, a seizure is the act of taking possession of a person or object by an officer.¹⁴

without ever losing contact. Therefore, these technologies do provide information that could never be obtained by traditional police surveillance methods.

12. U.S. CONST. amend. IV.

13. *See* *Hale v. Henkel*, 201 U.S. 43, 80 (1906) (“[A] search implies a quest by an officer of the law; a seizure contemplates a forcible dispossession of the owner.”).

14. *See id.*

But in practice, many Fourth Amendment cases fail to distinguish between searches and seizures.¹⁵

Although the Fourth Amendment does not explicitly require a warrant for the government to search a citizen's persons or effects, courts have interpreted the Fourth Amendment as providing a default warrant requirement.¹⁶ Searches and seizures performed by law enforcement without a warrant are presumptively unreasonable, and, absent consent or exigent circumstances, are thus unconstitutional.¹⁷ The remedy for evidence held to have been obtained by an illegal search or seizure is to exclude that evidence from use at trial.¹⁸

The courts, however, have not laid out any specific test for identifying whether exigent circumstances exist.¹⁹ Traditionally, courts have recognized a

15. *See, e.g., Ex parte Jackson*, 96 U.S. 727, 733 (1878) (holding that the sealed contents of postal mail may not be searched or seized); *But see United States v. Garcia*, 474 F.3d 994, 996–97 (7th Cir. 2007) (separately holding that tracking a suspect's vehicle with an electronic device was not a search, and that attaching said tracking device to the vehicle was not a seizure).

16. *See, e.g., Mincey v. Arizona*, 437 U.S. 385, 390 (1978) (holding that a search conducted without a warrant is per se unreasonable under the Fourth Amendment).

17. *Johnson v. United States*, 333 U.S. 10, 14–15 (1948) (“There are exceptional circumstances in which, on balancing the need for effective law enforcement against the right of privacy, it may be contended that a magistrate's warrant for search may be dispensed with.”); *see, e.g., Schneekloth v. Bustamonte*, 412 U.S. 218 (1973) (consent); *Warden v. Hayden*, 387 U.S. 294, 298 (1967) (exigent circumstances).

18. *Weeks v. United States*, 232 U.S. 383, 398 (1914) (holding that the use of evidence obtained in violation of the Fourth Amendment at trial is prejudicial error). The underlying rationale for this exclusion doctrine is to deter law enforcement from violating the Fourth Amendment in the future, rather than to remedy the past violation, thus exclusion is not provided in all circumstances in which a violation has been found. Tony D. Tague, *Good Faith and the Exclusionary Rule: Demise of the Exclusion Illusion*, 30 AM. U. L. REV. 863, 871 (1980) (“Although the Court did not explicitly mention the deterrent rationale in the early stages of the exclusionary rule's development, the more recent cases establish the deterrence theory as the prominent justification for inclusion of the exclusionary rule in modern criminal procedure.”).

19. *See generally Chimel v. California*, 395 U.S. 752, 755–60 (1969) (reviewing precedent for the exceptional circumstances doctrine); *Warden v. Hayden*, 387 U.S. 294, 298–300 (1967) (holding that a search of a home into which a suspected armed felon has just entered is reasonable under the circumstances); *Cooper v. California*, 386 U.S. 58, 61–62 (1967) (holding that police may search an impounded automobile without a warrant if the search is closely related to the reason the automobile was impounded); *Brinegar v. United States*, 338 U.S. 160, 174–77 (1949) (holding that evidence may be considered at a probable cause hearing that should be excluded at trial); *McDonald v. United States*, 335 U.S. 451, 454–56 (1948) (holding that in the absence of an emergency or other compelling reason, a warrant is required to search a home); *Carroll v. United States*, 267 U.S. 132, 153, 156 (1925) (establishing automobile exception).

narrowly limited number of exigent circumstances that allow warrantless searches. For example, automobiles, because of their inherent mobility, are subject to warrantless searches.²⁰ Therefore, officers need not obtain a warrant to perform a search of an automobile incident to a lawful arrest in the dual interests of safety and preservation of evidence.²¹

The Supreme Court has also held that a warrant must be based on probable cause determined by a neutral magistrate.²² The requirement for a neutral magistrate interposes a disinterested party trained in the meaning of probable cause and exigency between the government's desire to gather evidence and a citizen's right to privacy. It is important to note that the cases discussed below involve the Court's determination whether the police's *warrantless* surveillance of individuals using technology violated the Fourth Amendment. This Note does not consider the government's use of technology to surveil individuals when they have a warrant, as these activities are considered per se reasonable absent some evidence that the warrant was not issued by a neutral magistrate²³ or was otherwise invalid.²⁴

The threshold question for whether the Fourth Amendment applies is whether there was an actual search or seizure by the government (e.g., law enforcement).²⁵ Although a plain meaning analysis of the Amendment itself might suggest that all information gathering activities by the government are subject to Fourth Amendment protection, case law holds that the use of technology by law enforcement to observe illicit activity or gather evidence may not constitute a search cognizable under the Constitution if such information was not held away from the public view.²⁶

20. *Carroll*, 267 U.S. at 156 (although probable cause is still necessary to support a search under the Fourth Amendment).

21. *Chimel*, 395 U.S. 752.

22. *United States v. Jeffers*, 342 U.S. 48, 52 (1951); *United States v. Lefkowitz*, 285 U.S. 452, 464 (1932).

23. *Coolidge v. New Hampshire*, 403 U.S. 443, 449–51 (1971) (invalidating warrant issued by state attorney general leading investigation).

24. *Aguilar v. Texas*, 378 U.S. 108, 113 (1964) (holding that officer's warrant issued by the magistrate judge was invalid because the "mere conclusion" that the suspect possessed narcotics presented in the officer's affidavit was not enough to support a finding of probable cause sufficient to support a valid warrant).

25. *See, e.g., United States v. Kyllo*, 533 U.S. 27, 31 (2001) (characterizing the question of whether a search cognizable under the Fourth Amendment has occurred as an "antecedent question."); *Dow Chem. Co. v. United States*, 476 U.S. 227, 239 (1986) ("The taking of aerial photographs . . . is not a search prohibited by the Fourth Amendment.").

26. *See California v. Ciraolo*, 476 U.S. 207 (1986) (analyzing law enforcement's aerial observation under Fourth Amendment plain view doctrine and finding that observation of items in plain view is not a search subject to Fourth Amendment protections).

Early decisions regarding the use of technology and Fourth Amendment considerations focused on whether there had been a physical intrusion into a person's personal effects or their home.²⁷ In *Olmstead v. United States*, for example, the Court focused on the fact that officers did not penetrate defendant's house when using wire tapping equipment without a warrant to intercept phone calls and found that a violation of the Fourth Amendment had therefore not occurred because there was no search.²⁸ The Court's interpretation in *Olmstead* of the Fourth Amendment implications of wire tapping remained the law of the land for thirty-nine years.

However, in *Katz v. United States*, the Court overturned this approach.²⁹ Justice Stewart, writing for the majority, held that the Fourth Amendment "protects people, not places."³⁰ The Court extended Fourth Amendment protection against warrantless electronic eavesdropping on conversations held in a phone booth.³¹ In doing so, the majority in *Katz* paid deference to the role of advancing technology in society and how our expectations of privacy may shift in response, finding that to hold that the Constitution was not meant to protect telephone conversations "is to ignore the vital role that the public telephone has come to play in private communication."³²

In response to *Katz*, the courts have adopted the two-prong rule articulated in Justice Harlan's concurrence to determine whether or not a search subject to Fourth Amendment protection has occurred.³³ The first prong, whether the person exhibits a subjective expectation of privacy, is subject to a fact-based inquiry into the mind of the person searched.³⁴ The

27. *Olmstead v. United States*, 277 U.S. 438, 466 (1928) (holding that wiretapping of defendant's phone conversations from outside the home does not constitute a search as there has been no physical intrusion onto the defendant's person or property). *But see* *Silverman v. United States*, 365 U.S. 505, 510–12 (1961) (finding that officers' use of a "spike mike" to penetrate the home and listen to conversations therein constituted a violation of the Fourth Amendment although the intrusion was minor).

28. 277 U.S. at 464.

29. 389 U.S. 347, 353 (1967)

30. *Id.* at 351.

31. *Id.* at 351–53 (concluding that the holding in *Olmstead* was "so eroded by our subsequent decisions that the 'trespass' doctrine there enunciated can no longer be regarded as controlling"); *see also* *Berger v. New York*, 388 U.S. 41, 44 (1967) (striking down New York's eavesdropping laws authorizing warrantless electronic surveillance).

32. *Katz*, 389 U.S. at 351–53.

33. *Id.* at 361 (Harlan, J., concurring) (reasoning that Fourth Amendment protection rests on whether "first . . . a person ha[s] exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'").

34. *Id.*

second prong is an objective test that asks whether that expectation is one that society is prepared to accept as reasonable.³⁵ This second prong is subject to a greater degree of fact-based inquiry because it considers not only whether society is prepared to accept the nature of the evidence gathering activity as reasonable, but also whether it is prepared to accept the nature of the obtained information as reasonable.³⁶ Combined, the two-prong test asks whether the information obtained is information that, except for the unreasonably intrusive activity by the government, would be private information. This two-pronged approach has led to an unpredictable set of doctrines regarding how to treat information obtained using emerging surveillance technologies because the test relies on the Court's shifting expectations regarding exactly what activities and information society reasonably expects to be secure from government intrusion.³⁷

One such doctrine is the third-party doctrine, which provides that any information willingly handed over to a third party is considered not subject to a reasonable expectation of privacy.³⁸ This doctrine stems from the Court's decision in *Smith v. Maryland*, which held that the warrantless use of a so-called pen register device installed at the telephone switching station, for recording the phone numbers dialed by an individual, did not violate the Fourth Amendment because the information was willingly conveyed to a third party—in this case, the phone company.³⁹

Smith reveals the Court's concern with distinguishing between “content” and “address” or “envelope” information. In the much earlier case of *Ex parte Jackson*, the Court held that the contents of first class mail were entitled to Fourth Amendment protection, whereas the information written on the outside of the envelope or on a postcard had been willingly conveyed to the public and was not subject to such protection.⁴⁰ In the context of pen register

35. *Id.*

36. *Smith v. Maryland*, 442 U.S. 735, 741 (1979) (“In applying the Katz analysis . . . it is important to begin by specifying precisely the nature of the state activity that is challenged.”).

37. See Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 826–27 (2004) (“Indeed, scholars consistently denounce the Court’s opinions interpreting Katz as ‘dead wrong,’ ‘off the mark,’ ‘misguided,’ and ‘inconsistent with the spirit of the fourth amendment.’”).

38. *United States v. Miller*, 425 U.S. 435, 443 (1976) (holding that defendant had no legitimate expectation of privacy in his bank records because the bank was a third party to which he voluntarily handed his information).

39. 442 U.S. at 741.

40. 96 U.S. 727, 733 (1878) (“[E]xcept as to their outward form and weight . . . [w]hilst in the mail, [letters and sealed packages] can only be . . . examined under like warrant, issued

surveillance in *Smith*, the Court emphasized that unlike the recording device in *Katz*, which recorded actual phone conversations, the pen register in *Smith* only recorded phone numbers which the Court considered distinguishable from content.⁴¹ However, the reasoning in *Smith* is not entirely consistent with the Court's holding in *Katz*. For example, unlike the envelope information in *Jackson*, the phone numbers dialed by *Smith* were not conveyed to any member of the public who wished to view the outside of the envelope; rather, the numbers were conveyed to the telephone company, and telephone companies do not provide information about the numbers a person has dialed to the public at large.

Another unpredictable doctrine is the Court's differentiation between surveillance technology used to track a person's activities in public versus a person's activities within his home. In *United States v. Knotts*, for example, the Court considered the warrantless use of a "beeper"⁴² by law enforcement officers to track the movement of contraband.⁴³ The police placed the beeper inside a container of chloroform and tracked the chloroform from the place of purchase to the defendant's remote cabin.⁴⁴ The Court held that this type of tracking was not a search, in part, because the officers did not use the beeper to determine any information about the inside of the suspect's home.⁴⁵ The Court emphasized that a person's movements on a public thoroughfare are not subject to a reasonable expectation of privacy;⁴⁶ since the beeper merely enhances an officer's pre-existing ability to visually track such public movements,⁴⁷ it is not a search and thus not subject to Fourth Amendment protection.⁴⁸

upon similar oath or affirmation, particularly describing the thing to be seized, as is required when papers are subjected to search in one's own household.").

41. *Smith*, 442 U.S. at 743 ("Although petitioner's conduct may have been calculated to keep the contents of his conversation private, his conduct was not and could not have been calculated to preserve the privacy of the number he dialed.").

42. A beeper is a device that emits a periodic electromagnetic signal that can be tracked by officers in proximity using a radio receiver. *United States v. Knotts*, 460 U.S. 276, 277 (1983).

43. *Id.*

44. *Id.*

45. *Id.* at 285 ("[T]here is no indication that the beeper was used in any way to reveal information as to the movement of the drum within the cabin, or in any way that would not have been visible to the naked eye from outside the cabin.").

46. *Id.* at 281.

47. *Id.* at 284 ("[B]eepers are merely a more effective means of observing what is already public.").

48. *Id.*

Importantly, the Court explicitly left open the question of whether “dragnet-type law enforcement activities,” such as “twenty-four hour surveillance of any citizen of this country without judicial . . . supervision,” might violate the Fourth Amendment.⁴⁹ The defendants argued that allowing warrantless use of a beeper device might allow continuous surveillance of a suspect without judicial supervision.⁵⁰ But the Court responded that such “dragnet-type” surveillance was not at issue in the case at hand, and therefore the Court need not address it.⁵¹ Unfortunately, as explained, *infra* Part III, it is precisely this type of warrantless, twenty-four-hour extended surveillance that many courts now hold is acceptable under *Knotts* because these courts have erroneously equated the “dragnet-type” language in *Knotts* with wholesale surveillance, rather than the continuous twenty-four hour surveillance that the Court actually discussed.⁵² Had the Court been addressing twenty-four-hour surveillance of every citizen, or a large number of citizens, or indiscriminate surveillance, or wholesale surveillance, then perhaps the subsequent interpretation of the Seventh, Eighth, and Ninth Circuit courts in applying *Knotts* to GPS tracking would be warranted. However, the text indicates that in reserving the question of “dragnet-type” surveillance, the Court was not reserving the question of wholesale warrantless surveillance of a large proportion of the citizenry; rather, it was reserving the question of whether prolonged and uninterrupted warrantless surveillance of *any* citizen implicates the Fourth Amendment.

In a later case, the Supreme Court put some limits on the warrantless use of electronic tracking devices. In *United States v. Karo*, law enforcement officers used a beeper without a warrant to determine the presence of contraband inside the private home of the suspect.⁵³ The Court held that the warrantless use of a tracking beeper to determine the presence or absence of an item in the home constituted a search and violated the Fourth Amendment.⁵⁴ The Court was not persuaded by the government’s argument that the information provided by the beeper about the suspect’s home was

49. *Id.* at 283.

50. *Id.*

51. *Id.* at 283–84.

52. *See, e.g.*, *United States v. Pineda-Moreno*, 591 F.3d 1212, n. 2 (9th Cir. 2010) (holding that under *Knotts*, prolonged and continuous surveillance without a warrant is not a Fourth Amendment violation).

53. 468 U.S. 705, 708 (1984).

54. *Id.* at 718; *cf. Knotts*, 460 U.S. 276, 285 (holding that when officers ceased tracking the electronic beeper device before it entered the suspect’s home, the Fourth Amendment was not violated).

very limited, reasoning that nevertheless, the information provided by the beeper could not otherwise have been obtained without a lawful search pursuant to a warrant supported by probable cause.⁵⁵ Although the beeper in *Karo* was tracked for approximately five months, the Court declined to find that this type of prolonged warrantless surveillance was itself a Fourth Amendment violation, although the Court did note that the beeper was not tracked *continuously* during the five-month period.⁵⁶

Taken together, *Knotts* and *Karo* are generally understood to mean that the government is free to place a tracking device on a suspect's car without a warrant and track the suspect's movements on public roads, but cannot obtain information about a suspect's home from such a device without a warrant.⁵⁷ This is illogical because suspects who store their vehicles in an attached garage are therefore safe from tracking devices since law enforcement officers fear that obtaining illegal information about the home will taint any legal information obtained, whereas suspects who park their vehicles on the street may be subject to warrantless tracking without limit.⁵⁸ Such reasoning has even been extended by some law enforcement agencies to the use of GPS tracking devices, even though they generally cannot operate indoors.⁵⁹

The Court has also distinguished between technology that is publicly available and technology that is accessible only to law enforcement.⁶⁰ In *Kyllo v. United States*, the Court examined the warrantless use of an infrared thermal imaging device by law enforcement officers to gather sufficient evidence to support a warrant to search the defendant's home.⁶¹ The government argued

55. *Karo*, 460 U.S. at 714–15 (“[P]rivate residences are places in which the individual normally expects privacy free of governmental intrusion not authorized by a warrant, and that expectation is plainly one that society is prepared to recognize as justifiable. . . . [T]he monitoring indicated that the beeper was inside the house, a fact that could not have been visually verified.”).

56. *Id.* at 708–10 (noting two instances in which the location of the beeper was lost by law enforcement after undetected movement from one location to another along public roads).

57. *See* *United States v. Garcia*, 474 F.3d 994, 996–97 (7th Cir. 2007) (finding that in light of *Knotts*, tracking a suspect's vehicle with an electronic tracking device as it moves on public roads is not a violation of the Fourth Amendment).

58. *See* *United States v. Pineda-Moreno*, 617 F.3d 1120, 1123 (9th Cir. 2010) (Kozinski, J., dissenting) (noting that those who store their vehicle in a garage are protected by a warrant requirement, while those who do not are subject to warrantless attachment of a tracking device to their vehicle).

59. *See infra* note 90 and accompanying text.

60. *Kyllo v. United States*, 533 U.S. 27 (2001).

61. *Id.*

that the device merely told the police the temperature of the outside of the house (i.e. “off-the-wall” information) and did not provide “through-the-wall” information about the intimate details of the interior of the home,⁶² and thus use of the imager did not constitute a search subject to the Fourth Amendment.⁶³ However, Justice Scalia wrote for the majority that since the imager was “a device that is not in general public use” that revealed information regarding the interior of the home that “would have been previously unknowable without physical intrusion,” its use did constitute a search subject to the Fourth Amendment.⁶⁴ Scalia emphasized that it was important to craft a rule that did not leave the citizens of the United States “at the mercy of advancing technology . . . that could discern all human activity”⁶⁵

This doctrine is unpredictable in that the rule articulated by the majority in *Kyllo* fails to achieve its essential purpose. Rather than providing a stable platform from which to view advancing surveillance technology, the rule actually leads to ever-increasing use of intrusive surveillance technology by the government as the technology enters mainstream use. For example, today warrantless use of cell phone and GPS tracking technology by law enforcement would not be considered a search under *Kyllo* because cell phones and GPS devices are widely available to the public. Therefore, *Kyllo* professes to protect the public from advancing technology but has the opposite effect. Any new technology that has been sufficiently taken up by the public becomes fair game for government surveillance.

Lastly, the Court has distinguished between surveillance technology that merely enhances a police officer’s existing senses and technologies that provide information that would otherwise not be legally obtainable. In *Knotts*, for example, the Court held that the warrantless use of a tracking beeper on the defendant’s car did not violate the Fourth Amendment because it merely augmented the officers’ senses by making visual surveillance and tracking easier.⁶⁶ In *Kyllo*, on the other hand, the Court held

62. *Id.* at 35.

63. *Id.*

64. *Id.* at 40.

65. *Id.* at 35–36.

66. *United States v. Knotts*, 460 U.S. 276, 282 (1983). The Court stated: The fact that the officers in this case relied not only on visual surveillance, but also on the use of the beeper to signal the presence of [the] automobile to the police receiver, does not alter the situation. Nothing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case.

that technology that revealed the heat information regarding the interior of the home was information that “would previously have been unknowable without physical intrusion.”⁶⁷ Thus, the police’s use of the thermal imaging device did constitute a search subject to the Fourth Amendment.⁶⁸ This doctrine is unpredictable because the courts have had a difficult time distinguishing between technology that merely enhances an officer’s existing senses and technology that provides otherwise unobtainable information. For example, in *Dow Chemical Co. v. United States*, the Court held that the use of high magnification precision aerial mapping photography without a warrant to determine Dow’s power plant emissions did not violate the Fourth Amendment because it merely enhanced an officer’s ability to see.⁶⁹ However, it is difficult to imagine how the information sought could have ever been otherwise legally obtained.

The unpredictability of Fourth Amendment case law results from the Court’s struggle to respond to ever-changing interests in public safety and citizen privacy in the context of increasingly powerful technological means to obtain previously unobtainable information. Although some commentators have argued that the judicial branch is ill-suited to adjust to changing societal norms and advancing technology in a timely manner,⁷⁰ it is because of the Court’s own rules in *Katz* and *Kyllo* that they must continue to weigh society’s expectations of reasonableness against legitimate government interests in surveillance.

In addition to the Fourth Amendment, a system of laws enacted by Congress govern privacy in the United States. The principal statute in this area is the Electronic Communications Privacy Act (ECPA), enacted by Congress in 1986.⁷¹ ECPA extended earlier statutory protections for electronic communications enacted under Title III of the Omnibus Crime Control and Safe Streets Act⁷² and included two additional parts, the Stored Communications Act (SCA)⁷³ and the Pen Register Act,⁷⁴ to cover new

Id.

67. *Kyllo*, 533 U.S. at 40.

68. *Id.*

69. 476 U.S. 227, 235–36 (1986).

70. Kerr, *supra* note 37, at 807–08 (“Legislatures do not offer a panacea, but they do offer significant institutional advantages over courts.”).

71. Electronic Communications Privacy Act of 1986, Pub. L. No. 99-508, 100 Stat. 1848.

72. Pub. L. No. 90-351, codified at 18 U.S.C. §§ 2510–2520 [hereinafter Title III].

73. 18 U.S.C. §§ 2701–2712 (2006).

74. 18 U.S.C. §§ 3121–3127 (2006).

advances in computers and communication.⁷⁵ However, ECPA specifically exempts data from tracking devices from the statutory protections provided under the Act in favor of the limited protections afforded under *Knotts* and *Karo* for information obtained from such devices because the data do not constitute an electronic communication.⁷⁶ The ECPA, and the SCA in particular, has been criticized by fourth amendment scholars as contrary to constitutional principles.⁷⁷ The ECPA intersects with the Fourth Amendment in complex ways because, regardless of the technologies at issue, all government searches must comply with the fundamental principles of the Fourth Amendment.⁷⁸ However, a full discussion of the ECPA is beyond the scope of this Note.

75. ECPA is organized into three parts: (a) an updated Title III known as the Wiretap Act (WTA), providing strong protection for real time wire, oral, and electronic communications; (2) the Stored Communications Act (SCA), which provides weaker protection against government access to communications stored by a third party, and essentially codifies the Court's third party doctrine; and (3) the Pen Register Act, protecting pen register, envelope, and other non-content information voluntarily conveyed to third parties.

76. 18 U.S.C. § 2510(12)(C) (“[E]lectronic communication’ . . . does not include . . . any communication from a tracking device”). Further, the protections under the SCA do not apply to GPS tracking cases because the information obtained about the first party (i.e. the suspect) is not willingly handed over to a third party.

77. For example, Daniel Solove has argued that provisions of United States Patriot Act that extend the ECPA and enable the government to access personal data without a warrant implicate First Amendment concerns due to the chilling effect this information gathering activity has on an individual's freedom of speech and association. Daniel Solove, *The First Amendment as Criminal Procedure*, 82 N.Y.U. L. REV. 112, 170 (2007). Other scholars have argued that the SCA is unconstitutional, as applied, because it affords government access to communications that society reasonably expects are private. See, e.g., Orin Kerr, *Applying the Fourth Amendment to the Internet: A General Approach*, 62 STAN. L. REV. 1005, 1037–38 (2010); Alexander Scolnik, *Protections for Electronic Communications: The Stored Communications Act and The Fourth Amendment*, 78 FORDHAM L. REV. 349, 393 (2009).

78. See, e.g., *In re United States for an Order Directing Provider of Elec. Commun. Serv. to Disclose Records to the Gov't*, 620 F.3d 304, 313 (3d Cir. 2010) (holding that, notwithstanding provisions of the SCA providing for a court order compelling a cellular service provider to hand over cellular site location information without a warrant, a magistrate judge may require a showing of probable cause sufficient to support a warrant if the Fourth Amendment is implicated).

II. THE Pervasiveness of Cell Phone and GPS Technologies Affects the Balance Between Privacy Protection and Law Enforcement Surveillance

From the above review of technology surveillance law, one can see both the Supreme Court and the legislature's attempts to balance the privacy interests of individuals with the government's interest in legitimate law enforcement activity. With the development of new technologies such as cell phones and GPS that can also be used by law enforcement for surveillance purposes, it is important to reconsider whether the balance struck in existing law is still relevant. This Part examines the potential for cell phone and GPS technology to erode Fourth Amendment and statutory protection from warrantless surveillance. It reviews both technologies in the context of location surveillance and identifies ways in which the existing legal framework does not adequately address the potential for intrusive government activity. In so doing, this Part also provides background for understanding why the District of Columbia Circuit's decision in *United States v. Maynard* reflects an important step in re-striking the appropriate balance between the government's need to gather evidence of crimes and the public's interest in individual privacy.

A. CELL PHONES AS UBIQUITOUS TRACKING DEVICES

There are over 292 million cell phone subscribers in the United States.⁷⁹ Indeed, many households use cell phones exclusively rather than the traditional landline.⁸⁰ As long as a cell phone is turned on, it will attempt to communicate with any nearby cell service provider sites⁸¹ approximately eight

79. CTIA—THE WIRELESS ASS'N, *CTIA's Semi-Annual Wireless Industry Survey*, 5 (2010), http://files.ctia.org/pdf/CTIA_Survey_Midyear_2010_Graphics.pdf.

80. CTR. FOR DISEASE CONTROL, *Wireless Substitution: Early Release of Estimates From the Nat'l Health Interview Survey, July–Dec. 2009*, 1 (2010), <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201005.pdf> (finding that 24.55 percent of households use a cell phone and do not have a landline, and an additional 14.9 percent of households had a landline but used a cell phone for nearly all their calls); Ryan Randazzo, *Qwest Seeks Exemption on Rates*, ARIZ. CENTRAL, 1 (July 11, 2008), <http://www.azcentral.com/business/articles/2008/07/10/20080710biz-qwest0711-ON.html> (“[N]early 16% of people no longer use landline phone service and instead solely rely on cellphones.”).

81. Traditionally, such sites are referred to as cellular “towers.” However, with the increasing use of devices such as micro, pico, and femto cells, which are not necessarily deployed as towers, the term “towers” has become too narrow.

times every minute in a process known as registration,⁸² or more colloquially, “handshaking.”⁸³ This electronic communication between the one or more nearby sites and the cell phone allows a cell phone service provider (CSP) or law enforcement agent to determine the approximate location of the cell phone and thus, the likely location of the person who currently possesses the device.⁸⁴ When a cell phone handshakes with a nearby site, or when a user places or receives a call, or sends or receives data such as a text message, a voice mail, or a webpage, a CSP may obtain the phone’s location information from the strength of the signal to one or more provider sites, the time difference of arrival of the signal between two or more sites, or the angle at which the signal arrives at one or more sites.⁸⁵ This location information derived from communication between the cell sites and the cell phone is known as cell site location information (CSLI or CSI).⁸⁶

82. See Kevin McLaughlin, Note, *The Fourth Amendment and Cell Phone Location Tracking: Where Are We?*, 29 HASTINGS COMM. & ENT. L.J. 421, 426 (2007). McLaughlin states:

This process, called ‘registration,’ occurs roughly every seven seconds when the cell phone is turned on; the user of the phone does not need to take any action, and is probably unaware that the phone is sending these signals. The only way to stop these signals is to turn the phone off. These location signals are sent on one band—the other two frequency bands that the phone uses are for sending and receiving voice and data.

Id.

83. See, e.g., Michael Isikoff, *The Snitch in Your Pocket Law*, NEWSWEEK, Mar. 1, 2010, at 40, available at <http://www.newsweek.com/2010/02/18/the-snitch-in-your-pocket.html> (recounting an anecdote where law enforcement “agents were able to follow a Mexican drug-cartel truck carrying 2,200 kilograms of cocaine by watching in real time as the driver’s cell phone ‘shook hands’ with each cell-phone tower it passed on the highway”).

84. *Id.* It is unclear whether the information provided by the registration process is stored, or is only available in real-time, and different providers may treat this information differently. Traditionally both the legislature and the courts have distinguished between stored or historical information and real-time information, considering the public to have a heightened expectation of privacy in the latter.

85. See *In re United States for Order for Disclosure of Telecomm. Records*, 405 F. Supp. 2d 435, 437 (S.D.N.Y. 2005). The court stated:

Under prior orders issued in this District, the Government has been able to obtain a list of each call made by the subject cell phone, along with a date, start time and end time. With respect to the beginning or end of the call (and possibly sometimes in between), there is a listing of a three-digit number assigned to a cellphone tower or base station. At least one cellular provider will give, in addition to the number of the tower, a digit (‘1,’ ‘2’ or ‘3’) indicating a 120 degree ‘face’ of the tower towards which the cell phone is signaling.

Id.

86. See, e.g., *In re United States for an Order Directing Provider of Elec. Commun. Serv. to Disclose Records to the Gov’t (In re United States)*, 620 F.3d 304 (3d Cir. 2010) (using term

Some cell phones also have GPS devices already installed.⁸⁷ GPS devices obtain location data by measuring the distance from the unit to a set of dedicated GPS satellites.⁸⁸ GPS devices require reception of a satellite signal to operate; and unlike a cell phone, they only work when the devices have a line of sight to the sky.⁸⁹ Thus, they do not work indoors.⁹⁰ Although GPS devices themselves, in general, do not transmit their location to any third party, such as a CSP, many cell phones are equipped to, and do, transmit data from the GPS device present in the phone to the CSP, unless the feature is specifically disabled by the user.⁹¹

B. GPS BASED TRACKING DEVICES ARE NOT AN UPDATED VERSION OF THE BEEPER IN *KNOTT'S*

Warrantless GPS tracking of objects other than cell phones presents a different situation than cell phone tracking. Tracking via CSLI and cell phone GPS, as explained *supra* Section II.A, involves converting the widely used cell phone into a location-identification device by accessing non-public information held by third-party CSPs. GPS tracking, on the other hand, involves the use of a specialized vehicle-tracking devices generally only

CSLI); *In re* Application of U.S. for an Order Authorizing the Release of Historical Cell-Site Info., 736 F. Supp. 2d 578 (E.D.N.Y. 2010) (using term CSI). CSLI may be categorized as either historical, in that it exists as a stored communication and is subject to the SCA, or real-time, in that the information is currently in transmission and subject to the stronger protections of the WTA.

87. Popular cell phones containing GPS devices include, for example, versions 2, 3, and 4 of the iPhone®, and all current Palm®, and Blackberry phones®.

88. Richard B. Langley, *In Simple Terms, How Does GPS Work?*, UNB: DEP'T OF GEODESY & GEOMATICS ENGINEERING (Feb. 16, 2008), <http://gge.unb.ca/Resources/HowDoesGPSWork.html>.

89. GARMIN LTD., <http://www8.garmin.com/aboutGPS/> (“[GPS] signals travel by line of sight, meaning they will pass through clouds, glass and plastic but will not go through most solid objects.”) (last visited Apr. 3, 2011).

90. SCI. AM., <http://www.scientificamerican.com/article.cfm?id=indoor-positioning-system> (“But [GPS] has its limits—most notably, roofs, walls and floors that shield satellite signals and keep them from locating GPS receivers indoors.”) (last visited Apr. 3, 2011).

91. Andrew Brandt, *Soon, Your Cell Phone May Be Tracking You*, PC WORLD (Feb. 25, 2004, 1:00 AM), http://www.pcworld.com/article/114721/privacy_watch_soon_your_cell_phone_may_be_tracking_you.html (“[P]roviders . . . [insist] that any phone with a GPS chip in it lets you disable the tracking features (though the option is usually buried in the phone's settings menu) . . . [b]ut if you don't, your phone may reveal much more about you.”). Additionally, many GPS-equipped cell phones provide access to mapping or direction-finding services such as Google Maps. In order for the mapping and direction-finding services to work, the phone's location must be identified by GPS and transmitted to the service provider; the resulting information is then used to determine the optimal route or determine which sections of map to transmit back for display to the user.

available to law enforcement. Typically, warrantless GPS tracking involves the attachment of such a device to a suspect's car or other belongings.⁹² This requirement presents practical difficulties not present with cell phone tracking because it requires physical access to the item to be tracked and some maintenance, such as the replacement of batteries. Such tracking also presents the risk that the device might be inadvertently discovered by the suspect.⁹³ GPS tracking devices used by law enforcement agents vary in their technological sophistication. Newer devices are capable of transmitting the data gathered to a receiver or CSP so that once installed, the data can be obtained without physical access to the item being tracked.⁹⁴

Although it might at first seem that this GPS information transmitted to a CSP involves the third-party doctrine and is no different from the GPS or CSLI data obtained from a suspect's cell phone, it is important to note that the data in this case is not being voluntarily handed over to the CSP by the suspect. In fact, the suspect has no access to or possessory interest in the data because the information is not transmitted from the suspect's device to the suspect's CSP; rather, it is transferred from the law enforcement agent's device to the law enforcement agent's CSP.

Similarly, the GPS devices currently used by law enforcement also differ markedly from the beeper devices⁹⁵ they are often compared to by the courts⁹⁶ because of the information they provide. Broadly speaking, it is true that both a beeper and a GPS device provide location information. However, the beepers used in *Knotts* and *Karo* were simple radio transmitters of limited

92. *United States v. Maynard*, 615 F.3d 544, 555 (D.C. Cir. 2010); *State v. Jackson*, 76 P.3d 217, 256 (Wash. 2003); *cf. United States v. Pineda-Moreno*, 591 F.3d 1212, 1213 (9th Cir. 2010).

93. Mina Kim, *FBI's GPS Tracking Raises Privacy Concerns*, NPR (Oct. 27, 2010), <http://www.npr.org/templates/story/story.php?storyId=130833487> (detailing the story of United States citizen Yasir Afifi, whose mechanic discovered a GPS tracking device owned by the FBI during a routine oil change).

94. The GPS-205 from CES Wireless, for example, can be attached the underside of a vehicle by law enforcement agents wherein it will transmit its location every three seconds over a cellular phone network. *See* CES WIRELESS <http://www.ceswireless.com/> (last visited Mar. 9, 2011).

95. *See United States v. Karo*, 468 U.S. 705, 718 (1984) (holding that a warrant is required to obtain information from a beeper device in a suspect's home); *United States v. Knotts*, 460 U.S. 276, 285 (1983) (holding that a warrant is not required to track a suspect traveling on a public road with a beeper device).

96. *Pineda-Moreno*, 591 F.3d at 1216 (holding that the ruling in *Knotts* regarding the warrantless use of beeper devices governed the warrantless use of GPS devices).

range⁹⁷ that forced the agents tracking the device to stay in close physical proximity to the device.⁹⁸ In contrast, the functionality of a GPS device is essentially unlimited by any distance between device and agent. Further, the beeper device only provides low-resolution directional information, including the approximate angle between the receiver and the beeper and the approximate distance as judged by signal strength.⁹⁹ Precise location information is simply unavailable from such a beeper device.¹⁰⁰ These limitations severely restrict the functionality of a beeper device. For example, the court in *Karo* noted several instances in which the installed GPS device was moved in a manner undetected by the agents tracking the device.¹⁰¹ In contrast, a GPS tracking device may record and transmit its location with sub-meter accuracy and will never be out of range.

III. MANY COURTS HAVE BEEN UNABLE OR UNWILLING TO APPLY STRONG FOURTH AMENDMENT PROTECTION FROM CELL PHONE AND GPS TRACKING

A. *UNITED STATES V. GARCIA*

In *United States v. Garcia*, law enforcement agents, acting on an informant's tip, attached a GPS tracking unit to defendant Garcia's car while it was parked in a public area.¹⁰² The police learned from the GPS tracking unit that the defendant was visiting a large tract of land, and a subsequent search of this land revealed evidence of the suspected drug manufacturing.¹⁰³

97. See Clifford S. Fishman, *Electronic Tracking Devices and the Fourth Amendment*: Knotts, Karo and the Questions Still Unanswered, 34 CATH. U. L. REV. 277, 282 n.7 (1985) ("In congested urban areas, interference with the reception of the beeper's signals may reduce its effective range to about two blocks.").

98. *Knotts*, 460 U.S. at 278 (1983) (describing how officers lost their beeper signal shortly after the suspect began taking evasive maneuvers); *United States v. McIver*, 186 F.3d 1119, 1123 (9th Cir. 1999) (describing the use of "an electronic transmitter that sends a weak signal or a 'beep' to an audio unit ('monitor') installed in the officer's vehicle. When the monitoring vehicle gets close to the transmitter, the signal received in the audio unit becomes stronger. The monitor also contains a 180 degree dial with a needle that points in the direction of the transmitter.").

99. *McIver*, 186 F.3d at 1123.

100. Tarik Jallad, *Old Answers to New Questions: GPS Surveillance and the Unwarranted Need For Warrants*, 11 N.C. J.L. & TECH. 351, 355 (2010) ("Accuracy and reliability, however, [are] not the beeper's forte.").

101. *Karo*, 468 U.S. at 708–09 (detailing undetected movement of the device from one suspect's house to another, and then from the second suspect's house to a storage locker).

102. 474 F.3d 994, 995 (7th Cir. 2007).

103. *Id.*

At trial, Magistrate Judge Crocker held that the police had a reasonable suspicion sufficient to support the lawful attachment of the GPS device.¹⁰⁴ The district court also held that even under the probable cause standard, police had sufficient basis to support the search without obtaining a warrant.¹⁰⁵

On appeal to the Seventh Circuit, the defendant argued that because the police did not obtain a warrant supported by probable cause authorizing the installation of the GPS tracking device, the GPS evidence should have been suppressed at trial¹⁰⁶ because the attachment of the device to the undercarriage of the defendant's car was a seizure within the meaning of the Fourth Amendment.¹⁰⁷ The court found this reasoning "untenable," noting that the device in no way impeded any use or value of the vehicle.¹⁰⁸ The court also analyzed whether a search had been performed within the meaning of the Fourth Amendment and concluded that it had not.¹⁰⁹ The court held that the GPS tracking, unlike the use of a thermal imaging device in *Kyllo*, is merely a substitute for a type of activity which is clearly not a search under the Fourth Amendment—namely, visually tracking a moving vehicle.¹¹⁰

The court concluded that while "wholesale" surveillance of "thousands of cars at random" using GPS tracking technology may present compelling Fourth and Fifth Amendment issues, the type of tracking employed in this case was not a Fourth Amendment violation because GPS tracking is not a search or a seizure.¹¹¹ Although the court emphasized that its holding does not apply to the type of wholesale surveillance that GPS tracking technology presumably enables,¹¹² as explained *supra* Part I, this ignores the warning in *Knotts* that the rule there that a person's travels on public roads are not

104. *United States v. Garcia*, No. 05-CR-155-C, 2006 WL 1294578, at *6 (W.D. Wis. May 10, 2006) ("If it turns out that the government's actual burden of proof required a probable cause showing, then . . . the government met this burden.")

105. *Id.*

106. *Garcia*, 474 F.3d at 995.

107. *Id.* In this context, seizure does not mean actual taking by the government of a suspect's personal effects; rather, it is a constructive taking in which the value of a suspect's personal effects is diminished by government action.

108. *Id.*

109. *Id.* at 996–97 (confirming the finding in *Knotts* that "following a car on a public street, . . . is unequivocally not a search within the meaning of the [Fourth] Amendment.")

110. *Id.* at 997 ("GPS tracking is on the same side of the divide with the surveillance cameras and the satellite imaging, and if what they do is not searching in Fourth Amendment terms, neither is GPS tracking.")

111. *Id.* at 998.

112. *Id.* ("It would be premature to rule that such a program of mass surveillance could not possibly raise a question under the Fourth Amendment.")

private information should not be extended to cover continuous and prolonged electronic surveillance.¹¹³

B. *UNITED STATES V. MARQUEZ*

In *United States v. Marquez*, defendant Marquez sought to exclude information obtained when law enforcement agents continuously tracked defendant's vehicle from May 2007 to October 2007.¹¹⁴ The Eighth Circuit held that *Knotts* controls GPS tracking of vehicles by law enforcement, finding that a person traveling via automobile on public streets has no reasonable expectation of privacy in his movements from one locale to another.¹¹⁵ The court noted that “[c]onsequently, when police have reasonable suspicion that a particular vehicle is transporting drugs, a warrant is not required when, while the vehicle is parked in a public place, they [may] install a non-invasive GPS tracking device on it for a reasonable period of time.”¹¹⁶

Echoing *Knotts*, the court then explained that its ruling does not apply to “wholesale” surveillance in which such devices are attached to thousands of random cars.¹¹⁷ The court distinguished the instant case from such wholesale surveillance because the police “reasonably suspected that the vehicle was involved in interstate transport of drugs,”¹¹⁸ which supported an action to install the GPS device and track the vehicle.

Unfortunately, the Eighth Circuit did not address the question of what constitutes a reasonable period of time, and ignored the Court's reservation in *Knotts* that their ruling did not sanction twenty-four-hour dragnet-type surveillance. This is unfortunate because, as explained *supra* Part I, when *Knotts* reserved the question of whether there would be a Fourth Amendment violation if law enforcement were to engage in “dragnet-type”¹¹⁹ surveillance, the Court was not referring to “wholesale” and simultaneous surveillance of thousands of cars.¹²⁰ Rather, the Court, in *Knotts*, was referring precisely to the type of extended surveillance without judicial supervision at issue here,

113. *United States v. Knotts*, 460 U.S. 276, 283–84 (1983) (holding that the Court's ruling that the use of electronic tracking devices is not a violation of the Fourth Amendment should not be construed as sanctioning “such dragnet-type” activities as “twenty-four hour surveillance”).

114. 605 F.3d 604, 607 (8th Cir. 2010).

115. *Id.* at 609.

116. *Id.* at 610.

117. *Id.*

118. *Id.*

119. *United States v. Knotts*, 460 U.S. 276, 284 (1983).

120. *Id.*

where *any* citizen's vehicle may be tracked without a warrant twenty-four hours a day, for months at a time.¹²¹

C. *UNITED STATES V. PINEDA-MORENO*

In *United States v. Pineda-Moreno*, the Ninth Circuit considered whether information obtained without a warrant via continuous surveillance using a GPS tracking device was a violation of defendant's Fourth Amendment rights.¹²² In June of 2007, DEA agents noticed the defendant purchasing a large quantity of fertilizer from a retail store.¹²³ The law enforcement agents then followed the defendant to a trailer home that defendant was renting,¹²⁴ installed mobile tracking devices on the underside of the defendant's vehicle on seven different occasions, and monitored the vehicle's movements for four months.¹²⁵ In five instances, the defendant's Jeep was parked in a public place.¹²⁶ In two other instances, the Jeep was parked in the defendant's driveway, a few feet from the side of his trailer.¹²⁷ The driveway was publicly accessible, lacking any fence, gate, or no trespassing signs,¹²⁸ and the devices were attached between four and five a.m.¹²⁹ When the mobile tracking device showed that the defendant was near a suspected marijuana plant site, agents followed the Jeep and arrested the defendant,¹³⁰ who was found with a large

121. *Knotts*, 460 U.S. at 283–84. The Court stated:

Respondent . . . expresses the generalized view that the result of the holding . . . would be that 'twenty-four hour surveillance of any citizen of this country will be possible, without judicial knowledge or supervision.' But the fact is that the 'reality hardly suggests abuse'; if such dragnet-type law enforcement practices as respondent envisions should eventually occur, there will be time enough then to determine whether different constitutional principles may be applicable.

Id. (internal citations omitted); *see supra* notes 49–56 and accompanying text.

122. 591 F.3d 1212 (9th Cir. 2010).

123. *Id.* at 1213.

124. *Id.*

125. *Id.* Although the mobile tracking devices are never identified by either the district or appellate court as GPS tracking devices, I am not aware of any other type of device which would have been capable of tracking the vehicle in the remote areas visited. Regardless, the devices are functionally equivalent to GPS tracking devices for the purposes of this Note in that in no case did the defendant voluntarily relay his location information to a third party.

126. *Id.*

127. *Id.*

128. *Id.*

129. *Id.*

130. *Id.* at 1214.

quantity of marijuana.¹³¹ At trial, the defendant conditionally pled guilty to conspiracy to manufacture marijuana.¹³²

On appeal, the defendant argued that by attaching tracking devices to his Jeep, agents invaded an area in which he possessed a reasonable expectation of privacy, thus violating the Fourth Amendment.¹³³ The Ninth Circuit held that defendant's expectation of privacy was not reasonable regardless of whether the device was attached while the vehicle was parked in defendant's driveway or in a public place.¹³⁴ The court held that installing a tracking device to the underside of defendant's Jeep between four and five a.m., while the vehicle was parked in the driveway adjacent to his house, did not violate his Fourth Amendment rights.¹³⁵ The court reasoned that the facts showed that no gate, fence, or trespassing signs had been placed by defendant to protect the driveway from access by the public.¹³⁶

The court separately examined whether the continuous four months of tracking implicated Fourth Amendment concerns beyond those identified in *Knotts* and *United States v. McIver*, a case similar to *Knotts* from the Ninth Circuit.¹³⁷ The defendant, channeling the Supreme Court in *Kyllo*, argued that the agents' continuous monitoring of his vehicles location over a long period of time violated his Fourth Amendment rights because "such devices are not used by the public."¹³⁸ The defendant further argued that although *Knotts* holds that a person traveling in a vehicle on public roads has no reasonable expectation of privacy, *Knotts* does not control because *Kyllo* superceded the holding in *Knotts*, when the Court held it illegal for law enforcement to use surveillance technology that was not in public use to obtain private information without a warrant.¹³⁹ The court was not persuaded by this argument; it found that unlike *Kyllo*, where thermal imaging technology was used as a substitute for an activity that requires a warrant (i.e., a home search), the instant case, as in *Knotts*, regarded using tracking technology as a substitute for an activity that does not require a warrant (visual surveillance of a person's public travels).¹⁴⁰

131. *Id.*

132. *Id.*

133. *Id.*

134. *Id.* at 1215.

135. *Id.* (citing *United States v. McIver*, 186 F.3d 1119, 1126 (9th Cir. 1999)).

136. *Id.* at 1213

137. *Id.* at 1214; *McIver*, 186 F.3d 1119.

138. *Pineda-Moreno*, 591 F.3d at 1216.

139. *Id.*

140. *Id.*

Subsequent to the Ninth Circuit's holding, the defendant filed a petition for an en banc rehearing of the case, which was denied.¹⁴¹ Although the *Pineda-Moreno* decision and the denial of petition for en banc rehearing would suggest that, in the Ninth Circuit at least, warrantless GPS tracking is business as usual,¹⁴² the dissent from denial of rehearing suggests that a number of justices have become uncomfortable with the pervasive tracking at issue here. Chief Judge Kozinski, with Judges Reinhardt, Wardlaw, Paez, and Berzon joining, dissented from the majority ruling denying the rehearing.¹⁴³ Their dissent focused on the alarming erosion of the scope of Fourth Amendment protection and the intrusiveness of new surveillance technologies used by law enforcement agents.¹⁴⁴ The dissent argued that the majority had created a system where the rich and powerful are protected from such devices by virtue of the fences they live behind and the security guards that patrol their neighborhoods.¹⁴⁵ In contrast, those citizens of more modest means who cannot store their vehicles in protected garages are left to the mercy of any law enforcement agents who wish to attach tracking devices to their vehicles.¹⁴⁶

The dissent distinguished *Knotts* from *Pineda-Moreno* by analogizing the beeper in *Knotts*, with its limited range, lack of data logging, and low locational resolution, to a set of binoculars used to aid in visual surveillance of a moving vehicle.¹⁴⁷ Judge Kozinski reasoned that unlike with the beeper in *Knotts* or with a set of binoculars, “a small law enforcement team can deploy a dozen, a hundred, a thousand [GPS] devices . . . with far less effort

141. *United States v. Pineda-Moreno*, 617 F.3d 1120 (9th Cir. 2010) (Kozinski, J., dissenting).

142. Other circuit courts that have ruled on the GPS tracking issue have found that continuous GPS tracking without a warrant is not a violation of the Fourth Amendment. *See United States v. Marquez*, 605 F.3d 604, 609 (8th Cir. 2010) (holding that under the controlling doctrine of *Knotts*, “a person traveling via automobile on public streets has no reasonable expectation of privacy in his movements from one locale to another”); *United States v. Garcia*, 474 F.3d 994, 996–97 (7th Cir. 2007) (holding that attachment of GPS tracking device to a vehicle without a warrant or notice is not a seizure cognizable under the Fourth Amendment, and under *Knotts*, GPS tracking of a vehicle’s public travels is not a search under the Fourth Amendment).

143. *Pineda-Moreno*, 617 F.3d at 1121–26 (9th Cir. 2010) (Kozinski, J., dissenting).

144. *See, e.g., id.* at 1124 (“By holding that this kind of surveillance doesn’t impair an individual’s reasonable expectation of privacy, the panel hands the government the power to track the movements of every one of us, every day of our lives.”).

145. *Id.* at 1123.

146. *Id.*

147. *Id.* at 1124.

than was previously needed to follow a single vehicle.”¹⁴⁸ The dissent further criticized the alternate interpretation of *Knotts* found in the Seventh, Eighth, and Ninth Circuit Court opinions about GPS tracking. Namely, the dissent explained that “*Knotts* expressly left open whether ‘twenty-four hour surveillance of any citizen of this country’ by means of ‘dragnet-type law enforcement practices’ violates the Fourth Amendment’s guarantee of personal privacy.”¹⁴⁹ Judge Kozinski concluded that

most people in the United States would [not] agree with the panel that someone who leaves his car parked in the driveway outside the door of his home invites people to crawl under it and attach a device that will track the vehicle’s every movement twenty-four hours a day and transmit that information to total strangers.¹⁵⁰

D. THE D.C. CIRCUIT LIMITS INVASIVE ELECTRONIC GOVERNMENT SURVEILLANCE

The District of Columbia Circuit’s recent decision in *United States v. Maynard*¹⁵¹ reflects an important step in re-striking the appropriate balance between the public’s interest in privacy and the government’s interest in gathering evidence and crime control. It, along with the Ninth Circuit’s dissent in *Pineda-Moreno* and the Third Circuit’s decision in *In re United States for an Order Directing Provider of Electronic Communication Service to Disclose Records*, suggests that there is a growing unease within the circuit courts with warrantless use by law enforcement officers of pervasive tracking technology.¹⁵² Together, these cases suggest that the courts are finally beginning to understand the danger that pervasive government access to

148. *Id.* at 1124. The dissent presents no allegation that such mass surveillance via GPS tracking device is actually occurring, but does suggest that such mass surveillance is occurring by law enforcement’s use of cell phone tracking. *See id.* at 1125 (“At the government’s request, the phone company will send out a signal to any cell phone connected to its network, and give the police its location. Last year, law enforcement agents pinged users of just one service provider—Sprint—over eight million times.”).

149. *Id.* at 1126.

150. *Id.*

151. 615 F.3d 544 (D.C. Cir. 2010), *en banc denied*, *United States v. Jones*, 625 F.3d 766, (D.C. Cir. 2010), *cert. denied*, *Maynard v. United States*, 131 S. Ct. 671 (2010).

152. 620 F.3d 304, 313 (3d Cir. 2010) (finding that pervasive cell phone tracking data may implicate Fourth Amendment concerns and thus require a warrant supported by probable cause notwithstanding provisions of the ECPA, which the government purports compel the courts to issue a subpoena to compel upon request); *Pineda-Moreno*, 617 F.3d at 1121–26 (9th Cir. 2010) (Kozinski, J., dissenting).

private information in the electronic age presents to our democratic society and are adjusting accordingly.¹⁵³

In *Maynard v. United States*, the D.C. Circuit found that the defendant's Fourth Amendment rights were violated when the police, without a warrant, used a GPS device attached to his vehicle to track his movements continuously for a long period of time.¹⁵⁴ Appellants Jones and Maynard respectively owned and managed a nightclub in the District of Columbia.¹⁵⁵ In 2004, the police began investigating appellants for drug possession and trafficking, placed a GPS tracking device on Jones's Jeep, and tracked his movements continuously for four weeks.¹⁵⁶ The police thus obtained information that proved essential to the prosecution's case that Jones was involved in drug trafficking.¹⁵⁷

On appeal, the court examined several claims brought by appellants Maynard and Jones for improper admission of evidence, including the evidence obtained from a GPS tracking device.¹⁵⁸ The court affirmed all claims except those regarding the GPS evidence used against Jones.¹⁵⁹ Specifically, the D.C. Circuit analyzed whether the district court had erred in admitting the GPS evidence at trial, focusing on whether *Knotts* applied to

153. See Daniel Solove, *The First Amendment as Criminal Procedure*, 82 N.Y.U. L. REV. 112, 121 (2007) ("Government probing can lessen the effectiveness of democratic participation by depriving speakers of anonymity, which can be essential for forthright expression. . . . Government information gathering can also discourage or subdue conversations."); Katherine Strandburg, *Freedom Of Association in a Networked World: First Amendment Regulation of Relational Surveillance*, 49 B.C. L. REV. 741, 794 ("Extensive government relational surveillance using network analysis data mining techniques poses a serious threat to liberty because of its potential to chill unpopular, yet legitimate, association, and also because of the chilling of legitimate association caused by possibly incorrect assessment of both legitimate and illegitimate associational membership."); Orin S. Kerr, *An Equilibrium-Adjustment Theory of the Fourth Amendment* (GWU Law School Public Law, Research Paper No. 524, 2011), available at <http://ssrn.com/abstract=1748222> (presenting the theory that the Court adjusts the scope of Fourth Amendment protection as technology changes in order to maintain a "status quo level of protection").

154. 615 F.3d at 566–67.

155. *Id.* at 549.

156. *Id.* at 549–51 (citing *Rakas v. Illinois*, 439 U.S. 128, 148–49 (1978)) (holding that although the Jeep was registered to Jones's wife, Jones still had standing to object to admission of the evidence because Jones was the exclusive driver of the Jeep). The court stated that "whether defendant may challenge police action as search depends upon his legitimate expectation of privacy, not upon his legal relationship to the property searched." *Id.*

157. *Id.* at 567–68.

158. *Id.*

159. *Id.* at 555–68. This Note focuses on the court's analysis of whether evidence obtained via warrantless GPS tracking was admissible at trial.

continuous GPS surveillance in which case there was no search subject to Fourth Amendment protection and whether, under *Katz*, the information obtained was that which society reasonably expects to be private.¹⁶⁰

Regarding the first issue, the court held that *Knotts* did not apply to the type of pervasive and continuous location monitoring presented by this case.¹⁶¹ Instead, the D.C. Circuit found that *Knotts* distinguished between the limited information available to law enforcement via use of a beeper and the prolonged twenty-four-hour surveillance at issue in *Maynard*.¹⁶² The court explained that the present issue, whether a warrant would be required in a case involving twenty-four hour surveillance, was explicitly reserved in *Knotts*.¹⁶³ The court further declared that other circuits that had interpreted *Knott's* reservation of whether “drag-net” type surveillance is a Fourth Amendment search to only refer to mass surveillance had misconstrued the *Knotts* opinion.¹⁶⁴

Applying the *Katz* two-prong test, the court held that Jones’s expectation of privacy was subjectively held and was one which society was prepared to recognize as reasonable.¹⁶⁵ Specifically, the court held that despite the fact that a person’s individual trips in public view were necessarily public, the intimate picture of the subject’s life obtained by continuous electronic monitoring was information that society was prepared to accept as reasonably protected from the prying eyes of the public.¹⁶⁶

In applying the *Katz* test, the court emphasized that Jones had not given up any expectation of privacy by exposing this information either actually or constructively to the public.¹⁶⁷ The court reasoned that the whole of his movements during the monitoring period was not actually exposed to the public because, unlike one’s movements during a single journey, the

160. *Id.* at 563–64.

161. *Id.* at 555–58 (citing *United States v. Knotts*, 460 U.S. 276 (1983)).

162. *Id.* at 556 (finding that “[t]he Court [in *Knotts*] explicitly distinguished between the limited information discovered by use of the beeper . . . and more comprehensive or sustained monitoring of the sort at issue in this case.”).

163. *Id.* (holding that the Court specifically reserved the question [of] whether a warrant would be required in a case involving “twenty-four hour surveillance.”).

164. *Id.* at 556–57 (citing *United States v. Butts*, 729 F.2d 1514, 1518 n.4 (1984)) (“[W]e pretermitted any ruling on worst-case situations that may involve persistent, extended, or unlimited violations of a warrant’s terms.”); see *People v. Weaver*, 12 N.Y.3d 433, 440–44 (2009); Renee McDonald Hutchins, *Tied Up in Knotts? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 457 (2007).

165. See discussion *supra* Part I (explaining the *Katz* test); *Maynard*, 615 F.3d at 558–64.

166. *Maynard*, 615 F.3d at 563.

167. *Id.* at 558–63.

likelihood any person or group could observe all of those movements is zero.¹⁶⁸ The court distinguished continuous GPS monitoring from the visual surveillance that *Knotts* held was merely enhanced with a beeper device,¹⁶⁹ finding that a primitive beeper device or visual surveillance could not obtain the continuous and prolonged location information that a GPS tracking device provides.¹⁷⁰ The court referenced practical considerations that make continuous visual surveillance for long periods of time essentially impossible to perform to bolster this point.¹⁷¹ Additionally, the D.C. Circuit reasoned that Jones did not constructively expose this information because the whole of his movements constituted a different kind of information than the individual movements it comprises.¹⁷² As an example of how the whole of a person's location information is a different kind of information than the sum of his individual trips, the court cited a New York State court opinion holding that prolonged GPS tracking "yields . . . a highly detailed profile, not simply of where we go, but by easy inference, of our associations—political, religious, amicable and amorous, to name only a few—and of the pattern of our professional and avocational pursuits."¹⁷³ The court also noted that prolonged GPS tracking may reveal a person's "preferences, alignments, associations, personal ails and foibles,"¹⁷⁴ or a "whether he is a weekly church goer, a heavy drinker, a regular at the gym, an unfaithful husband, an outpatient receiving medical treatment, an associate of particular individuals or political groups."¹⁷⁵ In other words, the totality of the information (TOI) obtained was greater than the sum of the individual pieces of information that were exposed to the public, and should therefore be subject to greater protection.¹⁷⁶

The D.C. Circuit further found that the method of continuous monitoring was at least as intrusive as other activities that the Supreme Court found to be a search under the Fourth Amendment such as a urine test,¹⁷⁷ electronic eavesdropping on private phone calls,¹⁷⁸ inspection of a traveler's

168. *Id.* at 559–60.

169. *United States v. Knotts*, 460 U.S. 276, 282 (1983).

170. *Maynard*, 615 F.3d at 565.

171. *Id.* (citing testimony from a former Chief of the LAPD in W.H. Parker, *Surveillance by Wiretap or Dictograph: Threat or Protection?*, 42 CALIF. L. REV. 727, 734 (1954)).

172. *Id.* at 560–63.

173. *Id.* at 562 (quoting *State v. Jackson*, 76 P.3d 217, 224 (Wash. 2003)).

174. *Jackson*, 76 P.3d at 224.

175. *Maynard*, 615 F.3d at 562.

176. *Id.* at 558.

177. *Id.* at 563–64 (citing *Skinner v. Ry. Labor Executives' Ass'n*, 489 U.S. 602 (1989)).

178. *Katz v. United States*, 389 U.S. 347, 351–53 (1967).

luggage,¹⁷⁹ or use of a thermal imaging device to discover the temperature inside a home.¹⁸⁰ The court also noted that state statutes protecting against warrantless GPS monitoring of its citizens¹⁸¹ support its interpretation that society reasonably expects citizens to be free from the prolonged twenty-four-hour surveillance enabled by GPS tracking.¹⁸²

Although the D.C. Circuit's opinion outlined above rejects the trend in favor of allowing prolonged and continuous electronic location tracking of individuals without judicial supervision, it is not at all clear whether other courts and commentators will find the argument convincing. Indeed, several of the D.C. Circuit's own judges are not convinced, arguing two major points in their dissent for in denial of an en banc rehearing of the issue.

In dissent, Judge Santelle first argued that, as in the Seventh and Eighth Circuit court opinions on GPS tracking, *Knotts* controlled the decision.¹⁸³ Judge Santelle further noted that *Knotts* clearly states that a person's travels on public roads are public information, and that "[n]othing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case."¹⁸⁴ The dissent further argued that since appellant's reasonable expectation of privacy for any one of his public trips is zero, the sum of all his trips combined is still zero because "the sum of an infinite number of zero-value parts is also zero."¹⁸⁵ Secondly, the dissent argued that the majority's holding would make prolonged warrantless visual surveillance itself illegal because Judge Santelle "cannot discern any distinction between the supposed invasion by aggregation of data between the GPS-augmented surveillance and a purely visual surveillance of substantial length."¹⁸⁶

Justice Kavanaugh, in a separate dissent, noted that neither the majority, nor Santelle's dissent, paid heed to appellant's alternative argument that

179. *Bond v. United States*, 529 U.S. 334, 338 (2000).

180. *Kyllo v. United States*, 533 U.S. 27, 37 (2001).

181. UTAH CODE ANN. §§ 77-23a-4, 77-23a-7, 77-23a-15.5 (West 2010); MINN. STAT. §§ 626A.37, 626A.35 (2010); FLA. STAT. §§ 934.06, 934.42 (2010); S.C. CODE ANN. § 17-30-140 (2010); OKLA. STAT., tit. 13, §§ 176.6, 177.6 (2010); HAW. REV. STAT. §§ 803-42, 803-44.7 (2010); 18 PA. CONS. STAT. § 5761 (2010).

182. *Maynard*, 615 F.3d at 564.

183. *United States v. Jones*, 625 F.3d 766, 768 (D.C. Cir. 2010) (citing *United States v. Knotts*, 460 U.S. 276, 281–82 (1983)) (Santelle, J., dissenting).

184. *Id.*

185. *Id.* at 769.

186. *Id.* But see *Maynard*, 615 F.3d at 564 (holding that the majority opinion in no way applies to prolonged visual surveillance).

placing the GPS tracking device on appellant's vehicle without a warrant was an illegal seizure under the Fourth Amendment.¹⁸⁷ Although unwilling to indicate how compelling he found this argument, Judge Kavanaugh did at least acknowledge that a colorable claim may have existed.¹⁸⁸ However, such a finding would still lead to a circuit split over warrantless GPS tracking because as discussed in Section III.A., *supra*, the Seventh Circuit has explicitly rejected this approach.¹⁸⁹

IV. ANALYSIS

Today, the D.C. Circuit stands alone in holding that prolonged and continuous electronic surveillance necessarily implicates the Fourth Amendment.¹⁹⁰ However, the government's ability to use cell phone and GPS records to obtain location information about an individual, as well as the use of GPS devices to track an individual, shows that continuous surveillance is not only possible, but may provide intimate details about a citizen's life that could not otherwise be legally obtained, unlike the crude beeper device in *Knotts* that merely augmented visual surveillance. Thus, the existing statutory protections and case law are no longer adequate to address this continuous dragnet-type surveillance.

For example, Fourth Amendment jurisprudence strongly protects information about the intimate activities of a person's home. As the Court in

187. *Jones*, 625 F.3d at 770 (Kavanaugh, J., dissenting).

188. *Id.*

189. *United States v. Garcia*, 474 F.3d 994, 996 (7th Cir. 2007) (holding that defendant's argument that attachment of a GPS tracking device was a seizure under the Fourth Amendment was "untenable").

190. *Maynard*, 615 F.3d at 566–67. The Third Circuit takes a smaller step in allowing, but not requiring, a magistrate judge reviewing an order to obtain CSLI to either demand a showing as to why there is probable cause sufficient to support a warrant or demand a showing as to why the warrant requirement is not applicable. *In re United States*, 620 F.3d 304, 313 (3d Cir. 2010). Essentially, the Third Circuit implicitly adopts a totality of the information theory by finding that an individual has not knowingly and purposefully shared the totality of the information contained in CSLI, i.e. a continuous log of his whereabouts, merely by keeping a cell phone on his person, and is therefore not subject to the third party doctrine. *Id.* at 317. The Seventh, Eighth, and Ninth Circuits in contrast have found that prolonged surveillance does not implicate the Fourth. *Garcia*, 474 F.3d 994, 995 (7th Cir. 2007); *United States v. Marquez*, 605 F.3d 604, 607 (8th Cir. 2010); *United States v. Pineda-Moreno*, 591 F.3d 1212, 1213 (9th Cir. 2010). The other circuit courts have yet to rule on this issue.

Silverman v. United States,¹⁹¹ *Karo*,¹⁹² and then *Kyllo*¹⁹³ has made clear, officers are greatly restricted in the types of activities and technologies they can bring to bear in gathering information about activities in the home compared to gathering information from other locales. Such a distinction may have been logical and easily administered before technologies existed to peer through walls, but makes little sense today. Indeed, although the Court has made clear that thermal imaging cameras require a warrant to gather information about the interior of a home, our government contends, and many—but not all—courts have agreed, that CSLI does not implicate Fourth Amendment concerns¹⁹⁴ despite its increasing ability to provide information about the presence of an individual within a specific home, or even a specific room of a building.¹⁹⁵ This inconsistency illustrates how assumptions about how different technologies operate and what information they reveal often lead to bad law.¹⁹⁶ Further, as technology continues to advance, even correct assumptions cited by judges and lawyers from earlier cases can be incorrect even a few months or years later. Rather than apply static rules to specific

191. *Silverman v. United States*, 365 U.S. 505, 510–12 (1961) (finding that officers' use of a "spike mike" to penetrate the home and listen to conversations therein constituted a violation of the Fourth Amendment although the intrusion was minor).

192. *United States v. Karo*, 468 U.S. 705, 718 (1984).

193. *United States v. Kyllo*, 533 U.S. 27, 40 (2001) (holding that the use of a thermal imager without a warrant to gather evidence of activities in the home is a violation of the Fourth Amendment).

194. *In re United States Orders pursuant to 18 U.S.C. 2703(d)*, 509 F. Supp. 2d 76, 80 (D. Mass. 2007); *In re United States for Order for Disclosure of Telecomm. Records*, 405 F. Supp. 2d 435, 449 (S.D.N.Y. 2005). *But see, In re United States*, 620 F.3d 304, 313 (3d Cir. 2010) (finding that the Fourth Amendment may be implicated by a request to obtain historical CSLI).

195. *In re United States*, 620 F.3d at 313. *But see ECPA Reform and the Revolution in Location Based Technologies and Services*, Hearing Before the Subcomm. on the Constitution, Civil Rights, and Civil Liberties of the Comm. on the Judiciary House Reps., 107th Cong. 12–30 (June 24, 2010) (Statement of Professor Matt Blaze) (testifying that CSLI information is becoming increasingly accurate to the point of identifying a person's location to within an individual floor or room of a building due in part to the increasing density of cell sites).

196. As one example, it is commonly understood by the courts that the use of night vision goggles by the police to peer into a person's home without a warrant is perfectly reasonable and not a violation of the Fourth Amendment because the goggles merely augment the senses of an officer by amplifying ambient light. Some courts resort to the analogy that night vision goggles are like a high-tech flashlight. In contrast, it is understood that the use of a thermal imaging device by the police without a warrant would be a violation of the Fourth Amendment because it provides information that would otherwise be invisible to an officer. In other words, officers cannot normally see infrared emissions. Unfortunately, this distinction is simply unwarranted because night vision goggles both amplify ambient visible light and display near infrared emissions to the user that are otherwise invisible to the naked eye.

technologies, application of the D.C. Circuit's TOI doctrine to changing technology could help by providing a judicially administrable rule that looks beyond the technology to the information itself and examines whether that information is that which society is prepared to accept as private. Such an approach would seem to offer both flexibility and rigor to Fourth Amendment analysis because it adheres closely to Justice Harlan's rule in *Katz*.¹⁹⁷

A TOI analysis should examine three factors: (1) the length of time during which the search was performed, (2) the type of information obtained, and (3) whether that information has been voluntarily conveyed to the public. Regarding the first factor, the longer a search occurs, the higher the likelihood that intimate details of a person's life are obtained. Additionally, a lengthy search strongly implies that officers had ample time to obtain a warrant. Regarding the second factor, the type of information obtained also suggests the degree of intrusiveness of the evidence-gathering activity. If the information obtained is merely a snapshot of a person's travels on public roads to and from public places, then it is unlikely to implicate the Fourth Amendment. However, for example, if the information obtained allows one to infer a person's acquaintances and religious preferences by virtue of the places visited, then it is likely to implicate the Fourth Amendment. Similarly, continuous GPS tracking may allow an officer to infer many details concerning the presence of persons or things within a suspect's home that would be unobtainable using visual surveillance or a beeper device. Such information would be properly excluded at trial under the TOI doctrine, just as it was excluded under *Karo*.¹⁹⁸ The third factor accounts for the Supreme Court's holding that if a person voluntarily hands over information to the public, it is no longer private information.¹⁹⁹

Although the Court in *Kyllo* professed to craft a rule that could flexibly adapt to changing technology and societal expectations,²⁰⁰ the result has been unsuccessful. For example, the rule in *Kyllo* for whether the use of a given technology by law enforcement requires a warrant is based on whether it is

197. See *Katz v. United States*, 389 U.S. 347, 359–62 (1967) (Harlan, J., concurring).

198. *United States v. Karo*, 468 U.S. 705, 718 (1984).

199. See *Ex parte Jackson*, 96 U.S. 727, 733 (1878) (finding that the outside of a first class envelope was voluntarily conveyed to the public and thus may be viewed during evidence gathering activities by the government, whereas the content of the envelope was sealed against public view and thus protected by the Fourth Amendment).

200. *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (purporting to adopt a rule that “assures preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted”).

“in general public use.”²⁰¹ Therefore, the rule becomes less protective as more technology enters the public realm. Today, thermal imaging cameras, like the one at issue in *Kyllo*, are readily available to the general public.²⁰² Has the ruling in *Kyllo* that the police may not use a thermal imaging camera to search a home therefore been superceded by advancing availability of technology to the general public?²⁰³ Applying a TOI analysis as the D.C. Circuit has done for GPS tracking devices offers a judicially administrable way of analyzing whether the information sought is that which society would reasonably expect to be private information. Despite the availability of thermal imaging cameras from retailers like eBay and sports hunting outfitters, citizens do not expect that the thermal signatures of their homes are widely viewable by the public. Therefore, the doctrine does not change the outcome of *Karo*, it merely provides a more predictable rule that is stable in the face of changing technology.

Similarly, the Court in *Knotts* and *Karo* struggled to craft a rule that provided law enforcement with clear guidelines for when the use of an electronic tracking device without a warrant constituted a Fourth Amendment violation. However, the *Knotts* Court was careful to explicitly note that its rule, that a person’s travel on public roads from one place to another is public information, was not meant to be applied to prolonged twenty-four-hour surveillance.²⁰⁴ The TOI doctrine provides a judicially administrable way of reconciling the *Knotts* finding that the electronic tracking of a single trip is not a violation of the Fourth Amendment (because it is merely a substitute for visual surveillance), with the Court’s concern that the rule does not address twenty-four-hour “dragnet-type”²⁰⁵ surveillance. Although a person’s travels on public streets from one place to another have been willingly conveyed to the public,²⁰⁶ as the D.C. Circuit explains, the totality of the information obtained by continuous and prolonged monitoring provides a “mosaic”²⁰⁷ picture that is beyond any information that has either

201. *Id.* at 34, 40.

202. For example, Ebay lists several varieties of thermal imaging cameras under the sporting goods category.

203. See Orin Kerr, *Can the Police Now Use Thermal Imaging Devices Without a Warrant? A Reexamination of Kyllo in Light of the Widespread Use of Infrared Temperature Sensors*, THE VOLOKH CONSPIRACY (Jan. 4, 2010, 12:33 PM), <http://volokh.com/2010/01/04/can-the-police-now-use-thermal-imaging-devices-without-a-warrant-a-reexamination-of-kyllo-in-light-of-the-widespread-use-of-infrared-temperature-sensors/>.

204. *United States v. Knotts*, 460 U.S. 276, 283–84 (1983).

205. *Id.* at 284.

206. *Id.* at 276.

207. *United States v. Maynard*, 615 F.3d 544, 562 (D.C. Cir. 2010).

been actually or constructively exposed to the public. The totality of the information provides a far too intimate picture of the private details of a person's life as compared to visual surveillance.²⁰⁸ Therefore, applying the TOI doctrine to *Knotts* and *Karo* does not alter the outcome of those cases in that tracking of a single trip is not the type of intrusive surveillance of private details that implicates the Fourth Amendment, while gathering evidence about the contents of a person's home with an electronic device that would otherwise be unobtainable does implicate the Fourth Amendment.

Unlike *Knotts* and *Karo*, however, applying the TOI doctrine to the GPS tracking cases of the Seventh, Eighth, and Ninth Circuits would result in very different outcomes. In these cases, law enforcement officers tracked suspects continuously for months at a time, generating a detailed picture of the suspects' lives including "preferences, alignments, associations, personal ails and foibles."²⁰⁹ Such information clearly implicates Fourth Amendment concerns under the TOI doctrine, and should only be obtained under the judicial supervision afforded by the warrant requirement.

Finally, the TOI may be applied to unknown or unimplemented technologies in predictable ways. For example, although our current airport screening techniques have alarmed some with their intrusiveness, they still do not provide a clear view of a passenger's person or things, as shown by the ease in which contraband still makes it through the screening procedure.²¹⁰ It is possible that advancing technology may continue to increase the intrusiveness of these screening techniques to the point where transportation safety personnel may be able to view even more intimate internal and external details of a person in an attempt to detect dangerous items. Regardless, under the TOI doctrine, the transitory and voluntary nature of the information gathering activity, combined with the type of information obtained (which does not provide an intimate and detailed mosaic picture of a person's life), would preclude a finding of Fourth Amendment implication.

In contrast, other technologies that do provide intimate details of a citizen's life may implicate the Fourth Amendment. For example, consider a

208. *Id.*

209. *State v. Jackson*, 76 P.3d 217, 224 (Wash. 2003).

210. Leon Kaufman & Joseph W. Carlson, *An Evaluation of Airport X-ray Backscatter Units Based on Image Characteristics*, 4 J. TRANSP. SEC. 73, 92–93 (2011) (detailing facile techniques for passing dangerous amounts of explosives and weapons through the newest and most powerful full body imagers used by airport screeners today); Philip Messing, *TSA Staff Jet Blew It, Boxcutters Taken on JFK Airliner*, NY POST (Mar. 2, 2011, 2:16 AM), http://www.nypost.com/p/news/local/queens/tsa_staff_jet_blew_it_Y7NcXScFd0oS2HNvkyphP#ixzz1IyPSIy4c.

future in which parents routinely implant their children with tracking devices that only work outdoors because the devices required a line of sight to a set of tracking satellites. Parents presumably would be interested in using such devices in order to keep tabs on their children, much like the way parents today provide their children with cellular phones. If the government were to seek access to such tracking device without a warrant, the Seventh, Eighth, and Ninth Circuits would presumably respond that, according to *Knotts*, a person's public travels from one place to another is public information, and the Fourth Amendment is not implicated. However, applying the TOI doctrine, it is clear that the prolonged tracking, the intimate details obtained, and the involuntary nature of the evidence gathering would suggest that a warrant is required. Such a result would seem to comport with Justice Harlan's view in *Katz* that the Fourth Amendment is meant to protect as private that which society is prepared to expect as reasonable.²¹¹

V. CONCLUSION

Interestingly, although the *Maynard* opinion rejects the Seventh, Eighth, and Ninth Circuit majorities' reasoning that GPS tracking does not require a warrant, the *Maynard* appellants' petition to the Supreme Court for a writ of certiorari was denied,²¹² leaving an obvious and unresolved circuit split. Similarly, appellant's petition for en banc rehearing in front of the D.C. Circuit was also denied,²¹³ despite the suggestion of at least one prominent commentator that the ruling would be overturned.²¹⁴ Advocates for greater Fourth Amendment protection may find some comfort from this denial, but perhaps the Court is taking a wait-and-see approach to determine whether the D.C. Circuit opinion is the beginning of a trend.

Fourth Amendment scholar Orin Kerr has suggested that this wait-and-see approach by the judiciary is precisely the appropriate stance to take in the face of rapidly advancing technology that intrudes on the public's privacy interests.²¹⁵ Kerr posits that there is an equilibrium level of privacy that the

211. *United States v. Katz*, 389 U.S. 347, 361 (1967).

212. *Maynard v. United States*, 131 S. Ct. 671 (2010).

213. *United States v. Jones*, 625 F.3d 766 (D.C. Cir. 2010).

214. See Orin Kerr, *D.C. Circuit Introduces "Mosaic Theory" of Fourth Amendment, Holds GPS Monitoring a Fourth Amendment Search*, THE VOLOKH CONSPIRACY (Aug. 6, 2010, 2:46 PM), <http://volokh.com/2010/08/06/d-c-circuit-introduces-mosaic-theory-of-fourth-amendment-holds-gps-monitoring-a-fourth-amendment-search/> ("I wonder if the [case] will [be] overturned en banc?").

215. Kerr, *supra* note 153, at 62–64.

Supreme Court, perhaps unknowingly, seeks to maintain.²¹⁶ As new technologies and surveillance techniques arise, government power expands and privacy interests become increasingly infringed. Later, as the Court begins to grasp with the impact of these technologies, the equilibrium is reestablished.

Unfortunately, this can take an inordinate amount of time because the judiciary is not expected to be, nor is it in practice, responsive to the will of the general public.²¹⁷ The Supreme Court is especially egregious in this regard. For example, although the Sixth Circuit has acknowledged that e-mail has become “the technological scion of tangible mail, and [that] it plays an indispensable part in the Information Age,”²¹⁸ some members of the Court are yet to master its use.²¹⁹ Kerr acknowledges that the judiciary can take an extremely long time to adjust Fourth Amendment jurisprudence,²²⁰ but argues that this is a strength, because it allows the “nimble” legislature to enact statutory protections and provides the judiciary time to craft good law.²²¹ One wonders just how nimble the legislature can be considering the scant protections provided in the twenty-five-year-old ECPA, provisions of which have been called unconstitutional by scholars of Fourth Amendment law²²² and the Sixth Circuit.²²³

It is not just the public’s interest in privacy that is at stake while the judiciary sits on the sidelines waiting to find a way back to some fundamental equilibrium. Law enforcement and the courts are also ill-served by policies

216. *Id.* at 10.

217. The democratically elected legislature is supposed to be more responsive to changes in society. *See* Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 864–82 (2004) (arguing that legislatures have institutional advantages over courts in protecting privacy in changing technology). However, if this were true, then one might expect that the ECPA would more faithfully reflect the way contemporary society utilizes electronic communications.

218. *United States v. Warshak*, 631 F.3d 266, 286 (6th Cir. 2010).

219. John Hanna, *Sotomayor Touts Bipartisan Seating at Obama Speech*, MONTEREY COUNTY THE HERALD (last updated Jan. 28, 2011, 4:03 PM), http://www.montereyherald.com/news/ci_17219666?nclick_check=1 (“[S]everal unnamed justices haven’t mastered e-mail.”).

220. Kerr, *supra* note 153, at 64 (noting the thirty-nine year gap between *Olmstead* (allowing warrantless wiretapping) and *Katz* (holding that eavesdropping on telephone conversations without a warrant illegal)).

221. *Id.*

222. Orin Kerr, *Applying the Fourth Amendment to the Internet: A General Approach*, 62 STAN. L. REV. 1005, 1037–38 (2010); Alexander Scolnik, *Protections for Electronic Communications: The Stored Communications Act and The Fourth Amendment*, 78 FORDHAM L. REV. 349, 393 (2009).

223. *Warshak*, 631 F.3d at 288 (“[T]he SCA is unconstitutional.”).

that reduce the ability of agents to predict whether certain actions will be considered Fourth Amendment violations. The police need clear rules that can guide actions on the street in order to do their job of protecting and serving the public effectively and legally.²²⁴

Rather than accept the damage that an unpredictable body of Fourth Amendment case law and outdated statutory framework causes in needless litigation, frustrated police activity, and intrusive government activity, the Court should recognize the core principal of privacy inherent in the Fourth Amendment and explicitly re-adopt the balancing test between privacy and public safety. Application of a TOI theory to evidence-gathering activity would help the police and the courts to recognize when certain activity requires a warrant. The standard is judicially administrable, utilizing an inquiry into whether the whole of the information sought is greater than could otherwise legally be obtained by the public, either actually or constructively. Ironically, this flexible approach, which can be applied in the context of a variety of surveillance technologies and fact patterns, is likely to provide more predictable outcomes for courts and law enforcement officers. By utilizing a TOI approach, courts can refocus on examining the core Fourth Amendment question of whether a person's fundamental privacy interest has been violated by government intrusion into an area unavailable to the public.

224. *New York v. Belton*, 453 U.S. 454, 459–60 (1981) (“When a person cannot know how a court will apply a settled principle to a recurring factual situation, that person cannot know the scope of his constitutional protection, nor can a policeman know the scope of his authority.”).

ONTARIO V. QUON: IN SEARCH OF A REASONABLE FOURTH AMENDMENT

Miles K. Palley[†]

“That the individual shall have full protection in person and in property is a principle as old as the common law; but it has been found necessary from time to time to define anew the exact nature and extent of such protection.”¹

As the opening sentence of *The Right to Privacy* suggests, privacy is a moving target: technology develops, societal norms adjust, and bright line legal rules regulating privacy require updating. Today, society’s understanding of what privacy means is in tremendous flux. Technology tends to make it easier to gather information in powerful, beneficial, and profitable ways.² The last two decades have seen an explosion in the collection and use of personal information that poses new challenges to society’s conceptions of privacy.³ However, along with the challenges to privacy in the current environment, there are some considerable benefits. Easy and instant communication with loved ones, customized access to information of all kinds, and the ability to build and use massive searchable databases of information are just a few key features of the information age. As society continues to embrace rapidly developing technology—with all its myriad benefits and risks to private life—privacy can no longer plausibly be characterized simply as “the right to be let alone.”⁴

A modern conception of privacy protection should require courts to balance the benefits of information sharing, collection, and use against the

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1. Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193 (1890).

2. See DANIEL J. SOLOVE, *THE DIGITAL PERSON: TECHNOLOGY AND PRIVACY IN THE INFORMATION AGE* 2 (2004) (“Shards of data from our daily existence are now being assembled and analyzed—to investigate backgrounds, check credit, market products, and make a wide variety of decisions affecting our lives.”).

3. See *id.*

4. Warren & Brandeis, *supra* note 1, at 193.

sensitivity of the information at issue.⁵ When the collection serves an important purpose or confers a substantial benefit on the public, legal restrictions on information collection and use should be tempered by these benefits. On the other hand, when the collection or review of information is avoidable or of limited public benefit, and the information's use or dissemination is potentially damaging, legal restrictions should be developed both to provide relief to individuals who have their information improperly released and to give clear guidance to potential defendants. Courts and legislatures have been slow to adopt this proportional approach to privacy in many cases, but it is beginning to gain recognition in certain contexts.⁶

Courts have interpreted the Fourth Amendment to protect individuals' privacy from unreasonable government intrusion. It limits government activity in a wide variety of contexts, including criminal investigations, routine traffic stops, student searches, and public employee drug screenings. Courts look to societal expectations when determining what sorts of intrusions merit protection under the Fourth Amendment. Yet as social norms adjust to new technologies, the Supreme Court has struggled to place its finger on the emerging social consensus of what the Amendment should protect.⁷ The Court's recent privacy decision, *Ontario v. Quon*,⁸ is a perfect example of this struggle. Although the Court's decision was unanimous, it provides little, if any, guidance or clarity to the already murky legal landscape of the Fourth Amendment.⁹

For decades, scholars have decried the unpredictable and incoherent application of the Fourth Amendment. Many are concerned that the fact sensitive proportional balancing of government interests and individual interests, which the Warren Court announced as the touchstone of the

5. Andrew B. Serwin, *Privacy 3.0—The Principle of Proportionality*, 42 U. MICH. J.L. REFORM 869, 875 (2009).

6. *See id.* at 889 (“Proportionality is . . . consistent with the theoretical underpinning of recent FTC enforcement actions . . .”).

7. *Compare* *Olmstead v. United States*, 277 U.S. 438 (1928) (holding that wiretapped phones do not violate the Fourth Amendment), *with* *Katz v. United States*, 389 U.S. 347 (1967) (overruling *Olmstead*). The telephone's use had grown exponentially in the years leading up to the *Olmstead* decision, but universal telephone use was, by some accounts, not commonplace until as late as the 1940s. CLAUDE S. FISCHER, *AMERICA CALLING: A SOCIAL HISTORY OF THE TELEPHONE TO 1940*, at 182 (1992).

8. *Ontario v. Quon*, 560 U.S. ___, 130 S. Ct. 2619 (2010).

9. *See* *Rehberg v. Paulk*, 611 F.3d 828, 844 (2010) (commenting on *Quon*'s “marked lack of clarity” in privacy expectations of electronic communications); Adam Liptak, *Justices Are Long on Words but Short on Guidance*, N.Y. TIMES, Nov. 18, 2010, at A1 (discussing *Quon*, and noting that “[i]n decisions on questions great and small, the court often provides only limited or ambiguous guidance to lower courts.”).

Fourth Amendment's application, has given way to a results-driven, unpredictable chaos that offers no clear guidance on the metes and bounds of privacy's protection from government intrusion. *Quon* is unlikely to assuage these concerns.

This Note reviews the Fourth Amendment's development and its application to the *Quon* case. It draws on recent privacy scholarship to discuss gaps in the Court's analysis and application of the Fourth Amendment. Part I discusses the Fourth Amendment's historical development, particularly the protection of "privacy" as a concept separate from property in response to increasingly sophisticated communication technologies. Part II discusses and critiques the *Quon* decision. Finally, Part III considers three scholarly perspectives on privacy that enhance an understanding of *Quon*'s gaps and suggests that the Fourth Amendment can and should adopt stronger protection for certain forms of sensitive information.

I. BACKGROUND

This Part begins with a brief description of the Fourth Amendment's application today, particularly in the context of public employees. After laying out the relevant basics of the Fourth Amendment's application, three Sections address aspects of this law in greater detail. These three aspects are: the reasonable expectation of privacy test, the Court's approach for evaluating a search's reasonableness, and the protection of workplace privacy under the Fourth Amendment.

A. BASIC FOURTH AMENDMENT DOCTRINE

Current Fourth Amendment jurisprudence is inexorably linked with the concept of privacy.¹⁰ A Fourth Amendment analysis begins by asking whether the Amendment can be applied to the facts at issue.¹¹ This turns on the reasonable expectation of privacy test: if the complaining individual believes the collected information to be private and "society is prepared to

10. See, e.g., *Katz*, 389 U.S. at 360 (Harlan, J., concurring). The Fourth Amendment explicitly protects "[t]he right of the people to be secure . . . against unreasonable searches and seizures," but does not mention privacy. U.S. CONST. amend. IV.

11. See, e.g., Justin Holbrook, *Communications Privacy in the Military*, 25 BERKELEY TECH. L.J. 831, 835 (2010) ("For purposes of the Fourth Amendment, a 'search' is conducted when the government, acting on its own or through an authorized agent, intrudes into a person's 'constitutionally protected reasonable expectation of privacy.'") (citation omitted).

recognize [this belief] as reasonable,”¹² then the government conduct is characterized as a search and the Fourth Amendment applies.

The next inquiry is into the reasonableness of the search or seizure. A search must be reasonable in both its inception and its scope. In other words, it must have been conducted for a legitimate purpose, and its breadth “must be ‘strictly tied to and justified by’ the circumstances which rendered its initiation permissible.”¹³ The reasonableness of a search can also be influenced by the factors that shape the expectation of privacy in the first place.¹⁴ Although courts frame the reasonable expectation of privacy as a binary question up front—the expectation is either reasonable or it is not—the extent of its reasonableness can limit the Fourth Amendment’s protection of a close case.¹⁵

Fourth Amendment issues regularly emerge from police investigations of criminal activity. In those situations, a warrant supported by probable cause and issued by a judge is often required to deem a search reasonable. However, the Amendment extends beyond police activity and prevents anyone working for the government from conducting unreasonable searches or seizures. Because requiring a warrant in every instance of government information-gathering would create insuperable barriers to conducting government business of all sorts, courts have identified a number of special circumstances in which a warrant is not required.¹⁶

One such case is when a government employer investigates or otherwise collects information about one of its employees. Although the Fourth Amendment still regulates this conduct, public employers are excused from the warrant requirement,¹⁷ and a public employee’s expectation of privacy is typically considered in light of the ‘operational realities’ of the workplace.¹⁸ This means that both the official workplace privacy policies and their actual enforcement in the workplace are given great weight in determining the degree of privacy the employee reasonably could have expected.

12. *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

13. *Terry v. Ohio*, 392 U.S. 1, 19 (1968) (quoting *Warden v. Hayden*, 387 U.S. 294, 310 (1967) (Fortas, J., concurring)).

14. *Ontario v. Quon*, 130 S. Ct. 2619, 2631 (2010).

15. *See, e.g., Vernonia School Dist. 47J v. Acton*, 515 U.S. 646, 654–60 (1995) (discussing the limitation to a student athlete’s legitimate expectations of privacy and holding that a school’s drug testing policy does not violate the Fourth Amendment).

16. *See, e.g., Nat’l Treasury Employees Union v. Von Raab*, 489 U.S. 656, 665–66 (1989) (applying the special needs doctrine to permit the Customs Service to drug test some of its employees without a warrant or particularized suspicion of any kind).

17. *O’Connor v. Ortega*, 480 U.S. 709, 722 (1987); *id.* at 732 (Scalia, J., concurring).

18. *Id.* at 717; *see also infra* Section I.D.

B. PROPERTY, PRIVACY, AND REASONABLE EXPECTATIONS: WHEN DOES THE FOURTH AMENDMENT APPLY?

When the government directly seizes one's property or person, the Fourth Amendment's applicability is relatively uncontroversial; these cases tend to focus on whether the seizure is reasonable or not.¹⁹ When the government collects information about an individual without seizing their property, the application of the Fourth Amendment becomes less clear. Caselaw plainly establishes that the Fourth Amendment covers cases where the search does not directly violate a property or autonomy interest. This protection of "privacy," as a separate interest from "property" and "autonomy," is easy to articulate, but largely remains an open question. This Section discusses the recognition of a privacy interest protected by the Fourth Amendment and the extent of that protection.

The Fourth Amendment's language emphasizes security from unreasonable searches and seizures in certain realms—"persons, houses, papers, and effects."²⁰ Until the 20th century, the Amendment's contours were largely understood by reference to property law.²¹ Before the 19th century revolution in communication technology, property rights and privacy rights overlapped more than they do today.²² Still, early Fourth Amendment cases did acknowledge that "security" protection meant something different than protection against intrusion into or onto a person's property.²³ Tangible items and other facts—such as conversations²⁴—in one's home were protected from unreasonable collection; what existed in the open was not. In

19. *E.g.*, *Illinois v. McArthur*, 531 U.S. 326, 337 (2001) (holding a search of a man's home reasonable under the Fourth Amendment); *United States v. Place*, 462 U.S. 696, 710 (1983) (holding the seizure and search of a suitcase unreasonable under the Fourth Amendment).

20. U.S. CONST. amend. IV.

21. Tamar R. Gubins, Note, *Warshak v. United States: The Katz for Electronic Communication*, 23 BERKELEY TECH. L.J. 723, 730–31 (2008).

22. *See id.* at 731.

23. *See, e.g.*, *Boyd v. United States*, 116 U.S. 616, 630 ("It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offense; but . . . the invasion of his indefeasible right of personal security . . ."); *Ex parte Jackson*, 96 U.S. 727, 733 (1877) ("[T]o invade the secrecy of . . . sealed packages in the mail [violates] the great principle embodied in the [F]ourth [A]mendment of the Constitution.").

24. *See* DANIEL J. SOLOVE, MARC ROTENBERG & PAUL M. SCHWARTZ, *PRIVACY, INFORMATION, AND TECHNOLOGY* 64 (2006) ("'Eavesdropping' . . . [means] to 'listen under walls or window . . . to hearken after discourse, and thereupon to frame . . . mischievous tales.' [P]eople could easily avoid eavesdroppers by ensuring that nobody else was around during their conversations.") (quoting WILLIAM BLACKSTONE, *COMMENTARIES* 168 (1769)).

Ex parte Jackson, the Court acknowledged that “the great principle embodied in the [F]ourth [A]mendment”²⁵ protected sealed letters as they traveled through the post office. The packages were not, strictly speaking, the individual’s property any more, but security in one’s sealed packages required this protection.²⁶ While this decision represented a small step outside the bounds of property protection, the “great principle”²⁷ of security in person and property would be developed much further in the twentieth century. As technology pushed the content of private communication (and private life generally) further and further from the traditional confines of well recognized property interests, the need to distinguish property from privacy to achieve the Fourth Amendment’s guarantees became more and more obvious.

In the late 19th century, Warren and Brandeis observed in their article *The Right to Privacy* the importance of more developed privacy protection in the face of advancing technology.²⁸ Their article gave vitality to the concept of privacy that has pervaded ever since.²⁹ The authors identified several ways that new technology, the camera in particular, created new harms that demanded recognition and protection. They concluded that the common law could develop to protect the “inviolable personality” that new technology and social practices were threatening.³⁰ Over the next few decades, their vision of tort protection of “the right to be let alone” was slowly recognized in a variety of circumstances.³¹ Seventy years after Warren and Brandeis’ article, William Prosser organized the disparate cases addressing the right to privacy (described by one federal judge at the time as a “haystack in a hurricane”³²) into four discrete torts: intrusion, public disclosure of private facts, false light publicity, and appropriation.³³ The American Law Institute adopted this

25. *Ex parte Jackson*, 96 U.S. at 733.

26. *Id.*

27. *Id.*

28. Warren & Brandeis, *supra* note 1, 195.

29. See William L. Prosser, *Privacy*, 48 CALIF. L. REV. 383, 383–89 (1960); Serwin, *supra* note 5, at 870–71.

30. Warren & Brandeis, *supra* note 1, at 220.

31. See Prosser, *supra* note 29, at 384–88 (cataloguing state court recognition of a right to privacy in the first half of the 20th century).

32. *Ettore v. Philco Television Broadcasting Corp.*, 229 F.2d 481, 485 (3d Cir. 1956).

33. Prosser, *supra* note 29, at 389. These distinctions eventually made their way into the Second Restatement of Torts, edited by Prosser. RESTATEMENT (SECOND) OF TORTS §§ 652A–652D (1976).

categorization in the *Restatement (Second) of Torts*³⁴ and the courts quickly followed suit.³⁵

It was in the context of privacy's mid-twentieth century common law development that the concept of privacy began to take its central role in the Fourth Amendment.³⁶ Although the Amendment's focus on personal security plainly entailed some conception of "a right to be let alone" from the government, some believed that this right should be limited to the protection of property-based interests.³⁷

The most forceful articulation of this "property approach" to the Fourth Amendment's application can be found in *Olmstead v. United States*.³⁸ There, the Court concluded that wiretapping telephone conversations did not violate the Fourth Amendment, because conversations were transmitted outside the home on wires as public as "the highways along which they are stretched."³⁹ Discussing the Fourth Amendment's scope, the Court reasoned that "[t]he amendment itself shows that the search is to be of material things—the person, the house, his papers, or his effects."⁴⁰ Noting the trend of recent Fourth Amendment cases towards broader application of the Amendment—less tethered to property interests⁴¹—the *Olmstead* majority drew a line in the sand. Because the wiretapping involved no trespass, "[t]here was no

34. *Id.* §§ 652A–652E.

35. *E.g.*, Amy Gajda, *Judging Journalism: The Turn Toward Privacy and Judicial Regulation of the Press*, 97 CALIF. L. REV. 1039, 1050 n.63 (2009).

36. CHRISTOPHER SLOBOGIN, *PRIVACY AT RISK: THE NEW GOVERNMENT SURVEILLANCE AND THE FOURTH AMENDMENT* 23–24 (2007).

37. *See, e.g.*, *Boyd v. United States*, 116 U.S. 616, 641 (1886) (Miller, J., concurring) ("The searches meant by the constitution were such as led to seizure when the search was successful. . . . [T]he framers of the constitution had their attention drawn . . . to the . . . searching [of] private houses and seizing [of] private papers."). Even in the 19th century, however, the majority in *Boyd* made it clear that the Fourth Amendment protected more than just property. *Id.* at 635 ("[C]onstitutional provisions for the security of person and property should be liberally construed It is the duty of courts to be watchful for the constitutional rights of the citizen, and against any stealthy encroachments thereon.").

38. 277 U.S. 438 (1928), *overruled by* *Katz v. United States*, 389 U.S. 347 (1967); *see also* *United States v. United States District Court*, 407 U.S. 297, 313 (1972) ("Though physical entry of the home is the chief evil against which the wording of the Fourth Amendment is directed, its broader spirit now shields private speech from unreasonable surveillance.").

39. *Olmstead*, 277 U.S. at 465.

40. *Id.* at 464.

41. *Id.* at 458–64; *e.g.*, *Boyd*, 116 U.S. 616, 638 (holding a law requiring the submission of private papers to a court invalid); *Weeks v. United States*, 232 U.S. 383, 398 (1914) (restricting the admission of improperly obtained evidence at court); *Gouled v. United States*, 255 U.S. 298, 313 (1921) (forbidding the admission of papers taken from someone's office where admission to the office was gained under false pretenses).

searching. There was no seizure.”⁴² Because the Fourth Amendment did not apply to this sort of information collecting, the question of its reasonableness was not an issue.⁴³

Writing in dissent, Justice Brandeis argued that the Fourth Amendment was not limited to protection of property interests; it included some protection of the right to privacy he had first written about thirty-eight years earlier.⁴⁴ He noted that, as technology advances, “[s]ubtler and more far-reaching means of invading privacy have become available to the government. Discovery and invention have made it possible for the government, by means far more effective than stretching upon the rack, to obtain disclosure in court of what is whispered in the closet.”⁴⁵ Six years after the Court’s ruling in *Olmstead*, Congress passed the Federal Communications Act restricting the Federal Government’s use of wiretapping. Although public sentiment and political discourse against the practice of wiretapping was pervasive in the years after *Olmstead*,⁴⁶ it would be almost forty years before the Supreme Court reversed its decision.

*Katz v. United States*⁴⁷—announcing this reversal—involved an FBI investigation of Frank Katz, who regularly placed illegal bets from a phone booth in Southern California. The FBI secretly recorded Katz’s half of his conversations in the booth. In cases leading up to the *Katz* decision, the Court had parted ways with the narrow trespass doctrine articulated by *Olmstead*, laying a foundation for its explicit embrace of a privacy interest protected by the Fourth Amendment.⁴⁸ The Court held that the secret recording violated Katz’s Fourth Amendment rights. The parties’ arguments focused on whether the phone booth was a private or public place, but the Court reframed the issue: “the Fourth Amendment protects people, not places. . . . [W]hat [a person] seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.”⁴⁹ Although the “Fourth Amendment cannot be translated into a general constitutional ‘right

42. *Olmstead*, 277 U.S. at 464.

43. *Id.*

44. *Id.* at 479 (Brandeis, J., dissenting).

45. *Id.* at 473 (Brandeis, J., dissenting).

46. *E.g.*, JEROLD H. ISRAEL & WAYNE R. LAFAVE, CRIMINAL PROCEDURE: CONSTITUTIONAL LIMITATIONS IN A NUTSHELL § 2.2(a) (2006) (“[The] property approach was rejected in *Katz v. U.S.* (1967), in favor of a privacy approach.”).

47. 389 U.S. 347 (1967).

48. *Id.* at 353; *see, e.g.*, *Warden, Md. Penitentiary v. Hayden*, 387 U.S. 294, 304 (1967) (“The premise that property interests control the right of the Government to search and seize has been discredited.”).

49. *Katz*, 389 U.S. at 351.

to privacy,'⁵⁰ it does limit government intrusions on areas that are preserved and recognized as private.⁵¹

Justice Harlan's concurrence offered the most widely repeated articulation of the Court's holding. He stated "that an enclosed telephone booth is an area where . . . a person has a constitutionally protected reasonable expectation of privacy."⁵² More generally, for Fourth Amendment protection to apply "there is a twofold 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.'"⁵³ Harlan would later caution against too heavy a reliance on expectations, which "are in large part reflections of" what the law allows,⁵⁴ but the reasonable expectation of privacy test has nevertheless become the unwieldy cornerstone of Fourth Amendment analysis.

More has been written about *Katz* than this Note has the space to summarize.⁵⁵ It has earned recognition as a major development in Fourth Amendment law for its definitive recognition of the privacy approach to the Fourth Amendment rejected in *Olmstead*. Although the language of *Katz* suggests a sweeping change in the Court's understanding of the Fourth Amendment,⁵⁶ by many accounts, this promise has not been met.⁵⁷ *Katz* clarified that privacy rights sometimes extend beyond property rights, but subsequent decisions have also made it clear that privacy can cover less than

50. *Id.* at 350.

51. *Id.* at 351.

52. *Id.* at 361 (Harlan, J., concurring).

53. *Id.*

54. *United States v. White*, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting).

55. See, e.g., Aya Gruber, *Garbage Pail and Puppy Dog Tails: Is That What Katz Is Made Of?*, 41 U.C. DAVIS L. REV. 781 (2008); Christian M. Halliburton, *Letting Katz Out of the Bag: Cognitive Freedom and Fourth Amendment Fidelity*, 59 HASTINGS L.J. 309 (2007); H. Paul Honsinger, *Katz and Dogs: Canine Sniff Inspections and the Fourth Amendment*, 44 LA. L. REV. 1093 (1984); Michael D. Moberly, *Letting Katz Out of the Bag: The Employer's Duty to Accommodate Perceived Disabilities*, 30 ARIZ. ST. L.J. 603 (1998); Ric Simmons, *From Katz to Kyllo: A Blueprint For Adapting The Fourth Amendment to Twenty-First Century Technologies*, 53 HASTINGS L.J. 1303 (2002); David A. Sklansky, *Back to the Future: Kyllo, Katz, and Common Law*, 72 MISS. L.J. 143 (2002).

56. Justice Stewart's clerk Laurence Tribe was apparently primarily responsible for the majority opinion. See Peter Winn, *Katz and the Origins of the "Reasonable Expectation of Privacy" Test*, 40 MCGEORGE L. REV. 1, 3 n.14 (2009).

57. E.g., Gruber, *supra* note 55, 784.

what property does. For instance, the open fields doctrine explicitly limits Fourth Amendment protection of undeveloped private property.⁵⁸

Despite these divergences of property and privacy rights, Professor Orin Kerr convincingly observed that the overlap remains substantial.⁵⁹ Where bright line rules regarding expectation of privacy have been developed, they often track property rights.⁶⁰ This is generally true, for example, of privacy in one's dwelling, one's car, and in closed containers.⁶¹ There are, of course, exceptions to this generalization,⁶² but "property law provides a surprisingly accurate guide"⁶³ to courts' assessment of the reasonable expectation of privacy.

More generally, notions of ownership often inform notions of privacy rights. Even where property rights are conceptually distinct from privacy rights, the interests share a vocabulary that belies the conceptual overlap.⁶⁴ After all, we have a right to exclude others from those things and areas of our life that are "ours." The *Quon* case provides a perfect illustration of this. The City paid for the pager at issue in the case, but Quon paid for his accrued overage charges. Although the case did not turn doctrinally on determining ownership of the text messages, the notion of ownership of the messages is in the background of the scholarly and legal discussions of the case.⁶⁵ The allusion to an ownership or property interest of some kind helps

58. See, e.g., *Rakas v. Illinois*, 439 U.S. 128, 144 n.12 (1978) ("[E]ven a property interest in premises may not be sufficient to establish a legitimate expectation of privacy with respect to particular items located on the premises or activity conducted thereon.").

59. Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 809–15 (2004) [hereinafter *Kerr, Constitutional Myths*].

60. For instance, a homeowner or renter has a reasonable expectation of privacy in his home, but when eviction proceedings are initiated the expectation of privacy is extinguished along with his property rights. *Id.* at 810 (citing *Simpson v. Saroff*, 741 F. Supp. 1073, 1078 (S.D.N.Y. 1990)).

61. *Id.* at 809–13.

62. As discussed *infra* Section I.D, government employee privacy is one such circumstance that Kerr acknowledges has diverged from property law protection. Kerr, *Constitutional Myths*, *supra* note 59 at 815.

63. Kerr, *Constitutional Myths*, *supra* note 59, at 815.

64. *C.f.* James Q. Whitman, *The Two Western Cultures of Privacy: Dignity Versus Liberty* 113 YALE L.J. 1151, 1214 (2004) ("What matters in America, over the long run, is liberty against the state within the privacy of one's home."); Daniel Solove, *Conceptualizing Privacy*, 90 CALIF. L. REV. 1087, 1112 (2002) [hereinafter Solove, *Conceptualizing*] (discussing the link between property and privacy, and tracing the notion of a property right in information about themselves back to John Locke).

65. For instance, Chief Justice Roberts pressed the City's attorney at Oral Arguments of the *Quon* case about how, if Sergeant Quon paid for the overages, they were in some sense his. Transcript of Oral Argument at 5, *Ontario v. Quon*, 130 S. Ct. 2619 (2010) (No.

courts to this day to articulate the harm entailed in an invasion of privacy. Although this link to property rights is an inescapable—and at times helpful—one, it can limit a court’s ability to appreciate privacy invasions that technology makes possible outside the sphere of property.⁶⁶

C. REASONABLE SEARCHES: HOW DOES THE FOURTH AMENDMENT APPLY?

When an individual does have a reasonable expectation of privacy, that is, when the Fourth Amendment does apply, the reasonableness of the search or seizure is measured in two ways: its purpose and its scope.⁶⁷ Courts have applied these two requirements in a flexible way that permits them to avoid burdening public officials engaged in their duties while still minimizing harm to the public’s interests against arbitrary government intrusion.⁶⁸ Where the Fourth Amendment applies, the government’s interest in conducting the search is balanced against the interest invaded by the search. This balancing considers both the initiation of the search and the need to conduct it in the manner it was conducted.

One of the seminal modern Supreme Court cases discussing the reasonableness of a search is *Terry v. Ohio*. In *Terry*, a police officer stopped and frisked three men whom he had observed behaving suspiciously.⁶⁹ They appeared to be “casing” a store, preparing to rob it.⁷⁰ The officer approached the individuals and after patting them down found two guns on the three men and had them arrested for carrying concealed weapons.⁷¹ The Court held that the Fourth Amendment applied, but that under the circumstances the search was reasonable.⁷²

The *Terry* Court discussed at length the reasonableness of government searches. The basic rubric for reasonableness balances the “need to search (or seize) against the invasion which the search (or seizure) entails.”⁷³ In the criminal context, police conduct is often subject to the Warrant Clause of the Fourth Amendment, which requires a judge to balance these interests and approve of searches supported by probable cause that a crime has been

08–1332) (“Now, can’t you sort of put all [of Quon’s payments] together and say that it would be reasonable for him to assume that private messages were his business?”).

66. *See, e.g.*, *Olmstead v. United States*, 277 U.S. 438, 464–65 (1928).

67. *Terry v. Ohio*, 392 U.S. 1, 19–20 (1968).

68. *See, e.g., id.*

69. *Id.* at 4–7.

70. *Id.* at 6.

71. *Id.* at 7.

72. *Id.* at 30–31.

73. *Id.* at 21 (quoting *Camara v. Municipal Court*, 387 U.S. 523, 536–37 (1967)).

committed and that evidence will be found if the search is allowed.⁷⁴ Where a warrant supported by probable cause is not a realistic option (such as when a police officer must react to an immediately unfolding situation), the same reasonableness requirement still exists.⁷⁵ Reasonableness is not to be confused with good faith; it requires that a reasonable person, with a neutral and objective view of the facts available before the search, would approve of the action.⁷⁶ In *Terry*, the police officer's search was justified by the legitimate concern that the suspicious men would be armed and would therefore pose a threat to his safety—the search was reasonable in inception.⁷⁷ Furthermore, his search was only a pat down of the suspects' outer clothing.⁷⁸ Thus he “confined his search strictly to what was minimally necessary to learn whether the men were armed”—the search was reasonable in scope.⁷⁹

When courts apply the Fourth Amendment outside of the police context, the analysis is somewhat modified.⁸⁰ In *New Jersey v. T.L.O.*, the Court addressed the reasonableness of searching a high school freshman suspected of smoking in the school bathroom.⁸¹ Although the principal was not expected to follow the procedure that a police officer would be compelled to follow, the Court reiterated that the reasonableness of a search is judged by its purpose and scope; both must be found reasonable after balancing the need of the search against the interest being invaded.⁸² Here, the search's purpose at inception needed to be based on “reasonable grounds for suspecting that the search [would] turn up evidence that the student has violated . . . the law or the rules of the school.”⁸³ Similarly, the search's scope would be reasonable so long as the search conducted was “reasonably related to the objectives of the search and not excessively intrusive in light of the age and sex of the student and the nature of the infraction.”⁸⁴ This language emphasizes the unique factors of the school setting that influence the reasonableness of a search.

74. *E.g.*, *Illinois v. Gates*, 462 U.S. 213, 238–39 (1983) (discussing the totality of the circumstances standard for probable cause).

75. *Terry*, 392 U.S. at 21–22.

76. *Id.*

77. *Id.* at 28.

78. *Id.* at 30.

79. *Id.*

80. *New Jersey v. T.L.O.*, 469 U.S. 325, 340 (1985).

81. *Id.* at 328–29.

82. *Id.* at 341–42.

83. *Id.* (internal quotes and citation omitted).

84. *Id.* at 342.

D. GOVERNMENT EMPLOYEE PRIVACY UNDER THE FOURTH AMENDMENT

The Fourth Amendment's application to government employees is similarly tailored to accommodate the workplace setting. The policies and practices of the workplace are given great weight in assessing an employee's reasonable expectation of privacy. Both the purpose and the scope of a search are considered. The Court addressed public workplace privacy in *O'Connor v. Ortega*.⁸⁵ Dr. Magno Ortega, a long time psychiatrist at Napa State Hospital, was suspected of improperly coercing contributions from residents at the hospital to purchase an Apple II computer, and was placed on administrative leave while staff conducted an investigation.⁸⁶ There was no policy permitting an employee's office to be entered or searched without consent.⁸⁷ The hospital staff, however, searched Dr. Ortega's office; taking and reviewing personal correspondence with a former resident, billing documents, and other personal property.⁸⁸ Some of the seized material from his office became evidence against him in his administrative proceedings. The Court, in a 5–4 decision, remanded the case because the trial record did not adequately establish the purpose of the search and other facts relevant to the search's reasonableness.⁸⁹

The *O'Connor* Court produced three opinions discussing the correct application of the Fourth Amendment to government workplaces. Justice O'Connor wrote for a four Justice plurality that a public employee's reasonable expectation of privacy at work is to be considered in light of the "operational realities" of the office environment, taking into account "actual office practices and procedures, or . . . legitimate regulation [of the workplace]."⁹⁰ Where the office's reasonable policies and practices make it clear that an individual cannot expect privacy, the Fourth Amendment (apparently) cannot prevent its invasion.⁹¹ The plurality also held the warrant requirement unduly burdensome for employers and used language very

85. 480 U.S. 709 (1987). It is worth noting that this case's history continued for another eleven years after the Court remanded the case. The Court found that summary judgment was premature given the factual dispute about the purpose of the search. Dr. Ortega eventually prevailed. *Ortega v. O'Connor*, 146 F.3d 1149 (9th Cir. 1998) (affirming a jury award of over \$400,000).

86. *O'Connor*, 480 U.S. at 712.

87. *Id.* at 713.

88. *Id.*

89. *Id.* at 729; *id.* (Scalia, J., concurring).

90. *Id.* at 717.

91. *Id.*

similar to *New Jersey v. T.L.O.* to define the reasonableness of a search.⁹² An employer search is reasonable at inception if the employer had “reasonable grounds for suspecting that the search will turn up evidence that the employee is guilty of work-related misconduct, or that the search [was] necessary for a noninvestigatory work-related purpose such as to retrieve a needed file.”⁹³ An employer search is reasonable in scope where “the measures adopted are reasonably related to the objectives of the search and not excessively intrusive in light of . . . the nature of the [misconduct].”⁹⁴

Justice Scalia concurred in the remand of the case but espoused a different analytic approach.⁹⁵ He agreed with the plurality that the warrant requirement was per se impractical in the employer context (giving this holding the force of law).⁹⁶ However he was harshly critical of the “operational realities” approach taken by Justice O’Connor.⁹⁷ In his view, the accessibility of one’s office should never excuse unreasonable searches.⁹⁸ His approach would essentially forego the preliminary inquiry into the reasonable expectation of privacy, and focus analysis on the reasonableness of the search.⁹⁹ The fact that an employer, and not a police officer, conducts the search has an impact on this stage of Scalia’s analysis. “The government, like any other employer, needs frequent and convenient access to its desks, offices, and file cabinets for work-related purposes.”¹⁰⁰ His view is that “searches of the sort that are regarded as reasonable and normal in the private-employer context . . . do not violate the Fourth Amendment.”¹⁰¹

92. *Id.* at 722–23. Recall that the Court in *T.L.O.* defined a reasonable search as one when there are reasonable grounds for suspecting that the search will turn up evidence that the student has violated or is violating either the law or the rules of the school [and] when the measures adopted are reasonably related to the objectives of the search and not excessively intrusive in light of the age and sex of the student . . .

New Jersey v. T.L.O., 469 U.S. 325, 342 (1985).

93. *O’Connor*, 480 U.S. at 726.

94. *Id.* (quoting *T.L.O.*, 469 U.S. at 342) (alterations in original).

95. *Id.* at 729 (Scalia, J., concurring)

96. *Id.* at 732 (Scalia, J., concurring)

97. *Id.* at 730 (Scalia, J., concurring) (“I . . . object to the formulation of a standard so devoid of content that it produces rather than eliminates uncertainty in this field.”).

98. *Id.*

99. *Id.* at 731–32 (Scalia, J., concurring) (“[O]ffices of government employees . . . are covered by Fourth Amendment protections as a general matter. . . . The case turns, therefore, on . . . whether the governmental intrusion was reasonable.”).

100. *Id.* at 732 (Scalia, J., concurring).

101. *Id.*

Finally, Justice Blackmun wrote a lengthy dissent signed by three other justices. This plurality believed that Dr. Ortega's Fourth Amendment rights had been violated and that a probable cause warrant was not unreasonable to require in this case.¹⁰² Therefore, because a warrant was required, but not obtained, Blackmun would have ruled in Dr. Ortega's favor. Setting this point aside, he also strongly objected to the Court's development of a legal standard in a case where important facts remained unsettled. Blackmun, like Scalia, was troubled that the Court had announced a fact sensitive standard absent "sustained consideration of a particular factual situation."¹⁰³ Unlike Scalia, however, Blackmun's concern was that "the standard that emerges makes reasonable almost any workplace search by a public employer"¹⁰⁴ by setting the bar of an employee's expectation of privacy too low. The modern employee's private life necessarily intersects with the workplace in a variety of ways that Blackmun believed the plurality failed to acknowledge.¹⁰⁵ He also strongly objected to the O'Connor plurality's purported balancing of the employer and employee interests in their discussion of the reasonableness of the search. In his view, they failed to appreciate the weight of the employee's interests in protection from invasive and surprising employer searches, and deferred instead to a legitimate, but vague, notion of the employer's need to address and investigate misconduct in an efficient manner.¹⁰⁶ In Blackmun's view, without more specific facts to tether its determination, the Court erred in announcing a general standard for reasonable searches.¹⁰⁷

Thus, the analytic framework for public employer Fourth Amendment claims is not as settled as the tidy accounting suggested *supra* Section I.A.¹⁰⁸

102. *Id.* (Blackmun, J., dissenting).

103. *Id.* at 733 (Blackmun, J., dissenting).

104. *Id.* at 734 (Blackmun, J., dissenting).

105. *Id.* at 740 (Blackmun, J., dissenting) ("[T]he plurality's remark that the 'employee may avoid exposing personal belongings at work by simply leaving them at home,' *ante*, at 725, reveals on the part of the Members of the plurality a certain insensitivity to the 'operational realities of the workplace,' *ante*, at 717, they so value"). Justice Blackmun's point is all the more relevant today. As *Quon's* facts illustrate perfectly, technology continues to blur the line between the workplace and the home. *See Ontario v. Quon*, 130 S. Ct. 2619, 2629–30 (2010) ("The mixed personal and professional use of company-provided devices is an essential tool for transacting business in the information age."); Brief of Elec. Frontier Found. et al. as Amici Curiae in Support of Respondents at 3, *Quon*, 130 S. Ct. 2619 (No. 08–1332), 2010 WL 1063463, at *3.

106. *See O'Connor*, 480 U.S. at 738–40 (Blackmun, J., dissenting).

107. *Id.* at 733 (Blackmun, J., dissenting).

108. When no opinion is supported by a majority of the Court, the holding decided on the narrowest grounds is said to be controlling. *Marks v. United States*, 430 U.S. 188, 193 (1977). Justice Scalia and Orin Kerr have both balked at the task of subjecting this plurality

Still, although a definitive analytic framework for assessing government employer violations of the Fourth Amendment has not been reached by the Supreme Court, many courts—and both parties in the *Quon* case¹⁰⁹—adopt the approach espoused by the *O'Connor* plurality when assessing a public employee's reasonable expectation of privacy.¹¹⁰

As for the standard for reasonable searches of public employees under the Fourth Amendment, the *O'Connor* plurality largely duplicates the standard announced in *T.L.O.* Since *O'Connor*, the Court has followed this approach, emphasizing that the government's interest in conducting searches is to be balanced against an employee's interest in workplace privacy when considering the purpose and scope of the search.¹¹¹ In both *Skinner v. Railway Labor Executives Association*¹¹² and *National Treasury Employees Union v. Von Raab*,¹¹³ the Court upheld drug-screening regulations for railway employees and certain employees of the U.S. Customs Service. Both programs involved government-imposed mandatory submission of blood or urine samples for testing employees.¹¹⁴ The Court agreed with a unanimous body of appellate court opinions that such tests implicated a reasonable expectation of privacy, leaving little to discuss on the application of the Fourth Amendment.¹¹⁵ The cases focused on the reasonableness of these mandatory drug screenings. In *Skinner*, the “risks of injury to others that even a momentary lapse of attention”¹¹⁶ by a railroad employee represent won out against the “limited threats” to employee privacy posed by the tests. Similarly, in *Von Raab*, the Custom Service's important role as “the first line of defense against [drug trafficking,] one of the greatest problems affecting the health and welfare of our population,”¹¹⁷ and the need to “ensur[e] that front-line interdiction personnel are physically fit, and have unimpeachable integrity and

opinion to a *Marks* analysis. *Quon*, 130 S. Ct. at 2634 n. * (2010) (Scalia, J., concurring); Orin Kerr, *Will the Supreme Court Rethink Public Employee Privacy Rights in Quon?*, THE VOLOKH CONSPIRACY (Dec. 14, 2009, 10:00 PM), <http://volokh.com/2009/12/14/will-the-supreme-court-rethink-public-employee-privacy-rights-in-quon/> (“It’s somewhat hard to subject the *O'Connor* opinions to a *Marks* analysis. . . . The question makes my head hurt.”).

109. *Quon*, 130 S. Ct. at 2628.

110. E.g., Kerr, *supra* note 108; see also KATHLEEN MCKENNA, PROSKAUER ON PRIVACY § 9:4.2[B] (Kristen J. Mathews, ed. 2010).

111. See *Skinner v. Ry. Labor Executives Ass’n*, 489 U.S. 602 (1989); *Nat’l Treasury Employees Union v. Von Raab*, 489 U.S. 656 (1989).

112. 489 U.S. 602.

113. 489 U.S. 656.

114. *Id.* at 660–61; *Skinner*, 489 U.S. at 609.

115. See *Von Raab*, 489 U.S. at 665 (citing *Skinner*, 489 U.S. at 616–18).

116. *Skinner*, 489 U.S. at 628.

117. *Von Raab*, 489 U.S. at 668.

judgment”¹¹⁸ outweighed “the diminished expectation of privacy [drug enforcement officers have] in respect to the intrusions occasioned by a urine test.”¹¹⁹ Both cases placed a strong emphasis on the importance of balancing the public interests against the privacy invasions at issue.

In *Skinner*, the railway employees challenging the tests suggested a number of less intrusive alternatives, including the possibility that impaired employees would be detected without any testing at all.¹²⁰ The Court expressly rejected this approach to challenging the reasonableness of government activity: “We have repeatedly stated, . . . that the reasonableness of any particular government activity does not necessarily or invariably turn on the existence of alternative less intrusive means.”¹²¹ The question was not whether the drug testing was the best balance of government and employee interests, but whether it was a permissible one.

II. ONTARIO V. QUON: FACTS AND COMMENTARY

In addition to summarizing the facts and disposition of the case at the district court, Ninth Circuit, and Supreme Court, this Part includes some critical analysis of the Court’s opinion. The Supreme Court in *Ontario v. Quon* held that the review of the full text of a SWAT officer’s text messages on an employer provided device did not violate the Fourth Amendment because it was reasonable under the circumstances.¹²² This Part will discuss, however, that the unanimous opinion¹²³ fails to articulate why the search at issue was reasonable, skirts the issue of the Fourth Amendment’s application to the facts of the case, and provides little instructive guidance for the disposition of future cases.

A. THE FACTS OF *ONTARIO V. QUON*

In the Fall of 2001, the City of Ontario Police Department (Department) supplied alphanumeric pagers to members of the SWAT—including Sergeant Jeff Quon—to facilitate emergency communication.¹²⁴ Arch Wireless, a company with experience providing mobile communication services to government and corporate clients, provided over one hundred pagers to the

118. *Id.* at 670.

119. *Id.* at 672.

120. *Skinner*, 489 U.S. at 619 n.9.

121. *Id.* (internal quotation marks, brackets and citations omitted).

122. *Ontario v. Quon*, 130 S. Ct. 2619, 2631 (2010).

123. Justice Scalia signed onto all but Part III.A of the opinion. *Id.* at 2634 (Scalia, J., concurring).

124. *Id.* at 2625.

Department.¹²⁵ Eighteen months prior to receiving his pager, Quon signed a statement acknowledging the City's Computer Usage, Internet, and E-Mail Policy that "reserve[d] the [Department's] right to monitor and log all network activity including e-mail and Internet use, with or without notice."¹²⁶ On its face, this policy did not plainly apply to the new pagers.¹²⁷ However, in April of 2002, the Department clarified at a meeting Quon attended that text messages on the Department's pagers were considered email and were not private.¹²⁸

Shortly after receiving the pager, Quon began to exceed his monthly character allowance and incur overage charges.¹²⁹ Lieutenant Duke, the officer responsible for the pager contract, approached Quon about the excess charges.¹³⁰ Duke made it clear that the messages could be audited, but said "it was not his intent to audit" the messages.¹³¹ He said that as long as Quon paid for the overage fees, the messages would not be audited.¹³² Quon agreed to pay the fees. His understanding was that Duke had informally agreed not to review his messages if he paid the overage fees that accrued.¹³³

The overages continued, and Quon continued to pay the fees.¹³⁴ But by August of 2002, Duke told Ontario Police Chief Lloyd Scharf that he had grown "tired of being a bill collector."¹³⁵ He also mentioned the regular

125. Transcript of Deposition of Jackie Deavers at 12, *Quon v. Arch Wireless*, 445 F. Supp. 2d 1116 (C.D. Cal. 2006) (No. EDCV 03-0199 RT(SGLx)), 2004 WL 5389367.

126. *Quon*, 130 S. Ct. at 2625 (citation omitted).

127. *Id.*

128. *Quon*, 445 F. Supp. 2d at 1124.

129. *Id.*

130. *Id.*

131. *Quon*, 130 S. Ct. at 2625. The full story is recounted by the district court: "As Lieutenant Duke explained in his deposition: '[W]hat I told Quon was that he had to pay for his overage, that I did not want to determine if the overage was personal or business unless they wanted me to, because if they said, 'It's all business, I'm not paying for it,' then I would do an audit to confirm that. And I didn't want to get into the bill collecting thing, so he needed to pay for his personal messages so we didn't—pay for the overage so we didn't do the audit.'" *Quon*, 445 F. Supp. 2d at 1125.

132. *Quon*, 445 F. Supp. 2d at 1124.

133. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 897 (9th Cir. 2008).

134. *Quon*, 445 F. Supp. 2d at 1125.

135. The Supreme Court mistakenly reports that this meeting took place in October of 2002. Compare *Quon*, 130 S. Ct. at 2626 ("At a meeting in October . . ."), with *Quon*, 529 F.3d at 897 ("In August 2002 . . . Lieutenant Duke then let it be known . . ."), and *Quon*, 445 F. Supp. 2d at 1125 ("[I]n August, 2002, [Duke] made it known at a meeting with . . . Scharf . . ."), and Transcript of Deposition of Jackie Deavers, *supra* note 125, at 8 (confirming that transcripts were delivered to the department on the 10th of October and that the request occurred sometime around September).

overcharges of two officers, including Quon.¹³⁶ In response, Scharf asked Duke to review the transcripts of messages sent by these two officers for the months of August and September.¹³⁷ Duke requested and received these transcripts from Arch Wireless.¹³⁸ An internal review of the transcripts revealed that in the month of August, about 88% of messages sent or received by Quon while on duty (nearly 400 messages total) were not work related.¹³⁹ These personal messages included explicit sexual conversations with Quon's wife and with his mistress.¹⁴⁰ Quon was then disciplined for misusing his pager because "too much duty time was used for personal pages not associated with duty on duty time."¹⁴¹

As a public employee, Quon and several of the people he had messaged objected to the Department's actions. They brought suit against the City and Police Department for violation of their Fourth Amendment rights to privacy and against Arch Wireless for violation of the Stored Communications Act (SCA).¹⁴² To succeed on the Fourth Amendment claim, they needed to show a reasonable expectation of privacy and that the review of the full text of the messages was an unreasonable search or seizure under the circumstances.¹⁴³

136. *Quon*, 130 S. Ct. at 2626.

137. *Quon*, 445 F. Supp. 2d at 1125–26.

138. *Id.* at 1126.

139. *Quon*, 130 S Ct. at 2625 (noting that only 57 of 456 messages sent and received on duty in August were work related).

140. *Id.* at 2626.

141. *Quon*, 445 F. Supp. 2d at 1127 (citation omitted).

142. Although this claim is not the focus of this Note, the SCA claim is briefly discussed by the Supreme Court's resolution of the Fourth Amendment Claim. Briefly, the SCA protects certain types of privacy breaches in electronic communications and makes two distinctions relevant to this case. The first is between subscribers and addressees. The second is between electronic communication services (ECS) and remote computing services (RCS). An ECS can lawfully release information to an addressee or intended recipient. 18 U.S.C. § 2702(b)(1), (b)(3) (2006). An RCS can lawfully release information to an addressee, intended recipient, or to a subscriber. *Id.* § 2702(b)(3). In this case, Quon and the other plaintiffs were addressees and the City was a subscriber. Therefore the classification of Arch Wireless as an ECS or RCS would resolve the case. The District Court found that such a classification was not "all or nothing," but that the subscriber exception applied to the retrieval of text transcripts. *Quon*, 445 F. Supp. 2d at 1137. The Ninth Circuit reversed, holding that Arch Wireless was an ECS. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 902 (9th Cir. 2008), *cert. denied*, 130 S.Ct. 1011 (2009).

143. *See supra* Section I.A.

B. THE DISTRICT COURT OPINION

The district court held that Quon had a reasonable expectation of privacy in his text messages.¹⁴⁴ This holding turned on Lieutenant Duke's informal policy of permitting officers to essentially buy back their privacy by paying for overages. Duke's policy of "turning a blind eye" to the Police Department's official privacy policy so long as overage payments were made, "could [even] be said to have *encouraged* employees to use the pagers for personal matters."¹⁴⁵ The court also discussed the Department's ownership of the pager, noting that "[e]xpectations of privacy are not tied up by reference to property law."¹⁴⁶ Here, Duke's policy on the use of the City's equipment canceled out any effect that the City's ownership of the pagers may have had on the analysis.¹⁴⁷

In order to decide the reasonableness of the search, the court administered a jury trial to determine the purpose of the department's audit.¹⁴⁸ If the audit of Quon's texts was "meant to ferret out [his] misconduct," the search was unreasonable given Lieutenant Duke's informal policy permitting (or even encouraging) personal use of the pagers. On the other hand, if the audit was a noninvestigatory effort to determine "the utility or efficacy of the existing monthly character limits" the police department had contracted for, it was reasonable in inception.¹⁴⁹ The plaintiffs argued that the search could still be held unreasonable in scope because less intrusive means of determining the adequacy of the character limits were available, but the court rejected this suggestion because it found their suggestions ineffective given the Department's purpose.¹⁵⁰ The jury's determination as to the purpose of the search would completely resolve the Fourth Amendment claim.¹⁵¹

144. *Quon*, 445 F. Supp. 2d at 1141.

145. *Id.* at 1142 (emphasis in original).

146. *Id.* at 1141 (citing *Katz*, 389 U.S. at 352).

147. *Id.* at 1142.

148. *Id.* at 1144.

149. *Id.*

150. *Id.* at 1145–46 ("[T]he only way to accurately and definitively determine whether . . . the monthly character limits [were adequate] was by looking at the actual text-messages . . .").

151. It is interesting to note that the district court's ruling, although entirely defensible, put the Department in the somewhat paradoxical situation of arguing that the purpose of its searches was for bureaucratic, noninvestigatory, and somewhat unremarkable. In contrast, *Von Raab* and *Skinner* both focused on the vital importance of the searches at issue in order to declare them reasonable. *Skinner v. Ry. Labor Executives Ass'n*, 489 U.S. 602 (1989);

Notwithstanding the court's skepticism to the contrary,¹⁵² the jury determined that the search was undertaken to assess the adequacy of the character limit. The court accordingly ruled that the search was reasonable in its inception and its scope, and entered judgment for the defendants.¹⁵³

C. THE NINTH CIRCUIT OPINION

At the Ninth Circuit, the panel reversed the district court. They agreed that Quon had a reasonable expectation of privacy in his texts and held that, given its noninvestigatory purpose, the search was unreasonable in its scope. In this reversal, the court noted a number of less intrusive alternatives that the police department could have used to determine whether a higher character limit was necessary.¹⁵⁴ When the defendants moved for rehearing en banc, a heated dispute over this bit of analysis erupted between Judge Wardlaw, the author of the panel opinion, and Judge Ikuta.¹⁵⁵

Judge Wardlaw's vigorous concurrence in the denial for rehearing en banc begins, "No poet ever interpreted nature as freely as Judge Ikuta interprets the record on this appeal."¹⁵⁶ Although the disputed points of law and fact are too numerous to catalog here, a key dispute between the two judges centered on whether reviewing the content of Quon's messages was reasonable in scope. Judge Ikuta's dissent asserts that Wardlaw's opinion reasoned that because less intrusive means were available, the search was unreasonable.¹⁵⁷ Wardlaw, however, directly disavows reliance on the "less

Nat'l Treasury Employees Union v. Von Raab, 489 U.S. 656 (1989). For further discussion of these cases see *supra* Section I.D.

152. The court expressed its doubt about the purpose of the Department's search: Defendants next argue that the scope of the search was reasonable because . . . "the purpose of the search was simple to determine whether or not the character limit was to be increased, as had been previously done. In order to make such a determination, the messages had to be reviewed to determine what percent were business versus personal." (Defs' Mot. J. Pleadings at 8). While the Court may not find this convincing in light of much of the deposition testimony it has reviewed, the Court does find that, *if* a jury were to find that this was in fact the purpose for the audit, the audit would both be justified at its inception and would be reasonable in its scope.

Quon, 445 F. Supp. 2d at 1145 (emphasis in original).

153. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 899 (9th Cir. 2008) (describing *Quon's* disposition at the district court following the jury trial).

154. *Quon*, 529 F.3d at 909.

155. *See Quon v. Arch Wireless Operating Co.*, 554 F.3d 769 (9th Cir. 2008) (en banc).

156. *Id.* at 769 (Wardlaw, J., concurring).

157. *Id.* at 774 (Ikuta, J., dissenting).

intrusive means test.”¹⁵⁸ This argument would eventually play the dispositive role in the Supreme Court’s decision.¹⁵⁹

The portion of the panel’s opinion purportedly employing the less intrusive means test begins by discussing the district court ruling. “The district court,” Wardlaw noted, “determined that there were no less-intrusive means [and that] the only way to accurately and definitively determine whether [the monthly character limit was sufficiently high] was by looking at the actual text-messages used by the officers who exceeded the character limits.”¹⁶⁰ Responding to the district court’s analysis, Wardlaw continued, “[w]e disagree,”¹⁶¹ and went on to list a number of alternatives:

[T]he Department could have warned Quon that for the month of September he was forbidden from using his pager for personal communications, and that the contents of all of his messages would be reviewed to ensure the pager was used only for work-related purposes during that time frame. Alternatively, if the Department wanted to review past usage, it could have asked Quon to count the characters himself, or asked him to redact personal messages and grant permission to the Department to review the redacted transcript. . . . These are just a few of the ways in which the Department could have conducted a search that was reasonable in scope.¹⁶²

Wardlaw then concluded that “in light of [its] non-investigatory object . . . the search violated [Quon’s] Fourth Amendment rights.”¹⁶³ When pressed by Judge Ikuta’s dissent, Wardlaw vigorously defended her analysis, explaining that “[w]e mentioned other ways the [Department] could have verified the efficacy of the 25,000-character limit merely to illustrate our conclusion that the search was ‘excessively intrusive’ under *O’Connor*, when measured against the purpose of the search as found by the jury.”¹⁶⁴ Wardlaw’s point was that the recitation of less intrusive means in her opinion

158. *Id.* at 772 (Wardlaw, J., concurring).

159. *Ontario v. Quon*, 130 S. Ct. 2619, 2632 (2010) (explaining that “[t]he Court of Appeals erred” and that “[e]ven assuming there were ways that OPD could have performed the search that would have been less intrusive, it does not follow that the search as conducted was unreasonable”).

160. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 908–09 (9th Cir. 2008) (quoting *Quon v. Arch Wireless Operating Co.*, 445 F. Supp. 2d 1116, 1146 (C.D. Cal. 2006)).

161. *Id.* at 909.

162. *Id.*

163. *Id.*

164. *Id.*

was a response to the district opinion, not the basis for her conclusion. The search was excessive because Quon's privacy interest outweighed the Department's interest in determining the suitability of its character limit.

D. THE SUPREME COURT OPINION

The Supreme Court granted certiorari to address three issues: (1) whether the less intrusive means test decried by Judge Ikuta had been applied, (2) whether Quon had a reasonable expectation of privacy in his messages, and (3) whether the individuals Quon was texting with had a reasonable expectation of privacy.¹⁶⁵ There are two noteworthy aspects of the Court's decision. First, with no acknowledgement of Wardlaw's assertion to the contrary, the Court found that the Ninth Circuit had improperly analyzed the reasonableness of the search. The Court determined that reviewing Quon's messages was reasonable under the circumstances.¹⁶⁶ Second, because the audit of Quon's texts was permissible under the Fourth Amendment, the issue of his (and his friend's) reasonable expectation of privacy was not reached. The Court noted that the evolving norms of communication technology, particularly in the workplace, counseled against a premature statement of whether the expectation of privacy in messages like Quon's should receive constitutional protection.¹⁶⁷

1. *Less Intrusive Means*

In its analysis of the Ninth Circuit's ruling, the Court did not mention Judge Wardlaw's explanation in her denial of rehearing en banc concurrence. Quon's brief recites Judge Wardlaw's explanation and sums up the grounds for the Ninth Circuit's conclusion: "Reviewing all of the text-messages is an excessive manner in which to determine if the City needed to increase its character allotment."¹⁶⁸ The Court, however, recited the less intrusive alternatives that Judge Wardlaw's opinion mentioned and summarily concluded that the approach taken by the Ninth Circuit was an inappropriate application of the less intrusive means test, and that the search was reasonable in scope.¹⁶⁹

Where did this leave the requirement that the search be reasonable in scope? The Court was particularly concerned that the post hoc judicial reasoning employed by the less intrusive means test would permit courts to

165. Brief of Petitioners at i, *Ontario v. Quon*, 130 S. Ct. 2619 (2010) (No. 08-1332).

166. *Ontario v. Quon*, 130 S. Ct. 2619, 2632–33 (2010).

167. *Id.* at 2629.

168. Brief of Respondents at 59, *Quon*, 130 S. Ct. 2619 (No. 08-1332).

169. *Quon*, 130 S. Ct. at 2632 (emphasis added).

find any search unreasonable.¹⁷⁰ As the *Quon* Court noted, the *O'Connor* plurality opinion called for an analysis of whether “the measures adopted are reasonably related to the objectives of the search and not excessively intrusive in light of the circumstances giving rise to the search.”¹⁷¹ It is difficult, however, to imagine such an analysis that does not at least consider what alternative means of achieving the objective were available. Indeed, its own analysis contains dicta of post hoc judicial reasoning of *more* intrusive means that the Department might have reasonably resorted to.¹⁷² During oral arguments, the Justices pressed Quon’s counsel on whether the search was reasonable or not. The discussion quickly became one about the less intrusive alternatives and their adequacy; the Justices seemed unimpressed with the alternatives mentioned, but did not press the point that less intrusive means were inappropriate to consider during the discussion.¹⁷³ It is clear from the Court’s opinion, however, that the availability of less intrusive alternatives does not resolve the matter of a search’s reasonableness.

The Court’s assertion that less intrusive means do not render a search unreasonable does not explain why the government interest underlying the search in *Quon* outweighed Quon’s interest in privacy. Judge Wardlaw and Quon agreed that the availability of alternatives were not decisive. Their belief that the search was not reasonable seems grounded in the intuition that a purpose as bureaucratic, unassuming, and noninvestigatory as confirming character limits ought not to justify the full text review of what were predictably personal text messages. Furthermore, over a hundred pagers were distributed by the City,¹⁷⁴ but only two officers had their transcripts audited. If the character limit were truly inadequate, it seems unlikely that only these two officers would be exceeding their limits. At the risk of providing yet

170. *Id.* at 2632 (quoting *United States v. Martinez-Fuerte*, 428 U.S. 543, 557 n.12 (1976)).

171. *Id.* at 2630 (quoting *O'Connor v. Ortega*, 480 U.S. 709, 725–26 (1987)).

172. *Id.* at 2631 (“OPD requested transcripts for only the months of August and September 2002. While it may have been reasonable for OPD to review transcripts of all the months in which Quon exceeded his allowance . . .”).

173. Transcript of Oral Argument, *supra* note 65, at 35 (Justice Breyer: “I don’t see why these four things are so obviously more reasonable than what they did.”). In defense of Quon’s position, simply clarifying to Quon that future overages would result in automatic review and that extensive personal use would no longer be tolerated (one of the options mentioned by Quon’s counsel) would have spared Duke the role of “bill collector” that he had “grown tired of,” and provided an answer as to whether or not the limit was adequate. This option would have been about as “expedient and efficient” as ordering the transcripts (which took at least a month to be ordered) and would have avoided the violation of the SCA (as found by the Ninth Circuit).

174. Transcript of Deposition of Jackie Deavers, *supra* note 125, at 12.

another less intrusive means of assessing the character limit, some analysis of the number of overage charges throughout the department might have resolved the matter. Further still, Duke's informal policy was predicated on the offer to review the transcripts if the officers insisted that the texts were business related. The fact that Quon had paid the overage fees was essentially an admission that they were not. Thus reviewing the transcripts to determine if the character limit was adequate was unnecessary; Quon would have demanded a review if he felt the limit was inadequate.

Previous Fourth Amendment cases upholding government searches have focused on the important government interest promoted by allowing the search.¹⁷⁵ The *Quon* Court's opinion evinces the concern expressed in *O'Connor* that "government offices could not function if every employment decision became a constitutional matter."¹⁷⁶ The *Quon* Court's analysis, however, is more a repudiation of the less intrusive means test than a lengthy discussion of the important interests promoted by finding this sort of search reasonable. The Court might have, for instance, compared Quon's role as a SWAT officer to the railway employees or Customs agents in *Skinner* and *Von Raab* where the employees' unique role in public safety subjects them to a higher degree of regulation.¹⁷⁷ However, the jury's determination that the search was conducted for a noninvestigatory and administrative purpose limited the significance of Quon's important public role. The competing interests to balance, given the purpose of the search, was the department's need to determine its character limits' adequacy and Quon's (perhaps limited) expectation of privacy, formed on the basis of Duke's arrangement with him.

With this balance in mind, the Court held that "reviewing the transcripts was reasonable because it was an *efficient and expedient* way to determine whether Quon's overages were the result of work-related messaging or personal use."¹⁷⁸ Although previous decisions have mentioned efficiency

175. *See, e.g., Skinner v. Ry. Labor Executives Ass'n*, 489 U.S. 602, 621 (1989) ("This governmental interest in ensuring the safety of the traveling public and of the employees themselves plainly justifies . . . the exercise of supervision to assure that the restrictions [on alcohol and drugs] are in fact observed.") (citation omitted); *Nat'l Treasury Employees Union v. Von Raab*, 489 U.S. 656, 668 (1989) ("[T]he Government's need to discover such latent or hidden conditions . . . is sufficiently compelling to justify the intrusion on privacy . . ."). For further discussion, see *supra* Section I.D.

176. *O'Connor v. Ortega*, 480 U.S. 709, 722 (1987) (quoting *Connick v. Myers*, 461 U.S. 138, 143 (1983)).

177. *See, Skinner*, 489 U.S. at 628; *Von Raab*, 489 U.S. at 671–72.

178. *Ontario v. Quon*, 130 S. Ct. 2619, 2631 (2010) (emphasis added).

concerns,¹⁷⁹ the Court's choice of words suggests that the requirement that a search be reasonable in scope has few, if any, teeth when applied to noninvestigatory searches. At least in the government employer context, most if not all searches that would satisfy the other elements of a Fourth Amendment claim will be both "efficient and expedient."¹⁸⁰ The Fourth Amendment rights of public employees apparently depend primarily on whether their expectation of privacy is reasonable and whether the employer's purpose in searching is reasonable. By chastising the Ninth Circuit's approach at length, the Court limits the chance that future courts will spill much ink discussing a search's reasonableness in scope by considering the alternative means that would fulfill the same purpose.

2. *Reasonable Expectation of Privacy*

The Court avoided a ruling on Quon's reasonable expectation of privacy, holding instead that even if an expectation of privacy did exist, the search was still constitutionally permissible.¹⁸¹ However, this holding was in part predicated upon the Court's qualifications about the extent of Quon's reasonable expectation of privacy.¹⁸² Even assuming the department's official computer privacy policy, public disclosure requirements, and Quon's especially public line of work did not tip the scales against Quon's reasonable expectation of privacy, they still operated as factors minimizing the unreasonableness of the search.¹⁸³

In its opinion, the Ninth Circuit noted the importance of privacy expectations in modern forms of communication,¹⁸⁴ and analogized the case to its recent jurisprudence on emails to find that Quon and the people he sent and received messages with had a reasonable expectation of privacy in

179. See *Von Raab*, 489 U.S. at 665–66. Judge Ikuta's dissent also notes that "[s]even other circuits have . . . explicitly rejected a less intrusive means inquiry." *Quon v. Arch Wireless*, 554 F.3d 769, 778 (9th Cir. 2009) (en banc) (J., Ikuta, dissenting); e.g., *Davenport v. Causey*, 521 F.3d 544, 552 (6th Cir. 2008) ("The Fourth Amendment does not require officers to use the best technique available as long as their method is reasonable under the circumstances.").

180. *Quon*, 130 S. Ct. at 2631.

181. *Id.* at 2624.

182. *Id.* at 2631 ("[T]he extent of an expectation is relevant to assessing whether the search was too intrusive.").

183. *Id.*

184. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 904 (9th Cir. 2008) ("The recently minted standard of electronic communication . . . opens a new frontier in Fourth Amendment jurisprudence that has been little explored. . . . Do users of text messaging services such as those provided by Arch Wireless have a reasonable expectation of privacy in their text messages . . . ?").

their messages.¹⁸⁵ The Ninth Circuit agreed with the district court's conclusion that Duke's informal policy gave Quon a reasonable expectation of privacy in his messages.¹⁸⁶ Before the Supreme Court published their opinion, some commentators¹⁸⁷ anticipated the Court would be cautious in determining what reasonable expectation of privacy individuals have in text messages sent on employer-provided devices.¹⁸⁸

Exercising the restraint that some expected, the Court remained officially agnostic on Quon's expectation of privacy. It did offer "instructive" discussion of what would have mattered had it been inclined to rule on the matter and been convinced that the *O'Connor* analysis of the workplace's "operational realities" was the appropriate one.¹⁸⁹ The Court would have needed to weigh Lieutenant Duke's informal policy of collecting overages, his authority to effect a change in policy, and other potential justifications for reviewing the messages.¹⁹⁰ In addition to the particulars of the Police Department's policies and regulations, evolving "workplace norms" with respect to cell phone and text message communication would also shape an employee's privacy expectations.¹⁹¹

3. Justice Scalia's Concurrence

Justice Scalia joined most of the majority opinion, but wrote separately to defend his concurrence in *O'Connor*.¹⁹² He still believes the "operational realities" rubric is "standardless and unsupported."¹⁹³ In his view the Fourth Amendment applies in most cases of public employer work-related searches, but only demands that government employers behave as private employers would be expected to.¹⁹⁴ Scalia also expresses his dissatisfaction with the Court's "instructive" dicta on the relevant factors of the operational realities

185. *Id.* at 906–08.

186. *Id.* at 904.

187. See, e.g., Lyle Denniston, *A Pager as an Open Book*, SCOTUSBLOG (Apr. 19, 2010, 4:02 PM), <http://www.scotusblog.com/?p=18860>. But see David S. Barnhill, Note, *Cloud Computing and Stored Communications: Another Look at Quon v. Arch Wireless*, 25 BERKELEY TECH. L.J. 621, 648 (2010) ("The Supreme Court could also provide more guidance for courts in analyzing privacy for electronic communication in the workplace [when it decides *Quon*].").

188. *Quon*, 130 S. Ct. at 2629–30; see also Brief for Electronic Frontier Foundation, *et al.*, *supra* note 105, at 5.

189. *Quon*, 130 S. Ct. at 2629.

190. *Id.*

191. *Id.* at 2630.

192. *Id.* at 2634 (Scalia, J., concurring).

193. *Id.*

194. *Id.* at 2628, 2634.

test. In addition to being unnecessary to resolve the issues before them, the suggestion that the reasonable expectation of privacy test requires “evaluating whether a given gadget is a ‘necessary instrumen[t] for self-expression, even self-identification [and how] the law’s treatment of [workplace norms has] evolve[d]” is proof positive that the reasonable expectation of privacy test cannot yield objective answers.¹⁹⁵ In his dissatisfaction with the Court’s treatment of the Fourth Amendment, Justice Scalia is not alone.¹⁹⁶

III. ANALYSIS

Privacy is a notoriously amorphous concept. Efforts to define it often begin with a laundry list of complaints about the inherent murkiness of the concept and the range of inconsistent standards and factors that judges use before rules for a particular circumstance are settled.¹⁹⁷ Fourth Amendment jurisprudence is particularly damaged by the vagueness surrounding the concept of privacy. What expectations of privacy society finds reasonable is “the central mystery of Fourth Amendment law.”¹⁹⁸ As Justice Scalia and many others have pointed out, expectations of privacy that society is prepared to consider reasonable “bear an uncanny resemblance to those expectations of privacy that [the Supreme Court] considers reasonable.”¹⁹⁹ *Quon* is only the most recent example of this. The Court has long resisted calls to pin down a single test or formulation to define when and how the Fourth Amendment limits government collection of information. Instead, their approach has been to address the question on a case-by-case basis and permit much of the uncertainty surrounding the Fourth Amendment’s application to persist.

Although caution in the pronouncement of Constitutional protections is appropriate, the Court’s reticence to discuss the Fourth Amendment’s application to new technology is misplaced. This Part reviews three perspectives on privacy protection and the Fourth Amendment that each provide a helpful lens through which to consider the deficits of the Court’s

195. *Id.* at 2635 (Scalia, J., concurring) (quoting the majority).

196. *See, e.g., infra* Sections III.A, III.B.

197. *See, e.g.,* Ruth Gavinson, *Privacy and the Limits of Law*, 89 YALE L.J. 421, 421–22 (1980) (noting scholarly disagreement about the distinctiveness and utility of the concept of privacy); Solove, *Conceptualizing, supra* note 64, at 1088 (“Time and again philosophers, legal theorists, and jurists have lamented the great difficulty in reaching a satisfying conception of privacy.”).

198. Orin Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 504 (2007) [hereinafter Kerr, *Four Models*].

199. *Minnesota v. Carter*, 525 U.S. 83, 97 (1998) (Scalia, J., concurring).

current approach to the Fourth Amendment. The first two authors—Orin Kerr and Daniel Solove—were chosen because they represent two highly regarded and contrasting scholarly views on the application of the Fourth Amendment. The third article, *Privacy 3.0* by Andrew Serwin, places the concept of privacy in a historical context and presents a promising approach to reasonably sorting out the benefits and dangers that new technology presents to private life.

Sections III.A and III.B present the views of Orin Kerr and Daniel Solove, and consider how some of their recent comments on Fourth Amendment jurisprudence apply to the Quon case. A recent article by Kerr organizes the different factors the court draws from when applying the Fourth Amendment. He identifies four models of analysis that courts consider when determining the reasonable expectation of privacy and encourages courts to explicitly acknowledge the use of these distinct approaches. Solove recently published a framework laying out a fundamentally different “pragmatic approach” to Fourth Amendment claims. His approach challenges courts to develop a more comprehensive regulation of government privacy invasion by applying the Fourth Amendment to a broader array of situations than the reasonable expectation of privacy test currently allows for. Section III.C explains how Andrew Serwin’s concept of privacy in the twenty-first century could be drawn on to inform the broader Fourth Amendment privacy protection that Solove calls for. Finally, Section III.D briefly synthesizes and critiques the three authors’ perspectives and discusses how each author’s observations support the conclusion that the Fourth Amendment’s application to information gathering, particularly when it involves new technology, should reflect a proportional protection of information based on its sensitivity.

A. ORRIN KERR’S FOUR MODELS OF FOURTH AMENDMENT ANALYSIS

Scholars widely disparage the unpredictable and inconsistent results the reasonable expectation of privacy test produces, but Orin Kerr takes a different view of Fourth Amendment jurisprudence.²⁰⁰ To him, the array (or disarray) of different approaches to the reasonable expectation of privacy test serves an important purpose. He believes that no single test can adequately distinguish the types of government searches that require Fourth

200. Kerr does acknowledge that the confusion stems from a genuine incoherence in the case law. Kerr, *Four Models*, *supra* note 198, at 505 (“Supreme Court opinions cannot even agree on *what kind of test it is*. . . . The cases are all over the map, and the Justices have declined to resolve the confusion.”).

Amendment scrutiny from those that do not. Rather than pin down one specific and imperfect definition, Kerr believes that the Supreme Court emphasizes certain tests (or models) in different circumstances.²⁰¹ Doing this provides guidance to lower courts about the important factors to consider when deciding to apply the Fourth Amendment without denying courts the flexibility to limit Constitutional protection, especially application of the harsh exclusionary rule, in future cases.²⁰² Kerr argues that application of his four distinct models to Fourth Amendment cases would relieve much of the perceived uncertainty and confusion surrounding the Fourth Amendment.²⁰³

1. *The Four Models*

The first three models that courts draw from to define one's reasonable expectation of privacy use proxies to determine which government practices merit Constitutional regulation.²⁰⁴ They are the probabilistic model, the private facts model, and the positive law model.²⁰⁵ The fourth model addresses the same question directly and is labeled the policy model.²⁰⁶ The probabilistic model is descriptive: it considers the odds that a piece of gathered information would have been revealed in the ordinary course of social practices and norms.²⁰⁷ The private facts model focuses on the character of the collected information rather than the character of the search and determines whether the information is sensitive enough to merit constitutional protection.²⁰⁸ The positive law model considers the legality of the government's information collecting activity. If laws were not broken in the collection of the information, a reasonable expectation of privacy from the information collecting activity does not exist. Government information gathering that violates a law also violates a reasonable expectation of privacy.²⁰⁹ The policy model considers directly whether the information collecting activity in question should be subject to the warrant requirement or not.²¹⁰ The analysis, roughly speaking, looks to balance the threat the activity poses to civil liberties and the burden of regulating the activity on

201. *Id.* at 507.

202. *Id.* at 507, 527.

203. *Id.* at 548–49.

204. *Id.* at 525.

205. *Id.* at 506.

206. *Id.*

207. *Id.* at 508–09.

208. *Id.* at 512–13.

209. *Id.* at 516.

210. *Id.* at 519.

government investigations to determine whether the conduct triggers the Fourth Amendment.²¹¹

Two dichotomies clarify the relationship of these four models to one another. Two of the models focus on normative determinations (private facts and policy), and two focus on descriptive determinations (probabilistic and positive law).²¹² Two of the models focus on what Kerr calls “micro-scale” determinations—determinations based on the particular facts of a case.²¹³ The other two focus on “macro-scale” determinations—determinations based on the courts assessment of a “broader category of cases.”²¹⁴ Kerr summarizes these relations in the table reproduced below:²¹⁵

Table 1: Relationship of the Four Models of Fourth Amendment Analysis

	<i>Micro-Scale</i>	<i>Macro-Scale</i>
<i>Descriptive</i>	Positive Law	Probabilistic
<i>Normative</i>	Private Facts	Policy

These four models are mixed and matched by the courts with little to no acknowledgement of when one model should be used or another discounted.²¹⁶ To make matters worse, the Court will explicitly reject a model in one case, and continue to embrace it in another, again with no acknowledgement of the apparent conflict.²¹⁷ The answer to this mystery, Kerr claims, is that the Court emphasizes or rejects the models in different contexts based on each model’s ability to accurately identify when the Fourth Amendment should apply.²¹⁸ Thus, many of the cases involving new technologies emphasize the private facts model,²¹⁹ many cases involving

211. *Id.*

212. *Id.* at 523.

213. *Id.*

214. *Id.*

215. *Id.* at 524.

216. *Id.* at 524–25 (“[T]he models usually are used as general tools rather than clear and specific doctrinal tests.”).

217. *Id.* at 511, 514, 518, 521–22. Compare, e.g., *California v. Ciraolo*, 476 U.S. 207, 215 (1986) (finding no reasonable expectation of privacy in aerial observation of a fenced backyard given the prevalence of private and commercial flights), with *Illinois v. Caballes*, 543 U.S. 405, 410 (2005) (denying that the probability that police would become aware of drugs in defendant’s trunk during a routine traffic stop had any bearing on his reasonable expectation of privacy), and *United States v. Jacobsen*, 466 U.S. 109, 122 (1984) (“The concept of an interest in privacy that society is prepared to recognize as reasonable is, by its very nature, critically different from the mere expectation, however well justified, that certain facts will not come to the attention of the authorities.”).

218. Kerr, *Four Models*, *supra* note 198, at 507.

219. *Id.* at 543.

group settings (including government employers) emphasize the probabilistic model,²²⁰ cases relating to physical access or entry to the defendant's property often employ the positive law model,²²¹ and the policy model is most often used when the other models cannot provide a clear or sensible result.²²² Kerr is clear that these models and their emphasis or rejection in different circumstances do not reflect firm (or even conscious) decisions made by the Court. Kerr's point is that these models are emphasized and rejected in somewhat predictable ways, and that greater awareness and clarity about how and when the various models should be applied in the Court's opinions would provide better guidance to lower courts.²²³

2. *The Four Models and Quon*

The *Quon* Court's treatment of the reasonable expectation of privacy test maps well onto Kerr's assessment of the Court's emphasis of certain models in certain contexts.²²⁴ In the government employer context, the probabilistic model is largely embodied by the *O'Connor* plurality's "operational realities" inquiry. The operational realities "test" applies the social norms that the probabilistic model looks to in the specific context of the workplace, looking to "actual office practices and procedures, or . . . legitimate regulation."²²⁵ The Court's "instructive"²²⁶ dicta on *Quon*'s reasonable expectation of privacy begin with this version of the probabilistic model, looking towards a descriptive assessment of the odds that *Quon*'s messages would be viewed. Here, this probability can be assessed by considering whether Lieutenant "Duke's statements could be taken as announcing a change in OPD policy, [and] whether a review of messages sent on police pagers . . . might be justified for other reasons, including performance evaluations, litigation concerning the lawfulness of police actions, and perhaps compliance with state open records laws."²²⁷ The factors mentioned by the Court increase the probability that the text messages *Quon* sent would be reviewed at some point. However, the Court fails to mention one factor that arguably decreases this probability: the police did not have direct access to the transcripts. The transcripts were not stored on city equipment; the request to retrieve them

220. *Id.* at 544.

221. *Id.*

222. *Id.* at 545.

223. *Id.* at 548.

224. *Ontario v. Quon*, 130 S. Ct. 2619, 2629 (2010).

225. *O'Connor v. Ortega*, 480 U.S. 709, 717 (1987).

226. *Quon*, 130 S. Ct. at 2629.

227. *Id.*

took over a month to complete and was eventually found to violate the SCA.²²⁸

As Kerr's article predicts, the Court also gives a nod to the private facts model when discussing new communication technology. "The judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging technology before its role in society has become clear."²²⁹ Because it is not yet clear "what society considers proper behavior"²³⁰ with respect to employer-provided texting devices, the Court admits that it "would have difficulty predicting . . . the degree to which society will be prepared to recognize those expectations as reasonable."²³¹ In other words, a reasonable expectation of privacy analysis in this case would require a determination of how private (or sensitive) the text messages sent on an employer-provided pager were. The difficult question of how private this form of information should be is precisely what Serwin aims to address in his ongoing project to separate different types of information into four tiers of sensitivity.²³²

Consideration of the Stored Communication Act (SCA) is conspicuously absent from the factors the Court points to in deciding Quon's expectation of privacy.²³³ The Ninth Circuit found that Arch Wireless violated the SCA in turning over the transcripts of Quon's texts.²³⁴ Further, in his brief, Quon argued that the undisturbed finding that Arch Wireless violated the SCA

228. *Id.* at 2626.

229. *Id.* at 2629. Kerr has called for this sort of caution in the past, arguing that legislative protection of privacy with respect to new technology is preferable. Kerr, *Constitutional Myths*, *supra* note 59, at 808 ("Courts should recognize their institutional limitations and remain cautious until the relevant technology and its applications stabilize."). Daniel Solove's responds directly to Kerr's call, claiming that "[t]he courts have taken too narrow a view of the Fourth Amendment with regard to many issues . . ." Daniel Solove, *Fourth Amendment Codification and Professor Kerr's Misguided Call for Judicial Deference*, 74 *FORDHAM L. REV.* 747, 774 (2005) [hereinafter Solove, *Fourth Amendment Codification*]. Forcing courts into "[d]iscussions about whether certain new technologies fit into the labyrinthine framework of electronic surveillance [statutes misses the point.] Principles should guide technology, not vice versa." *Id.* at 773.

230. *Quon*, 130 S. Ct. at 2629.

231. *Id.* at 2630.

232. Andrew Serwin, *Privacy 3.0 Survey*, PRIVACY & SECURITY SOURCE (Oct. 5, 2010), <http://www.privacysecuritysource.com/privacy-30-survey/> ("The next step in the work is to define the types of data that fall into each category . . ."); *see also infra* Section III.C.

233. The SCA is only discussed in regards to the reasonableness of the search. *See Quon*, 130 S. Ct. at 2632.

234. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 900–03 (9th Cir. 2008), *cert. denied*, 130 S. Ct. 1011 (2009).

weighed in favor of his reasonable expectation of privacy.²³⁵ The City responded that, in addition to being wrong, the Ninth Circuit's determination that federal law was violated cannot establish an expectation of privacy where the violation "depends on the application of complex statutory provisions that the employee and those sending messages to the employee did not even know and could not control."²³⁶ Furthermore, regardless of the purported violation of the SCA, the Department could also have reclaimed its pager and viewed the messages stored on the device's memory.²³⁷ Still, the Court's decision to forego discussion of the SCA's bearing on a reasonable expectation of privacy illustrates Kerr's point that certain factors or models, in this case the positive law model, are often ignored by the Court in unpredictable ways. The fact that both sides spend several pages of their briefs discussing the SCA and other laws regulating the use of Quon's messages²³⁸ reflects the uncertainty as to what models the Court will ultimately hang their decision on.

Kerr's four model description of Fourth Amendment jurisprudence provides a helpful framework for *Quon's* discussion of the reasonable expectation of privacy. It also appears to be a promisingly accurate categorization of the puzzling landscape of Fourth Amendment cases. His analysis skillfully brings a semblance of order to the chaos of the Court's doctrine, and his proposal—an acknowledgement of the four models and explanation of when each is appropriate—is a more modest retooling of Fourth Amendment doctrine than Solove's proposal.

B. DANIEL SOLOVE'S PRAGMATIC APPROACH TO THE FOURTH AMENDMENT

Solove's most recent article on the Fourth Amendment argues that the reasonable expectation of privacy test should be discarded altogether in favor of a more practical approach. For years, Solove has been a strong voice in the chorus of derision that the Fourth Amendment receives from the legal academy.²³⁹ In the past, he critiqued the Court for often having the wrong

235. Brief of Respondents, *supra* note 168, at 48–49. Quon also mentioned state-based privacy protections that were violated by the Department's actions. *Id.* at 49 n.8.

236. Reply Brief of Petitioners at 14, *Quon*, 130 S. Ct. 2619 (No. 08–1332).

237. *See* Brief for the United States as Amicus Curiae Supporting Reversal at 29, *Quon*, 130 S. Ct. 2619 (No. 08–1332), 2010 WL 565206, at *29.

238. *See* Brief of Respondents, *supra* note 168, at 42–50; Brief of Petitioners, *supra* note 165, at 35–45.

239. *See, e.g.*, Daniel J. Solove, *Digital Dossiers and the Dissipation of Fourth Amendment Privacy*, 75 S. CAL. L. REV. 1083 (2002); Solove, *Fourth Amendment Codification*, *supra* 229;

answers when it came to assessing the reasonable expectation of privacy.²⁴⁰ Now, Solove criticizes the Court for asking the wrong questions all along.²⁴¹ Rather than focus on the unwieldy reasonable expectation of privacy, “courts should directly address how to regulate government information gathering” in the most sensible way.²⁴²

1. *Solove’s Proposal*

At a basic level, Solove identifies two questions in any Fourth Amendment claim. The first is whether the Fourth Amendment applies to the government activity at issue.²⁴³ The second is how the Fourth Amendment restricts the government activity at issue.²⁴⁴ The current Fourth Amendment approach is dominated by the first basic question,²⁴⁵ what Solove terms the “coverage question,” in the form of the reasonable expectation of privacy test.²⁴⁶ Instead of conditioning Fourth Amendment protection on the “unstable”²⁴⁷ theory of an “objective” expectation of privacy, the Fourth Amendment should regulate any “government information gathering activity [that] creates problems of reasonable significance”²⁴⁸ Accordingly, Solove believes that the second question, or the “procedure question,” should be the central question addressed by courts considering a Fourth Amendment claim.²⁴⁹

Solove takes issue with the reasonable expectation of privacy test on two grounds. First, he argues that the test purports some empirical measure of “what society is prepared to recognize” while, in reality, it is plain that it is the intuitions of the judges deciding a case, and analogies to prior cases, that

Daniel J. Solove, *“I’ve Got Nothing to Hide” and Other Misunderstandings of Privacy*, 44 SAN DIEGO L. REV. 745 (2007).

240. Daniel Solove, *Fourth Amendment Pragmatism*, 51 B.C. L. REV. 1511, 1512 (2010) [hereinafter Solove, *Fourth Amendment Pragmatism*]; see also Solove, *Fourth Amendment Codification*, *supra* 229, at 773.

241. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1512.

242. *Id.* at 1515. In one sense, Solove’s proposal is to use what Kerr calls the Policy model to decide not just *if* but *how* the Fourth Amendment applies.

243. *Id.* at 1514.

244. *Id.*

245. Even *Quon*, which doctrinally turned on the second question (the reasonableness of the search) was dominated by consideration of Quon’s reasonable expectation of privacy and its limits.

246. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1514.

247. *Id.* at 1512 (quoting Sherry F. Colb, *What Is a Search? Two Conceptual Flaws in Fourth Amendment Doctrine and Some Hints of a Remedy*, 55 STAN. L. REV. 119, 122 (2002)).

248. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1514.

249. *Id.*

guide the analysis.²⁵⁰ Solove finds that troubling enough, but an accurate measure of society's privacy expectations is quite elusive.²⁵¹ Resorting to surveys of public opinion would be equally problematic. Although surveys suggest that public intuitions about privacy differ markedly from the Court's doctrine,²⁵² data on people's actual behavior suggests that they are often "willing to trade privacy for convenience" ²⁵³ Even behavioral data is a limited measure of people's preferences, as "[p]eople often fail to understand the implications of their behavior."²⁵⁴

The second flaw Solove identifies offers an even more focused critique of the current framework: "[l]ooking at expectations is the wrong inquiry."²⁵⁵ The law of privacy, Solove argues, should shape expectations, not vice versa.²⁵⁶ Employers, police officers, litigants, and the general public look to statements of the Court when forming their expectations on privacy.²⁵⁷ If the Court were more consistent and clear about the protection of privacy and its limits in our society, both the searchers and the searched would benefit. The general public would benefit from a clearer understanding of what privacy they could expect. Government officials conducting various types of searches would also have a better sense of the limits of permissible searching and how

250. *Id.* at 1521.

251. *Id.* at 1522–23. The *Quon* court certainly acknowledged as much. *Ontario v. Quon*, 130 S. Ct. 2619, 2629 (2010) ("The judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging technology before its role in society has become clear.").

252. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1522; Christopher Slobogin & Joseph E. Schumacher, *Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at 'Understandings Recognized and Permitted by Society'*, 42 DUKE L.J. 727, 774 (1993) (discussing data that "would suggest the Supreme Court's conclusions about the scope of the Fourth Amendment are often not in tune with commonly held attitudes about police investigative techniques").

253. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1522 (quoting Alessandro Acquisti & Jens Grossklags, *Privacy and Rationality: A Survey*, in *PRIVACY AND TECHNOLOGIES OF IDENTITY: A CROSS-DISCIPLINARY CONVERSATION* 15, 16 (Katherine J. Strandburg & Daniela Stan Raicu eds., 2006)).

254. *Id.* at 1523.

255. *Id.* at 1524.

256. *Cf.* *United States v. White*, 401 U.S. 745, 786 (1971) (Harlan, J., dissenting) ("The analysis must, in my view, transcend the search for subjective expectations or legal attribution of assumption of risk. Our expectations, and the risks we assume, are in large part reflections of laws that translate into rules the customs and values of the past and present.").

257. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1524; *see also* Andrew Serwin, *Quon v. Arch Wireless—A Partial Answer*, SAN DIEGO SOURCE (June 22, 2010), http://www.sddt.com/commentary/article.cfm?sourcecode=20100622tbf&commentary_id=136# (drawing inferences from the *Quon* decision about best practices for employer monitoring of electronic communication).

to frame privacy policies that respected these limits. Without clarity on the meaning and scope of privacy protection, expectations of privacy tend to erode.²⁵⁸ Solove's indictment of the expectation of privacy test is convincing, yet his alternative path forward is less clear.

Solove's answer to the "procedure" question—the question of *how* the Fourth Amendment should apply—is related to Kerr's characterization of the policy model.²⁵⁹ For Kerr, the policy model asks *if* the Fourth Amendment should regulate a certain set of investigative practices.²⁶⁰ Solove's approach adds consideration of *how* the regulation should operate. Kerr finds the policy model inadequate because lower courts will inject too much uncertainty into the policy model's application.²⁶¹ Solove responds that the current test, if it can be called a test, is similarly unstable and that many areas of law require a difficult balancing of interests.²⁶² Kerr would prefer to let Congress provide more specific privacy protections where the Fourth Amendment's protections are found lacking.²⁶³ Solove believes that courts are equipped to balance these interests in an appropriate and consistent manner. Solove argues that deferring to congressional action or the lack thereof is inadequate to protect privacy in the context of rapidly evolving technology.²⁶⁴

Solove asserts that, as a practical matter, the Fourth Amendment operates as "the central regulatory system for government information gathering."²⁶⁵ Analytic gamesmanship over a one-size-fits-all statement about where the Fourth Amendment applies—the reasonable expectation of privacy—or what enforcement mechanisms should be used—often the relatively severe exclusionary rule—has pushed the Court to carve up the application of Fourth Amendment in incoherent and unhelpful ways.

258. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1525; *see also* United States v. Pineda-Moreno, 617 F.3d 1120, 1126–27 (9th Cir. 2010) (Reinhardt, J., dissenting) (listing cases that "gradually but deliberately reduced the protections of the Fourth Amendment").

259. Compare Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1514 ("How should the Fourth Amendment regulate this form of government information gathering?"), with Kerr, *Four Models*, *supra* note 198, at 519 ("[S]hould a particular set of police practices be regulated by the warrant requirement?"). Of course, Kerr's policy model is still couched in the coverage question of whether or not the Fourth Amendment applies at all. Still, the similarities are noted by Solove. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1534.

260. Kerr, *Four Models*, *supra* note 198, at 519.

261. *Id.* at 536.

262. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1534.

263. Kerr, *Constitutional Myths*, *supra* note 59, at 858–59.

264. Solove, *Fourth Amendment Codification*, *supra* 229, at 747–48.

265. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1529.

Although the Fourth Amendment can certainly be used as a guide to evaluate statutes, Solove believes that courts and policy makers must often develop rules where no statute exists.²⁶⁶

Solove acknowledges the concern that this approach requires courts to usurp the legislative role of Congress by enshrining whatever the Court's preferred rules are in the single sentence of the Fourth Amendment.²⁶⁷ Where the legislature has spoken, the Court's only role is to review "whether [the statutes] meets the basic principles of the Fourth Amendment."²⁶⁸ He also notes that, in reality, Congress has not made the active regulation of government information gathering a priority.²⁶⁹ Where Courts do create their own rules—filling gaps that the statutes have not addressed—the legislatures would still have some latitude to step in and pass regulations clarifying the specifics of what forms of government information gathering are reasonable. Only patently unreasonable statutes, which violated the basic principles enshrined in the Fourth Amendment, would be the rightful targets of Constitutional objection.

2. *Application of Solove's Proposal to Quon*

How might Solove's pragmatic approach apply to *Quon*? Solove plainly states that he wants to expand the scope of the Fourth Amendment (and increase the flexibility of its enforcement mechanisms). "The Fourth Amendment," Solove writes, "should regulate government information gathering whenever it causes problems of reasonable significance."²⁷⁰ These problems, such as government invasions of privacy, and inhibition of free speech and association "are of a constitutional magnitude, for they are fundamental to the scope of the government's power . . ."²⁷¹ Although the constitutional magnitude of the *Quon* facts is, perhaps, less compelling than

266. Kerr argues that, with respect to new technologies, statutes are better suited to fill gaps when it remains unclear what the Fourth Amendment does and does not cover. Kerr, *Constitutional Myths*, *supra* note 59, at 869 ("The technologies exist, . . . [b]ut no one really knows how the Fourth Amendment applies to them.").

267. Similar concerns were mentioned by the Solicitor General during the *Quon* oral argument, and Justice Roberts responded by wondering whether "more flexib[ility] in determining what is reasonable because we are dealing with evolving technology" is appropriate. Transcript of Oral Argument, *supra* note 65, at 22–23. As noted above, Kerr and Solove have debated whether courts or legislators are better suited to set rules regarding privacy. See Kerr, *Constitutional Myths*, *supra* note 59; Solove, *Fourth Amendment Codification*, *supra* note 229.

268. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1537.

269. *Id.* at 1536.

270. *Id.* at 1528.

271. *Id.*

some more heavy handed exercises of state power, the search does raise problems of reasonable significance.

The increasingly blurred line between the workplace and the home, noted in Justice Blackmun's dissent in *O'Connor*, illustrates why the employee privacy at issue in *Quon* is a "problem[] of reasonable significance"²⁷² that the Fourth Amendment should cover. The Department required Quon to carry his pager with him at all times and had an informal policy that allowed him to use it for private communications.²⁷³ Although they could have insisted that it be used only for business, they did not.²⁷⁴ The review of Quon's messages resulted in the release of particularly private content, which was completely foreseeable given Quon's willingness to pay for the messages to remain private.²⁷⁵ The Department's somewhat dubious need to confirm the adequacy of their character limit, as found by the jury, does little to balance out this foreseeable revelation of Quon's personal information.

The procedure question asks how the Fourth Amendment should regulate the information gathering activity at issue.²⁷⁶ Although the current Fourth Amendment framework is a fact sensitive inquiry, it is essentially a series of yes-or-no questions: is there a reasonable expectation of privacy? Is a warrant required? Solove thinks a more flexible approach would result in a more balanced application of the Fourth Amendment's protections. Solove provides several questions that the court might consider in addressing the matter: "Is this information gathering activity one that government should perform frequently? Rarely? Early on in an investigation? Only as a last resort? In particular cases involving only those suspected of crimes? En masse to the entire population?"²⁷⁷ Auditing the full text of employee messages is an inappropriate way to determine the adequacy of word limits for the employer's devices. Certainly employers require the authority to monitor their employees, and to set a low bar for their expectation for privacy at work and on work equipment, but where they have not plainly done so, the employee's privacy interest in their communications outweighs the non-investigatory purpose that the Department argued had driven the audit. Using Solove's more flexible approach, the Court could push future

272. *Id.*

273. *Ontario v. Quon*, 130 S. Ct. 2619, 2625 (2010).

274. *Id.*

275. *Id.* at 2626; *cf.* *Katz v. United States*, 389 U.S. 347, 351 (1967) ("[W]hat [one] seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.").

276. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1514.

277. *Id.* at 1529.

public employers to set and enforce clearer guidance about the use of communication equipment and to limit the review of personal messages where possible.

The parties' treatment of the various public disclosure laws, state privacy laws, and the SCA in the *Quon* case are another good example of how Solove's approach could alter the analysis. In the briefs and at oral argument,²⁷⁸ the City argued that the SCA was too complex and technical a statute to have any bearing on Quon's expectation of privacy. His ignorance of the SCA and of how a court would apply it, they argued, negated any influence it might have on his privacy expectation.²⁷⁹ Under Solove's pragmatic approach, Quon's lack of understanding of these laws and their effect on his expectations would be irrelevant; the laws would be instructive indications that people desired a certain type of information gathering activity to be regulated in certain ways.

Another insight Solove offers in his somewhat brief discussion of the tough procedure question is that clearer regulation and oversight can avoid many of the problems created by information gathering in the first place. "[O]versight and regulation can . . . minimize many problems created by [a form of information] gathering" by clarifying expectations for the potential searchers and those that will be subject to their searches.²⁸⁰ In the *Quon* case, it is plain enough that whatever the purpose or motivation of the search, concern for Quon's privacy did not enter Lieutenant Duke or Chief Scharff's mind.²⁸¹

With a clearer statement from the Court about the propriety of such searches, similar circumstances in the future could likely be avoided. Employers are free to shape the privacy expectations of their employees in reasonable ways. There is no doubt that Quon's text messages were not off limits for review under any circumstance. The point for the Ninth Circuit and for Solove is that Scharff and Duke should have appreciated Quon's privacy interest in a way they did not. For instance, if Duke was "tired of being a bill collector" he could simply choose to end his informal practice of allowing officers to go over the limit and pay him the extra fee. If the motivation was in fact directed at seeing what Quon had been up to while on

278. Transcript of Oral Argument, *supra* note 65, at 17; Reply Brief for the Petitioners, *supra* note 236, at 9.

279. When pressed, Quon's attorney made a similar argument with respect to the California Public Records Act. Transcript of Oral Argument, *supra* note 65, at 45.

280. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 1530.

281. See *Quon v. Arch Wireless*, 445 F. Supp. 2d 1116, 1126 (C.D. Cal. 2006).

duty, a simple clarification that he was to refrain from excessive pager use, especially while on duty, would have put Quon on notice that he should stop or limit his texting.

C. ANDREW SERWIN'S PRIVACY 3.0

In *Privacy 3.0*, Andrew Serwin traces the development of privacy theory over the last century and argues that a new framework to understand the significance of privacy is necessary. Privacy 1.0 is embodied in Warren and Brandeis' seminal *The Right to Privacy*—"the right to be let alone."²⁸² Privacy 2.0 is marked by Prosser's organization of the common law development of privacy protection into four distinct torts: intrusion, public disclosure of private facts, false light publicity, and appropriation.²⁸³ Serwin argues that this twentieth century understanding of privacy, as a right of protection against a particular form of harm, is ill suited to address the privacy issues of today.²⁸⁴

Instead, privacy is best understood today through the principle of proportionality. This principle aims to strike a balance between the costs and benefits of different types of information being disseminated. As Serwin explains, proportionality "places higher restrictions and access barriers on truly sensitive information that . . . has great capacity to damage individuals and society, while simultaneously permitting . . . access to those having a legitimate need to know certain information, particularly when that information is less sensitive."²⁸⁵

1. *The Principle of Proportionality*

Serwin proposes four tiers of information sensitivity to guide analysis of privacy protection. The tiers are (1) highly sensitive information,²⁸⁶ (2) sensitive information,²⁸⁷ (3) slightly sensitive information,²⁸⁸ and (4) non-

282. Warren & Brandeis, *supra* note 1.

283. Serwin, *supra* note 5, at 882–83; Prosser, *supra* note 29.

284. Serwin, *supra* note 5, 878–79.

285. *Id.* at 876.

286. As explained below, precise determinations regarding what kinds of information belong in what tier of sensitivity are based on a number of factors. Serwin still provides several examples of what would likely be considered highly sensitive information including, e.g., genetic information, sexual history, religious affiliation, images or video of conduct in private areas. *Id.* at 902–03.

287. *E.g.*, "content of wire or electronic communication, video rental and television programming preferences, financial information, consumer's purchasing preferences, Social Security numbers." *Id.* at 904.

288. *E.g.*, "connection records from telephone companies or ISPs (but not the content of the communication), financial information regarding consumer debts, information

sensitive information.²⁸⁹ Several factors guide the classification of information into each of these tiers. These factors include how much the information reveals what would otherwise be unknown, the societal and personal impact of disclosure, the utility of sharing the information, the risks of unauthorized access posed by limited authorized sharing of the information, whether the information can lead to access to other types of information, and the steps taken to protect the privacy of the information.²⁹⁰

Serwin's discussion is directed at privacy protection in the private sector, but his insights into the past and future of privacy's place in our legal and social institutions provides a helpful perspective.²⁹¹ Further, although Serwin does not discuss the Fourth Amendment directly, many Fourth Amendment scholars share Serwin's concern that information privacy is often lost in the judicial shuffle of one's reasonable expectation of privacy. For example, as noted in Section III.B.1, *supra*, Solove believes that people's desire for protection from government information gathering—not privacy expectations—should inform the application of the Fourth Amendment. Although he does not use Serwin's vocabulary, the answer Solove identifies is very similar to the principle of proportionality.²⁹²

Serwin's discussion of privacy as proportionality goes directly to the heart of what sort of privacy protection "society is [or should be] prepared to recognize as reasonable."²⁹³ The privacy interest protected by the Fourth Amendment—recognized in *Katz* and puzzled over ever since—could incorporate Serwin's discussion of proportionality. That is, the sensitivity of the type of information being gathered, shared, or considered for protection

disclosed on an employer's computer network, images captured in a public space, addresses of websites visited, IP addresses, To/From addresses from emails." *Id.* at 905.

289. *E.g.*, "a person's name, email address, telephone number, and address." *Id.* at 905–06.

290. *Id.* at 901 (explaining these factors and arguing that sorting information into tiers of sensitivity will provide greater clarity for the application of and adherence to existing law).

291. Also, although the Fourth Amendment does not apply to private employers, Serwin notes elsewhere that "many [private] employee privacy issues still devolve into an examination of whether the employee had a reasonable expectation of privacy . . . similar to that under the Fourth Amendment." ANDREW B. SERWIN, INFORMATION SECURITY AND PRIVACY: A PRACTICAL GUIDE TO FEDERAL, STATE AND INTERNATIONAL LAW § 15:1 (2008).

292. Solove, *Fourth Amendment Pragmatism*, *supra* note 240, at 19–20 ("We must assess the value of the information gathering activity and consider it in light of the importance of ameliorating the problems it causes.").

293. *Katz v. United States*, 389 U.S. 347, 361 (Harlan, J., concurring).

should play a more prominent role in assessing the reasonableness of a search under the Fourth Amendment.²⁹⁴

2. Privacy 3.0 and Quon

Quon plainly represents a close case; there is room to argue whether the information collected was sensitive or slightly sensitive based on Serwin's discussion of these two tiers. Sensitive information, or Tier II information, includes "the content of wire or electronic communications"²⁹⁵ and would be subject to more rigorous collection, retention, and use restrictions. If Quon's texts qualify as Tier II information, the Department's actions with respect to that information become subject to more scrutiny.²⁹⁶ Slightly sensitive information, or Tier III information, would include "information disclosed on an employer's computer network"²⁹⁷ and could typically be "gathered without consent or notice."²⁹⁸ If Quon's texts were Tier III information because of the employer privacy policy, the Department is probably acting reasonably by reviewing his transcripts. The debate would still center on the effect of Duke's informal practice of letting officers pay their overages, but the issue would be focused on whether the invasion of Quon's privacy was, on balance, appropriate or not.

D. COMPARING THE THREE APPROACHES: THE FUTURE OF PRIVACY AND THE FOURTH AMENDMENT

Elements from each of the perspectives reviewed contribute to the conclusion that the Fourth Amendment should develop to protect against searches of sensitive information in a more predictable and consistent manner. As Kerr observes, the sensitivity of information (i.e., the private facts model) is already sometimes, but not always, used to determine reasonable expectations of privacy.²⁹⁹ Solove argues that the Fourth Amendment's focus on privacy expectations should be abandoned for a more flexible approach.³⁰⁰ Finally, Serwin believes that an emerging principle of proportionality will (and should) guide the concept of modern information

294. The danger of hindsight playing too prominent a role in the analysis of information's sensitivity is real. One response, however, is that Serwin's tiers of sensitivity focus on gauging the sensitivity of broader categories of information (e.g., electronic communication), not particular instances of information.

295. Serwin, *supra* note 5, at 904.

296. *Id.*

297. *Id.* at 905.

298. *Id.*

299. *See supra* Section III.A.1.

300. *See supra* Section III.B.1.

privacy: identifying categories of more sensitive information and providing them with greater protection.³⁰¹

While Kerr encourages the Court to make privacy jurisprudence more systematic by being more explicit in choosing amongst the analytic models it already uses, he understates the normative failings of the law's current "structure." The problem with the expectation of privacy test is not simply that courts look to an unpredictable array of factors when considering it. The problem is that judges applying it to particular cases often craft rules narrowing privacy protection where it should be protected. More importantly, while social expectations certainly operate to shape the law, the law also can operate to shape societal expectations. Solove believes that courts should take a more active role in shaping society's expectations.

Solove's promotion of a more pragmatic Fourth Amendment is light on specific details about application, but presents an intriguing perspective on the failures of focusing on reasonable expectations of privacy. Though the two are importantly linked, Solove argues that expectations of privacy should not be conflated with actual privacy. That is, perfunctory notices that privacy is not to be expected in the public workplace should not thwart one's desire for reasonable protection against government invasion. Instead of focusing on "reasonable expectations," privacy protection should focus on setting expectations by identifying and limiting access to information society values as sensitive. Serwin's *Privacy 3.0* explores an understanding of privacy modeled on these values.

Serwin's tiers of privacy protection would not instantly provide clear rules with which to apply the Fourth Amendment, but they can focus and improve our vocabulary of privacy. Debate about the sensitivity of information, and the protection afforded to certain types of information would, generally, be much clearer than the current muddle of reasonable privacy expectations. With an improved vocabulary comes a stronger appreciation for the importance of privacy protection. As Solove recently observed, "Privacy is a concept in disarray. . . . [A]bstract incantations of the importance of 'privacy' do not fare well when pitted against more concretely stated countervailing interests."³⁰² The current disarray in privacy is disruptive because it limits agreement on acceptable behavior when it comes to collecting information. The appreciation for what type of information is sensitive moves the conversation past whether a particular incident created a

301. *See supra* Section III.C.1.

302. Daniel Solove, *A Taxonomy of Privacy*, 154 U. Pa. L. Rev. 477, 477-78 (2006).

particular harm and on to the point that the value of privacy protection goes beyond recourse for the harm of an invasion. A focus on protecting sensitive information from unreasonable search, and not on whether the search upset privacy expectations, would better protect the security—and the freedom that flows from it—that the Fourth Amendment is meant to protect.

Since the Court decided *Quon*, two cases have yielded noteworthy developments in the Constitutional protection of sensitive information. In *NASA v. Nelson*,³⁰³ the Supreme Court continued its delicate approach to Constitutional protection of privacy. Without directly affirming the existence of any Constitutional protection of “information privacy,”³⁰⁴ the Court held that a mandatory questionnaire asking government contractors about drug use did not violate any such right.³⁰⁵ In *U.S. v. Warshak*,³⁰⁶ the Sixth Circuit acknowledged a reasonable expectation of privacy in email communication, noting that “[a]s some forms of communication begin to diminish, the Fourth Amendment must recognize and protect nascent ones that arise.”³⁰⁷ The *Warshak* opinion has been hailed as a major development in Fourth Amendment law,³⁰⁸ but its vitality on appeal and its persuasiveness to other Circuits remains to be seen.

IV. CONCLUSION

Quon is a deeply unsatisfying opinion; it provides an unconvincing rebuke to the Ninth Circuit’s conclusion that Quon’s employer’s search was unreasonable and skirts the question of whether a reasonable expectation of privacy exists in electronic communications in the workplace—an issue of increasing relevance. Although the Court appreciates the danger of limiting a technology’s usefulness by protecting too much privacy, it does a poor job of

303. 562 U.S. ___, 131 S. Ct. 746 (2011).

304. “Information privacy” in this context refers “broadly to a constitutional privacy interest in avoiding disclosure of personal matters.” *Id.* at 751 (citing “two cases decided more than 30 years ago . . .”: *Whalen v. Roe*, 429 U.S. 589, 599–600 (1977); *Nixon v. Administrator of General Services*, 433 U.S. 425, 457 (1977)). The *NASA* court does not discuss the Fourth Amendment in any detail; indeed, it does not even cite to the *Quon* opinion.

305. *Id.* at 751.

306. 631 F.3d 266 (6th Cir. 2010).

307. *Id.* at 286.

308. Paul Ohm, *Court Rules Email Protected by Fourth Amendment*, FREEDOM TO TINKER (Dec. 14, 2010, 3:02 PM), <http://www.freedom-to-tinker.com/blog/paul/court-rules-email-protected-fourth-amendment/> (“[*Warshak* is] the opinion privacy activists and many legal scholars . . . have been waiting and calling for, for more than a decade.”).

striking a balance with the danger of protecting too little. Both too much protection and too little protection of privacy are legitimate concerns. Going forward, courts should assess privacy protection (including Fourth Amendment protection) through the lens of proportionality that Serwin discusses.

Quon only serves to punctuate the need for a clearer articulation of Fourth Amendment's protection of privacy. Whether through Solove's dramatic revision to the Fourth Amendment or Kerr's more modest restructuring, the need for a clearer picture of the Amendment's scope has nearly universal recognition in legal academia. As technology pushes more personal information into electronic space, and as employers provide and expect less separation between professional and personal time, the need for clarity—from the Court or from Congress—grows more pressing. Without a stronger statement about the Constitutional protection of information privacy, the stealthy encroachments of the digital age will become commonplace, and the moving target of privacy—along with the liberty and security it affords—will move further and further from the mark.

ADDITIONAL DEVELOPMENTS— PRIVACY LAW

COMPUTER FRAUD AND ABUSE ACT

In 1986, Congress enacted the Computer Fraud and Abuse Act (“CFAA”), 18 U.S.C. § 1030, as a way of combating computer crimes, particularly hacking. As computer crimes become more sophisticated, the broadly-written CFAA has been expanded by prosecutors and courts to address a range of new harms. Specifically, courts have varied in their interpretation of the “without authorization” provision in light of the lack of any statutory definition. Courts’ struggles to consistently define the CFAA have resulted in several recent circuit splits over the meaning of “without authorization” in the employment context.

In *LVRC Holdings LLC v. Brekka*, 581 F.3d 1127 (9th Cir. 2009), employer LVRC Holdings sued its former employee Brekka for emailing company documents from his work computer to himself and his wife while employed at the company. LVRC Holdings argued that Brekka’s use of the computer for personal interests was without authorization. The court disagreed with a Seventh Circuit decision, *Int’l Airport Ctrs., LLC v. Citrin*, 440 F.3d 418 (7th Cir. 2006), and held that Brekka had been given permission to use the computer and access those documents on grounds of his employment and therefore did not access a computer “without authorization,” nor exceeded authorized access. Recently, the Fifth Circuit in *United States v. John*, 597 F.3d 263 (5th Cir. 2010), discussed *Brekka*, holding that a user can be held liable under the CFAA without ambiguity at least when “[a]n authorized computer user ‘has reason to know’ that he or she is not authorized to access data or information in furtherance of a criminally fraudulent scheme.”

*UNITED STATES V. COMPREHENSIVE DRUG TESTING, INC.**621 F.3d 1162 (9th Cir. 2010)*

On September 13, 2010, the Ninth Circuit abrogated its prior en banc rehearing of *United States v. Comprehensive Drug Testing, Inc.* The case involved the government's seizure of computer records from a company that allegedly provided steroids to professional baseball players. The en banc decision relaxed the prior standard for issuing and executing search warrants and subpoenas for electronically stored information. This case interpreted the plain view doctrine and its application to electronic documents. The plain view doctrine allows an officer to seize—without a warrant—evidence and contraband found in plain view during a lawful observation.

In 2008, the Ninth Circuit heard a case involving the government's seizure of drug test records for hundreds of players in Major League Baseball (known as "the Tracey directory"). The question was whether these records—as well as related separately filed subpoenas—were admissible evidence in an ongoing grand jury investigation into the Bay Area Lab Cooperative's ("BALCO") alleged illegal doping of professional baseball players. The court held that the search of the Tracey directory did not violate the Fourth Amendment protection against unreasonable searches and seizures for three reasons: (1) "the government submitted detailed affidavits describing the anticipated difficulties of sorting computer data on-site" and "proposed a protocol to guide and to limit the seizures of intermingled evidence," (2) the government "complied with the protocol in the warrant," and (3) instead of seizing CDT's hardware (which was permissible by the warrant), the government only "copied several intermingled documents, including the Tracey directory." CDT appealed this decision and the court granted an en banc hearing.

The first en banc decision limited as admissible only evidence on the ten originally suspected players. Chief Judge Kozinski bound magistrate judges to strict procedural guidelines for digital searches that required the government to: (1) "forswear reliance on the plain view doctrine [that may allow it access to data beyond the scope of the warrant]"; (2) "fairly disclose the actual degree of . . . risks [of concealment and destruction of evidence]"; (3) design "the process of sorting, segregating, decoding and otherwise separating seizable data (as defined by the warrant) from all other data . . . to achieve that purpose and that purpose only." Furthermore, (4) "the warrant application should normally include . . . a protocol for preventing agents involved in the investigation from examining or retaining any data other than that for which probable cause is shown." Finally, (5) "[o]nce the data has been segregated (and, if necessary, redacted), the government agents involved

in the investigation may examine only the information covered by the terms of the warrant.” The court further held that “any remaining copies [of the data] must be destroyed” or “returned along with the actual physical medium that may have been seized (such as a hard drive or computer).”

A second en banc panel loosened these restrictions holding that they did not strictly bind magistrate judges. Granting magistrate judges more discretion in deciding what is or is not unreasonable under the plain view doctrine, the second panel held that judges must use the five procedural safeguards as guidelines, rather than requirements.

This decision represents the latest in a developing circuit split regarding what constitutes an unreasonable search and seizure under the Fourth Amendment. In early 2010, the Fourth Circuit held that digital evidence was to be treated the same as physical documents in *United States v. Williams*, 592 F.3d 511 (4th Cir. 2010). That is, incriminating files beyond the scope of the warrant that come into view are admissible. The Tenth Circuit in *United States v. Carey*, 172 F.3d 1268 (10th Cir. 1999), held that the court should ask the conducting officer after the fact if they had actually been searching beyond the scope of the warrant. The Seventh Circuit’s approach in *United States v. Mann* refrained from issuing a bright-line rule and limited their holding to the specific facts of that case. They, however, articulated that the file type specified in the warrant and the officer’s subjectivity regarding whether they were looking for information authorized by the warrant at the time that they came across incriminating data did have bearing on the Fourth Amendment inquiry.

UNITED STATES V. WARSHAK

631 F.3d 266 (6th Cir. 2010)

The Sixth Circuit’s decision in *Warshak* addressed whether the Fourth Amendment applies to email in guarding against unreasonable searches and seizures. The Court held that defendant Warhsak enjoyed a reasonable expectation of privacy in his email and government agents violated his Fourth Amendment rights through a warrantless, *ex parte* seizure of approximately 27,000 private emails from his internet search provider (ISP).

Warshak, the owner and founder of Berkeley Premium Nutraceuticals, faced criminal charges largely stemming from the deliberate manipulation of the company’s charge-back ratio, a ratio determined by the percentage of transactions in a given 30-day period that result in a charge-back (customers asking their credit cards to cancel the transaction). This company’s most famous drug was the ‘male enhancing’ product Enzyte. Due to a high level of customer dissatisfaction from the company’s auto-ship program, the “life

blood” of the company business that placed unwitting customers into an opt-out monthly subscription service for Berkeley’s herbal drugs, the company needed to stave off termination of its merchant-bank accounts that would result if too many customers charged-back their orders. Warshak and several others concocted a number of strategies to artificially inflate the number of sales transactions to reduce their charge-back ratio and obfuscate their high financial risk to banks; for instance they split a single transaction into many smaller transactions and also charged single dollar amounts to Warshak’s own credit card.

Email constituted a vital piece of evidence for the government’s criminal case. Through the use of the Stored Communications Act (“SCA”), which “permits a ‘governmental entity’ to compel a service provider to disclose the content of [electronic] communications in certain circumstances,” the government compelled Warshak’s ISP to turn over his emails without notice to him. But, the court ruled such actions violated the Fourth Amendment as Warshak “plainly manifested an expectation that his emails would be shielded from outside scrutiny” and that such expectations are objectively reasonable. Thus, the Sixth Circuit held that “to the extent that the SCA purports to permit the government to obtain such emails warrantlessly, the SCA is unconstitutional.”

Nonetheless, because government agents relied in good faith on the provisions of the SCA, the exclusionary rule did not apply against Warshak’s incriminating emails. The Court noted that the good faith reliance exception serves to avoid holding officers “accountable for mistakes of the legislature,” unless a “reasonable officer should have known that the statute was unconstitutional.” The Court ultimately affirmed Warshak’s numerous criminal convictions resulting in a sentence of twenty five years.

OTHER DEVELOPMENTS IN INTELLECTUAL PROPERTY

ANTITRUST LAW

AMERICAN NEEDLE, INC. v. NATIONAL FOOTBALL LEAGUE *130 S. Ct. 2201 (2010)*

The Supreme Court's decision in *American Needle* is one of the most important antitrust cases of the year. This new precedent on the applicability of § 1 of the Sherman Act to joint ventures, intellectual property pooling, and other integrative activities between competitors is likely the end of a turbulent feud dominating American sports law for the last ten years. The question at issue was whether the National Football League (NFL) may act as a single entity or if licensing activities for individual teams' intellectual property, conducted through a corporation separate from the teams and within its own management, constituted concerted action violating § 1 of the Sherman Act. The Court held the latter, marking the first Supreme Court decision for antitrust plaintiffs in eighteen years.

The NFL is an unincorporated association that now includes thirty-two separately owned professional football teams. Each team has its own name, colors, and logo, and owns related intellectual property. In December 2000, NFL member teams ("Members") authorized the NFL Properties, Inc. (NFLP) to enter into a ten-year exclusive license agreement with Reebok International, Ltd. According to the agreement, Members were bound not to compete with each other in the licensing and sale of consumer team headwear and clothing, and not to permit any licenses to be granted to Reebok's competitors.

American Needle, Inc., which held a nonexclusive license with the NFL since the 1960s, alleged that the NFLP agreement violated §§ 1 and 2 of the Sherman Act. Defendants argued that the NFL, NFLP, and associated Members were incapable of conspiring because they are a single economic enterprise, competing with other entertainment providers rather than with each other. The U.S. District Court for the Northern District of Illinois held that the NFL, NFLP, and associated Members' operations are integrated such that they should be deemed a single entity rather than joint ventures cooperating for a common purpose. The Seventh Circuit affirmed, noting that football itself can only be carried out jointly and that finding that the

NFL and its Members constituted a single source of economic power when promoting NFL football through licensing the teams' intellectual property. *American Needle Inc. v. National Football League*, 538 F.3d 736 (7th Cir. 2008). This result caused concern in the sports community, as sports leagues could potentially exercise unprecedented power over their players, coaches, and staff, as well as suppliers and related markets.

The Supreme Court granted certiorari. The issue was whether the Members are capable of engaging in a "contract, combination, or conspiracy" as defined by § 1 of the Sherman Act. The Court analyzed the difference between the scope of cooperation covered in § 1, applied only to concerted action that restrains trade, and the scope of § 2, covering both concerted and independent monopolizing action or actions threatening actual monopolization. The Court noted that monopoly power may be equally harmful whether it is the product of joint action or individual action.

The Court, somewhat contrary to its previous opinions, chose a more functional approach to the issue, rather than focusing on formalistic distinctions. Traditionally, coordinated activity of a parent and its wholly owned subsidiary does not fall within § 1 nor § 2 of the Sherman Act. Nevertheless, the Court believed that substance, not form, should determine whether the entity is capable of conspiring. If a parent and subsidiary constitute two independent decision-making centers, it is inconsequential that they are covered by one official entity. The Court could not decide the case on the basis of a *per se* rule, instead engaging in a more flexible analysis. While the Court noted that a certain degree of cooperation is necessary if the type of competition that the petitioner and its member institutions seek to market is to be preserved, it held that NFL teams are separate economic actors pursuing separate economic interests. The mere existence of the NFLP does not justify their actions: "joint ventures have no immunity from antitrust laws." The Court found that "any joint venture involves multiple sources of economic power cooperating to produce a product. And for many such ventures, the participation of others is necessary. But that does not mean that necessity of cooperation transforms concerted action into independent action" The Court concluded that the Members' interest in cooperation does not "does not justify treating them as a single entity for § 1 purposes when it comes to the marketing of the teams' individually owned intellectual property."

TRADE SECRET LAW

SILVACO DATA SYSTEMS V. INTEL CORP.

184 Cal. App. 4th 210 (Cal. Ct. App. 2010)

In *Silvaco Data Systems v. Intel Corp.*, the Court of Appeal of California shed light on trade secret infringement by a customer of a party that misappropriated a trade secret. The court held a customer does not, by obtaining and executing machine-readable code, “acquire” or “use” the underlying source code under the California Uniform Trade Secret Act (CUTSA).

A successful trade secret claim under CUTSA would require that Intel “acquired” or “used” the trade secret. Intel received and ran executable software code, compiled from source code that was allegedly misappropriated by a third party. Compiling source code produces binary or hexadecimal text characters, constituting what is called executable code. Such text is not readily intelligible to human beings. It is decodable into source code, but the duration of such decoding is so long that it would be unreasonable to do. Thus, acquisition of the executable code, which cannot be “untangled” by the average user, is not acquisition of the protected source code.

Moreover, Intel did not “use” the source code simply by executing the executable code. The court reasoned that one who eats a pie (the executable code) prepared by allegedly stolen recipe (the source code), does not use the secret, only the pie. The court went on to hold that even if the acts did constitute use of the source code, the CUTSA required knowledge of the secret in addition to use, which, due to the unintelligible nature of the executable code as noted above, was not obtained by Intel.

JUSTMED, INC. V. BYCE

600 F.3d 1118 (9th Cir. 2010)

In *JustMed, Inc. v. Byce*, the Ninth Circuit affirmed the district court’s decision in part, holding that the copyright of the source code in question belongs to JustMed under the works made for hire doctrine, but reversed the district court’s finding that Byce was liable for misappropriation of trade secrets.

JustMed is a small technology start-up company based in Oregon. JustMed hired Byce, a computer programmer, to replace an employee who had moved out of state. Byce, working remotely from home in Idaho, wrote the source code in the development of JustMed’s software. JustMed compensated Byce by giving him shares of JustMed’s stock on a monthly

basis. Concerned that he was not seen as an equal in the corporation, Byce changed the software's copyright notice to state that he, rather than JustMed, was the owner. He also deleted copies of the source code from JustMed's computers to gain leverage over JustMed two days before an important merger and buy-out meeting. Among other things, JustMed sued Byce for misappropriation of trade secrets. Byce counterclaimed, seeking a judgment declaring him the sole owner of the software.

Under the Copyright Act, copyright ownership vests initially in the author of the work. An exception exists for works made for hire, in which "the employer or other person for whom the work was prepared is considered the author, unless there was a written agreement to the contrary." The court applied a multifactor test to determine whether Byce was an employee of JustMed or an independent contractor. Despite JustMed's failure to provide benefits, failure to fill out employment forms and its tax treatment of Byce as an independent contractor, the court held that Byce was an employee of JustMed. The court relied on the fact that Byce was hired for an extended period of time, was paid a monthly salary, performed various tasks for JustMed and, most importantly, the nature of JustMed's business as a start-up.

In reversing the district court's finding that Byce was liable for misappropriation of trade secrets, the Ninth Circuit concluded that Byce did not acquire the source code through improper means because he already had possession of it as an employee. In addition, the court held that there was no misappropriation because Byce had neither "used" nor "disclosed" JustMed's trade secrets, despite the fact that he filed for a copyright and threatened to withhold the source code. The court reasoned that his actions did not rise to the level of misappropriation.

The Ninth Circuit applied a more expansive rule to determine who is considered an employee in the context of work for hire. As a result, the traditional factors for determining an employment relationship will no longer carry the same weight for start-up businesses as they did for more established businesses. This decision will create a higher burden for engineers working for start-up companies to assert their intellectual property rights.

MISAPPROPRIATION

BARCLAYS CAPITAL INC. V. THEFLYONTHEWALL.COM

700 F. Supp.2d 310 (S.D.N.Y. 2010)

In *Barclays Capital Inc. v. Theflyonthewall.com*, the Southern District of New York enjoined Theflyonthewall.com, an internet subscription news service that compiles and publishes research analysts' stock recommendations, from misappropriating "hot news" from various financial services firms' ("Firms") daily research reports. This decision shows that the "hot news" misappropriation doctrine is still alive and well. Furthermore, the case raises questions about the future of sharing information on the Internet.

The "hot news" doctrine covers the misappropriation of time-sensitive information. The doctrine originated in a 1918 Supreme Court case, *International News Service v. Associated Press*, 248 U.S. 215 (1918). In that case, INS copied news from bulletin boards and from early editions of the AP's news reports on the east coast. INS then sold this information to AP's customers on the west coast before AP's publications came out there. The Court held that even though copyright law did not extend to the facts in the reports, INS could be enjoined from using AP's news reports in direct competition because this type of free-riding is unfair competition in business.

In *Barclays*, the Southern District of New York relied on the Second Circuit's opinion in *National Basketball Association v. Motorola, Inc.*, 105 F.3d 841 (2d Cir. 1997), which used a five-part test to determine if "hot news" had been misappropriated. The test asks whether: (1) the plaintiff gathered or generated information at a cost; (2) the information was time sensitive; (3) the defendant is in fact free-riding on the plaintiff's work; (4) the defendant was in direct competition with a product or service at issue offered by the plaintiff; and (5) others free-riding on the plaintiff would reduce the incentive to produce the product or service such that its existence or quality would be substantially threatened.

After applying the test, the court found for the Firms. The court entered a permanent injunction that restricted Theflyonthewall.com from disseminating information from financial service research reports until either one half-hour after the opening of the New York Stock Exchange or 10:00 a.m., whichever is later. The purpose of the lead time is to enable the Firms to "conduct a reasonable sales effort" and to retain the advantage of being the first to reach key investors. With that lead time, the Firms will retain an incentive to create their research without "squeezing every last cent out of their efforts to the exclusion of others."

RIGHT OF PUBLICITY

KELLER V. ELEC. ARTS, INC.

No. C 09-1967 CW, 2010 U.S. Dist. LEXIS 10719 (N.D. Cal. Feb. 8, 2010)

The United States District Court for the Northern District of California held that borrowing the likeness and biographical data of college athletes for inclusion in a sports video game is neither transformative nor a protected public interest use and, if not consented to, is actionable as a violation of California's right of publicity.

Defendant Electronic Arts, Inc. (EA) produces the "NCAA Football" series of video games which enables consumers to simulate and play football matches between college teams. The plaintiff, a former college football player, filed a class action complaint alleging, in part, that designing virtual athletes to closely resemble real-life college football players violated California's statutory and common law rights of publicity. EA moved to dismiss the claims, arguing that the plaintiff's right of publicity claims are barred under both the First Amendment and California law.

The court denied EA's motion to dismiss, holding that the First Amendment does not shield a video game developer from right of publicity claims when the depictions share many of the plaintiff's characteristics, without much transformative modification by the defendant. The court further held that the fact that the video game as a whole contained transformative elements was irrelevant. Instead, the focus is on the depiction of the plaintiff, which includes the representation of the plaintiff themselves and the environment in which they are represented—here, the football field. Using two California Supreme Court cases, *Comedy III Prods., Inc. v. Gary Saderup, Inc.*, 21 P.3d 797 (Cal. 2001) and *Winter v. DC Comics*, 69 P.3d 473 (Cal. 2003), as guideposts, the court found that EA's depiction of the plaintiff was not sufficiently transformative to grant EA's motion to dismiss. The player in the game shared many of the plaintiff's traits, including the same position, height, weight, and jersey number.

The court also rejected EA's public interest defense as well as their statutory defense under Cal. Civ. Code § 3344(d). The court concluded that EA is not entitled to these defenses because its use of the plaintiff's image and likeness extends beyond reporting or publishing his statistics; rather, it offers a depiction of athletes' physical traits and allows consumers to control the virtual players on a football field.