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- 1523 **Governance of Intellectual Resources and Disintegration of Intellectual Property in the Digital Age**  
*Peter S. Menell*
- 1561 **Legal Scholarship and the United States Court of Appeals for the Federal Circuit: An Empirical Study of a National Circuit**  
*David L. Schwartz & Lee Petherbridge*
- 1603 **Can't the PTO Get a Little Respect?**  
*Joshua L. Sohn*
- 1641 **Protecting Your Online You: A New Approach to Handling Your Online Persona After Death**  
*Noam Kutler*

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## TABLE OF CONTENTS

### ARTICLES

GOVERNANCE OF INTELLECTUAL RESOURCES AND DISINTEGRATION OF  
INTELLECTUAL PROPERTY IN THE DIGITAL AGE ..... 1523

*Peter S. Menell*

LEGAL SCHOLARSHIP AND THE UNITED STATES COURT OF APPEALS FOR  
THE FEDERAL CIRCUIT: AN EMPIRICAL STUDY OF A NATIONAL CIRCUIT ..... 1561

*David L. Schwartz & Lee Petherbridge*

CAN'T THE PTO GET A LITTLE RESPECT? ..... 1603

*Joshua L. Sohn*

### NOTES & COMMENTS COMPETITION WINNER

PROTECTING YOUR ONLINE YOU: A NEW APPROACH TO HANDLING  
YOUR ONLINE PERSONA AFTER DEATH ..... 1641

*Noam Kutler*

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# GOVERNANCE OF INTELLECTUAL RESOURCES AND DISINTEGRATION OF INTELLECTUAL PROPERTY IN THE DIGITAL AGE

*Peter S. Menell*<sup>†</sup>

## ABSTRACT

The Supreme Court's decision in *eBay v. MercExchange* brought into focus whether intellectual property policy should follow reflexively in the wake of tangible property doctrines or instead look to the distinctive market failures and institutional features of intellectual resources. Professor Richard Epstein argues in a recent article that “virtually all of the current malaise in dealing with both tangible and intellectual property stems from the failure to keep to the coherent rules of acquisition, exclusion, alienation, regulation, and condemnation that are called for by the classical liberal system . . . .” Professor Epstein purports to validate what he calls the “carryover hypothesis”: that principles governing tangible property “do, and should, influence the growth of intellectual property law,” and that apart from durational limits on patents and copyrights, there are essentially no significant departures from the private property mold needed to optimize intellectual property. This Article responds to Professor Epstein's premises, framework, and analysis and provides a broader and richer analytical framework for promoting innovation and creativity in the digital age. In so doing, it demonstrates that intellectual property does not and should not resemble Professor Epstein's idealized classical liberal cathedral. To the contrary, “disintegration” characterizes the intellectual property landscape and hewing to a classical liberal private property paradigm overlooks valuable prescriptions for the evolution of the intellectual property field. While the institution of private property that has developed for tangible resources provides valuable insights into how to encourage efficient economic development, it is not a panacea for all resources, contexts, and societies. Careful consideration of the characteristics of intellectual resources, comparative institutional analysis, and empirical research provide the keys to promoting innovation and creativity.

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<sup>†</sup> Robert L. Bridges Professor of Law, University of California, Berkeley School of Law; Director, Berkeley Center for Law & Technology. I thank Tom Grey and Mark Lemley for comments on an earlier draft.

## TABLE OF CONTENTS

I.	INTRODUCTION.....	1524
II.	DECONSTRUCTING THE “CLASSICAL LIBERAL” FRAMEWORK.....	1526
III.	A FUNCTIONAL ANALYSIS OF INTELLECTUAL PROPERTY.....	1531
	A. THE OBJECTIVE FUNCTION .....	1531
	B. PARTICULAR CHARACTERISTICS OF INTELLECTUAL RESOURCES .....	1533
	C. DIAGNOSIS OF THE “CURRENT MALAISE”.....	1538
	1. <i>Technological Innovation</i> .....	1538
	2. <i>Expressive Works</i> .....	1540
	D. COMPARATIVE INSTITUTIONAL ANALYSIS.....	1542
	1. <i>Universality and Uniformity</i> .....	1544
	2. <i>The Right To Exclude</i> .....	1545
	3. <i>Freedom of Contract</i> .....	1553
	4. <i>Takings and Intellectual Property</i> .....	1554
IV.	THE DISINTEGRATION OF INTELLECTUAL PROPERTY.....	1556
V.	CONCLUSIONS.....	1558

### I. INTRODUCTION

As technological progress and the digital revolution have reshaped the economic and social landscape, the proper framework for protecting intellectual creativity has become a contentious issue in courts, government agencies, and the halls of Congress, as well as in academic journals. The major titans of industry are no longer General Motors and U.S. Steel, but Google, Apple, Microsoft, and eBay. Their key assets and products are intellectual, not tangible. And they are vulnerable in ways that GM and U.S. Steel never were to having their main business units seriously impaired by the proverbial “patent” needle in the haystack. Strict enforcement of patents in the digital economy, which in many instances resulted from modest investments and never resulted in any business venture, can disrupt established and promising start-up enterprises with little or no advance warning. At the same time, the incentives of pharmaceutical companies, another critical economic sector, depend critically upon patents to recoup investments measured in the hundreds of millions of dollars. Failure to provide strong remedies against infringement of drug patents—which rarely occurs inadvertently—could undermine investment in this vital sector.

Digital technology is also wreaking havoc in the content industries, where copyrighted works flow without authorization through largely anonymous peer-to-peer networks and “darknets.”<sup>1</sup> Aggressive enforcement against file-sharers has proven difficult and may well push unauthorized sharing further underground.

In a recent article, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, Professor Richard Epstein offers a deceptively simple prescription: “virtually all of the current malaise in dealing with both tangible and intellectual property stems from the failure to keep to the coherent rules of acquisition, exclusion, alienation, regulation, and condemnation that are called for by the classical liberal system . . . .”<sup>2</sup> In his article, Professor Epstein purports to validate what he calls the “carryover hypothesis”: that principles governing tangible property “do, and should, influence the growth of intellectual property law,”<sup>3</sup> and that apart from durational limits on patents and copyrights, there are essentially no significant departures from the private property mold needed for intellectual property.

Beyond the obvious (and not particularly novel) point that private property rules governing tangible property provide a useful analog for thinking about intellectual property regimes, Professor Epstein neither explains nor confronts the “current malaise.” After rehashing debates with Professors Thomas Grey and Margaret Radin about the disintegration of “property” law and regulatory takings jurisprudence, Professor Epstein overlooks entirely or breezes by such critical issues as whether patents should be limited to technological advances, the inherent difficulties of defining boundaries in the intellectual domain, the appropriate level of uniformity within patent law, the complexities of promoting cumulative innovation, the

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1. Darknets refer to closed file sharing networks. They are sometimes referred to as friend-to-friend networks because they only connect trusted friends. See *Darknet (File Sharing)*, WIKIPEDIA, [http://en.wikipedia.org/wiki/Darknet\\_%28file\\_sharing%29](http://en.wikipedia.org/wiki/Darknet_%28file_sharing%29) (last modified Feb. 12, 2012).

2. See Richard A. Epstein, *The Disintegration of Intellectual Property? A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455, 520 (2010) [hereinafter Epstein, *Disintegration*]. This article plays off of Professor Thomas Grey’s seminal article, Thomas C. Grey, *The Disintegration of Property*, in PROPERTY: NOMOS XXII: YEARBOOK OF THE AMERICAN SOCIETY FOR POLITICAL AND LEGAL PHILOSOPHY 69 (J. Roland Pennock & John W. Chapman eds., 1980), and extends Epstein’s earlier claim of “structural unity” between tangible and intellectual property. See also Richard A. Epstein, *What Is So Special About Intangible Property? The Case for Intelligent Carryovers* (Univ. of Chi. Law & Econ., Working Paper No. 524, 2010), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1659999](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1659999); Richard A. Epstein, *The Structural Unity of Real and Intellectual Property*, PROGRESS & FREEDOM FOUND. (Aug. 21, 2006), [http://www.pff.org/issues-pubs/pops/pop13.24RAE\\_9\\_26.pdf](http://www.pff.org/issues-pubs/pops/pop13.24RAE_9_26.pdf).

3. See Epstein, *Disintegration*, *supra* note 2, at 480.

complexities of network effects, and the challenges of enforcing copyrights in the peer-to-peer era so as to focus on such burning questions as the proper interpretation of patent law's exhaustion doctrine.

Professor Epstein purports to adapt the wisdom of tangible property institutions to the attributes of intellectual resources, but then he ignores studies documenting the "current malaise," empirical research on the economic performance of intellectual property systems, and theoretical research on the distinctive economic attributes and market failures associated with modern technology. Like the captain of the Titanic, Professor Epstein is more concerned with rearranging (doctrinal) deck chairs than forthrightly confronting the structural failings of his (private property) vessel in an ocean of (digital) icebergs.

This Article provides a broader and richer analytical framework for promoting innovation and creativity in the digital age. It begins in Part II by deconstructing Professor Epstein's mode of analysis. Part III systematically develops a broad framework for governing intellectual resources based upon their functional characteristics and intellectual property's constitutional purposes. It then debunks the "carryover hypothesis" based on real world, as opposed to idealized, conditions. Part IV then shows that intellectual property does not and should not resemble Professor Epstein's idealized classical liberal cathedral. To the contrary, "disintegration" characterizes the intellectual property landscape and hewing to a classical liberal private property paradigm overlooks valuable prescriptions for the evolution of the intellectual property field.

## II. DECONSTRUCTING THE "CLASSICAL LIBERAL" FRAMEWORK

Professor Epstein purports to validate his "carryover hypothesis" based principally on four assertions supported by his own analytical intuition:

(1) Since private property is a coherent and well-specified set of rights that works well for tangible property,

(2) The goal is "to determine *how few* deviations from the traditional views of property in tangibles need to be made in order to develop a sensible system for copyrights and patents."<sup>4</sup>

(3) "The obvious place to start is with the *duration* of these interests, given that the distinctive feature of information is its capacity to be both shared

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4. *Id.* at 482.

and retained at the same time.”<sup>5</sup> In Professor Epstein’s “preferred system, the scope of pattern coverage should cover the full range of inventions and writing.”<sup>6</sup>

(4) After accounting for the durational difference between tangible and intangible property, “it becomes less likely that we can identify any additional functional reasons to reject other pillars of the system of real and personal property dealing with exclusivity, use, and disposition.”<sup>7</sup> Beyond the durational issue, Professor Epstein fails to find any significant departures from the private property mold needed for governance of intellectual property.

Whether or not Professor Epstein’s analysis achieves “classical liberal values,”<sup>8</sup> it falls well short of comprehending, much less addressing, the constitutional purposes underlying intellectual property protection: promoting progress in technology and expressive creativity while preserving freedom of expression. Professor Epstein’s analysis utterly fails to capture the differences between intellectual property and tangible property. For Step 1 of his analysis, he replows old debates with Professor Thomas Grey about the disintegration of the property system and with Professor Margaret Radin about regulatory takings. He rejects Grey’s contention that the fragmentation and manipulation of property interests in advanced capitalist economies has undermined romantic, classical liberal notions of private property.<sup>9</sup> Professor Epstein then critiques Radin’s notion of “conceptual severance”: the idea that intangible rights can and should be understood differently than tangible resources.<sup>10</sup>

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5. *Id.*

6. *Id.* at 484.

7. *Id.* at 483.

8. Many libertarians have serious reservations about extrapolating property rights in tangible resources to the realm of intangibles. *See, e.g.*, F.A. HAYEK, THE FATAL CONCEIT: THE ERRORS OF SOCIALISM 36 (W.W. Bartley III ed., 1988) (observing, in commenting on patents and copyrights, that “it is not obvious that such forced scarcity is the most effective way to stimulate the human creative process”); SAM WILLIAMS, FREE AS IN FREEDOM: RICHARD STALLMAN’S CRUSADE FOR FREE SOFTWARE (2002); N. Stephan Kinsella, *Against Intellectual Property*, 15 J. LIBERTARIAN STUD. 1, 27–28 (2001); Roderick T. Long, *The Libertarian Case Against Intellectual Property Rights*, 3 FORMULATIONS, no. 1, Autumn 1995, available at <http://freenation.org/a/f3111.html>; Tom G. Palmer, *Are Patents and Copyrights Morally Justified? The Philosophy of Property Rights and Ideal Objects*, 13 HARV. J.L. & PUB. POL’Y 817 (1990); Tom G. Palmer, *Intellectual Property: A Non-Posnerian Law and Economics Approach*, 12 HAMLIN L. REV. 261 (1989); Jesse Walker, *Copy Catfight: How Intellectual Property Laws Stifle Popular Culture*, REASON (Mar. 2000), <http://www.reason.com/news/show/27635.html>.

9. Epstein, *Disintegration*, *supra* note 2, at 462–72 (discussing Grey, *supra* note 2).

10. *Id.* at 472–80 (discussing Margaret Jane Radin, *The Liberal Conception of Property: Cross Currents in the Jurisprudence of Takings*, 88 COLUM. L. REV. 1667 (1988)).

Professor Epstein's carryover hypothesis builds on this foundation. But if private property rights for tangible things have eroded, then the starting point for his analysis is that much weaker. If nothing else, voluminous scholarship during the past several decades has shown that institutions other than private property are capable of achieving productive resource use (and other social aims).<sup>11</sup> Nonetheless, Professor Epstein sees classical liberal private property for tangible resources as the only possible foundation for governing intellectual resources.

Professor Epstein is evasive on what he actually means by the classical liberal private property system for tangibles. When fending off critiques, he cautions against falling into the Blackstone trap: reading too literally Blackstone's famous definition of property as "that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe."<sup>12</sup> At times, Professor Epstein waxes about the ways in which traditional property rights systems have been adapted for water resources,<sup>13</sup> celebrating the shift from riparian rights systems in rainy regions to the use of prior appropriation in the more arid West.<sup>14</sup> But when he is arguing to the

11. See JOHN P. DWYER & PETER S. MENELL, *PROPERTY LAW AND POLICY: A COMPARATIVE INSTITUTIONAL PERSPECTIVE* (1998); NEIL K. KOMESAR, *IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY* (1994); ELINOR OSTROM, *UNDERSTANDING INSTITUTIONAL DIVERSITY* (2005); ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990); STEVEN WEBER, *THE SUCCESS OF OPEN SOURCE* (2004).

12. 2 WILLIAM BLACKSTONE, *COMMENTARIES ON THE LAWS OF ENGLAND* 2 (1775).

13. See Richard A. Epstein, *The Property Rights Movement and Intellectual Property: A Response to Peter Menell*, *REGULATION*, Winter 2008, at 58, 59.

14. Justice Cardozo captures the shift eloquently:

Sooner or later, if the demands of social utility are sufficiently urgent, if the operation of an existing rule is sufficiently productive of hardship or inconvenience, utility will tend to triumph . . . . We have a conspicuous illustration in the law of waters in our western states. "Two systems of water law are in force within the United States—the riparian and the appropriation systems." The system first named prevails in thirty-one of the forty-eight states. Its fundamental principle is "that each riparian proprietor has an equal right to make a reasonable use of the waters of the stream, subject to the equal right of the other riparian proprietors likewise to make a reasonable use." Some of the arid states of the west found this system unsuited to their needs. Division of the water "into small quantities among the various water users and on the general principle of equality of right" would be a division "so minute as not to be of advantage to anybody." "It is better in such a region that some have enough and others go without, than that the division should be so minute as to be of no real economic value." The appropriation system built upon the recognition of this truth. Its fundamental principle is "that the water user

Supreme Court that injunctions should be automatically granted in intellectual property cases by analogy to real property law, his conception of the private property system comes dangerously close to the Blackstone trap.<sup>15</sup> In his present article, he defends “the soundness [and] adequacy of the classical liberal conception of property rights embodied in Blackstone’s famous definition.”<sup>16</sup> If not over the edge, Professor Epstein rests at the rim of the Blackstone trap, allowing modest leeway only for compelling necessity, eminent domain (with a strict public use requirement), and laches and estoppel.

Professor Epstein’s Step 2 is where the first rabbit goes into the hat. If you anchor your framework in a particular mode of governance, there is a good chance that you will conclude that that mode of governance should apply. That is especially true if you do not systematically characterize the resources at issue or catalog the range of market failures that might lead you to other modes of governance. Part III of this Article delves more deeply into the details. Thus, the principal pillars on which Professor Epstein builds his edifice are illusory. He refuses to characterize the contours of the classical liberal theory. Secondly, he assumes tautologically that the classical liberal theory is best and therefore society need only determine “*how few* deviations from the traditional views of property in tangibles need to be made in order to develop a sensible system for copyrights and patents.”<sup>17</sup>

In Step 3 Professor Epstein acknowledges that information differs from tangible resources in that it is non-rivalrous—i.e., one person’s use of

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who first puts to beneficial use—irrigation, mining, manufacturing, power, household, or other economic use—the water of a stream, acquires thereby the first right to the water, to the extent reasonably necessary to his use, and that he who is the second to put the water of the stream to beneficial use, acquires the second right, a third to put it to use acquires the third right, a right subordinate to the other two, and so on throughout the entire series of uses.” Here we have the conscious departure from a known rule, and the deliberate adoption of a new one, in obedience to the promptings of a social need so obvious and so insistent as to overrun the ancient channel and cut a new one for itself.

BENJAMIN N. CARDOZO, *THE GROWTH OF THE LAW* 117–20 (1924) (citations omitted). Unlike Epstein, Justice Cardozo bases this evolution not on the superiority of classical property but rather on a functional, utilitarian framework. Epstein is too focused on shoehorning resource governance into his classical liberal theory to offer a general theory.

15. See Brief of Various Law & Economics Professors as Amici Curiae in Support of Respondent, *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (No. 05-130), 2006 WL 639164 [hereinafter Epstein *eBay* Brief].

16. See Epstein, *Disintegration*, *supra* note 2, at 461.

17. See *id.* at 482.

information does not limit another's use.<sup>18</sup> Consequently, it makes sense to limit intellectual property duration. There are other ways of dealing with the non-rivalrous characteristic, as I explore in Part III, but Professor Epstein does not want to explore inroads into such areas as exclusion rights, so duration is the answer. Professor Epstein provides no analysis of why duration is the best or only tool to deal with non-rivalry. Duration is an important tool, but it should not be the only one considered. Moreover, Professor Epstein entirely overlooks the cumulative innovation<sup>19</sup> aspect of information, which most intellectual property scholars consider to be a critical rationale for limiting the time and strength of intellectual property rights.<sup>20</sup>

Professor Epstein continues to oversimplify matters by proclaiming that copyright should be longer than patent protection and that all forms of invention and expressive creativity should be protected through intellectual property—referencing the famous and famously mischaracterized “anything under the sun” language from the legislative history of the 1952 Patent Act.<sup>21</sup> Putting intellectual resources as heterogeneous as pharmaceutical advances and business methods in a largely uniform patent system, and putting photographs and novels in a largely uniform copyright system, generates

18. *See id.* at 483 (“But the social gains from the expiration of the copyright or invention are large because that expiration allows an extensive nonrivalrous use . . .”). Yet in the introduction to his article, Professor Epstein discounts the many modern writers who emphasize this very characteristic in advocating a *sui generis* approach to intellectual property. *See id.* at 458 (“Their claim of separation is overstated.”).

19. Cumulative innovation refers to the fact that most innovation builds upon prior advances. Therefore, intellectual property systems must pay careful attention to balancing incentives between pioneers and those who improve upon prior advances.

20. *See* Peter S. Menell & Suzanne Scotchmer, *Intellectual Property Law*, in 2 HANDBOOK OF LAW AND ECONOMICS 1473, 1476–78, 1499–1511 (A. Mitchell Polinsky & Steven Shavell eds., 2008).

21. That phrase first surfaced in patentable subject matter jurisprudence in *Application of Bergy*, 596 F.2d 952, 961 (C.C.P.A. 1979). It was then picked up in *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980), and *Diamond v. Diebr*, 450 U.S. 175, 182 (1981), without its full context or even ellipses. It was then mischaracterized in *State Street Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999). *See In re Bilski*, 545 F.3d 943, 966–98 (Fed. Cir. 2008) (en banc) (Dyk, J. & Linn, J., concurring) (agreeing “with Judge Mayer that, when read in context, the statement undercuts the notion that Congress intended to expand the scope of § 101”); *id.* at 1000 (Mayer, J., dissenting) (“This statement does not support the contention that Congress intended ‘anything under the sun’ to be patentable. To the contrary, the language supports the opposite view: a person may have ‘invented’ anything under the sun, but it is ‘not necessarily patentable’ unless the statutory requirements for patentability have been satisfied.”); *see also* Brief Amici Curiae of Professors Peter S. Menell & Michael J. Meurer in Support of Respondent, *Bilski v. Kappos*, 130 S. Ct. 3218 (2009) (No. 08-964), 2009 WL 3199629 (providing comprehensive analysis of the legislative history of the 1952 Patent Act).

tremendous problems of over- and under-protection. Yet Professor Epstein sees one-size-fits-all for inventions and one-size-fits-all for expressive works to be the optimum. As explored in Section III.C.1, Professor Epstein fails to address all of the characteristics that distinguish intellectual from tangible resources and ignores the alternative institutional and design options.

Unlike Step 2, where we can see the rabbit going into the hat, Professor Epstein's conclusion in Step 4—that duration is effectively the only difference between tangible and intellectual property—is pure magic. When the only tool that you have in your box is a hammer, every problem looks like a nail. When that tool is classical liberal “property rights,” then all of its features (except the constitutionally-mandated “limited terms” constraint) “carry over” to intellectual property. By glossing over the complexities of intellectual resources, Professor Epstein short-circuits even his own analytical framework.

### III. A FUNCTIONAL ANALYSIS OF INTELLECTUAL PROPERTY

In contrast to Professor Epstein's framework, this Part develops a functional analysis of the governance of intellectual resources based on first principles. The appropriate place to start is with the goals for the analytical framework. Section B characterizes the resources at issue. Section C diagnoses the “current malaise” affecting technological innovation and expressive creativity. Section D frames comparative institutional analysis of some of the key challenges.

#### A. THE OBJECTIVE FUNCTION

Contrary to Professor Epstein's premise, the goal of intellectual property law and policy in the United States is not confined to promoting liberty with a utilitarian gloss. Rather, the Intellectual Property Clause of the U.S. Constitution empowers Congress “[t]o 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.”<sup>22</sup> This Clause

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22. U.S. CONST., art. I, § 8, cl. 8. As the Supreme Court has noted:

“The copyright law, like the patent statutes, makes reward to the owner a secondary consideration.” *United States v. Paramount Pictures*, 334 U.S. 131, 158. However, it is “intended definitely to grant valuable, enforceable rights to authors, publishers, etc., without burdensome requirements: ‘to afford greater encouragement to the production of literary [or artistic] works of lasting benefit to the world.’”

interacts with the First Amendment's guarantee of freedom of speech. Liberty may be a means to these ends, but it is not the only means.

Professor Epstein's premise would take on greater moment if the Supreme Court interpreted the "exclusive right" element of the Intellectual Property Clause to constrain Congress in enacting intellectual property laws to a classical liberal notion of property. But such an interpretation conflicts with the language of the Clause, the limited times caveat, and centuries of jurisprudence. Congress has relatively broad leeway in enacting intellectual property law<sup>23</sup> and is not constrained to even a narrowly utilitarian objective in crafting intellectual property law.<sup>24</sup>

Throughout its history, the Copyright Act has promoted preservation, dissemination, and distributive justice through deposit and various access exemptions.<sup>25</sup> The Copyright Act of 1976 seeks to address the problem of unremunerative transfers in author-publisher relationships by affording authors (and their statutory successors) an inalienable right to reclaim copyright thirty-five years after execution of the transfer.<sup>26</sup> Such provisions directly contradict the classical liberty framework by limiting freedom of contract. Professor Epstein might not like this policy—after all, it complicates business transactions<sup>27</sup> and causes substantial confusion in the courts<sup>28</sup>—but he cannot seriously contend that copyright's termination regime does not "disintegrate" the classical liberal cathedral to some degree. Copyright's various features such as compulsory licensing and exemptions further erode the cathedral.

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Wash. Pub. Co. v. Pearson, 306 U.S. 30 (1939). The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that it is the best way to advance public welfare through the talents of authors and inventors in "Science and useful Arts." Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered. *Mazer v. Stein*, 347 U.S. 201, 219 (1954).

23. See *Eldred v. Ashcroft*, 537 U.S. 186 (2003).

24. See *Golan v. Holder*, 132 S. Ct. 873, 888 (2012) (observing that "[n]othing in the text of the Copyright Clause confines the 'Progress of Science' exclusively to 'incentives for creation'" (citation omitted)).

25. See Peter S. Menell, *Knowledge Accessibility and Preservation Policy for the Digital Age*, 44 HOUS. L. REV. 1013 (2007).

26. See 17 U.S.C. § 203 (2006); see also *id.* § 304(c), (d) (56- and 75-year terminations for pre-1978 works).

27. See Lauren A.E. Schuker, *Heirs of Comic Book Creator Seek To Recapture Copyrights*, WALL ST. J., Sept. 21, 2009, at B7 (reporting that heirs of comic book creator Stan Kirby are seeking to reclaim copyrights to the Marvel super heroes, casting a cloud of uncertainty over Disney's \$4 billion acquisition of Marvel's characters).

28. See Peter S. Menell & David Nimmer, *Poob-Poobing Copyright Law's "Inalienable" Termination Rights*, 57 COPYRIGHT SOC'Y 799 (2010).

Thus, the classical liberal framework lacks constitutional, legislative, and jurisprudential support as “the” objective for intellectual property law and policy.

B. PARTICULAR CHARACTERISTICS OF INTELLECTUAL RESOURCES

The principles that make tangible property rights economically efficient do not always apply to intellectual property<sup>29</sup>—a reality that appears lost on Professor Epstein. The utilitarian basis for protecting tangible resources through the institution of private property rests on a sound theoretical and empirical foundation. The biologist Garrett Hardin offered the now classic parable of the “tragedy of the commons,” which highlights the potential for overuse of resources that are not subject to exclusion.<sup>30</sup> The economist Harold Demsetz posited that exclusive private property systems emerge as externalities become more prevalent and the costs of enforcing private property decline.<sup>31</sup> Using a simple model of land cultivation, law and economics scholar (and Judge) Richard Posner posited three criteria for an efficient allocation of land resources: (1) universality—that all land is owned, (2) exclusivity, and (3) transferability.<sup>32</sup> Private property directly addresses the problems of scarcity, rivalry, and depletion—one person’s use and enjoyment of the resource diminishes the use and enjoyment by others. Exclusivity affords the owner the opportunity to develop the resource without risk of expropriation. In general, private property succeeds in promoting efficient resource development when boundaries and rights are clearly delineated and enforcement is inexpensive and effective. A robust body of historical and empirical research suggests that the institution of private property supports economic development.<sup>33</sup>

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29. Peter S. Menell & Michael Meurer, *Notice Failure and Notice Externalities* (Boston Univ. Sch. of Law, Law and Economics Research Paper No. 11-58, 2011), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1973171](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1973171).

30. See Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968).

31. See Harold Demsetz, *Toward a Theory of Property Rights*, 57 *ECON. REV.* 347 (1967).

32. RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 33 (6th ed. 2003).

33. See Philip Keefer & Stephen Knack, *Why Don't Poor Countries Catch Up? A Cross-National Test of an Institutional Explanation*, 35 *ECON. INQUIRY* 590 (1997) (finding that contract enforceability, risk of government expropriation, rule of law, and other proxies for the quality of property rights are strongly and positively correlated with national economic growth); see also DOUGLASS C. NORTH, *STRUCTURE AND CHANGE IN ECONOMIC HISTORY* 149–52, 166–67 (1981) (finding that secure property rights facilitated the British Industrial Revolution; by contrast, undocumented and disputed feudal customary rights impeded economic growth in many European nations); Philip Keefer & Stephen Knack, *Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures*, 7 *ECON. & POL.* 207, 219–20 (1995) (finding that “secure property rights encourage fixed investments”).

However, development of intellectual resources differs fundamentally from the development of tangible resources.<sup>34</sup> Therefore, it cannot be assumed that intellectual resources should be governed by the same rules that have developed for tangible resources—even with the duration adjustment. And the historical and empirical evidence regarding patents bears this out. In a broad survey of studies, Professors James Bessen and Michael Meurer find that:

The historical evidence, the cross-country evidence, and the evidence from economic experiments all point to a marked difference between the economic importance of general property rights and the economic importance of patents or intellectual property rights more generally. With the cross-country studies in particular, the quality of general property rights institutions has a substantial direct effect on economic growth. Using the *same* methodology and in the *same* studies, intellectual property rights have at best only a weak and indirect effect on economic growth . . . . [T]he empirical evidence strongly rejects simplistic arguments that patents universally spur innovation and economic growth. “Property” is not a ritual incantation that blesses the anointed with the fruits of innovation; legislation of “stronger” patent rights does not automatically mean greater innovation. Instead, the effectiveness of patents as a form of property depends critically on the institutions that implement present law. And there appear to be important differences in the effectiveness of implementation across different technologies and industries.<sup>35</sup>

By their inherent nature, intellectual resources are neither rivalrous nor depletable. We can all enjoy knowledge simultaneously without diminution. Hence scarcity is not the problem. The principal economic justification for intellectual property derives from the inability of a competitive market to support an efficient level of creativity—particularly where creativity is costly, easily perceived, and relatively inexpensive to imitate. A competitive market will drive profits to zero, not accounting for sunk costs such as research and development. Although imitation keeps prices low for consumers and avoids deadweight loss of monopolistic exploitation, it produces a sub-optimal level of investment in creativity. Most creators or enterprises would not invest in innovation if rivals could enter the market and dissipate the profit before research and development costs adjusted for attendant risks could be recovered.

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34. See generally Menell & Scotchmer, *supra* note 20, at 1475–83.

35. See JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 92–93 (2008).

A second problem relates to the cumulative nature of innovation—whereby first-generation inventions become inputs for second-generation innovators. To reward first generation innovators sufficiently for inventions that may produce positive spillovers—enabling second-generation inventions such as improvements, new applications, and accessories—first-generation innovators should be able to appropriate some of the value of second-generation innovations. On the other hand, providing even a share of the second-generation innovators' returns to the first-generation innovator reduces the incentive for second-generation innovators to pursue their research.

Intellectual property law attempts to solve these problems by granting time-limited rights to creators of knowledge. In essence, intellectual property law creates artificial scarcity so as to stimulate a market for what would otherwise be a non-rivalrous and non-excludable good. Such control, however, reduces social welfare through the deadweight loss resulting from monopoly exploitation and inhibits cumulative innovation.<sup>36</sup> Ideally, society could avoid or lessen these effects while generating adequate incentives for innovation. Whereas intellectual property's inherent nature allows for sharing that enhances the enjoyment of others at the cost of disincentivizing future creativity, no comparable challenges exist in the realm of tangible resources. Allowing more people onto a given piece of land or more people to share an ice cream cone diminishes the enjoyment of others.

Thus, by adhering to a strict construction of his carryover hypothesis, Professor Epstein overlooks several other important considerations in the governance of intellectual resources that do not arise for tangible resources. For instance, the incentive problems that might justify intellectual property protection can be addressed in whole or part through alternative modes of appropriability. Where these other mechanisms operate effectively, the optimal policy is to disseminate knowledge freely and without restriction. In many fields of technological innovation, the government directly funds research and development. Moreover, indirect modes of appropriability—such as advertising—can address the incentive problems in some markets. Commercial broadcasting, for example, has been “free” to consumers for much of its existence due to the technological characteristics of this medium, yet broadcasters have developed profitable business models that sponsor creation of the content. Furthermore, intellectual property regimes overlap in ways that address appropriability problems. Thus, computer software derives

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36. Licensing can correct for the latter difficulty, but only if search and negotiation costs are manageable.

substantial protection from trade secrecy and copyright protection, even though these regimes do not directly protect the functional characteristics of the products. Such protection can obviate or substantially substitute for patent protection for computer software, which can have various undesirable effects.<sup>37</sup>

The computer software marketplace raises a distinctive concern that has no clear analog in tangible resource markets: the problem of network externalities. The value that one person derives from a good can be related to how many other people use that same platform. Such effects can be direct (e.g., telecommunications networks—where the value to each user depends directly on the number of other users on that network) as well as indirect (e.g., interoperable software products—where the value of a hardware product depends on the amount and quality of the software available to run on that platform, which in turn depends on the number of users of the hardware product). Achieving the proper balance of incentives in network markets requires great care and often places intellectual property protection in tension with antitrust law.<sup>38</sup>

The interoperability concern has called attention to the advantages of collaborative, non-proprietary innovation systems. Developers of open source software—who eschew proprietary business models—have emerged as a powerful force in internet software markets precisely because it is non-exclusionary.<sup>39</sup>

Moving beyond these important functional differences between tangible and intangible resource markets, the essential conditions for tangible property to function effectively—low cost administration, clearly delineated boundaries, and inexpensive enforcement—should not be assumed to operate in intellectual property systems. Real property institutions typically work so smoothly that administrative, search, and enforcement costs rarely affect resource development. The physical nature of the tangible resources, combined with the observability of possession, make for a transparent, reliable, and inexpensive system of demarcation and clearance. Land recording systems enable quick and reliable search of deed registries. The legal description of real property deeds ensures that land surveyors can inexpensively and precisely determine boundaries. Even prescriptive uses are usually readily observable.

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37. Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987).

38. *See id.* at 1366.

39. *See* Robert P. Merges, *A New Dynamism in the Public Domain*, 71 U. CHI. L. REV. 183, 191–93 (2004).

By contrast, the direct and indirect administrative, search, and enforcement costs of intellectual property systems are substantial. Applying for a patent is costly and time consuming. Whereas real property grants are judged against a readily searchable and exhaustive index and a simple, objective priority rule, patents are evaluated against a vast reservoir of knowledge that can be difficult to collect and an inherently indeterminate non-obviousness standard. Limitations on the Patent Office's time and resources inevitably result in prior art being overlooked and patents of questionable validity being granted. Furthermore, the boundaries of intellectual property rights can be difficult to ascertain. The intangible nature of intellectual property means that boundaries are defined by words as opposed to quantitative, geophysical measurements. The resulting disputes over claim interpretation play a central role in most patent infringement lawsuits.<sup>40</sup>

The costs of ascertaining patent boundaries reverberate throughout the technology sector. Unlike tangible property systems, the proliferation of patent claims, relatively low reliability of patent grants, fuzzy boundaries surrounding the claims, and substantial costs of resolving disputes impose a high barrier on innovators and prospective investors.

For these reasons, empirical evidence on the economic effects of patent protection is mixed, in contrast with research on the efficacy of tangible property rights.<sup>41</sup> Historical research on the industrial revolution indicates that nations without patent systems were just as innovative as those that had such systems.<sup>42</sup> Cross-national time-series studies since that era show a strong correlation between property rights and economic growth, but much weaker evidence with respect to patents.<sup>43</sup> The most that can be discerned about patents is that they are correlated with research and development spending in developed nations, although the causality is unclear.<sup>44</sup> Studies of the effects of legal change are also inconclusive.<sup>45</sup> Whereas Soviet-bloc nations that developed strong property and market institutions following the dissolution of the Soviet Union ultimately experienced strong economic growth (after an initial period of sharp decline), nations that have strengthened their patent rights do not show clear evidence of increased innovation except to a limited

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40. See Peter S. Menell, Matthew D. Powers & Steven Carlson, *Patent Claim Construction: A Modern Synthesis and Structured Framework*, 25 BERKELEY TECH. L.J. 711 (2010).

41. See BESSEN & MEURER, *supra* note 35, at 92–93.

42. See *id.* at 80.

43. See *id.* at 83–84.

44. See *id.* at 83.

45. See *id.* at 85.

degree in the wealthiest nations.<sup>46</sup> Survey evidence and case studies show that patent protection plays a critical role in promoting research and development investment in the pharmaceutical and chemical industries, but it is much less significant—compared to lead-time and trade secrecy—in most other industries.<sup>47</sup> As the next Section explores, the evidence on the effects of patent protection has turned even more sour for the digital technology sector during the past decade.

The copyright system avoids the up-front costs of the patent system by not requiring examination and making registration optional. But there can be difficult problems after the fact. Hollywood lawyers are familiar with the phrase “where there’s a hit, there’s a writ.” Popular films and sound recordings frequently generate copyright litigation where experts disagree about the extent to which a work is protectable and infringed. The jury system and the subjectivity of the infringement standard—which asks whether the allegedly infringing work is “substantially similar” to the protected expression—create considerable uncertainty.

For most of the twentieth century, the costs of enforcing copyright protection were relatively manageable. Those operating pirate printing presses and record factories could not easily get their wares into mainstream markets without detection. And proving infringement in piracy cases was quite easy. But as the next Section discusses, the digital age has turned copyright enforcement on its head.

### C. DIAGNOSIS OF THE “CURRENT MALAISE”

Professor Epstein asserts that his carryover prescription addresses “virtually all of the current malaise in dealing with . . . intellectual property.”<sup>48</sup> Yet he offers no account of the “current malaise” other than criticism of the Supreme Court’s *eBay* decision and various other decisions that do not follow his classical liberal property rights ideal. Rather than follow such circular reasoning, this Section offers a more objective diagnosis.

#### 1. *Technological Innovation*

The malaise plaguing the patent system can be traced principally to the proliferation of software and business method patents beginning in the mid 1990s.<sup>49</sup> The software industry developed in the 1960s, 1970s, and 1980s

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46. *See id.* at 83–84.

47. *See id.* at 89.

48. Epstein, *Disintegration*, *supra* note 2, at 520.

49. *See generally* BESSEN & MEURER, *supra* note 35; DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* (2009); ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS* (2004); A PATENT SYSTEM FOR THE 21ST

without any significant role for patent protection. The major vendors—from Microsoft to Oracle—were able to protect software products adequately through contract, trade secrecy, and copyright protection, as well as through technological measures (encryption) and business strategies (versioning). These protections and strategies deterred piracy, provided adequate lead time, and supported vibrant competition. Through much of this period, the standards for patentable subject matter<sup>50</sup> kept patent protection for software at the periphery of the industry.

This changed dramatically beginning in the mid 1990s. The U.S. Court of Appeals for the Federal Circuit relaxed the patentable subject matter limitations, particularly relating to software and business methods.<sup>51</sup> With the *State Street Bank* decision in 1998, the Federal Circuit largely eliminated the subject matter requirement.<sup>52</sup> At the same time, the emergence of the Internet as a commercial platform, along with great advances in the computing power and storage capacity of microcomputers, fueled the dot-com boom. These factors produced a flood of software patent applications. The Patent Office has since struggled to keep up with the workload and provide quality examination. Even as staffing has improved, the difficulty of finding prior art—which can range from prior patents and technical journal publications to products and know-how in the industry—continues to raise concerns about the quality of software patent examination.

According to the recent, comprehensive empirical study by Professors James Bessen and Michael Meurer, the performance of the U.S. patent system deteriorated markedly beginning in the mid 1990s as patent litigation costs soared.<sup>53</sup> By the end of that decade, the cost of patent litigation for public firms outside of the chemical and pharmaceutical industries exceeded the profits derived from patents.<sup>54</sup> The problems have been most pronounced in the software and business method marketplaces, where patents are functioning more as a tax on research and development than as an innovation incentive. Non-practicing entities have become a major source

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CENTURY (Stephen A. Merrill et al. eds., 2004); U.S. FED. TRADE COMM'N (FTC), TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003).

50. See *Gottschalk v. Benson*, 409 U.S. 63 (1972); *Diamond v. Diehr*, 450 U.S. 175 (1981).

51. See *State St. Bank & Trust Co. v. Signature Fin. Grp.*, 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999); *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994); see also U.S. Patent & Trademark Office, Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478 (Feb. 28, 1996).

52. See *State Street Bank*, 149 F.3d at 1375–77.

53. See BESSEN & MEURER, *supra* note 35, at 144.

54. See *id.* at 138–42.

of patent litigation in the software and internet industries.<sup>55</sup> Among established entities, an arms race has taken hold whereby firms expend tremendous resources on patent acquisition and maintenance strategies driven more by defensive concerns than real innovation.<sup>56</sup> In the software industry, patents function more as insurance and bargaining chips than as fuel for investment.

The cause of the patent crisis derives principally from the inherently ambiguous nature of software patent claims, the difficulty of evaluating software patent applications,<sup>57</sup> and the cost for industry players to wade through the veritable deluge of software and business method patents<sup>58</sup> to determine intellectual property boundaries.<sup>59</sup> These factors introduce tremendous litigation risk for start-ups and established companies alike. Companies in these industries face a problem much like the Hollywood lawyer—where there’s a digital product or service “hit,” there are usually multiple “writs”—often in the Eastern District of Texas.<sup>60</sup> Even before a hit, inventors and investors incur substantial direct and indirect costs to deal with the uncertainties of an ambiguous intellectual property landscape.

## 2. *Expressive Works*

The malaise plaguing the copyright system can be traced to another ramification of the digital revolution: the emergence of largely anonymous peer-to-peer networks.<sup>61</sup> This technology, made famous by Napster, enables anyone with an internet connection to distribute copyrighted works—their own or those of others—to everyone else on the Internet. This has resulted in rampant unauthorized distribution of sound recordings and other forms of digital media. From the early 1970s through 1999, the year Napster appeared, the sale of sound recordings per capita in the United States more than doubled.<sup>62</sup> In the decade since, record sales have dropped to pre-1970 levels.

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55. See John R. Allison, Mark A. Lemley & Joshua Walker, *Extreme Value or Trolls on Top? The Characteristics of the Most-Litigated Patents*, 158 U. PA. L. REV. 1, 31–33 (2009) (finding that between 2000 and 2007, non-practicing entities brought 16% of the once-litigated patents and over 80% of the suits filed involving the most-litigated patents).

56. See FTC, *supra* note 49, at 3–33 (describing the use of defensive patenting).

57. See Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1500 (2001).

58. See BESSEN & MEURER, *supra* note 35, at 122, 128–29, 153, 193.

59. See Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19.

60. See Jeanne C. Fromer, *Patentography*, 85 N.Y.U. L. REV. 1444 (2010).

61. See Epstein, *Disintegration*, *supra* note 2, at 503–07 (discussing *UMG Recordings, Inc. v. Augusto*, 558 F. Supp. 2d 1055 (C.D. Cal. 2008)).

62. See Stanley J. Liebowitz, *File-Sharing: Creative Destruction or Just Plain Destruction?*, 49 J.L. & ECON. 1, 14 (2006).

The principal explanation is the availability of sound recordings through unauthorized channels.<sup>63</sup> Such unauthorized distribution is growing in other important content markets, such as motion pictures and television programming. Books and other literary content may not be far behind as reader technologies (such as Amazon's Kindle and Apple's iPad) become more diffused.<sup>64</sup>

Under these conditions, the copyright system cannot function as an effective governance institution. Creators cannot derive a return for their works commensurate with how they are valued in the marketplace. Intermediaries distort content they run—e.g., by integrating advertising—which makes it harder for consumers to express their preferences to the market.<sup>65</sup> Ultimately, creators and consumers suffer from the inability of markets to communicate value. Professor Epstein's failure to perceive this problem suggests that his analysis is driven by an agenda other than promoting progress in the creative arts. If one were to judge from Professor Epstein's article, the "current malaise" plaguing the copyright system stems from a lower court decision interpreting the first sale doctrine broadly.<sup>66</sup> Professor Epstein makes passing reference to his "ferocious" opposition to adding twenty years to the copyright term<sup>67</sup>—which has greatly attenuated impacts on economic performance—but nary a word about file sharing—which has decimated the sound recording industry and is threatening other content industries.<sup>68</sup> The great difficulty of enforcing copyright protection in

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63. See Stan J. Liebowitz, *The Metric Is the Message: How Much of the Decline in Sound Recording Sales Is Due to File-Sharing?* (Sept. 2011) (unpublished manuscript), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1932518](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1932518).

64. See Matt Frisch, *Digital Piracy Hits the e-Book Industry*, CNN TECH (Jan. 1, 2010), [http://articles.cnn.com/2010-01-01/tech/ebook.piracy\\_1\\_e-books-digital-piracy-publishing-industry](http://articles.cnn.com/2010-01-01/tech/ebook.piracy_1_e-books-digital-piracy-publishing-industry) (reporting that within 24 hours of release of Dan Brown's latest novel, *The Lost Symbol*, fans had "shared" more than 100,000 copies on Rapidshare, BitTorrent, and other file-sharing sites); see also Motoko Rich, *Print Books Are Target of Pirates on the Web*, N.Y. TIMES, May 12, 2009, at B1.

65. See JEFF ULIN, *THE BUSINESS OF MEDIA DISTRIBUTION: MONETIZING FILM, TV AND VIDEO CONTENT IN AN ONLINE WORLD* (2009); see also SCOTT DONATON, *MADISON AND VINE: WHY THE ENTERTAINMENT AND ADVERTISING INDUSTRIES MUST CONVERGE TO SURVIVE* (2005).

66. See Epstein, *Disintegration*, *supra* note 2, at 503–07 (discussing *UMG Recordings*, 558 F. Supp. 2d 1055). The Ninth Circuit has since affirmed that decision. *UMG Recordings, Inc. v. Augusto*, 628 F.3d 1175 (9th Cir. 2011). Professor Epstein's critique of this decision is well-taken, but the issue is of small moment compared to the larger piracy problem plaguing content industries in the Internet Age.

67. See Epstein, *Disintegration*, *supra* note 2, at 483.

68. See Peter S. Menell, *Infringement Conflation*, 64 STAN. L. REV. (forthcoming 2012), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1949492](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1949492) (noting the fallacy of scholars who are "far more troubled by the addition of 20 years to the end of the

the digital age imposes direct costs on copyright owners and discourages investment in new projects. While it may provide a short-term windfall to those who “share” copyrighted works already in existence, rampant piracy dulls and distorts incentives to create, thereby reducing the *quality* of the flow of creative works.

The governance challenge in this area is two-fold. Society wants to encourage innovation in devices, platforms, and formats for dissemination of creative works, as well as provide strong incentives for the creation of such works. Until the digital revolution of the past decade, the technology and content industries functioned in a largely symbiotic manner.<sup>69</sup> In general, previous new content perception and distribution technologies—such as phonographs, motion pictures, radio, television, cassette tapes, and videocassette recorders—generally expanded markets for content creators. These technologies supported stable business models for creators to appropriate a financial return on their investments. The technologies themselves discouraged unauthorized distribution of the content or embedded advertising in a manner that supported indirect appropriability. But the latest wave of technology—from peer-to-peer technology to digital video recorders that facilitate skipping of commercials—has undermined the inter-industry symbiosis of old. That has dramatically affected the efficacy (and sustainability) of the current model of copyright protection.

#### D. COMPARATIVE INSTITUTIONAL ANALYSIS

Society’s problem is properly characterized as how best to govern resources, not how best to govern resources using private property (or more narrowly, how to apply a classical liberal notion of private property to all resources). In some cases, classical liberal private property might provide the best results. In others, property rights might need to be tailored to particular contexts. In others, public and non-proprietary governance regimes might better address the particular resource characteristics and social and technological dynamics. In many contexts, a mix of private and public

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copyright term than the effective loss of rights during the first 20 seconds of a work’s release”).

69. See Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 103–08 (2003). I do not mean to suggest that the content and technology industries have always gotten along. As one example, motion picture studios famously (and unsuccessfully) sued the maker of the first consumer videocassette recorder (“VCR”) on grounds of contributory infringement. See *Sony Corp. of Am. v. Universal City Studios*, 464 U.S. 417 (1984). A decade later, VCR technology would fuel a massive market for video cassette tapes that greatly increased the ability of motion picture studios to appropriate returns on film productions.

institutions will be best. As Professor Demsetz observed, advances in technology can affect the efficacy of private property in resource development and management.<sup>70</sup> Just as barbed wire reduced the costs of marking and enforcing property rights—enabling the Western range to be governed through private property—software technology and the Internet have changed the balance for governing intellectual resources. Comparative institutional analysis provides the proper framework for determining the best means of governing these resources.<sup>71</sup>

Comparative institutional analysis recognizes that there are multiple ways to govern any resource and then evaluates which governance best accomplishes society's goals in light of the characteristics of the resource (e.g., the difficulty of capture, its use, its regenerative ability, and its interaction with other resources), the social conditions (the size of the relevant community, its cohesiveness, knowledge and values, political organization), technological conditions, and institutional infrastructures.<sup>72</sup> This mode of analysis recognizes the inherent friction in real world institutions and hence takes a contextual, pragmatic, and empirical approach to the governance of resources. It recognizes that simplicity of idealized conceptions—such as the Coase Theorem or Professor Epstein's classical liberal cathedral—do not always function as hypothesized in real world conditions. Second best solutions often dominate idealized conceptions.

Professor Epstein contends that his classical liberal model of tangible private property has adapted to real world conditions over centuries of experience and thus is the appropriate foundation for governing intellectual resources. He is wrong on at least four counts. First, his model fails to account for the multi-faceted objective function of intellectual property policy. Second, he ignores many of the government policies that have augmented private property institutions. Third, he fails to deal with many of the key functional differences between tangible and intellectual resources. Fourth, his model lacks any empirical basis in the actual “current malaise” plaguing the intellectual property system. This Section sketches insights that comparative institutional analysis sheds on the governance of intellectual resources.

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70. See Demsetz, *supra* note 31.

71. See DWYER & MENELL, *supra* note 11; KOMESAR, *supra* note 11; OSTROM, GOVERNING THE COMMONS, *supra* note 11.

72. See Peter S. Menell & John P. Dwyer, *Reunifying Property*, 46 ST. LOUIS U. L.J. 599, 605 (2002).

1. *Universality and Uniformity*

Professor Epstein's view that intellectual property protection should be universal—i.e., that all inventions meeting the novelty and non-obviousness requirements should be patentable and that all original works of authorship should be copyrightable—derives from an idealized model of private rights for tangible resources and optimism about transaction costs.<sup>73</sup> In the real world, however, universality might not be the right policy for intellectual resources for numerous reasons: (1) the non-rivalrous nature of intellectual resources; (2) the importance of promoting cumulative innovation; (3) the availability of alternative appropriability mechanisms; (4) the challenges of determining which inventions merit protection—the patent quality problem; and (5) the notice problems associated with abstract forms of intellectual creativity. The one-size-fits-all approach works for tangible resources because most of these issues are not present.

Given the tremendous heterogeneity of fields of invention, it would be surprising if the same one-size-fits-all form of protection should govern all fields of inventions.<sup>74</sup> There may be administrative reasons for universality—such as the difficulty of assigning inventions to particular regimes—but there would be potential benefits in calibrating protection to particular fields and possibly in excluding some fields for which the few incentive benefits, if any exist, are offset by substantial adverse effects and the presence of adequate non-patent means of appropriability. For example, with more than a decade of experience under the *State Street Bank* decision, the available evidence indicates that the social costs of business method patents are large in comparison to incentive benefits.<sup>75</sup>

Professor Epstein acknowledges that information differs from tangible resources in that it is non-rivalrous.<sup>76</sup> There are many design elements for dealing with the non-rivalrous characteristic—from limiting duration, imposing use exceptions, and allowing for differential remedies and levy systems—but Professor Epstein sees but one: limit duration (although keep it uniform for all inventions and copyrighted works). Duration is an important tool, but it should not be the only one considered. Moreover, apart from a nod to fair use in copyright, Professor Epstein overlooks the cumulative innovation aspect of information. Most intellectual property

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73. See POSNER, *supra* note 32. See generally Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

74. See Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155 (2002).

75. See Brief of Menell & Meurer, *supra* note 21, at 31–38.

76. See *supra* note 18.

scholars consider cumulative innovation to be a critical rationale for limiting intellectual property rights in both time and strength of rights. Professor Epstein's twenty-year-from-filing duration limit for all technology is woefully arbitrary, as is the same term of protection for photographs, sound recordings, novels, and motion pictures. Any "first principles" account of intellectual property should grapple with that issue. Perhaps the answer lies in administrative costs and line-drawing problems, but it is a serious and complex inquiry.

## 2. *The Right To Exclude*

It is only after fundamental comparative institutional design choices are confronted that we get to the contours of intellectual property rights. Professor Epstein's article largely leapfrogs those issues to reach the right to exclude, which he characterizes as "the central component of any private property system."<sup>77</sup> Hence any slippage in this area poses the greatest threat to his classical liberal cathedral. Thus, Professor Epstein sees the Supreme Court's decision in *eBay v. MercExchange*<sup>78</sup> as the critical battleground for pressing his carryover hypothesis.

The *eBay* case illustrates the principal symptoms of the malaise plaguing the patent system. Founded in late 1995, eBay proved the power of the Internet to reach large consumer audiences at relatively low cost. Within a short time, eBay established the most diverse marketplace bazaar in human history.<sup>79</sup> Perhaps not surprisingly, various others recognized that the Internet opened up new opportunities for online commerce and online auctions in particular. Working independently and without significant investment, Thomas G. Woolston, an electrical engineer with a law degree, developed various concepts for online auctions for which he filed patent applications in April 1995.<sup>80</sup> Such patents would not see the light of day until after they were granted. His first business venture based on these systems foundered.<sup>81</sup> After his first patent issued in December 1998, he was able to raise \$10 million for MercExchange, an online travel venture. In addition to

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77. See Epstein, *Disintegration*, *supra* note 2, at 486.

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

79. See ADAM COHEN, *THE PERFECT STORE: INSIDE EBAY* (2002); see also DANIEL NISSANOFF, *FUTURESOP: HOW THE NEW AUCTION CULTURE WILL REVOLUTIONIZE THE WAY WE BUY, SELL, AND GET THE THINGS WE REALLY WANT* (2006).

80. See U.S. Patent No. 5,845,265 (filed Nov. 7, 1995) ("Consignment Nodes"); U.S. Patent No. 6,085,176 (filed Mar. 8, 1999) ("Method and Apparatus for Using Search Agents To Search Plurality of Markets for Items"); U.S. Patent No. 6,202,051 (filed Feb. 19, 1999) ("Facilitating Internet Commerce Through Internetnetworked Auctions").

81. See Ellen McCarthy, *Waiting Out a Patent Fight with eBay*, WASH. POST, Jan. 6, 2005, at E01.

pursuing this business opportunity, MercExchange set out to enforce its patents. Its first lawsuit targeted GoTo.com, an online advertising company. In 2000, MercExchange's General Counsel met with an eBay representative and began discussion over MercExchange's patents. By the middle of that year, MercExchange's online travel business had collapsed and it focused its efforts on selling or licensing its patents to eBay. In 2001, MercExchange reached a \$4 million settlement agreement with GoTo.com. In September, it filed suit against eBay (and several related enterprises) in the Eastern District of Virginia asserting infringement of its three patents.

Judge Jerome Friedman dismissed most of the causes of action on summary judgment<sup>82</sup> but allowed two infringement allegations—relating to a search feature and a “buy it now” feature (allowing consumers to buy some products on auction sites at a fixed price)—to proceed to trial. After a five-week trial, the jury ruled for MercExchange and awarded \$35 million in damages.<sup>83</sup> Based upon his balancing of equitable factors,<sup>84</sup> Judge Friedman declined to issue a permanent injunction, noting that MercExchange “did not practice its inventions and exists merely to license its patented technology to others” and the “growing concern over the issuance of business method patents.”<sup>85</sup> In his view, general concerns about business method patents offset the public interest in maintaining the integrity of the patent system by favoring the patentee's interest in injunctive relief.

On appeal, the Federal Circuit invoked the property nature of patents in overturning the denial of the permanent injunction: “[b]ecause the ‘right to exclude recognized in a patent is but the essence of the concept of property,’ the general rule is that a permanent injunction will issue once infringement

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82. See *MercExchange, L.L.C. v. eBay, Inc. (MercExchange I)*, 275 F. Supp. 2d 695, 711–15 (E.D. Va. 2003) (holding one patent invalid for inadequate written description and construing the other two patents not to implicate eBay's core auction technology), *aff'd in part and rev'd in part*, 401 F.3d 1323 (Fed. Cir. 2005), *vacated*, 547 U.S. 388 (2006).

83. In post-trial rulings, Judge Friedman reduced the damage award to \$29.5 million. See *id.* at 722.

84. The *MercExchange I* court repeated the four-factor balancing test:

(i) whether the plaintiff would face irreparable injury if the injunction did not issue, (ii) whether the plaintiff has an adequate remedy at law, (iii) whether granting the injunction is in the public interest, and (iv) whether the balance of the hardships tips in the plaintiff's favor.

*Id.* at 711 (quoting *Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 785, 794 (E.D. Va. 1998) (citing *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982)), *aff'd*, 185 F.3d 1259 (Fed. Cir. 1999)).

85. *Id.* at 713.

and validity have been adjudged.”<sup>86</sup> The court limited departures from the general rule to circumstances in which “‘a patentee’s failure to practice the patented invention frustrates an important public need for the invention,’ such as the need to use an invention to protect public health.”<sup>87</sup> The Federal Circuit rejected the lower court’s general concern regarding business method patents and specifically emphasized that injunctions should be “equally available to both” those who practice their patented inventions and those who do not.<sup>88</sup> The Supreme Court granted certiorari.<sup>89</sup>

Professor Epstein’s brief to the Supreme Court in support of MercExchange placed particular emphasis on the analogy between real and intellectual property in defending the Federal Circuit’s general rule favoring the granting of permanent injunctions in patent cases.<sup>90</sup> In particular, Professor Epstein urged that the Supreme Court follow the analysis and rule from *Geragosian v. Union Realty Co.*,<sup>91</sup> where the court required the removal and replacement of a drainpipe at a cost substantially exceeding the value of the encroached land.

The facts that the aggrieved owner suffers little or no damage from the trespass, that the wrongdoer acted in good faith and would be put to disproportionate expense by removal of the trespassing structures, and that neighborly conduct as well as business judgment would require acceptance of compensation in money for the land appropriated are ordinarily no reasons for denying an injunction. Rights in real property cannot ordinarily be taken from the owner at a valuation, except under the power of eminent domain. Only when there is some estoppel or laches on the part of the plaintiff or a refusal on his part to consent to acts necessary to the removal or abatement which he demands will an injunction ordinarily be refused.<sup>92</sup>

Even in the real property field, this case is considered an outlier and several jurisdictions have shifted away from the rigid bright-line rule to a “good faith improver” standard.<sup>93</sup> Far more significantly, extrapolating from real property law to intellectual property law overlooks important distinctions between the

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86. See *MercExchange, L.L.C. v. eBay, Inc. (MercExchange II)*, 401 F.3d 1323, 1338 (quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1246–47 (Fed. Cir. 1989)).

87. See *id.* (quoting *Rite-Hite Corp. v. Kelley, Inc.*, 56 F.3d 1538, 1547 (Fed. Cir. 1995)).

88. See *id.* at 1339.

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

90. See Epstein *eBay* Brief, *supra* note 15.

91. 193 N.E. 726 (Mass. 1935).

92. See Epstein *eBay* Brief, *supra* note 15, at 16–17 (quoting *Geragosian*, 193 N.E. at 728 (citations omitted)).

93. See, e.g., *Raab v. Casper*, 51 Cal. App. 3d 866 (Ct. App. 1975).

underlying resources at issue. Whether or not presumptions of irreparable harm are justified in the real property context, the instrumental nature of intellectual property rights demands thorough functional analysis.

Professor Epstein's functional analysis boils down to the *ex ante* benefits of having a rigid injunctive relief standard: it will encourage land developers to conduct due diligence, which will reduce the likelihood of disputes.<sup>94</sup> Even in that context, this benefit must be balanced with notice problems and *ex post* inefficiencies. In the *eBay* case, as in many other patent disputes, the infringer could not have avoided the dispute through *ex ante* search because many patent applications are not publicly accessible. Furthermore, even if eBay had been able to find the MercExchange patents in the massive software patent haystack, the difficulties of determining the scope and assessing the validity of the patents would have imposed substantial costs and uncertainty.

The *eBay* case illustrates what comparative institutional analysis brings to the table. Professor Epstein acknowledges the notice problems inherent in the patent system—“[t]he fuzzy boundaries inherent in the description of patent claims invite, of course, new entrants to game the system by coming as close to the original patent description without crossing the line.”<sup>95</sup> But Professor Epstein ignores the opportunity to counteract these notice problems because he misapprehended their real world significance.<sup>96</sup> His statement overlooks the fact that most patent cases—and particularly those in the software field—involve inadvertent infringement, not “gaming.”<sup>97</sup> Applying a balancing test at the remedy stage can ameliorate the notice problems inherent in patent prosecution—as the applications in the *eBay* case were kept secret until issuance.<sup>98</sup> The balancing test can also account for the

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94. See Epstein, *Disintegration*, *supra* note 2, at 495.

95. See *id.* at 487.

96. See Menell & Meurer, *supra* note 29.

97. See Christopher Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. REV. 1421 (2009) (finding that only 10.9% of complaints allege copying from the plaintiff's patent or the plaintiff's commercial product, and that most of those cases arise in the pharmaceutical and chemical fields; copying is alleged in less than 3% of computer and software cases, and less than 1% involve proof of copying).

98. Later legislation provides that patent applications shall be published eighteen months after filing unless the applicant requests that the PTO not publish the application and the applicant has not filed an application for the same invention in a foreign jurisdiction that also requires publication. See 35 U.S.C. § 122(b) (2006); District of Columbia Appropriations Act, 2000, Pub. L. No. 106-113, div. B, § 1000(a)(9), 113 Stat. 1501, 1536 (1999) (incorporating into law the publication provisions contained in § 4502(a) of the American Inventors Protection Act of 1999, which are reprinted at 113 Stat. 1501A-561). This legislation partially addresses the notice problem but leaves a wide eighteen-month gap, which is possibly wider for applicants seeking protection only in the United States.

problems of patent quality, the plethora of software and business method patents, the abstract and uncertain nature of patent boundaries, the difficulty of patent search,<sup>99</sup> and the fuzziness and complexity of patent doctrines.<sup>100</sup> It is not feasible or economically desirable for firms to conduct thorough pre-clearance of many digital products or services.<sup>101</sup> Hence, ex post balancing provides an important safety valve for the patent system.

A unanimous Supreme Court rejected the Federal Circuit's presumption that permanent injunctions should issue after findings of infringement in the absence of "extraordinary circumstances" and remanded the case for full consideration based upon the multi-factor equitable test.<sup>102</sup> The concurring opinions largely repudiate the "intellectual property equals tangible property" proposition.<sup>103</sup> Justice Kennedy, joined by Justices Stevens, Souter, and Breyer, emphasized the need to adapt the standards for injunctive relief to the evident changes taking place in the patent field. He suggests that courts should be more cautious in the granting of permanent injunctions under various circumstances arguably present in the *eBay* case: the use of patents by non-manufacturing entities to charge "exorbitant fees" and the vague and suspect validity of business method patents.<sup>104</sup> Chief Justice Roberts, in an opinion joined by Justices Scalia and Ginsburg, leaned more toward

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99. Unlike real estate, where property has defined boundaries on four sides, intellectual resources are multi-dimensional and hence can implicate dozens if not hundreds of patents.

100. Apparently, even Professor Epstein struggles with the details. He mistakes the means-plus-function provision of the written description, 35 U.S.C. § 112, ¶ 6—a statutory provision that interprets claims defined by reference to embodiments set forth in the patent's specification to include "equivalents thereof" as of the time of issuance—with the "doctrine of equivalents," which is a court-made rule that stretches claims as of the time of infringement to encompass devices that perform "substantially the function in substantially the same way to obtain the same result." *See Graver Tank & Mfg. Co. v. Linde Air Prods.*, 339 U.S. 605, 608 (1950); *see also Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997); *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002). Confusion can sometimes arise as to whether means-plus-function claims are entitled to a second stretch under the doctrine of equivalents. The answer is yes with regard to technology that was not known in the art at the time that the patent issued. *See Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1320 (Fed. Cir. 1999).

101. Had *eBay* searched for *MercExchange's* patents in 1995, 1996, 1997, or much of 1998, it would have come up empty. Even if it had had access to these patents, its counsel could not have easily ascertained their boundaries or validity. Both the district and appellate courts struggled with those questions (and disagreed on several points).

102. *See eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2005). On remand, the district court denied a permanent injunction based on balancing the equitable factors. *MercExchange, L.L.C. v. eBay Inc. (MercExchange III)*, 500 F. Supp. 2d 556, 559 (E.D. Va. 2007).

103. 547 U.S. at 394–97.

104. *See id.* at 396, 397 (Kennedy, J., concurring).

categorical rules, noting that the “long tradition” of granting permanent injunctive relief in the vast majority of patent cases in which infringement had been found reflected the “difficulty of protecting a right to exclude through monetary damages.”<sup>105</sup> Chief Justice Roberts closed by calling for caution in departing from tradition, invoking Justice Holmes’ oft-quoted observation that “‘a page of history is worth a volume of logic.’”<sup>106</sup> But the page to which he referred was not drawn from tangible property history, but rather intellectual property history. None of the Justices invoked the sanctity of property. Even Chief Justice Roberts focused on the problem of the adequacy of compensation, saying nothing of natural rights.

Professor Epstein did not react well to the Court’s decision:

What is so hard to comprehend about this dismal performance is the utter lack of attention to the basic structure of an industry in which literally trillions of dollars depend on the sound operation of a patent system. The troll problem occupies a little corner of this vast universe, and yet the Court seems to be prepared to impose massive indecision and uncertainty on the entire system without ever stopping to think how it actually works.<sup>107</sup>

But the Court did consider how the universe works. As Justice Kennedy’s concurrence in the *eBay* case expressly recognized, the “troll problem” is a serious concern in the software field,<sup>108</sup> hardly a “little corner.”

105. *See id.* at 395 (Roberts, C.J., concurring).

106. *See id.* (quoting *N.Y. Trust Co. v. Eisner*, 256 U.S. 345, 349 (1921)).

107. *See* Richard A. Epstein, *Court Soft on Property Rights*, FIN. TIMES (May 16, 2006), <http://on.ft.com/AzHhBF>.

108. 547 U.S. at 396–97; *see also* Allison et al., *supra* note 55; Terrence P. McMahon et al., *Who Is a Troll? Not a Simple Answer*, 7 SEDONA CONF. J. 159 (2006); Michael J. Meurer, *Business Method Patents and Patent Floods*, 8 WASH. U. J.L. & POL’Y 309, 335–36 (2002); Michael J. Meurer, *Controlling Opportunistic and Anti-competitive Intellectual Property Litigation*, 44 B.C. L. REV. 509, 541 (2003). Professor Epstein’s reaction may well reflect that his principal exposure to patent law has come through his ties to the pharmaceutical industry, for whom he has been (and may well continue to be) a paid consultant. *See* Richard A. Epstein, *What’s Good for Pharma Is Good for America*, BOSTON GLOBE, Dec. 3, 2006, at E1 (noting that Professor Epstein has “consulted for Pfizer”); Richard A. Epstein, *Mad Scientists: Go Away, Ethics Police. Leave the NIH Alone*, SLATE.COM (Feb. 15, 2005), <http://slate.me/wLQilg>; Carl Elliot, *When Ethicists Have Conflicts of Interest*, 52 DISSENT MAG., no. 4, Fall 2005, at 44, 44 (“What Epstein did not say (and what *Slate* did not reveal until later) is that Epstein has one of the same kinds of financial relationship to the pharmaceutical industry that he wants the NIH to preserve. Not only is Epstein a paid consultant to Pfizer, the world’s largest pharmaceutical company, he also consults for PhRMA, the pharmaceutical trade organization.”). PhRMA, the chief lobbying arm of the pharmaceutical industry, strongly advocated that the Supreme Court affirm the Federal Circuit’s categorical approach to granting injunctive relief in patent cases. *See* Brief of Amicus Curiae Pharm. Research and

Professor Epstein now attempts to spin the *eBay* decision and subsequent jurisprudence as essentially endorsing carryover of the tangible property paradigm to intellectual property: “[t]aken as a whole, the post-*eBay* decisions showed a decided, but by no means complete, tendency to revert back to class-based [by which he means, categorical or per se] rules.”<sup>109</sup> He refers to three such situations where injunctive relief is essentially automatic: where the patent owner “practices the patent,” exclusively licenses the patent, or “warehouses the patented technology in order to make some substitute technology, patented or unpatented.”<sup>110</sup> As a recent comprehensive review of the post-*eBay* cases reveals, the pattern is much more variegated.<sup>111</sup> Although patent owners who compete in the market usually obtain permanent injunctions against infringers, courts have denied permanent injunctions following findings of patent infringement in cases involving competitors<sup>112</sup> and granted injunctions in cases brought by non-competitors.<sup>113</sup> Furthermore, the sheer number of cases denying injunctive relief in patent cases is astounding. Prior to the Supreme Court’s *eBay* decision, one could count on one hand all patent cases denying injunctive relief following an infringement determination. The courts have declined to issue permanent injunctions in nearly 30% of cases (19 of 67) in the three years following the *eBay* decision.<sup>114</sup>

Professor Epstein also engages in some revisionist history in suggesting that his classical liberal framework recognizes a “disproportionate impact” exception within the “exceptional circumstances” to automatic injunctions under the now-rejected Federal Circuit test.<sup>115</sup> He now suggests that it would be appropriate to deny injunctive relief where “the defendant has a complex

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Mfg. of Am. in Support of Respondent, *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (No. 05-130), 2006 WL 622122.

109. See Epstein, *Disintegration*, *supra* note 2, at 491.

110. *Id.* at 492.

111. See Ernest Grumbles, III et al., *The Three Year Anniversary of eBay v. MercExchange: A Statistical Analysis of Permanent Injunctions*, INTELL. PROP. TODAY (Nov. 2009), <http://www.ip.today.com/issues/2009/11/articles/three-year-anniversary-eBay-MercExchange.asp> (“[T]here is no longer a general rule that a permanent injunction should enter after a determination of infringement. Instead, each case must be reviewed on its facts.”).

112. *E.g.*, *Telcordia Techs. Inc. v. Cisco Sys. Inc.*, 592 F. Supp. 2d 727 (D. Del. 2009) (finding no irreparable harm); *Adv. Cardiovascular Sys. Inc., v. Medtronic Vascular, Inc.*, 579 F. Supp. 2d 554 (D. Del. 2008) (finding no irreparable harm, adequate remedy available at law, and public interest favors not granting injunction).

113. *E.g.*, *Commonwealth Scientific & Indus. Research Org. v. Buffalo Tech. Inc.*, 492 F. Supp. 2d 600 (E.D. Tex. 2007) (finding patentee is a research organization); *Novozymes A/S v. Genencor Int’l, Inc.*, 474 F. Supp. 2d 592 (D. Del. 2007) (finding patentee is a licensor).

114. See Grumbles, III et al., *supra* note 111.

115. See Epstein, *Disintegration*, *supra* note 2, at 491–92, 496.

device with many elements, of which only one tiny component infringes the plaintiff's patent."<sup>116</sup> It should be noted that he made no such concession in his Supreme Court brief, which refers only to laches, equitable estoppel, and necessity (such as public health dangers) as exceptional categories for which injunctive relief might be withheld in patent cases.<sup>117</sup> To the contrary, Professor Epstein specifically argued that "The Possibility of Patent Holdups Is Generally Not a Justification for Denying Injunctive Relief."<sup>118</sup> It was in this section that he invoked the encroachment analogy. There, he rejected the argument of fifty-two intellectual property law professors (including myself) that the injunctive relief balance should recognize the problems posed by "patentees who 'can obtain revenue in excess of the value of the technology by threatening to enjoin products that are predominantly no[n]infringing and in which the defendant has already made significant irreversible investments.'"<sup>119</sup>

Thus, Professor Epstein has revised his prior view of the classical liberal cathedral *sub rosa* to allow for another category of injunctive relief, although he still overlooks many of the critical functional distinctions between tangible and intellectual resources. Variegated rule structures and standards provide opportunities for separating equilibria within ostensibly uniform intellectual property systems. Thus, the *eBay* multi-factor framework can allow relatively strict injunctive relief for the pharmaceutical industry while providing more flexibility in the software field. Pharmaceutical companies typically practice their inventions, whereas many enterprises asserting software patents do not. Since *eBay*, software trolls have fared poorly in their efforts to obtain injunctions, whereas practicing entities have done well.<sup>120</sup>

Other distinctive considerations might call for additional in-roads to the right to exclude in intellectual property law. For example, network externalities provide significant justification for promoting interoperability

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116. *Id.* at 491–92.

117. *See* Epstein *eBay* Brief, *supra* note 15, at 8–12.

118. *See id.* at 14.

119. *See id.* (quoting Brief Amicus Curiae of 52 Intellectual Property Professors as Amici Curiae in Support of Petitioners at 6, *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (No. 05-130), 2006 WL 1785363).

120. *See* *Amgen, Inc. v. F. Hoffmann-La Roche, Ltd.*, 581 F. Supp. 2d 160, 210 (D. Mass. 2008) (noting, in granting injunctive relief to a pharmaceutical patentee, that "[w]hile *eBay* has allowed courts to decline requests for injunctive relief where the plaintiff is a 'patent troll,' *eBay* has changed little where a prevailing plaintiff seeks an injunction to keep an infringing competitor out of the market"); Andrei Iancu & W. Joss Nichols, *Balancing the Four Factors in Permanent Injunction Decisions: A Review of Post-eBay Case Law*, 89 J. PAT. & TRADEMARK OFF. SOC'Y 395 (2007).

and limiting the exclusivity of software protocols and interfaces.<sup>121</sup> Various policies that limit the right to exclude could address preservation and access in the digital age.<sup>122</sup> The fair use doctrine and various compulsory licenses within the Copyright Act address the cumulative innovation problem. If copyright enforcement on the Internet proves ineffective, compulsory licensing might be needed as part of levy systems for digital content. The potential opportunities of such alternative governance strategies severely undermine the carryover hypothesis.

### 3. *Freedom of Contract*

Under Professor Epstein's classical liberal paradigm, property owners should have near-complete authority to license or sell property in whatever way they desire—with restrictions, with restrictions on further alienation, and without restrictions. From this vantage point, Professor Epstein takes aim at two limitations on freedom of contract in the intellectual property domain: (1) patent law's licensee estoppel doctrine—which prohibits contractual restrictions barring patent licensees from challenging the validity of a patent;<sup>123</sup> and (2) the first sale doctrine in patent and copyright law—which bars post-sale restraints on patents or copyrights.<sup>124</sup> He would like to use the carryover hypothesis for this critique, but he faces an embarrassing problem: the law of tangible property restrains alienation in various contexts.<sup>125</sup> Therefore he jettisons his “wisdom of the ages” justification for looking to tangible property doctrine in favor of just plain normative argument.

But if the normative version of the carryover hypothesis is to carry any weight, then we would expect Professor Epstein to build his analysis on the functional congruence of tangible and intellectual resources as regards freedom of contract. Yet he abandons that pretense as well. His analysis of licensee estoppel acknowledges that the Supreme Court's principal justification for licensee estoppel—“the strong federal policy favoring free competition in ideas that do not merit patent protection”<sup>126</sup> in combination with the distinctive ability of patent licensees to police patent quality—has no

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121. See Menell, *supra* note 37.

122. See Menell, *supra* note 25.

123. See *Lear, Inc. v. Adkins*, 395 U.S. 653, 676 (1969).

124. See 17 U.S.C. § 109(a) (2006); *Quanta Computer, Inc. v. LG Elecs.*, 553 U.S. 617 (2008).

125. See Epstein, *Disintegration*, *supra* note 2, at 498–99 (acknowledging “as a descriptive matter [that] the strongest objection to the carryover approach is often that it relies on subpar rules for land and chattels to set the framework for intellectual property rules”).

126. See *Lear*, 395 U.S. at 656.

analog in the domain of real estate leases.<sup>127</sup> In criticizing the first sale doctrine, Professor Epstein overlooks the distinctive information and notice costs associated with intellectual resources.<sup>128</sup>

This is not to say that Professor Epstein's criticism of the licensee estoppel and first sale doctrine do not carry some force,<sup>129</sup> but absolutely none of it derives from carrying tangible property doctrines or normative insights to governance of intellectual resources. The proper analysis should focus on the functional merits of intellectual resources.

#### 4. *Takings and Intellectual Property*

Professor Epstein completes his article by exploring the extent to which the Takings Clause of the Fifth Amendment—requiring that private property not be taken without “due process”; limiting expropriations to “public use”; and requiring the payment of “just compensation” where justifiable takings occur—constrains government regulation of intellectual property rights. Grounded in his critique of Professor Radin's conceptual severance framework, Professor Epstein seeks to prevent the Supreme Court's *Penn Central* decision—which applied a balancing test to determine whether a land use restriction in a dense, interdependent urban setting constituted a taking<sup>130</sup>—from spreading into the intellectual property domain. In Professor Epstein's view, partial takings should be compensable.<sup>131</sup>

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127. See Epstein, *Disintegration*, *supra* note 2, at 501.

128. See Molly S. Van Houweling, *Author Autonomy and Atomism in Copyright Law*, 96 VA. L. REV. 549 (2010); Molly S. Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885 (2008) (discussing the distinctive information and notice costs of information goods); Menell & Meurer, *supra* note 29.

129. Professor Epstein does, however, make several mistakes along the way. For example, he places undue confidence on the reliability of patent examinations and the motivation of third parties to challenge patents.

130. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978) (“In engaging in these essentially ad hoc, factual inquiries, the Court's decisions have identified several factors that have particular significance. The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations. So, too, is the character of the governmental action. A ‘taking’ may more readily be found when the interference with property can be characterized as a physical invasion by government than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good.”).

131. See Epstein, *Disintegration*, *supra* note 2, at 475–77 (citing RICHARD A. EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* (1985); RICHARD A. EPSTEIN, *SUPREME NEGLECT: HOW TO REVIVE CONSTITUTIONAL PROTECTION FOR PRIVATE PROPERTY* (2008)).

As a doctrinal matter, intellectual property receives treatment comparable to real and other forms of tangible property under the Takings Clause.<sup>132</sup> The difficult question is to what extent the government will be able to regulate and reform intellectual property without triggering a taking.<sup>133</sup> As with land use regulation—where the interdependency of resources, the pressures of population density and changing resource use, and the accretion of scientific knowledge about human impacts on ecosystems create the need for flexibility in government policies—there is a need to adapt intellectual property rights structures as technology and social conditions evolve. Professor Epstein opposes what he labels the “intellectual weakness” of ad hoc balancing tests,<sup>134</sup> but it may be his own intellectual rigidity that stands in the way of progress. He is correct to worry about the impact of flexibility in Takings jurisprudence on incentives to invest in research and development, but such concern loses sight of the larger societal objective. Poorly designed and obsolete intellectual property laws and policies undermine investment in research and development. For example, empirical evidence suggests that patent protection for “business methods” and even software may well deter software innovation.<sup>135</sup>

The optimal system for promoting traditional pharmaceutical innovation might not be appropriate for genomic research. Similarly, modest adjustments to copyright law to promote digitization of books could greatly promote access to orphan works, expand markets for books, and expand historical research.<sup>136</sup> It remains to be seen whether Congress will achieve significant reforms in these areas and, if so, to what extent they would require “just compensation” to intellectual property owners who are adversely affected. But as courts venture into those untested waters, it is

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132. See 35 U.S.C. § 261 (2006) (stating that “subject to the provisions of [the Patent Act], patents shall have the attributes of personal property”); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986 (1984) (holding that trade secrets in data relevant for regulatory approval were cognizable as property subject to the protections of the Takings Clause of the Fifth Amendment); MELVILLE B. NIMMER & DAVID NIMMER, *NIMMER ON COPYRIGHT* § 1.11 (2011) (“Constitutional Limitations on Retroactivity and ‘Taking’”) (observing that copyright protection cannot be contracted retroactively without raising due process and takings concerns); Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. REV. 689 (2007).

133. Although no court has yet addressed whether or how the Fifth Amendment’s protections would be applied to retroactive changes in copyright law, Congress chose not to make the Computer Software Rental Amendments Act of 1990 retroactive so as to avoid depriving software owners of vested rights without compensation. See H.R. REP. NO. 101-735, at 10 (1990) (discussing the effective date of the Act).

134. See Epstein, *Disintegration*, *supra* note 2, at 474.

135. See BESSEN & MEURER, *supra* note 35.

136. See Menell, *supra* note 25.

important that they recognize that the interest in intellectual property is not liberty-based. It is instrumental: to promote technological innovation and artistic creativity. This suggests that balancing of interests will play some role.

#### IV. THE DISINTEGRATION OF INTELLECTUAL PROPERTY

Professor Epstein's overarching thesis is that "any system of tangible and intangible property that hews to classical liberal conceptions runs no risk of collapse or disintegration."<sup>137</sup> As various points in his lengthy discourse, he vacillates among normative, positive, and jurisprudential assertions and criticisms. But by the end, Professor Epstein acknowledges as he must that modern decisions in patent and copyright cases "work to undermine the rights of exclusion and disposition so essential to the private law, and to undercut the protection of private property against government regulation."<sup>138</sup> That seems to address the positive and jurisprudential questions: intellectual property is disintegrating. In response to this, he comments, "[n]one of these developments are dictated by economic theory or modern social circumstances."<sup>139</sup> This statement is mistaken. Part III of this Article shows that there are strong functional forces pushing against Professor Epstein's thesis.

The rise of intellectual property in the information age highlights both the complexity and interdependence of resource development in modern technological societies. As indicated by the *eBay* litigation, efforts to shoehorn legal protection for such resources into the tangible property mold have failed and may well hasten the disintegration of the classical liberal conception of private property rights.

In patent law, the problems made manifest in accommodating digital technology within a unified patent system have led courts to take a much greater interest in limiting the scope of patentable subject matter, raising the non-obviousness hurdle, and substantially tempering the availability of injunctive relief. As explained above, there are strong functional justifications for these doctrinal developments. The emergence and growth of open source software and other open innovation platforms have shown that proprietary

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137. See Epstein, *Disintegration*, *supra* note 2, at 522.

138. See *id.* at 523.

139. See *id.*

regimes are not always the best institution for promoting innovation under real world conditions.<sup>140</sup>

The full ramifications of these developments are far from clear. Limiting patentable subject matter to technological advances would reduce some of the problems plaguing several technology fields. Although the political opportunity for achieving systemic reform may be past,<sup>141</sup> instituting a *sui generis* regime for software innovation may be the best course of action. Even Professor Landes and Judge Posner, who generally favor strong, exclusive private property rights in tangible resources, recognize that “‘depropertizing’ intellectual property may sometimes be the soundest policy economically.”<sup>142</sup>

The challenges for private property protection in creative expression industries are more profound. Courts have substantially liberalized the fair use doctrine,<sup>143</sup> which, in combination with the ease of digital distribution, is promoting a vibrant, symbiotic remix culture. Many traditional content companies are revamping their enforcement policies to encourage fan and collaborative creativity in light of technological, cultural, and enforcement conditions. Of far greater significance, peer-to-peer technology and other digital distribution platforms have resulted in rampant piracy of sound recordings and are threatening losses in other content markets. The record industry’s enforcement campaigns have failed to staunch the hemorrhaging. Efforts to ramp up copyright enforcement have produced a pathological dynamic in which more aggressive enforcement increases anti-copyright sentiments and behaviors that might not be subject to effective deterrence through litigation.<sup>144</sup> With the growing availability of darknets, online storage lockers, and other distribution technologies that are difficult to monitor, direct enforcement is becoming less feasible, raising the specter that the conventional copyright protection may lose its primacy in promoting creative expression in some important markets.

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140. See HENRY W. CHESBOROUGH, OPEN INNOVATION: THE NEW IMPERATIVE FOR CREATING AND PROFITING FROM TECHNOLOGY (2003); ERIC VON HIPPEL, DEMOCRATIZING INNOVATION (2005); WEBER, *supra* note 11.

141. See Peter S. Menell, *The Challenges of Reforming Intellectual Property Protection for Computer Software*, 94 COLUM. L. REV. 2644 (1994).

142. See WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 14 (2003).

143. See, e.g., *Blanch v. Koons*, 467 F.3d 244 (2d Cir. 2006); *Bill Graham Archives v. Dorling Kindersley Ltd.*, 448 F.3d 605 (2d Cir. 2006). See generally Neil Weinstock Netanel, *Making Sense of Fair Use*, 15 LEWIS & CLARK L. REV. 715 (2011) (showing that since 2005 the transformative use paradigm has come overwhelmingly to dominate fair use doctrine).

144. See Ben Depoorter et al., *Copyright Backlash*, 84 S. CAL. L. REV. 1251 (2011).

Just as Professor Harold Demsetz predicted a shift toward private property institutions as the costs of internalizing externalities fall (due, for example, to advances in fence technology such as the invention of barbed wire) and the benefits of internalizing externalities rise,<sup>145</sup> the opposite is also true. Increases in the costs of internalizing externalities—caused, for example, by the emergence of peer-to-peer technology enabling largely anonymous, unauthorized distribution of copyrighted works—push society away from private property institutions toward other forms of governance or anarchy. The record industry has shrunk by nearly half since the emergence of peer-to-peer technology.<sup>146</sup>

I suspect that Professor Epstein shares my concern about the loss of appropriability in the content industries. Where we diverge is in our openness to recognizing the cause of the problem and considering the full range of alternative policy solutions. Although I would like to believe that improving enforceability of copyright protection would reinforce the role of the market in compensating creators and providing a direct mechanism for valuing creativity, the growing enforcement challenges may require outside-of-the-tangible-private-property-box solutions—such as levy systems or other mechanisms for mimicking an idealized market solution. The rigidity of Professor Epstein’s “classical liberal” perspective blinds him to these realities and preempts his consideration of alternative approaches to addressing the challenges of governing intellectual creativity in a dynamic technological and social world. The trade-offs are certainly complex, but they need to be confronted.

## V. CONCLUSIONS

Rather than engage the rich body of comparative institutional and empirical scholarship illuminating the governance of intellectual resources, Professor Epstein has lashed himself to the mast of an obsolete and leaking ship. Professor Epstein’s “structural unity” and carryover hypotheses go well beyond what sound philosophical reasoning, jurisprudential analysis, or empirical research can support. He seeks to impose a dogmatic strait-jacket on policymakers and judges. This is particularly dangerous at a time when new technologies are rapidly reshaping the landscape of technological innovation, expressive creativity, and the platforms for the dissemination of expressive creativity.

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145. See Demsetz, *supra* note 31.

146. See Liebowitz, *supra* note 62.

Promoting technological advance and intellectual creativity represents the greatest hope and challenge for our society and planet. It is essential that the framework for analyzing policy and legal options be broad and open-minded, not selective and dogmatic. The institution of private property that has developed for tangible resources provides valuable insights into how to encourage efficient economic development, but it is not a panacea for all resources, contexts, and societies. The conditions matter. Careful consideration of the characteristics of intellectual resources, comparative institutional analysis, and empirical research provide the keys to promoting innovation and creativity.



# LEGAL SCHOLARSHIP AND THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT: AN EMPIRICAL STUDY OF A NATIONAL CIRCUIT

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## ABSTRACT

It is conventional wisdom that the United States Court of Appeals for the Federal Circuit, a court whose jurisdiction is defined by subject matter rather than by geography, is less likely than other circuit courts of appeals to use legal scholarship in its decisionmaking. This common belief is regularly used to substantiate a well-worn criticism of the Federal Circuit specifically, and of national courts generally; namely, that they are substantially more insular and somehow less intellectually curious than the regional circuit courts of appeals. We were therefore very surprised to find how little empirical support the conventional wisdom finds in legal literature. A review of the existing literature reveals that relatively little is known about the use of legal scholarship by the Federal Circuit—and by analogy courts whose jurisdiction is defined by subject matter rather than geography—and perhaps even less is known about how the Federal Circuit’s use of legal scholarship compares to that of the regional circuits.

The study reported in this Article contributes new and original information and analysis. It empirically compares the Federal Circuit’s use of legal scholarship with that of the regional circuit courts of appeals. Perhaps the most significant finding is that the Federal Circuit’s use of legal scholarship appears quite similar to that of the regional circuits, suggesting that the court is not the outlier that many presume. This finding places the conventional wisdom into serious doubt and has obvious implications for the evaluation of other proposals for subject matter-bounded courts.

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## TABLE OF CONTENTS

I.	<b>INTRODUCTION</b> .....	1563
A.	A BRIEF INTRODUCTION TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT .....	1564
B.	THE DEBATE OVER THE FEDERAL CIRCUIT’S USE OF LEGAL SCHOLARSHIP .....	1566
II.	<b>STUDY DESIGN AND METHODOLOGY</b> .....	1571
A.	CONTENT ANALYSIS OF JUDICIAL OPINIONS.....	1574
B.	THE DATASET .....	1576
III.	<b>RESULTS AND DISCUSSION</b> .....	1577
A.	THE FEDERAL CIRCUIT’S USE OF LEGAL SCHOLARSHIP IS SIMILAR TO THAT OF THE REGIONAL CIRCUITS.....	1578
B.	WHAT IS HAPPENING HERE?.....	1583
1.	<i>The Federal Circuit Is Short One (or Maybe Two) Legal Super Citers</i> .....	1583
2.	<i>What About the Patent Cases?</i> .....	1586
3.	<i>How Did the Current Understanding That the Federal Circuit Uses Legal Scholarship Substantially Less Often Than the Regional Circuits Come To Be Conventional Wisdom?</i> .....	1589
IV.	<b>FUTURE DIRECTIONS FOR WORK</b> .....	1593
A.	WHAT FACTORS INFLUENCE THE FEDERAL CIRCUIT’S DECISION TO USE LEGAL SCHOLARSHIP?.....	1593
B.	DOES THE FEDERAL CIRCUIT USE LEGAL SCHOLARSHIP AS MUCH AS IT SHOULD?: FOUR PILLARS.....	1595
1.	<i>Does the Subject Matter Entrusted to the Federal Circuit Require a Greater Judicial Use of Scholarship?</i> .....	1595
2.	<i>Does the Fact That the Federal Circuit Is a National Circuit Mean That It Needs To Use Scholarship More Than Other Circuits?</i> .....	1596
3.	<i>The Role of the Legal Academy: Is It Helping?</i> .....	1597
4.	<i>Using Legal Scholarship in the Decisional Process</i> .....	1599
C.	DO COPYRIGHT AND TRADEMARK NEED A FEDERAL (NATIONAL) CIRCUIT? .....	1600
D.	JUDGES AND INSULARITY .....	1601
V.	<b>CONCLUSION</b> .....	1602

## I. INTRODUCTION

“[S]pecialized institutions have insular tendencies. For example, the Federal Circuit appears to rely less on independent scholarly analysis, even legal scholarship, than the regional generalist appeals courts.”<sup>1</sup>

The United States and many foreign nations have recently considered expanding the use of courts whose jurisdiction is primarily defined by subject matter rather than by geography. Many scholars have opposed the expansion of so-called “national courts” or “national circuit courts” on the argument that national circuit courts are more insular and less intellectually curious than are regional (geographically bound) circuit courts of appeals. The primary empirical basis for the argument rests on observations made of the United States’ national circuit court—the United States Court of Appeals for the Federal Circuit—and particularly on the empirical claim that the Federal Circuit is much less likely than other circuit courts of appeals to use legal scholarship in its decisionmaking. According to such scholars, the Federal Circuit’s lack of use of legal scholarship permits the clear inference that it and, by analogy, national circuits of all stripes are more insulated from the contributions and insights of legal scholarship and less intellectually curious than their geographically limited sister courts.

This chain of reasoning has achieved the status of conventional wisdom. It has been trumpeted loudly and frequently in the literature about the Federal Circuit, including in the famous report by the National Research Council of the National Academies<sup>2</sup> quoted above, which strongly influenced Congress’s decision to attempt to reform the patent laws.<sup>3</sup> The present study examines the Federal Circuit’s use of legal scholarship and finds, contrary to the literature, that the Federal Circuit’s use of scholarship is quite similar to that of her regional sister courts. Our results thus dramatically undercut the basis for the conventional wisdom and have significant implications for other proposals to expand the use of national circuit courts.

The Article proceeds in four additional Parts. The remainder of this Introduction provides basic background information about the Federal Circuit and describes the debate over the court’s use of legal scholarship. Part II describes the study design and methodology, including some of its basic

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1. NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS. (NRC), A PATENT SYSTEM FOR THE 21ST CENTURY 86 (2004), available at [http://www.nap.edu/catalog.php?record\\_id=10976](http://www.nap.edu/catalog.php?record_id=10976) (footnote omitted).

2. See *id.* at 86–87 (“[S]pecialized institutions have insular tendencies.”).

3. See, e.g., H.R. REP. NO. 112-98, pt. 1, at 39 n.5 (2011) (citing the “authoritative” report by the National Academies Press on the need for patent reform).

assumptions and limitations. Part III provides the results and findings and offers a discussion of what we think they mean. Part IV offers some future directions for work, and the Article finishes with a brief conclusion.

A. A BRIEF INTRODUCTION TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

The Federal Circuit is a “national” circuit court and thus occupies a somewhat rare position among the U.S. circuit courts of appeals. Created by the Federal Courts Improvement Act of 1982,<sup>4</sup> the court has a jurisdiction that is defined by a broad grant of subject matter rather than by geography.<sup>5</sup> It is not, according to Congress, a “specialized court”<sup>6</sup>—although it is sometimes so described.<sup>7</sup>

Instead, the Federal Circuit represents the prototypical modern subject matter-bounded court. When Congress abolished the little known Temporary Emergency Court of Appeals<sup>8</sup>—transferring, it so happens, its jurisdiction to the Federal Circuit<sup>9</sup>—the Federal Circuit became the only non-regional

4. Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (codified as amended in scattered sections of 28 U.S.C.).

5. 28 U.S.C. § 1295 (2006) (providing that the court has jurisdiction over appeals involving, inter alia, patents (§ 1338), tax refund claims, civil actions against the United States (§ 1346) including claims not exceeding \$10,000 in amount, founded either upon the Constitution, or any Act of Congress, or any regulation of an executive department, or upon any express or implied contract with the United States, Indian claims, takings claims, trademark registrations, vaccine compensation claims, final decisions of the United States Court of International Trade, final determinations of the United States International Trade Commission, final decisions of the Merit Systems Protection Board, final decisions of agency boards of contract appeals, veterans benefit claims).

6. S. REP. NO. 97-275, at 6 (1981), *reprinted in* 1982 U.S.C.C.A.N. 16 (“The Court of Appeals for the Federal Circuit will not be a ‘specialized court,’ as that term is normally used. The court’s jurisdiction will not be limited to one type of case, or even two or three types of cases. . . . Rather, it will have a varied docket spanning a broad range of legal issues and types of cases.”).

7. *Compare* Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment in Specialization*, 54 CASE W. RES. L. REV. 769, 770 (2004) (“The Federal Circuit is not specialized . . . .”) [hereinafter Dreyfuss, *Continuing Experiment*], *with* Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989) [hereinafter Dreyfuss, *Case Study*].

8. The court was established in 1971 to hear appeals from district courts arising under certain energy-related laws. Economic Stabilization Act Amendments of 1971, Pub. L. No. 92-210, sec. 2, § 211(b)(1), 85 Stat. 743, 749.

9. Federal Courts Administration Act of 1992, Pub. L. No. 102-572, § 102, 106 Stat. 4506.

appellate court in the federal system.<sup>10</sup> At least formally, specific grants of exclusive subject matter jurisdiction over certain agency action<sup>11</sup> provide the United States Court of Appeals for the District of Columbia Circuit a similar flavor, although that court is basically a regional court of geographically-defined jurisdiction.<sup>12</sup>

The Federal Circuit has been the subject of vigorous study since its creation,<sup>13</sup> and although ambivalence persists, assessments of the court's performance have on balance been quite positive.<sup>14</sup> Indeed, policymakers in the United States and abroad have been seriously considering the extension of the Federal Circuit model to other subject matters, including bankruptcy,

10. See S.J. Plager, *The United States Court of Appeals, The Federal Circuit, and the Non-regional Subject Matter Concept: Reflections on the Search for a Model*, 39 AM. U. L. REV. 853, 854 (1990).

11. The United States Court of Appeals for the District of Columbia has the smallest geographic jurisdiction of the U.S. circuit courts of appeals, but it has been given the responsibility for directly reviewing some forms of agency action and hears other administrative appeals based on the Administrative Procedure Act. Thus, like the Federal Circuit it, too, has a busy administrative docket; although perhaps not quite as busy. See Plager, *supra* note 10, at 861 (citing Peter H. Schuck & E. Donald Elliott, *To the Chevron Station: An Empirical Study of Federal Administrative Law*, 1990 DUKE L.J. 984, 1018) (reporting that the Federal Circuit's administrative caseload is the highest of all the circuits and three times that of the D.C. Circuit).

12. See 28 U.S.C. §§ 41, 1291 (2006). Others have argued that the D.C. Circuit is similar to the Federal Circuit and that lessons learned by the D.C. Circuit may extend to the Federal Circuit. See John M. Golden, *The Federal Circuit and the D.C. Circuit: Comparative Trials of Two Semi-specialized Courts*, 78 GEO. WASH. L. REV. 553 (2010).

13. Perhaps the seminal early work concerning the court is Dreyfuss, *Case Study*, *supra* note 7; see also Charles W. Adams, *The Court of Appeals for the Federal Circuit: More Than a National Patent Court*, 49 MO. L. REV. 43 (1984). The Federal Circuit's version of its history is also informative. See generally THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT: A HISTORY 1982–1990 (U.S. Judicial Conference Comm. on the Bicentennial of the Constitution of the U.S. 1991) (describing, inter alia, the political and economic circumstances surrounding the creation of the court). The vast amount of quality scholarship exploring the court's strengths and weaknesses is much too copious to list in a footnote.

14. See generally, e.g., Marcia Coyle, *Critics Target the Federal Circuit*, 29 NAT'L L.J. 1 (2006); Dreyfuss, *Continuing Experiment*, *supra* note 7, at 770–71 (2004) (reporting practitioner views); Donald R. Dunner, *The U.S. Court of Appeals for the Federal Circuit: Its Critical Role in the Revitalization of U.S. Patent Jurisprudence, Past, Present, and Future*, 43 LOY. L.A. L. REV. 775, 783 (2010) (“The bottom line at the conclusion of the first quarter century of the court's existence is that the court has more than delighted its early proponents and surprised its opponents with its high level of performance.”); Gerald Mossinghoff, *The Creation of the Federal Circuit*, in F. SCOTT KIEFF ET AL., PRINCIPLES OF PATENT LAW: CASES AND MATERIALS 31–32 (4th ed. 2008). As we note, however, ambivalence persists. See, e.g., Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619 (2007) (offering some criticisms of the court). But see S. Jay Plager & Lynne E. Pettigrew, *Rethinking Patent Law's Uniformity Principle: A Response to Nard & Duffy*, 101 NW. U. L. REV. 1735 (2007).

tax, social security,<sup>15</sup> immigration,<sup>16</sup> and intellectual property.<sup>17</sup> The broad interest in emulating the Federal Circuit model has only intensified interest in questions such as “What subject matters are best administered by a national circuit court of appeals?” and “What are the strengths and weaknesses of subject matter-bounded tribunals?” The study reported here contributes to this debate, providing an empirical comparison of the Federal Circuit’s use of legal scholarship with regional circuits’ use of legal scholarship. As the next Section explains, this topic is of keen interest to the debate over the performance of the Federal Circuit.

B. THE DEBATE OVER THE FEDERAL CIRCUIT’S USE OF LEGAL SCHOLARSHIP

“It has been said that the [Federal Circuit] . . . has been less interested than other courts in considering the academic literature or incorporating the lessons of social science research into its decisionmaking . . . .”<sup>18</sup>

The note that accompanies Professor Dreyfuss’s above-quoted observation begins with the phrase: “Albeit, rarely for attribution,”<sup>19</sup> which, it turns out, our review of the literature confirms. Despite the obvious importance of empirical evidence to support such a claim, we found only a single work that substantially addresses the use of legal scholarship by the Federal Circuit, Craig Allen Nard’s *Toward a Cautious Approach to Obeisance: The Role of Scholarship in Federal Circuit Patent Law Jurisprudence*.<sup>20</sup> That work, a decade old now,<sup>21</sup> is perhaps more than anything else a call for the judges of the Federal Circuit to use more empirical<sup>22</sup> literature in the legal decisional process. Part of the study underlying *Toward a Cautious Approach to Obeisance*

15. See Dreyfuss, *Continuing Experiment*, *supra* note 7, at 771 n.10.

16. See Securing America’s Borders Act, S. 2454, 109th Cong. (2006).

17. See, e.g., Working Party on Litig., Eur. Patent Office, *Draft Agreement on the Establishment of a European Patent Litigation System* (2003), available at [http://documents.epo.org/projects/babylon/eponet.nsf/0/B3884BE403F0CD8FC125723D004ADD0A/\\$File/agreement\\_draft\\_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/B3884BE403F0CD8FC125723D004ADD0A/$File/agreement_draft_en.pdf) (proposing a “European Patent Court,” a “European Patent Court of Appeal,” and a “European Patent Judiciary”).

18. Dreyfuss, *Continuing Experiment*, *supra* note 7, at 772.

19. *Id.* at 772 n.11 (noting that the “observations are largely based on informal discussions with patent practitioners and academics . . .”).

20. Craig Allen Nard, *Toward a Cautious Approach to Obeisance: The Role of Scholarship in Federal Circuit Patent Law Jurisprudence*, 39 HOUS. L. REV. 667 (2002).

21. See *id.* at 678 (“I reviewed every published Federal Circuit opinion from 1983 through 2000 to discern how often the court cites scholarship or a secondary source in its patent and non-patent opinions.”).

22. Professor Nard uses the term “empirical” to refer to “quantitative or statistical research and analyses that are based on observation.” *Id.* at 668 n.10.

involved comparing citation to legal scholarship in published Federal Circuit patent cases to citation to legal scholarship in published Second and Ninth Circuit trademark and copyright cases.<sup>23</sup> In the cases studied it was found that the Second and Ninth Circuits cited scholarship roughly four times as often as the Federal Circuit.<sup>24</sup>

Notably, Professor Nard cautioned against making broad inferences from the samples used in the study. For example, he observed that patent opinions of the Federal Circuit might be different than other types of opinions because the Federal Circuit writes so many of them.<sup>25</sup> His analysis implies that trademark and copyright opinions of the Second and Ninth Circuits might also be different than more run-of-the-mill opinions at the regional circuits.<sup>26</sup>

Notwithstanding the concerns expressed by Nard about the limits to the general inferences that might be made from his novel study, and notwithstanding the lack of any comparable study that might be used to bolster the claim,<sup>27</sup> the claim that the Federal Circuit uses academic work less often than other courts seems to have achieved mythical status. Professor John R. Thomas recently claimed that “empirical research has show[n] that the Federal Circuit is less likely than other courts to cite scholarship in its opinions.”<sup>28</sup> Similarly, in its influential publication, *A Patent System for the 21st Century*, the National Research Council of the National Academies claims: “[S]pecialized institutions have insular tendencies. For example, the Federal Circuit appears to rely less on independent scholarly analysis, even legal scholarship, than the regional generalist appeals courts.”<sup>29</sup>

The belief that the Federal Circuit uses legal scholarship in its decisionmaking less than other circuit courts of appeals has seeped into the discussion regarding the Federal Circuit’s performance as an institution, where the belief has almost uniformly been used to describe the court as insular, disconnected, and lacking in intellectual curiosity.<sup>30</sup> For example, in

23. *Id.* at 681–83.

24. *Id.* at 683.

25. *Id.* (speculating that the Federal Circuit may be “more familiar and comfortable with patent law than the Ninth and Second Circuits are with trademark and copyright law”).

26. *Id.*

27. Our findings accord with Professor Dreyfuss’s in this regard. See Dreyfuss, *Continuing Experiment*, *supra* note 7, at 781 (stating that “[t]here are no comparable studies to support Nard’s work”).

28. John R. Thomas, *Academics and the Federal Circuit: Is There a Gulf and How Do We Bridge It?*, 15 FED. CIR. B.J. 315, 315 (2005) (citing Nard’s work).

29. NRC, *supra* note 1, at 86 (footnote omitted).

30. See *infra* notes 31–33 and accompanying text.

his essay Professor Thomas lamented the Federal Circuit's engagement of legal scholarship and urged greater resort to scholarship to overcome the Federal Circuit's isolation.<sup>31</sup> The National Academies, using *Toward a Cautious Approach to Obeisance* as its source of authority, goes so far as to recommend that the Federal Circuit seek briefings that "draw upon insights from . . . legal scholarship on the patent system, and the growing body of patent-related economic literature."<sup>32</sup> Other commentators, also citing *Toward a Cautious Approach to Obeisance*, have expressed concern over the "reluctance [of the Federal Circuit] to engage the empirical and social sciences literature on patent law as a way to offset its relative institutional disconnectedness from the various technological communities its decisions affect."<sup>33</sup>

We think debate over the Federal Circuit's use of scholarship is important, but we are concerned that it may be clouded and dulled by the assumptions that appear to be drawn from the very limited empirical data available. In particular, we think that the literature reflects at least two claims about the Federal Circuit's use of scholarship: first, an empirical claim that the Federal Circuit uses scholarship less often than regional circuit courts of appeals; and second, a normative claim that the Federal Circuit uses legal scholarship less than it should.<sup>34</sup>

The existing literature has generally done a poor job of separately evaluating these claims. Notwithstanding the very limited empirical evidence, the first is used essentially unquestioningly as the core evidentiary support for the second, i.e., that the Federal Circuit does not use legal scholarship as much as it should because it does not use it as often as the regional circuit courts of appeals. While we have concerns with the logic of this argument, we accept, *arguendo*, that these claims might have an analytical relationship,

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31. Thomas, *supra* note 28, at 318–19 ("Allow me to close by observing that schools of thought, intellectual movements, and cultures rarely prosper when they are entirely self-referential. In the United States, the role of the university has been a dynamic one; but at its best the academy has served as the conscience of the community; as an honest arbiter of debate; and ultimately as a contributor to the establishment of just laws. In days yet to come, so it may be within the patent bar, and before this court.")

32. NRC, *supra* note 1, at 86 (recommending, *inter alia*, that the Federal Circuit encourage briefs that "draw upon insights from . . . legal scholarship on the patent system, and the growing body of patent-related economic literature").

33. *See* Nard & Duffy, *supra* note 14, at 1648. To be fair, some of the statements offered in the discussion within Nard's work might invite such claims and assumptions. *See, e.g.*, Nard, *supra* note 20, at 675 (expressing the desire that Federal Circuit judges be more receptive to scholarship in their published opinions); *id.* at 685 ("[T]he court verges on the abstract by failing to give adequate weight to empirical and economic scholarship.")

34. We have not found any arguments that the Federal Circuit is using legal scholarship too much, although we imagine there is a case to be made. Assuming there are proponents of this position they would appear to be in the minority of those who write legal literature.

e.g., the empirics of the first might inform an analysis of the second. Because the evidence for either claim is so lacking, however, due mostly to the fact that the study of the Federal Circuit's use of scholarship is at such an early stage, we think it is preferable to treat each claim independently. Normative debates are often sharpened and better enabled by empirical data.

Thus, the first broad contribution of this study is an empirical examination of the hypothesis that the Federal Circuit uses legal scholarship less than other federal appellate courts. The study uses a novel dataset that not only extends until 2008 (almost a decade later than Nard's), but also includes citations to legal scholarship by all of the U.S. circuit courts of appeals over the last twenty years.<sup>35</sup> It thus provides considerable new information and analysis.

The findings and observations include:

1. *The Federal Circuit's use of legal scholarship appears quite similar to that of the regional circuits, suggesting that the court is not the outlier that many presume.* This suggests the analogy that other subject matter-bounded tribunals built with parameters similar to those of the Federal Circuit might behave similarly, i.e., they might not be any more insular and disconnected when it comes to engaging with legal scholarship than the average circuit court of appeals. Consonant with this interpretation, the observed use of legal scholarship by the District of Columbia Circuit is also within a range defined by other regional circuits.
2. *The results essentially eviscerate a claim that the Federal Circuit does not use legal scholarship as much as it should because it does not use it as often as the regional circuit courts of appeals.* To be clear, we do not find that the Federal Circuit uses legal scholarship as much as it should; our study is not directed to answering that question. But we have substantially

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35. It should be clear by now that Professor Nard's study represents an important (as far as we can tell, the most important) contribution to this topic. But like all studies (the one reported here not excepted) it has limitations. For example, perhaps Federal Circuit opinions have changed since Nard's study, perhaps trademark and copyright opinions are different than more run-of-the-mill opinions at the regional circuits, or, as Professor Nard himself ventures, perhaps patent cases are different because the Federal Circuit hears so many of them. Nard, *supra* note 20, at 683 (speculating that the Federal Circuit may be "more familiar and comfortable with patent law than the Ninth and Second Circuits are with trademark law"). Even more importantly, however, empirical investigation into a topic should not be concluded by a single study. One of the strengths of the approach lies in different investigators taking different approaches to examine the same or similar hypotheses producing, eventually, a robust body of information that might better inform policy. It is from that perspective that we proceed.

clarified the issue: does a Federal Circuit that uses legal scholarship similarly to regional circuit courts of appeals use legal scholarship as much as it should? This finding we think is especially important because it suggests that future scholarship can now focus on the “merits” of the Federal Circuit’s use of scholarship. Rather than continuing to rely on the conventional wisdom that the Federal Circuit does not use legal scholarship as much as it should because it does not use it as often as the regional circuit courts of appeals, scholars can now be encouraged to investigate when and how the Federal Circuit uses legal scholarship, a study much more likely to provide a robust description of the Federal Circuit’s engagement with scholarly literature.

3. *The most evident difference between the Federal Circuit and some other circuit courts of appeals is that the Federal Circuit lacks one or two “super citers”—judges who are extreme users of legal scholarship in opinions.*
4. *The Federal Circuit uses legal scholarship in patent opinions slightly more than it uses legal scholarship in its entire body of opinions.*
5. *In view of the results here, the results presented in Toward a Cautious Approach to Obeisance might suggest that trademark and copyright cases in the regional circuits, rather than patent cases at the Federal Circuit, are the outliers in terms of use of scholarship. We therefore speculate: if regional circuits use scholarship more in these types of cases and do so because they are far behind the bar and academy when it comes to doctrine and policy then perhaps a “Federal Circuit” is needed for these areas of law. On the other hand, it is always possible that there is something about trademark and copyright cases (and relevant scholarship) or patent cases (and relevant scholarship) that argues for differential use of scholarship in these areas than is normative for other areas of law.*

The second broad contribution of this study is that it adds substantial new data and analysis useful to the study of national circuit courts generally. As noted above, the Federal Circuit is *the* prototypical subject matter-bounded court. Its successes have attracted the attention of policymakers at home and abroad, and further use of subject matter-bounded courts has been discussed and proposed. Scholars should therefore seek to develop a robust body of information when it comes to the merits and demerits of the Federal Circuit. Because it is the prototypical subject matter-bounded court, scholars should expect that information derived from the study of the performance of the Federal Circuit will play a crucial role in policymakers’ considerations of future subject matter-bounded courts.

Finally, a word of caution: this study represents a substantial contribution to the study of national circuit courts by providing new and original information, calling much recent commentary into question, and sharpening the debate over the Federal Circuit's use of scholarship. Nonetheless, it does not paint a complete picture of the Federal Circuit's use of legal scholarship. It would therefore be a mistake on par with the empirical myths this study confronts to conclude after reading this Article that "empirical research has shown the Federal Circuit uses legal scholarship as much as it should." The hope is that this Article pushes future scholarship to more seriously grapple with the answer to this second question.

## II. STUDY DESIGN AND METHODOLOGY

This Part sets out some very basic definitions and assumptions that underlie the study reported here. It then describes the techniques used to collect the data underlying the study and gives some description of the basic parameters of the dataset.

This study concerns the use of legal scholarship in decisional lawmaking, and particularly its use by the Federal Circuit as compared to the regional circuit courts of appeals. As used in this study, "legal scholarship" means law review and law journal articles, and we use the terms synonymously throughout.<sup>36</sup>

The term "use" of legal scholarship in this Article is meant in the limited sense that a court or judge "uses" legal scholarship when they cite to it in a reported judicial opinion. The reader should understand that it is almost indisputable that judges consider and are influenced by (and thus meet a more liberal meaning of the term "use") legal scholarship more often than we can detect using our methods. It seems obvious to us that legal scholarship may have a bearing on or connection with a judge's decisional process and the judge may not even be aware of it. Subconscious use is unlikely to generate a citation that observers can point to as evidence of the influence of the scholarship. It also seems likely that in many instances legal scholarship may have a bearing on or connection with a judge's decisional process and the judge knows about it, but for some reason the judge does not cite the

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36. Excluded from this definition are treatises, hornbooks, etc. Treatises and hornbooks are excluded not because they are unimportant forms of legal scholarship; in fact, we think they are important forms. Rather, they have been excluded because the Federal Circuit is not generally criticized for not using them.

scholarship in the opinion comprising the decision.<sup>37</sup> In both instances the evidence of the influence of scholarship is difficult to reliably obtain.<sup>38</sup>

One way to deal with what judges do not know, or do not tell, is to ignore it. This is the conventional approach taken in much of the empirical work examining judicial use of legal scholarship.<sup>39</sup> Because we have no reason to believe that Federal Circuit judges are more or less knowing or more or less forthcoming about their use of legal scholarship than judges from other circuits, we adopt this convention, assuming that legal scholarship is used when it is cited and not used when it is not cited.

One of the benefits of our methodology is that it measures use fairly directly. We examine the text of electronic versions of the documents judges author to communicate reported decisions. Reported decisions are precedential opinions and consequently are documents evidencing the law.<sup>40</sup> Citation to legal scholarship in such opinions brings the scholarship into close relationship with the law. Moreover, judges do not have to cite to legal

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37. See, e.g., Plager & Pettigrew, *supra* note 14, at 1751 (“It is quite likely that more [academic commentary] finds its way into judicial thought than the absence of specific citation suggests.”).

38. One could try to infer it, perhaps, by a close comparison of literature in an area with the legal documents of appellate cases in the same or similar areas. See, e.g., Dreyfuss, *Continuing Experiment*, *supra* note 7, at 780–81 (suggesting this general strategy).

39. See sources cited *infra* note 77 (collecting a number of studies that examine citation by courts to scholarship).

40. Our focus on the decisional lawmaking process requires, we think, the use of reported opinions. Other prominent studies of citation counts focus exclusively on reported opinions. See, e.g., William M. Landes et al., *Judicial Influence: A Citation Analysis of Federal Courts of Appeals Judges*, 27 J. LEGAL STUD. 271 (1998). Unreported (or nonprecedential) opinions are historically not recognized as part of the formal evidence of the decisional law. See FED. CIR. R. 47.6 (2006) (authorizing unreported opinions and explaining that “[a]n opinion or order which is designated as not to be cited as precedent is one unanimously determined by the panel issuing it as not adding significantly to the body of law”); *Porter v. Merit Sys. Prot. Bd.*, 210 Fed. Appx. 996 (Fed. Cir. 2006) (applying this rule); see also FED. CIR. R. 36 (2006) (authorizing judgments of affirmance without opinions and explaining: “The court may enter a judgment of affirmance without opinion, citing this rule, when it determines that . . . an opinion would have no precedential value”); *Waddoups v. Air Force*, 201 Fed. Appx. 995 (Fed. Cir. 2006) (deciding an appeal without a published opinion); FED. R. APP. P. 32 (introducing permission to cite to unreported opinions in briefing as of January 1, 2007, but not changing the precedential status of the cited opinion). This observation strongly suggests two things: first, while there may be reasons to study the judicial use of legal scholarship in unreported opinions, clumping unreported opinions in with reported opinions in a study examining the use of legal scholarship in the decisional lawmaking process will be more confounding than informative; second, it is strongly intuitive that judges should only very rarely use legal scholarship in unreported opinions since they are not intended to add to the law. To examine this second understanding we examined all unreported opinions in Westlaw for all of the circuits from 1950 to 2008, and we found that citation to legal scholarship in unreported opinions, while it does occasionally occur, is exceptionally rare.

scholarship, and the decision to cite to a piece of scholarship—even as a source of general authority for a proposition, or merely to criticize it—can be understood as having a connection with the decisional process—a part of the law, suggesting the interpretation that the cited work has relevance to the law.<sup>41</sup>

It must also be noted that some of the scholarship-focused critiques of the Federal Circuit are quite ambiguous when it comes to what kinds of scholarship they are talking about. Sometimes the word “scholarship” is used alone; sometimes it is preceded by “academic” or a synonym thereto. In other instances it is preceded by words like “empirical” or “social sciences.”<sup>42</sup> While the concept of legal scholarship clearly encompasses all of these forms, it is less clear whether the critical literature contemplates circuit judges consuming, critically evaluating, and applying to their decisionmaking peer-reviewed professional publications, i.e., primary literature from various scientific (e.g., molecular biology, particle physics), technical (e.g., electrical and chemical engineering), and social sciences (e.g., economics, psychology) fields. To the extent the criticism does contemplate such things, our study should be understood as at least somewhat tangential. We have developed a search algorithm that very effectively finds legal scholarship in the form of law review and law journal articles;<sup>43</sup> it is not constructed to identify citations to other types of publications.

When comparing this study to other scholarship-focused critiques of the Federal Circuit, another consideration is that some critiques may only be talking about patent cases. This study provides a much more holistic view,

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41. An esteemed reviewer of this study has suggested to us that judges may cite to legal scholarship in judicial opinions for decorative purposes only. To the extent this happens we are unable to account for it, although we suppose that if judges are using legal scholarship to decorate opinions they are still “using” it. It also seems possible that even decorative judicial use might still work benefits by broadening debate and suggesting receptiveness and intellectual curiosity on the part of a judge or court.

Similarly, measuring the use of legal scholarship by measuring citation leaves to inference the relationship between citation and the relevance of scholarship to judges and the law. Inferring relevance this way is, perhaps, most often valid. However, it seems not beyond the realm of possibility that judges might cite a law review article in an opinion without relying on, considering, or, perhaps, even understanding much of the substance of the article. Even so, the debate-broadening benefits may still apply.

42. See, e.g., Dreyfuss, *Continuing Experiment*, *supra* note 7, at 780–83; Nard & Duffy, *supra* note 14, at 1648.

43. See *infra* Section II.B (“The Dataset”); see also Iantha Haight, *Court Citation of Legal Scholarship on the Rise?*, COMPETITIVE EDGE: CORNELL L. LIBR. BLOG (Aug. 17, 2010, 3:10 PM), <http://blog.law.cornell.edu/library/2010/08/17/court-citation-of-legal-scholarship-on-the-rise/> (describing our query as “not perfect, but it is about as close as you can reasonably get”).

examining scholarship across the entirety of Federal Circuit jurisprudence of which patent cases make up just a fraction. Thus, unless we discuss patent cases specifically, our results and findings should be understood as considering the jurisprudence broadly.

As one considers the results, it will also be useful to keep in mind that there may be varying amounts of scholarship available depending on the area of law. As a contrived example, there might be a much greater volume of scholarship devoted to constitutional issues than to vaccine compensation claims. If that were true, a court whose docket consists of a substantial number of constitutional claims may have more opportunities to use scholarship than a court whose docket consists of few constitutional claims and more vaccine compensation claims. The results presented here do not shine much light on how the type of claims a circuit tends to hear and other such factors might impact a circuit court's use of scholarship, although, as we noted in the Introduction, the Federal Circuit has exclusive jurisdiction over a broad array of subject matter.<sup>44</sup>

#### A. CONTENT ANALYSIS OF JUDICIAL OPINIONS

The dataset used in this study was constructed using a well-accepted social sciences technique known as “content analysis.”<sup>45</sup> Content analysis describes a general methodological approach for collecting and analyzing information<sup>46</sup> representing the content of documents or other messages.

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44. See *supra* note 5.

45. See Mark A. Hall & Ronald F. Wright, *Systematic Content Analysis of Judicial Opinions*, 96 CALIF. L. REV. 63 (2008) (collecting many examples of content analysis applied to legal studies). For recent examples of legal scholarship that have used content analysis as an approach to examining judicial opinions, see, e.g., John R. Allison & Mark A. Lemley, *The (Unnoticed) Demise of the Doctrine of Equivalents*, 59 STAN. L. REV. 955, 956–57 (2007) (examining the impact of legal rules and legal procedure on case outcomes); Christopher A. Cotropia, *Nonobviousness and the Federal Circuit: An Empirical Analysis of Recent Case Law*, 82 NOTRE DAME L. REV. 911 (2007) (examining empirical claims about the nature of the nonobviousness requirement of patent law); Lee Petherbridge & R. Polk Wagner, *The Federal Circuit and Patentability: An Empirical Assessment of the Law of Obviousness*, 85 TEX. L. REV. 2051 (2007) (investigating empirical claims about the nature of nonobviousness doctrine); David L. Schwartz & Lee Petherbridge, *The Use of Legal Scholarship by the Federal Courts of Appeals: An Empirical Study*, 96 CORNELL L. REV. 1345 (2011) (applying content analysis to examine judicial use of scholarship in opinions); David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223 (2008) (studying claim construction appeals); R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105 (2004) (examining judicial claim construction methodology).

46. It is applied to judicial opinions in this study using three basic steps: first, the relevant opinions were selected; second, the selected opinions were coded; finally, data collected through coding were analyzed using statistical techniques.

Content analysis has often been applied to legal studies,<sup>47</sup> which serves to help scholars verify, analyze, and assess empirical claims about the content of the law.

The present study involves almost 120,000 judicial opinions and offers an excellent opportunity for the application of content analysis. It should be pointed out, however, that a content analysis approach presents concerns that should be kept in mind when interpreting and analyzing results. Our definition of “use” provided above implies the most prominent concerns: unobserved reasoning and strategic behavior. Thus, as noted above, the results and discussion we provide are subject to concerns that judges almost certainly “use” legal scholarship more than we can detect by measuring citation<sup>48</sup> and concerns that judges may elect to use *vel non* legal scholarship for reasons we do not attempt here to quantify.<sup>49</sup> Another general concern that flows from using judicial opinions to study the law is the concern of selection bias: perhaps cases that would most likely evince the use of legal scholarship are selected against—do not produce reported opinions—for some reason.<sup>50</sup>

Nonetheless, the current claims and conventional wisdom surrounding the use of legal scholarship by the Federal Circuit suggest a need to begin to systematically assess the topic. An important early step is for scholars to find

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47. See sources cited *supra* note 45 (especially Hall & Wright).

48. Accord Paul L. Caron, *The Long Tail of Legal Scholarship*, 116 YALE L.J. ONLINE 38, 41 (2006) (“Citations reflect one particular end-use of an article; they do not measure how many times an article is read but not cited by a judge or professor.”).

49. For example, perhaps judges writing for the court strategically avoid citing legal scholarship so that rationales offered in an opinion have the appearance of flowing naturally from existing precedents, and, perhaps, judges writing alternative opinions strategically emphasize legal scholarship to bolster an argument for a change in law or to seek allies or support for a change.

50. We, however, think this is unlikely. As noted earlier, based on our examination of large numbers of unreported opinions, the overwhelming majority of citations to legal scholarship are found in reported opinions. See discussion and sources cited *supra* note 40. It thus appears at least that circuit judges are not saving the use of law reviews for unreported opinions. Nonetheless, readers may have concerns that cases likely to generate a citation are somehow more prone to settlement or disposition without an opinion. On selection bias generally, see George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 4, 16 (1984) (explaining that because so few cases reach an appellate judgment, such cases may not be representative of all lawsuits or disputes). On opinion publication, see Donald R. Songer, *Criteria for Publication of Opinions in the U.S. Courts of Appeals: Formal Rules Versus Empirical Reality*, 73 JUDICATURE 307 (1990) (describing some of the purposes to which judges put unpublished opinions); see also Michael Hannon, *A Closer Look at Unpublished Opinions in the United States Courts of Appeals*, 3 J. APP. PRAC. & PROCESS 199 (2001); Beth Z. Shaw, *Please Ignore This Case: An Empirical Study of Nonprecedential Opinions in the Federal Circuit*, 12 GEO. MASON L. REV. 1013 (2004).

objective ways to quantify and describe the Federal Circuit's use of scholarship. Content analysis, despite its limitations, presents a broadly understood and accepted means of approaching this important task.

## B. THE DATASET

The dataset built for this study includes information collected from all reported opinions<sup>51</sup> for all of the U.S. circuit courts of appeals. Coding was mechanical, employing two strategies.

The first relies on a query executed against each federal appellate court database for the years 1990–2008, individually.<sup>52</sup> Here, we counted each

51. Reported opinions mean those opinions in the Federal Reporters (i.e., F.2d and F.3d). To obtain count information on the raw number of reported decisions, we used the following Westlaw Circuit Court databases: CTA1R, CTA2R, CTA3R, CTA4R, CTA5R, CTA6R, CTA7R, CTA8R, CTA9R, CTA10R, CTA11R, CTADCR, and CTAFEDR. Westlaw's descriptions of each of these databases say they include "Reported cases from federal appellate decisions" and that coverage begins in 1945. The Eleventh and Federal Circuits were not created until well after that date. The Federal Circuit database appears empty before the Federal Circuit's creation in 1982. The Eleventh Circuit's database appears to replicate the Fifth Circuit's database before 1980, the year the Fifth Circuit was split into the Fifth and Eleventh Circuits. We excluded the duplicative Fifth and Eleventh Circuit data. We used Lexis to obtain the data relating to the citation of legal scholarship. Lexis provided superior results than Westlaw, as Westlaw's database apparently has an inconsistency that affects the results of a query for citations to legal scholarship. For more information about this Westlaw inconsistency, see Schwartz & Petherbridge, *supra* note 45, at 1357 n.48.

52. The electronic searches were developed over the course of several months. The searches were refined through several conversations with Westlaw and Lexis search specialists, and by trial and error. After testing numerous searches, the one that most accurately and completely captures citations to legal scholarship was selected and applied. The exact Lexis search for citations is "CITES(f.2d or f.3d) and (("L.J." or "L. J." or "L. REV." or "L.REV." or "J.L." or "LAW REVIEW" or "ct.rev." or "ct. rev.") w/15 (20\*\* or 19\*\* or 18\*\*) and not (("J.L." w/4 V. or name((J. w/2 L.) or LJ or JL or "L.J." or "J.L.") or (counsel(LJ or JL or "L.J." or "J.L.)) or ("NAT! L.J." or "NATIONAL LAW JOURNAL") or opinion("decision without published")))." The use of rev., review, and j. is meant to include as many law reviews and journals as possible. Of the top 100 law schools as ranked by U.S. News & World Report 2010 Law School Rankings, all of the flagship journals fall within this search. Of the top fifty journals using Washington & Lee's combined 2009 rankings (<http://lawlib.wlu.edu/lj/>), forty-eight of them fall within this search, and ninety-four of the top 100 are responsive. See *Law Journals: Submissions and Ranking*, WASH. & LEE U. SCH. L., <http://lawlib.wlu.edu/lj/indexOlderYears.aspx> (last visited Feb. 20, 2012) (check the box labeled "Comb." for "2009"; then click "Submit"). Excluded are *Supreme Court Review* (27); *Law & Contemporary Problems* (42); *Yale Journal on Regulation* (67); *The Business Lawyer* (68); *University of Chicago Legal Forum* (80); and *Supreme Court Economic Review* (97). See *id.* The false positive rate, i.e., coding a citation in error, is less than five percent. We ran additional searches in all circuits for all years to find citations to three specific journals—JPTOS (*The Journal of the Patent & Trademark Office Society*), AIPLA Q.J. (*The American Intellectual Property Law Association Quarterly Journal*), and the *Federal Circuit Bar Journal*. Citations to these journals were omitted from our preliminary results because the journals have non-traditional names

opinion that contained at least one citation to legal scholarship. Overall, this study involves nearly 120,000 judicial opinions from all of the circuit courts of appeals,<sup>53</sup> and about 8,150 of them evince the use of at least one piece of legal scholarship.

The second relies on a custom-made computer program capable of identifying citations to legal scholarship.<sup>54</sup> The program was executed on text files consisting of the opinions identified in the first search as evincing the use of legal scholarship, i.e., from the population of all reported opinions issued between 1990–2008, inclusive. Unlike the query defining the first strategy, the customized computer program was designed to detect full<sup>55</sup> citations to law review and law journal articles. The program could thus detect and record multiple uses per opinion. We also recorded the authoring judge for each opinion that used legal scholarship, and in the discussion these data are referred to as judge-specific data.

### III. RESULTS AND DISCUSSION

This Part begins by presenting evidence relating to the basic research question: is the conventional wisdom that the Federal Circuit uses legal scholarship less than the regional circuit courts of appeals correct? The analysis then moves to a discussion of what the results suggest about the use of legal scholarship by Federal Circuit judges, followed by an investigation of the use of scholarship in patent cases as compared to other kinds of cases. This Part includes a discussion of why, in the face of the existing empirical evidence, the claim that the Federal Circuit uses legal scholarship less than regional circuits might have been able to achieve the status of conventional wisdom.

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that when bluebooked have not always been responsive to our Lexis query. Because these three journals publish articles that may disproportionately be relevant to the Federal Circuit, and because specialty journals in other areas of law likely were already included in our preliminary results, we thought it appropriate to add this data. Nevertheless, the additional citations from these three journals did not materially affect the results or analysis.

53. The exact Westlaw search for opinions in each year YYYY is “date([YYYY]).” The word “court” is included because Westlaw prohibits date only searches. The word “court” is present in all opinions in the case caption. See Christopher A. Cotropia, *Determining Uniformity Within the Federal Circuit by Measuring Dissent and En Banc Review*, 43 LOY. L.A. L. REV. 801, 811 n.59 (2010).

54. For this we are especially grateful to Richard Tuminello and Daniel D’Addario.

55. Because it requires the full cite, however, it does not detect short form citation, e.g., “*Id.*”, “*see id.*”, etc.

A. THE FEDERAL CIRCUIT'S USE OF LEGAL SCHOLARSHIP IS SIMILAR TO THAT OF THE REGIONAL CIRCUITS

Table 1 compares the rate at which the Federal Circuit used legal scholarship over the last nineteen years to the rate at which the regional circuit courts of appeals used legal scholarship over the same period.

**Table 1: Proportion of Reported Opinions Using Legal Scholarship**<sup>56</sup>

Circuit	Proportion (x100)	Frequency (1 in)
3d	14.34%	6.97
D.C.	9.81%	10.20
2d	8.87%	11.28
1st	7.90%	12.67
7th	7.76%	12.89
6th	6.73%	14.87
4th	6.70%	14.92
10th	6.54%	15.28
9th	6.40%	15.62
5th	6.28%	15.93
Federal	5.07%	19.73
11th	4.79%	20.89
8th	2.41%	41.54

The proportion of Federal Circuit opinions using at least one piece of legal scholarship was 5.07%, or 1 in roughly 20 reported opinions. By this measure the Federal Circuit is within a range defined by all U.S. circuit courts of appeals (2.41% to 14.34%). The Federal Circuit uses legal scholarship in its opinions more frequently than the Eighth and Eleventh Circuits and less frequently than the Fifth Circuit.

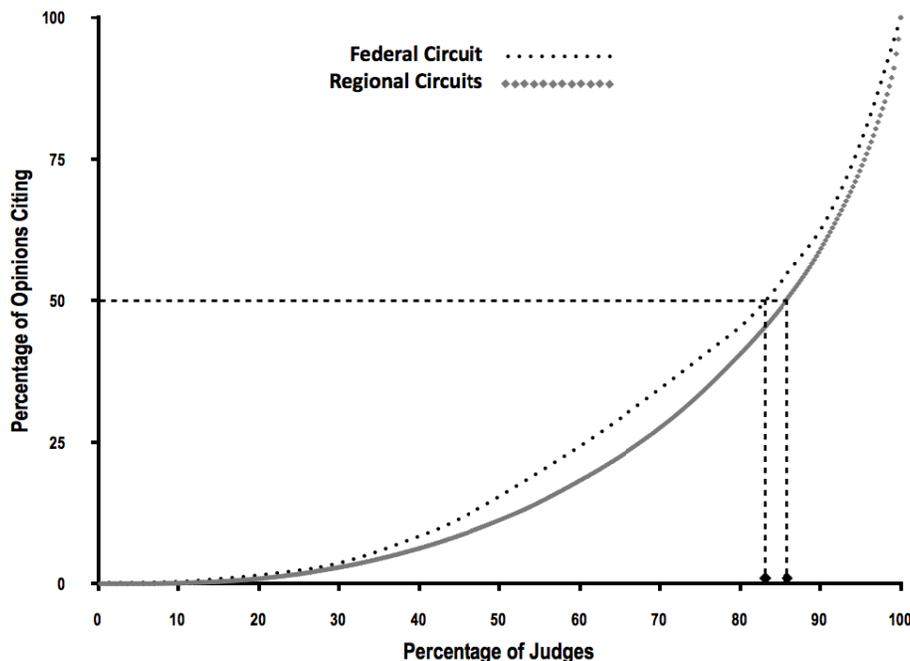
The proportional measure provides information helpful for comparing the use of legal scholarship by the Federal Circuit with the use of legal scholarship by the regional circuits. The measure is, however, rather general. To develop more specific information about the use of legal scholarship by the circuit courts of appeals, we collected judge-specific data. The judge-specific data allow us to observe how much a particular opinion author uses

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56. Table 1 compares the Federal Circuit's use of legal scholarship with that of the regional circuits. To standardize for differences in reported opinion output, proportions were used. The proportional measure is the proportion of reported opinions citing at least one piece of legal scholarship. To control for the impact of time period, all circuits were compared for the same time period; i.e., the proportion of reported opinions issued between 1990 and 2008, inclusive.

legal scholarship. In other words, we might observe that in all the opinions she authored, Judge X cited 27 law reviews. This count includes each use of a full cite but does not count short citations (e.g., “*id.*” or “*See id.*”). Figure 1 shows the cumulative distribution of judicial use of scholarship for the judges of the regional circuit courts of appeals (which include the numbered circuit courts and the D.C. Circuit) and, separately, for judges of the Federal Circuit.

Figure 1: Cumulative Distribution of Judicial Citation (1990–2008)<sup>57</sup>



57. Figure 1 shows the cumulative distributions of citation for circuit judges for all regional circuits (the lower line of gray diamond datapoints), and for the Federal Circuit (the higher, dotted line), from 1990–2008. On the abscissa the cumulative percentage of judges ( $n=356$  for the regional circuits,  $n=22$  for the Federal Circuit) moves from 0% on the left to 100% right. The ordinate shows the cumulative percentage of citations. Lines (dashed) are imposed on the graph to reveal the percentage of judges on either side of 50% of all citation to legal scholarship. The raw data point nearest 50% citations for the regional circuit judges is 50.27%, which corresponds to 85.96% of regional circuit judges. Thus, 14% (or fifty of the 356 regional circuit judges in the data) account for half of all citations to legal scholarship. The raw data point nearest 50% citations for the Federal Circuit judges is 46.37%, which corresponds to 81.82% (or 17 of 22) of Federal Circuit judges in the data. The next nearest data point is at 54.33%, which corresponds to 86.36% (or 18) of Federal Circuit judges in the data, leaving four judges who generate the remaining 45.67% of citations. The data reported here count full citations in opinions in the dataset (so one opinion may give rise to more than one counted citation). The graph was created using Numbers.

As is apparent, the cumulative distributions illustrated in Figure 1 each exhibit a tail to the left, encompassing a large cohort of judges. More specifically, for the regional circuits (represented by the lower line of gray diamond datapoints), 86% of the judges account for 50% of the citations; for the Federal Circuit (represented by the dotted line), 84% of the judges account for half of the citations. Figure 1 indicates that a small cohort of judges—a mere 14% of the regional circuit judges<sup>58</sup> and 16% of the Federal Circuit judges—account for the other half of the citations. The similarity in the pattern of use of legal scholarship suggests that Federal Circuit judges' propensity to use legal scholarship is much like that of regional circuit judges. This is consistent with Table 1, which finds that the Federal Circuit authors opinions using legal scholarship at a rate similar to some other circuit courts. Thus, the Federal Circuit is not an outlying court.<sup>59</sup>

The presence of a skewed distribution and what it implies—the presence of an outlying cohort of judges especially likely to cite legal scholarship—suggest that the proportional summary of citation in Table 1, while helpful, may not be entirely representative of a circuit's use of scholarship. In particular, the probability of outlying judges suggests that obtaining an accurate comparison of judicial use of legal scholarship between circuits requires a more robust estimator of the average. The basic concern is that one or two judges in a circuit who use lots of scholarship will distort the citation count for the circuit, making it appear that *all* of the judges on the circuit use scholarship more prolifically than they actually do.

We calculated two estimators of central tendency for judicial use of legal scholarship: the median and the mean. The median is robust<sup>60</sup> to the mean, so while both provide some information useful for describing judicial use of legal scholarship from a circuit-to-circuit perspective, given the distribution, perhaps the more useful measure of central tendency is the median. Table 2 summarizes the data, which is ordered about the median.

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58. While all of the regional circuit courts have been aggregated in Figure 1, most of the courts have a distribution including a small cohort responsible for most of the citing.

59. An "outlier" is an observation that lies an abnormal distance from the other values.

60. A robust statistic is resistant to errors in the results, produced by deviations from assumptions such as the assumption that the sample has a normal distribution. Even if the assumptions are only approximately satisfied, the robust estimator will be asymptotically unbiased and still have a reasonable efficiency and reasonably small bias.

Table 2: Median and Mean Citations per Judge<sup>61</sup>

Circuit	Median Citations/Judge	Mean Citations/Judge
7th	55	89.05
1st	43	70.31
3d	36.5	52.38
2d	32	44.58
10th	31	37.29
D.C.	24	49.38
5th	22	36.20
9th	21	35.14
Federal	18.5	22.59
8th	15.5	21.12
4th	14	22.29
6th	13	26.05
11th	13	21.78

Table 2 shows a range of medians from 13 to 55. The Federal Circuit (18.5) falls fairly close to the middle (22), suggesting the interpretation that the Federal Circuit is, again, pretty similar to other circuits in its use of legal scholarship. The median judge at the Federal Circuit uses legal scholarship somewhat less often than the median judge at the Ninth Circuit (compare 18.5 to 21), and somewhat more often than the median judge at the Eighth Circuit (compare 18.5 to 15.5). The median judges on the Fourth (14), Sixth (13), and Eleventh Circuits (13) use scholarship even less. Thus, Federal Circuit judges seem, on average (i.e., median), much like their counterparts in other circuits when it comes to use of legal scholarship.



In brief summary, the proportion of Federal Circuit opinions using legal scholarship is similar to that of the other circuit courts of appeals. The distribution of use across the judges of the Federal Circuit is similar to that of the other circuit courts of appeals. And, the median use of scholarship by

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61. Table 2 compares the average number of full citations to legal scholarship per judge in reported opinions issued between 1990 and 2008, inclusive. Two measures of “average” (or central tendency) are provided: the median, the middle number of citations for the judges of the circuit during the period; and the mean, the number obtained by summing all of the citations in the circuit for the period divided by the number of judges authoring opinions during the period. The circuits are ordered about the median. The data reported here counts full citations in opinions in the dataset (so one opinion may give rise to more than one counted citation).

Federal Circuit judges is similar to the median use of scholarship by the judges of other circuit courts of appeals (indeed, it is close to the median of the medians).<sup>62</sup> We think the results presented in this Part all point in the same direction: the Federal Circuit uses legal scholarship quite similarly to its sister circuits.

From the broader perspective of national circuits—those with national responsibility for certain subject matter—the performance of the D.C. Circuit is also telling. Table 1 shows that, like the Federal Circuit, the D.C. Circuit's use of scholarship is within a range defined by other U.S. circuit courts of appeals. Indeed, within that range, the proportion of reported D.C. Circuit opinions citing legal scholarship is second only to that of the Third Circuit. The D.C. Circuit is also sixth-highest among all circuit courts of appeals in terms of median citations per circuit judge, as shown in Table 2. Thus, the above data suggest that a claim that national circuit courts are insular, disconnected, and lacking in intellectual curiosity, based on observations about such courts' use of legal scholarship, is not particularly well founded.

Taken together, both in light of the current debate over the Federal Circuit's use of legal scholarship and in light of the development of information relevant to policymakers who may have future plans to create more subject matter-bounded courts, the results presented to this point provide a substantial advance in understanding over the existing literature. That said, this seems like a good place to emphasize that these results have not painted a complete picture of the Federal Circuit's (or any court's) use of legal scholarship. The level of development here is still fairly general.<sup>63</sup> Additional empirical work and theoretical analysis are needed. We offer some humble suggestions for potential future areas of work in Part IV, which follows Section III.B in which we hypothesize about the meaning of our findings.

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62. The median judge of all circuit courts used scholarship 23 times during the relevant time period.

63. For example, we think there are still other ways of empirically assessing use, e.g., measuring the quality of the use, measuring the subject matter of opinions in which scholarship is used, or perhaps in measuring the quality of the scholarship used, etc. that, if made the subject of an empirical investigation might, if well done, someday challenge our interpretation. In other words, there is, as is always the case, more to know.

## B. WHAT IS HAPPENING HERE?

1. *The Federal Circuit Is Short One (or Maybe Two) Legal Super Citers*

Table 2 is consistent with the interpretation that outlying judges contribute substantially to a circuit's use of legal scholarship. In nearly every circuit, the median and mean show substantial differences and in every such instance the mean is higher than the median. This suggests that circuits with very high mean numbers but more modest medians include one or some small number of judges—outliers—who use legal scholarship much more than the rest of their colleagues (and much more than most other circuit judges).

Indeed, the Federal Circuit is one of the few courts where both measures of central tendency appear somewhat closer together.<sup>64</sup> This observation leads to the intriguing suggestion that to the extent the Federal Circuit might differ from some of the regional circuits in terms of its mean citation count, a reason may be as simple as the lack of one, or maybe two, judges who are—to coin a phrase—“super citers” of legal scholarship. In other words, the only difference between the Federal Circuit and the other circuits may be that the Federal Circuit is short one or perhaps two judges who are extreme users of legal scholarship.<sup>65</sup>

In an attempt to illustrate this point, we “traded” the top two citing judges from the Ninth Circuit with the top two citing judges from the Federal Circuit. We expected to observe that the trades would increase the mean citations per judge at the Federal Circuit and decrease the mean citations per judge at the Ninth Circuit. Table 3 shows an impact on the mean judicial citation consistent with these expectations.

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64. *See supra* Table 2.

65. This is not to say that the lack of one or two super citers is analytically insignificant. As we explain in Section IV.A, future research into the effects of super citer judges should be explored.

**Table 3: Trading the Two Top Citing Judges on the Federal Circuit with the Two Top Citing Judges on the Ninth Circuit Produces a Federal Circuit with a Higher Mean Citations/Judge Than the Ninth Circuit<sup>66</sup>**

Circuit	Median Citations/Judge	Mean Citations/Judge	Pre-Trade Mean Citations/Judge
7th	55	89.05	Same
1st	43	70.31	Same
3d	36.5	52.38	Same
2d	32	44.58	Same
D.C.	24	43.38	Same
10th	31	37.29	Same
5th	22	36.20	Same
Federal	18.5	32.73 ( $\Delta +10.14$ )	22.59
9th	21	31.23 ( $\Delta -3.91$ )	35.14
6th	13	27.50	Same
4th	14	22.29	Same
11th	13	21.78	Same
8th	15.5	21.12	Same

Trading the top two citing judges from the Ninth Circuit with the top two citing judges from the Federal Circuit produces a marked increase in the mean citations per Federal Circuit judge (10.14 citations) and an appreciable decrease in the mean citations per judge at the Ninth Circuit ( $-3.91$  citations). Moreover, the trade with the Ninth Circuit actually gives the Federal Circuit a higher mean citation count per circuit judge than the Ninth Circuit (compare 32.73 with 31.23) and places the Federal Circuit at the mid-point of circuits in terms of mean citations. Overall, trading the top two citing judges moves the Federal Circuit up from tenth-most in terms of mean citations per judge to seventh-most, while the Ninth Circuit moves downward from eighth-most to ninth-most.<sup>67</sup>

66. Table 3 illustrates the impact on the observed medians and observed means (from Table 2) of trading the top two citing judges from the Federal Circuit (CTAF) with the top two citing judges from the Ninth Circuit (9th). The means calculated after the trades are reported with the change ( $\Delta$ ) in mean. For obvious reasons the medians remain the same. Notice that trading the top two citing judges from the Ninth Circuit with the top two citing judges from the Federal Circuit produces a marked increase in the mean citation per Federal Circuit judge and a marked decrease in the mean citations per judge at the Ninth Circuit. The top two citing judges at the Federal Circuit are Judges Plager and Newman. The top two citing judges at the Ninth Circuit are Judges Kozinski and Reinhardt.

67. We examined the trend in direction effected by trading the top two citing judges at the Federal Circuit with the top two citing judges at other circuits. While there is some variation in size of effect, generally speaking, trading the top two citing judges at the Federal

While we caution against the over-interpretation of Table 3, we do think that, taken together with the results presented in Section III.A, these data add support to the idea that the Federal Circuit is a lot like the other regional circuits in its citation to legal scholarship. To the extent the Federal Circuit can be said to differ from the other circuits, an important part of the explanation may be found in the absence on the Federal Circuit of just one to two judges who are legal scholarship super citers.

We think this observation reveals an opportunity for judicial entrepreneurship at the Federal Circuit (and some other circuits as well). To take advantage of it, all that needs to happen is for one or two judges now on the Federal Circuit (or other circuits) to become super citers, or—as there are likely to be several vacancies on the Federal Circuit over the next few years—for the President to appoint and the Senate to confirm some new circuit judges who are or may become legal scholarship super citers.

We address concerns about the desirability of such entrepreneurship in a moment, but we first note that some of the known legal scholarship super citers might be viewed by many as having an outsized influence on the development of the law.<sup>68</sup> Among the leading users of legal scholarship are judges that nearly all lawyers have heard of either from law school or from practice and it seems to us that they are generally held in high regard by the profession. These include Judges Posner (7th), Easterbrook (7th), Calabresi (2nd), Becker (3rd), and Kozinski (9th). Circuit judges who desire to build

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Circuit with the top two citing judges at any circuit that had a higher mean citations per judge than the Federal Circuit increased the mean citations per judge of the modified Federal Circuit when compared to pre-trade levels and decreased the mean citations per judge at the modified regional circuit compared to pre-trade levels. These findings are consonant with the interpretation that the Federal Circuit differs from other circuits in that it lacks one or two legal scholarship super citers.

68. We make no claim about super citers having such an influence because we have not performed the study necessary for this kind of empirical claim. A study assessing the impact of these and similar judges on American jurisprudence would be a substantial project and would need to be substantially resourced, but it seems logically possible. Even without the benefit of a study, we do think legal scholarship super citers are indisputably well-known judges whose writings, generally speaking, are well represented in materials used to teach students of the law. See, e.g., Mitu Gulati & Veronica Sanchez, *Giants in a World of Pygmies? Testing the Superstar Hypothesis with Judicial Opinions in Casebooks*, 87 IOWA L. REV. 1141, 1143 (2002) (analyzing the selection of cases for casebooks through the lens of the “superstar effect”). Whether this representation occurs because of the significance of their respective opinions to the development of doctrine and policy, due to a special relationship they might enjoy with those who teach law, or due to their relatively long tenures as judges in the federal appellate system is hard to say. However, it seems that each of these factors could contribute to their notoriety to some extent.

similar legacies could adopt similar behaviors, both citing to and authoring legal scholarship.

Is adding a prolific user of legal scholarship to the Federal Circuit (or to any circuit) a good idea? At bottom, we think this is an area for future study. We do, however, offer the suggestion that the answer might be “Yes.” The reason we think so is because super citers might encourage jurisprudential innovation by serving a disruptive function. Having a small number of judges (as opposed to all of the judges in a circuit) regularly study and use legal scholarship allows scholarship to make its way into the jurisprudence at a measured rate. Once in the jurisprudence, it can be mulled over and chewed on by the remaining judges who rely upon more traditional tools of developing the law: studying cases and doctrine and following the facts of the dispute at issue. This structure has the potentially salutary effect of introducing new ideas to the law while at the same time preserving the perception that appellate decisions flow fairly comfortably from established principles and precedents (and are not, therefore, random and unpredictable). A super citer may influence other judges—and thus the law—over time, but jurisprudential change could still occur gradually.

In any event, this Article describes a straightforward path by which the Federal Circuit might become a leading user of legal scholarship. Just one or perhaps two judges need to decide that it is worth using legal scholarship more regularly in opinions.

## 2. *What About the Patent Cases?*

*Toward a Cautious Approach to Obeisance*<sup>69</sup> found that the regional circuits cited scholarship in copyright and trademark opinions roughly four times as often between 1996 and 2000 as the Federal Circuit did in patent opinions.<sup>70</sup> Patent appeals, however, make up a substantial fraction of the Federal Circuit’s docket, while copyright and trademark cases make up a comparatively smaller fraction of the dockets of the Second and Ninth Circuits.<sup>71</sup> The difference in the frequency with which the Federal Circuit and the separate regional circuits experience these so-called “intellectual property” cases suggested to us that comparing the Federal Circuit’s use of legal scholarship in patent cases to the regional circuits’ use of legal

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69. See Nard, *supra* note 20.

70. *Id.* at 682–83.

71. The Federal Circuit may author more than an order of magnitude more patent opinions than the Second and Ninth Circuits (and, perhaps by analogy, other regional circuits) author copyright and trademark opinions. See *id.* at 683 n.55 (“The Federal Circuit decides about eleven patent cases to every one copyright and trademark case decided by the Second and Ninth Circuits.”).

scholarship in copyright and trademark cases might be misleading. More specifically, our concern is that an analysis focused on copyright and trademark cases may not represent an “apples to apples” comparison because such cases might be more exotic to the regional circuits than patent cases are to the Federal Circuit. It might, instead, be more correct to comprehend Federal Circuit patent opinions as analogous to regional circuit opinions that address categorical topics that are more regularly part of the dockets of the regional circuit courts of appeals. We therefore thought it important to compare the Federal Circuit’s use of legal scholarship in patent cases to the regional circuits’ use of legal scholarship across the docket. Table 4 summarizes the data, comparing the proportion of Federal Circuit patent opinions using legal scholarship with the proportion of all regional circuit opinions using legal scholarship and the proportion of all regional circuit civil opinions using legal scholarship.<sup>72</sup>

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72. We created a “civil only” comparison because we were concerned that criminal opinions might be less likely to use scholarship, and because the Federal Circuit does not have criminal jurisdiction.

**Table 4: Proportion of Federal Circuit Reported Patent Opinions Using Legal Scholarship Compared to Regional Circuit Reported Opinions<sup>73</sup>**

Circuit	All Reported		Civil Only Reported	
	Proportion (x100)	Frequency (1 in)	Proportion (x100)	Frequency (1 in)
3d	14.34%	6.97	15.23%	6.56
D.C.	9.81%	10.20	9.35%	10.70
2d	8.87%	11.28	9.78%	10.23
1st	7.90%	12.67	8.93%	11.20
7th	7.76%	12.89	9.23%	10.83
6th	6.73%	14.87	7.25%	13.80
4th	6.70%	14.92	7.22%	13.86
10th	6.54%	15.28	7.46%	13.41
9th	6.40%	15.62	6.83%	14.65
5th	6.28%	15.93	7.39%	13.53
Federal*	6.01%	16.64	6.01%	16.64
11th	4.79%	20.89	5.58%	17.93
8th	2.41%	41.54	2.80%	35.66

\* *patent opinions only*

Table 4 indicates that the Federal Circuit, again, uses scholarship more than some regional circuits and less than others,<sup>74</sup> a finding consistent with the idea that the Federal Circuit is not much of an outlier when it comes to engaging with legal scholarship. We think this result helps to frame the debate about the Federal Circuit's use of scholarship because it suggests that the Federal Circuit—at least in terms of use of legal scholarship—may be handling patent opinions like it and other circuits seem to handle many of their opinions.<sup>75</sup>

73. Table 4 compares the Federal Circuit's use of legal scholarship in reported patent opinions with that of the regional circuits in all reported opinions and in all reported opinions addressing civil disputes. To standardize for differences in reported opinion output, proportions were used. The proportional measure is the proportion of reported opinions citing at least one piece of legal scholarship. To control for the impact of time period, all circuits were compared for the same time period; i.e., the proportion of reported opinions issued between 1990 and 2008, inclusive.

74. Some of the people with whom we have shared this project suggest the possibility that patent cases are more complex than some of the civil cases heard by the regional circuits. Assuming this might be true, it is possible that the use of legal scholarship in patent cases might be fruitfully compared to the use of legal scholarship in some unknown subset of regional circuit civil cases.

75. A close observer will notice that the Federal Circuit modestly uses legal scholarship more often in patent cases than in their overall caseload. Compare Table 1 with Table 4. A crude search suggests that there is some heterogeneity in use of scholarship that depends on

We want to emphasize that we think our results are consistent with those presented in *Toward a Cautious Approach to Obeisance*.<sup>76</sup> We have no reason to think that empirics gathered there are incorrect in any way. We think, however, that the results presented here and the results presented in *Toward a Cautious Approach to Obeisance* suggest the possibility that patent opinions in the hands of the Federal Circuit might be more akin to criminal, employment, contract, and complex litigation opinions in the hands of the regional circuits. In other words, the Federal Circuit might handle its patent opinions like the various regional circuits handle opinions dealing with subject matter with which they have substantial experience. This suggests that the lesson of *Toward a Cautious Approach to Obeisance* might be that the Second and Ninth Circuits (and perhaps by analogy the other regional circuits) use legal scholarship more often when dealing with copyright and trademark opinions than when dealing with other areas of law. If so, it raises an interesting concern, which we develop more fully in Part IV, *infra*.

3. *How Did the Current Understanding That the Federal Circuit Uses Legal Scholarship Substantially Less Often Than the Regional Circuits Come To Be Conventional Wisdom?*

Overall, we think our results seriously raise the possibility that the Federal Circuit uses legal scholarship at a rate (and manner) similar to that of other regional circuits. Whether this observation will be confirmed by others, and whether it will ultimately translate into a finding that the Federal Circuit uses scholarship with as much depth as other courts, is a question for future study. But future work notwithstanding, we find it puzzling that the claim that the Federal Circuit uses legal scholarship less than other circuits achieved the status of conventional wisdom. This is especially so given the state of the empirical evidence leading into this study, Professor Nard's clear explanation for why the information presented in *Toward a Cautious Approach to Obeisance* should not be over-interpreted, and the relative ease of availability of the information we gathered. In short, why did not more people see the existing

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the subject matter of the opinions the court authors. For example, there are very few or no citations in appeals from Veterans Claims (no citations in 350 opinions, or 0.00%); the Merit System Review Board (5 citations in 536 opinions, or 0.93%); and Board of Contract Appeals (2 citations in 220 opinions, or 0.90%). Appeals from cases involving takings claims cited scholarship at higher levels, about 15.82%. Why the Federal Circuit uses scholarship slightly more in patent cases than in other types of cases is unclear, but one possible explanation is that Federal Circuit clerks might be more likely to possess technical backgrounds and come to the court especially knowledgeable about and interested in patent law, with heightened awareness of patent scholarship.

76. The two studies are also somewhat hard to compare as both studies count the use of legal scholarship differently.

information more like Professor Nard and Professor Dreyfuss did: as incomplete and in need of further study?

Here, we speculate as to how the claim that the Federal Circuit uses legal scholarship substantially less often than the regional circuits came to be conventional wisdom. As we describe in more detail below, the explanation involves an amalgamation of general academic discontent with judicial treatment of legal scholarship, some fairly harsh judicial comments about the value of legal scholarship, and some anecdotal information that suggests that some judges of the Federal Circuit have a view of legal scholarship similar to that of . . . well . . . judges on other circuit courts of appeals.

The debate about the Federal Circuit's use of legal scholarship fits within a broader debate about the role and use of legal scholarship by all courts. Some have argued, based on prior empirical studies, that the level of use of scholarship by all circuits is either moving downward or is less than expected.<sup>77</sup> Academics have complained that courts are ignoring the

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77. See, e.g., Michael McClintock, *The Declining Use of Legal Scholarship by Courts: An Empirical Study*, 51 OKLA. L. REV. 659, 660 (1998) ("This survey reveals a 47.35% decline in the use of legal scholarship by courts over the past two decades, the most notable decline occurring in the past ten years."); Blake Rohrbacher, *Decline: Twenty-Five Years of Student Scholarship in Judicial Opinions*, 80 AM. BANKR. L.J. 553 (2006) (finding that "judicial citation of student notes has plunged since 1980"); Louis J. Sirico & Beth A. Drew, *The Citing of Law Reviews by the United States Courts of Appeals: An Empirical Analysis*, 45 U. MIAMI L. REV. 1051, 1052 (1991) (finding that the federal appellate courts "cite law reviews infrequently"); Louis J. Sirico, Jr. & Jeffrey B. Margulies, *The Citing of Law Reviews by the Supreme Court: An Empirical Study*, 34 UCLA L. REV. 131, 134 (1986) (finding a "substantial" decline in the Supreme Court's citation to legal periodicals); see also David Hricik & Victoria S. Salzmann, *Why There Should Be Fewer Articles Like This One*, 38 SUFFOLK U. L. REV. 761, 778 (2005) (claiming an "already apparent" "trend" that law review articles are deemed "not merely unhelpful, but useless to the bench and bar"); Carissa Alden et al., Roundtable Discussion Paper, Trends in Federal Judicial Citations and Law Review Articles 2 (Court of Appeals for the Second Circuit: Roundtable Discussion, Benjamin N. Cardozo Sch. of Law, Mar. 8, 2007), available at [http://graphics8.nytimes.com/packages/pdf/national/20070319\\_federal\\_citations.pdf](http://graphics8.nytimes.com/packages/pdf/national/20070319_federal_citations.pdf) (finding that "[c]ourts cited law reviews more frequently in the 1970s and 1980s than they do today"); accord Gregory Scott Crespi, *The Influence of a Decade of Statutory Interpretation Scholarship on Judicial Rulings: An Empirical Analysis*, 53 SMU L. REV. 9, 11 (2000) (examining a subset of statutory interpretation articles and finding that "almost half of the articles published between 1988 and 1995 have been cited in at least one judicial opinion" but that this finding "is a relatively high figure" when compared with citation literature); Gregory Scott Crespi, *The Influence of Two Decades of Contract Law Scholarship on Judicial Rulings: An Empirical Analysis*, 57 SMU L. REV. 105, 111 (2004) (examining a subset of contract law articles and finding that 36.4% had been judicially cited). But see Schwartz & Petherbridge, *supra* note 45 (finding evidence of an increase in the citation of legal scholarship over time).

contributions of the legal academy,<sup>78</sup> and some circuit judges have pushed back in very forceful terms.<sup>79</sup>

Like their circuit court brethren, Federal Circuit judges have been part of this debate and their comments seem very similar to those offered by other judges: academic work is either not very useful, or is not normally appropriate to bring to bear on the judicial decisionmaking process.<sup>80</sup> Thus,

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78. We do not mean to suggest the debate is entirely one-sided. Some legal scholars argue that much legal scholarship is not worth judicial attention. *See, e.g.*, Hricik & Salzman, *supra* note 77 (positing that law professors write more for themselves and less for decisionmakers and arguing that law professors should write more for decisionmakers and less for themselves); Gerald F. Uelmen, *The Wit, Wisdom, and Worthlessness of Law Reviews*, CAL. LAW. (June 2010), <http://www.callawyer.com/story.cfm?eid=909875&evid=1>; *see also* Erik M. Jensen, *The Shortest Article in Law Review History*, 50 J. LEGAL EDUC. 156 (2000) (having as its entire text: “This is it.” and arguing that “it’s been a long time since law review articles had to have anything to do with anything” and that “[t]his article has as much content as the other stuff in this issue, doesn’t it?”).

79. *See, e.g.*, Thomas L. Ambro, *Citing Legal Articles in Judicial Opinions*, 80 AM. BANKR. L. J. 547, 549 (2006) (“When we [judges] do read the occasional article, we find it often not only unpersuasive, but even at times at odds with accepted means of analysis.”); Harry T. Edwards, *The Growing Disjunction Between Legal Education and Legal Scholarship*, 91 MICH. L. REV. 34, 35 (1992) (characterizing legal scholarship from “elite law faculties” as “abstract scholarship that has little relevance to concrete issues, or addresses concrete issues in a wholly theoretical manner” and offering the impression that “judges, administrators, legislators, and practitioners have little use for much of the scholarship . . . produced by members of the academy”); Judith S. Kaye, *One Judge’s View of Academic Law Review Writing*, 39 J. LEGAL EDUC. 313, 319 (1989) (“Prominent law reviews are increasingly dedicated to abstract, theoretical subjects . . . and less and less to practice and professional issues . . .”); *id.* at 320 (“I am disappointed not to find more in the law reviews that is of value and pertinence to our cases.”); Richard Posner, *Legal Scholarship Today*, 115 HARV. L. REV. 1314, 1320–21 (2002) (criticizing legal scholarship for lack of originality, obtuseness, and length). The disappointment jurists have shown for legal scholarship seems in some instances to have reached the level of disdain. *See, e.g.*, Jess Bravin, *Chief Justice Roberts on Obama, Justice Stevens, Law Reviews, More*, WALL ST. J. L. BLOG (Apr. 7, 2010, 7:20 PM), <http://blogs.wsj.com/law/2010/04/07/chief-justice-roberts-on-obama-justice-stevens-law-reviews-more/> (reporting Chief Justice Roberts’ statement that he does not pay much attention to academic legal writing and that law review articles are not “particularly helpful for practitioners and judges”); Adam Liptak, *When Rendering Decisions, Judges Are Finding Law Reviews Irrelevant*, N.Y. TIMES, Mar. 19, 2007, at A8 (quoting Chief Judge Dennis G. Jacobs: “I haven’t opened up a law review in years . . . . No one speaks of them. No one relies on them.”); *accord* United States v. Six Hundred Thirty-Nine Thousand Five Hundred and Fifty-Eight Dollars (\$639,558) in U.S. Currency, 955 F.2d 712, 722 (D.C. Cir. 1992) (Silberman, J., concurring) (“I suppose, now that many of our law reviews are dominated by rather exotic offerings of increasingly out-of-touch faculty members, the temptation for judges to write about issues that interest them—whether or not raised by the parties or constituting part of the logic of the decision—is even greater.”).

80. *See In re Fisher*, 421 F.3d 1365, 1378 (Fed. Cir. 2005) (refusing to consider arguments directed to the “practical implications” of the court’s legal doctrine because as public policy considerations they are “more appropriately directed to Congress as the

the specific debate over the Federal Circuit's use of scholarship seems largely to mirror the more general debate between judges and academics about the usefulness of legal scholarship to courts. On the one hand, Federal Circuit judges have complained that scholarship is often not useful to the decisional process. On the other hand, at least some patent academics are of the view that scholarship provides sufficiently important insights and fits comfortably enough within the accepted parameters of the legal decisional process that the Federal Circuit should<sup>81</sup> use legal scholarship more than it does (or at

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legislative branch of government, rather than this court as a judicial body responsible simply for interpreting and applying statutory law"); Marcia Coyle, *Critics Target Federal Circuit: Reversals Cast Patent Court in Harsh Light*, NAT'L L.J. (Oct. 16, 2006), <http://www.law.com/jsp/nlj/PubArticleNLJ.jsp?id=900005464916> (reporting Chief Judge Michel's statement that the Federal Circuit has "an extensive body of caselaw, and that and Supreme Court precedent is what we would mainly be citing"); Dreyfuss, *Continuing Experiment*, *supra* note 7, at 772 n.46 (citing materials reflecting Judge Lourie's rejection of legal scholarship criticizing the written description requirement); Plager & Pettigrew, *supra* note 14, at 1751 (expressing empathy for the concern of academics with whether courts cite academic commentary but pointing out that judges' use of accepted decisional processes likely limits the direct influence of much scholarship); Hon. Alan Lourie, Keynote Address at the Joint Patent Practice Seminar of the Connecticut, New York, New Jersey, and Philadelphia Intellectual Property Law Association (May 3, 2006), *in* 72 PAT. TRADEMARK & COPYRIGHT J. (BNA) 41, 41 (May 12, 2006) (remarking that the court is "not a debating society having debates with outside groups on what the law should be").

There is some indication that the patent bar too finds academic work to be of little use. *See* Dennis Crouch & Jason Rantanen, *Citation of Law Review Articles*, PATENTLY-O BLOG (Nov. 20, 2008, 11:26 PM), <http://www.patentlyo.com/patent/2008/11/citation-of-law.html> ("On a lark, I looked at the table of authorities for about two hundred party briefs filed in the past six months at the Federal Circuit. These briefs each cited many cases and statutes. Notably absent, however, were cites to law review articles. Out of the two hundred briefs, only two law review articles were cited . . ."). The view of patent scholarship implied by this anecdote, if representative, presents the interesting question of whether the situation exists because of the nature and purpose of patent scholarship, because of judges' views about the usefulness of the scholarship, or because of practitioner views about the usefulness of legal scholarship.

81. *See, e.g.*, NRC, *supra* note 1, at 86 (recommending, *inter alia*, that the Federal Circuit encourage briefs that "draw upon insights from . . . legal scholarship on the patent system, and the growing body of patent-related economic literature"); Nard, *supra* note 20, at 675 (expressing the desire that Federal Circuit judges be more receptive to scholarship in their published opinions); *id.* at 685 ("[T]he court verges on the abstract by failing to give adequate weight to empirical and economic scholarship."). Others are less strident but identify the issue of the Federal Circuit's use of academic work as one of concern. *See, e.g.*, Dreyfuss, *Continuing Experiment*, *supra* note 7, at 782 (expressing concern over the economic impacts of patents directed to biotechnological inventions and stating, "[t]hese are all issues that are being heavily investigated by legal and economic theorists, yet the court does not cite the literature these scholars have generated"). Others contend that the Federal Circuit should rely even more heavily on academic work than other courts. *See, e.g.*, Nard & Duffy, *supra* note 14, at 1648 (expressing concern over the "reluctance [of the Federal Circuit] to engage the empirical and social sciences literature on patent law as a way to offset its relative

least as it is generally believed to do).<sup>82</sup> As these two perspectives compete for dominance, it is only natural for adherents to seek evidence to support their claims. This encourages resort to empirical studies. But if someone seeking empirical guidance researched the literature the way we did, or the way Professor Dreyfuss did,<sup>83</sup> then that person should find that Professor Nard's is the only substantial study looking at the Federal Circuit's use of legal scholarship. In the context of the debate over the Federal Circuit's use of legal scholarship, that study's most relevant finding is that the Second and Ninth Circuits in trademark and copyright cases cited scholarship roughly four times as often as the Federal Circuit did in patent cases. If this finding could be extrapolated to broadly mean that the Federal Circuit is somehow more extreme in its (non)use of scholarship, it provides additional support for normative appetites favoring increased Federal Circuit use of scholarship. This, we think, might at least partially explain the empirical assumption that is the conventional wisdom.

#### IV. FUTURE DIRECTIONS FOR WORK

The discussion that follows is primarily theoretical. It identifies and analyzes questions revealed by this study and sketches out ideas for future work examining the use of legal scholarship by particularly the Federal Circuit, and by analogy other subject matter-bounded national circuits that legislators in the United States and abroad may seek to create.

##### A. WHAT FACTORS INFLUENCE THE FEDERAL CIRCUIT'S DECISION TO USE LEGAL SCHOLARSHIP?

It is clear that sometimes the federal circuit courts of appeals elect to use legal scholarship. It is less clear what distinguishes the situations in which the courts use legal scholarship from those in which they do not. We know more about the federal appellate courts in general, and less about the Federal Circuit (or another subject-matter bounded court) in particular, although the results of this study suggest the possibility that what is known about regional circuits might well apply to the Federal Circuit.

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institutional disconnectedness from the various technological communities its decisions affect").

82. Perhaps the most glaring difference between the Federal Circuit-specific debate and the more general debate is that the general debate includes a somewhat robust intra-academic debate over the usefulness of scholarship to judges; our research suggests that this perspective is mostly missing from the literature when it comes to academic work implicating Federal Circuit jurisprudence.

83. See Dreyfuss, *Continuing Experiment*, *supra* note 7, at 782.

Turning first to the federal circuit courts of appeals in general, we have previously empirically identified several variables that impact the use of legal scholarship.<sup>84</sup> These include (1) the workload of the courts,<sup>85</sup> (2) the number of constitutional cases a court hears,<sup>86</sup> (3) judicial identity,<sup>87</sup> and (4) judicial ideology.<sup>88</sup>

While we know some factors that influence court practices, other areas are still largely unknown. For example, we do not know the characteristics of the scholarship used by the courts. In other words, we have little information about whether the cited scholarship is doctrinal, law and economics, historical, empirical, or another type of legal scholarship.

Moving now to the Federal Circuit, while analogies may be appropriate, less is empirically known. For example, does the court's decision to use legal scholarship depend on the type of matter it is addressing? Another important question is whether the type of scholarship used by the Federal Circuit differs from the scholarship used by the regional circuits. Given a national court's presumed familiarity with doctrine for the areas of law it oversees, doctrinal scholarship may be of diminished usefulness, especially relative to a generalist court. Nonetheless, like all courts, the Federal Circuit presumably has limitations when it comes to acquiring and developing certain sorts of information, e.g., historical and empirical information about the patent system and the impact of doctrinal rules. Does the Federal Circuit especially look to scholarship that provides such information? Furthermore, a national court permits litigants and trade organizations to focus resources on a single court of appeal. Interested parties and trade organizations often submit amici briefs to the Federal Circuit, which may be quite helpful to the court and further diminish the need for or role of legal scholarship. Thus, can amici filings be linked to the court's use of scholarship? Finally, law professor culture and behavior may differ for those areas of law entrusted to the Federal Circuit. Patent scholars in particular may, for example, utilize amici filings more often, or write articles of more or less use to the court.

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84. Schwartz & Petherbridge, *supra* note 45.

85. *Id.* at 1366. The heavier the workload—for example an increased number of reported opinions issued per active judge—correlates with a reduced use of legal scholarship.

86. *Id.* at 1367. More constitutional cases predicts more use of scholarship.

87. *Id.* The study reported here adds to the understanding of the role of judicial identity, namely that some circuit judges appear to be super citers.

88. *Id.* at 1368. The more liberal a court is, as measured by Judicial Common Space Scores, the more frequently the court uses legal scholarship.

B. DOES THE FEDERAL CIRCUIT USE LEGAL SCHOLARSHIP AS MUCH AS IT SHOULD?: FOUR PILLARS

At this early stage in the study of the Federal Circuit's relationship to legal scholarship specifically (and national circuits' more generally), we think that the studies that might be provoked by our results could take several different styles. For example, some could be empirical with the goal of providing firmer ground from which to develop conceptual and theoretical models for how a national circuit should behave when it comes to legal scholarship. Simultaneously, some future work could be more purely normative, perhaps providing value by sharpening the focus of empiricists and theoreticians, or by translating the results of primary studies into forms suitable for use by policymakers.

In the remainder of this Part, we sketch out four pillars that represent basic areas for future work in the study of the Federal Circuit's relationship to legal scholarship. We think they have obvious implications for other national circuit courts structured similarly to the Federal Circuit.

1. *Does the Subject Matter Entrusted to the Federal Circuit Require a Greater Judicial Use of Scholarship?*

Congress assigned a broad array of subject matter to the Federal Circuit.<sup>89</sup> One area of future study is whether the various subject matters assigned to the court are all the same in their need for judicial attention to scholarship.<sup>90</sup> Similarly, is the need for judicial attention to scholarship the same between the areas of law the Federal Circuit oversees and the areas of law the regional circuits oversee? For example, one area of law entrusted to the Federal Circuit is the law of patents.<sup>91</sup> Are patent cases different than other types of cases, e.g., those heard by the regional circuits, like securities fraud cases, complex contract disputes, corporate law cases, or criminal cases? Does reviewing patent appeals for some reason require a greater use of scholarship by decisionmakers than reviewing these other types of appeals?

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89. 28 U.S.C. § 1338 (2006); *see also supra* note 5.

90. This suggestion assumes of course that judges might in some instances have a need for legal scholarship. We do not mean to overlook this concern, i.e., the possibility that it might not ever be the case, but it seems to us to be so broad as to be relatively unhelpful to those looking for ideas for future work.

91. § 1338.

2. *Does the Fact That the Federal Circuit Is a National Circuit Mean That It Needs To Use Scholarship More Than Other Circuits?*

Another area of future study is whether the Federal Circuit should use scholarship more than other circuits just because it is a national circuit.<sup>92</sup> The notion that it should has been stridently promoted by a few commentators, who base their argument in a very formalistic model of how ideas enter the judicial decisionmaking process—and hence the law.<sup>93</sup> This perspective emphasizes the claim that the Federal Circuit is structurally isolated, a situation—it is claimed—that fosters a culture of disconnectedness and limited intellectual curiosity among the court’s judges. Some work has challenged this claim, questioning the normative<sup>94</sup> and the explanatory force<sup>95</sup> of the model on which it is based.

But there is clearly more to be done in this area. The limited work available on this topic needs to be closely examined. The time may be ripe for a body of scholars to develop a robust and cooperative empirical and theoretical project to examine the jurisprudential and social impacts of the Federal Circuit.<sup>96</sup> Such a project might include, for example, comparative work examining how much and how well patent law has developed in comparison to other similar areas of law. An example of an area of law that seems suitable for comparison to some parts of Federal Circuit jurisprudence is copyright law, which finds its justification in the same constitutional clause as the Patent Act, shares the same normative underpinnings (e.g., optimizing

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92. See, e.g., Nard & Duffy, *supra* note 14. A counter argument is that the Federal Circuit should have less use for legal scholarship because of the fact that it is a national court. It hears a large number of patent appeals, for example, and consequently constantly considers numerous advanced issues by design. It does not need to learn the underlying patent law and policies to decide these cases, unlike a regional circuit, which hears fewer cases in any given area of law.

93. *Id.*

94. See Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787 (2008).

95. Lee Petherbridge, *Patent Law Uniformity?*, 22 HARV. J.L. & TECH. 421 (2009).

96. We are not alone in suggesting the need for this kind of work. See Lawrence Baum, *Probing the Effects of Judicial Specialization*, 58 DUKE L.J. 1667, 1683 (2009) (“[S]cholars could make a valuable contribution by adding to the body of empirical research on the impact of judicial specialization.”). Nor is this suggestion for future work meant to suggest that no work exists. See, e.g., S. Jay Plager, *The Federal Circuit as an Institution*, 43 LOY. L.A. L. REV. 749 (2010) (including empirical and theoretical work); Dreyfuss, *supra* note 94, at 792–95 (discussing some work directed to measuring the Federal Circuit’s performance); see also JAMES BESSEN & MICHAEL J. MEURER, *PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK* (2008) (arguing that in many instances the costs of the patent system outweigh its benefits); accord Landes et al., *supra* note 40.

the production of a class of public goods), and is effected through a federally imposed property system that shares many analogies to patent law.<sup>97</sup>

### 3. *The Role of the Legal Academy: Is It Helping?*

The first two pillars have emphasized future work directed to the question of whether the Federal Circuit has a special need to use legal scholarship. This Section suggests that there are also ripe opportunities for future study in looking away from the Federal Circuit and looking at legal scholarship, and more specifically at that species of legal scholarship that might be useful to the Federal Circuit.<sup>98</sup> Noticeably missing from the claims that the Federal Circuit should use more scholarship are reference to any studies assessing the type and quality of scholarship available to the Federal Circuit. Put slightly differently, if the Federal Circuit needs a special kind of scholarship for its decisionmaking, are legal scholars producing much of it? If not, why not? Does the academy need special law professors to do it? Are the incentives that surround the production of legal scholarship conducive to creating scholarship that teaches novel and useful insights to national circuit judges within areas of a national court's special expertise?

In our own view, there is clearly some excellent scholarship surrounding the areas of law addressed by the Federal Circuit. However, there are a few important questions concerning institutional constraints on the legal academy that should be confronted: Are most law professors even qualified to make valid and reliable contributions to the topics specially addressed by the Federal Circuit?<sup>99</sup> Is there a greater need for advanced scientific and research training for law professors who might most meaningfully contribute to Federal Circuit decisionmaking? Would the availability of peer review make scholarly offerings more useful to Federal Circuit judges? Assuming they are qualified to do the work, are most law professors able to devote enough time to research to be able to meaningfully contribute to important questions implicated by the areas of law addressed by the Federal Circuit, or do publication frequency requirements, or teaching and service obligations not

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97. The Supreme Court has noted the close relationship between patent and copyright law. *See, e.g., Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 439 (1984) (“The closest analogy is provided by the patent law cases to which it is appropriate to refer because of the historic kinship between patent and copyright law.”)

98. It seems obvious enough that not all legal scholarship—perhaps not most legal scholarship—is even directed to judges and courts.

99. *See, e.g., Roger Milgrim, An Independent Invention Defense to Patent Infringement: The Academy Talking to Itself: Should Anyone Listen?*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 295 (2008) (criticizing the work of “self referencing academics who publish novel theories unguided by either experience or pragmatic considerations” and arguing that academics may need “adult supervision”).

normally felt by research faculty in some other disciplines, significantly interfere with the utility of the scholarship produced? A similar concern is whether the limited research funding available to most law professors prohibits them from successfully executing projects that might be substantially useful to decisionmakers. If law professors are mostly limited to anecdotally-driven normative claims, doctrinal interpretations, and concept-driven empirical guesswork, how much value do such claims and interpretations add to the bodies of law entrusted to the Federal Circuit? These and similar questions are ripe for serious investigation in the context of national circuit courts.

Along these lines, perhaps the Federal Circuit especially needs to use empirical scholarship.<sup>100</sup> Assuming this is so, how are judges supposed to consume such work? Are they supposed to critically evaluate and apply to their decisionmaking peer-reviewed professional publications, i.e., primary literature from various scientific, technical, and social sciences fields? It seems possible that most judges (including but not limited to those sitting on the Federal Circuit)—and law professors for that matter—are not well equipped to engage primary literature in the areas that might be of special usefulness to a national circuit. In short, can the Federal Circuit or other courts really handle primary empirical literature? If not, can law professors reliably serve as translators?

One type of study that might be of interest to a court like the Federal Circuit—and might still be consumable by federal judges—is an investigation of the understandings of a person having ordinary skill in the relevant art. The person having ordinary skill in the relevant art is a construct through which many questions in patent law are resolved. For example, patent law's obviousness standard is driven by the construct of a person having ordinary skill in the relevant art. That is, an invention is unpatentable if, in view of the existing state of technology, it would have been obvious to a person having ordinary skill in the relevant art at the time the invention was made.<sup>101</sup> Thus, law professors might meaningfully advance the law and policy of patents by surveying persons of ordinary skill in the art concerning the obviousness of

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100. Craig Nard's article suggested that the Federal Circuit should use more empirical scholarship, and the presence of empirical scholarship in law reviews has rapidly increased since Nard performed his study. See Shari S. Diamond & Pam Mueller, *Empirical Legal Scholarship in Law Reviews*, 6 ANN. REV. L. & SOC. SCI. 581 (2010) (reporting that nearly half of a sample of law reviews from 1998–2008 had some empirical content). However, the Federal Circuit does not appear to have used much of it. From our evaluation of the content of the titles of the articles cited by the Federal Circuit, it appears that almost none of the scholarship cited by the Federal Circuit from 1990 until 2008 is empirical scholarship.

101. 35 U.S.C. § 103(a) (2006).

the application of technologies that are being widely applied, or might be widely applied.<sup>102</sup> For example, is the isolation and cloning of a cDNA sequence obvious when a partial protein sequence is known? If so, when did it become obvious? If the answer is sometimes, but not always, what factors improve a researcher's expectations for success? Even though obviousness in patent law is to be determined separately for each patent, parties and the Patent Office might be very interested in studies like this. Law professors, alone or in conjunction with academics in other relevant disciplines, might carry off such studies—although it is not a trivial effort—and such studies are likely to be consumable by judges in their own right.

#### 4. *Using Legal Scholarship in the Decisional Process*

How relevant is legal scholarship to the judicial decisional process? After all, it is Law 101 that the facts of a case are developed through an adversarial process that is supposed to define the information that informs a judicial decision. Thus, what role is legal scholarship to play anyway?

This concern is brought into sharper focus by the assertion that the Federal Circuit should use empirical scholarship more than it does, because empirical scholarship might present a special problem. Empirical scholarship may be especially useful to judges because it often compiles large volumes of information otherwise unavailable to the judges.<sup>103</sup> However, empirical scholarship is typically founded in observations of historical fact or, sometimes, predictions about future facts. But establishing historical facts as a matter of law is traditionally a role of the parties and their advocates (however realistic or unrealistic the conception). Assuming that traditional framework, can empirical data be as easily incorporated into case law as, for example, a norm-driven rant about the interpretation of a few words from one or a few cases? It is possible that the answer is “No” and that the target of empirical scholarship, like the molecular biology obviousness study suggested above, should instead be parties and legislators. Parties could introduce such a survey to the decisional process at the trial level using an expert. Legislators could use such a survey to enact legislation affecting the application of the substantive requirements for patentability, for example, as

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102. And, yes, one of us has sought support for this and similar studies, in vain, for the last several years.

103. Plager & Pettigrew, *supra* note 14, at 1750 (noting that empirical scholarship sometimes “illuminates aspects of the problem not likely to be revealed by the focused advocacy of the parties”).

the Leahy-Smith America Invents Act declares certain tax-related patents to be part of the prior art.<sup>104</sup>

The broader question here is: how does scholarship come to the attention of courts, and more specifically, how does it make its way into the adversarial process and into opinions? Is it cited in briefs (we have reason to think this is relatively unlikely)?<sup>105</sup> Do judges learn of it from library circulations? From attending conferences? From clerks? From reading blogs? The newspaper? Understanding the answers to these questions will help to build a greater empirical understanding of the role and utility of legal scholarship in the judicial decisionmaking process.

C. DO COPYRIGHT AND TRADEMARK NEED A FEDERAL  
(NATIONAL) CIRCUIT?

The results presented here raise the possibility that the differences in use of legal scholarship observed in *Toward a Cautious Approach to Obeisance* between patent opinions at the Federal Circuit and copyright and trademark opinions at the Second and Ninth Circuits have more to do with the latter types of appeals in the hands of the regional circuits, due perhaps to lack of familiarity or heightened interest in the subject matter, than they have to do with patent appeals in the hands of the Federal Circuit. In other words, perhaps the Second and Ninth Circuits use scholarship substantially more in their intellectual property opinions than in their opinions addressing more regularly experienced appeals. If this is true, it raises a number of interesting possibilities for future work, mostly surrounding the question of why this might be so.

Some potential explanations seem relatively innocuous. For example, perhaps the subject matter and relative novelty of copyright and trademark appeals at the Second and Ninth Circuits (and perhaps regional circuits more generally) make those kinds of appeals vastly more exciting to the judges of those courts than patent appeals are to Federal Circuit judges because the Federal Circuit, comparatively, hears so many more patent appeals.<sup>106</sup>

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104. Leahy-Smith America Invents Act of 2011, Pub. L. No. 112-29, § 14, 125 Stat. 284, 327.

105. Along these lines it is tempting to suggest a fifth pillar around which work might nucleate. Perhaps the patent bar is not carrying its weight when it comes to bringing new ideas to the courts; it is at least possible that an insular bar impacts the court's exposure to, and use of, legal scholarship.

106. See discussion *supra* note 71.

Another fairly boring explanation is that there is a larger volume of copyright and trademark scholarship available for the courts to cite.<sup>107</sup>

Some other explanations present more serious concerns. For example, perhaps Second and Ninth Circuit judges may feel that they need to review legal scholarship in intellectual property appeals because such appeals present complex issues of law and policy with which the judges lack expertise. Thus, in copyright and trademark law, some regional circuit judges might be using law review articles in an effort to learn enough about the topic to decide the appeal and write a reasonable opinion. By contrast, the number of patent appeals the Federal Circuit hears may be such that the judges of that court do not need as much supplementing of their understanding of the relevant law and policy. Indeed, it seems possible that, given how many patent appeals the Federal Circuit hears, the experienced judges of the court may have knowledge of the relevant law and policy that surpasses that of all but the most experienced practitioners and academics. If this latter explanation is correct, then the potentially substantially greater use of scholarship in the Second and Ninth Circuits could be a first piece of evidence that copyright and trademark law might benefit from giving a national circuit court of appeals jurisdiction over copyright and trademark cases.

#### D. JUDGES AND INSULARITY

This Article concludes by offering an even broader idea for future work, both with respect to the Federal Circuit specifically and with respect to national circuits generally. Many of the future directions laid out in this Article address a broader question—the extent to which national circuits might, possibly, be more insular than regional circuits and whether, if they are, that additional insularity is undesirable as a policy matter.

In this study we have only begun to scratch the surface of what might be known about the bench's relationship to scholarship. But beyond scholarship, there is the relatively unexplored territory of the broader level of engagement of courts (and judges)—national circuits or otherwise—with sources of information inputs that come from outside the legal decisional process, but which might still substantially impact judicial decisionmaking. Here, we refer not to the kinds of intrinsic personal-historical judicial

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107. This concern may, in fact, impact the more general results presented in this Article. Our study includes opinions starting from 1990, and if there were few patent scholars actively writing for law reviews at that time, the stock of patent law-directed articles from which the courts would have been able to choose could have been small relative to other areas of the law. Once one separated the wheat from the chaff, there may have been relatively little for the Federal Circuit to use.

characteristics that are more regularly studied, e.g., political affiliation, ideology, gender, religion and the like. Instead, we mean to highlight the potential impact of extrinsic factors that might work in a more immediate sense—in real time (or close to it)—to provide judges with new perspectives and insights on disputes and the legal questions they present. These include things like judicial attendance at conferences, symposia, CLE classes, Inns of Court, and “judge training” classes;<sup>108</sup> participation on an academic faculty;<sup>109</sup> and exposure to newspaper editorials, blogs, bestselling books, and sensational news or entertainment events—in other words, those information inputs that influence judicial decisionmaking by keeping judges up to date with, integrated into, and in touch with society.

Judicial exposure to and influence from these kinds of information inputs offers an important measure of judicial insularity, and provides, we think, a potentially rich area of future work for legal scholars interested in decisional lawmaking.

## V. CONCLUSION

The study reported here contributes new and original information and analysis. It empirically compares the Federal Circuit’s use of legal scholarship with that of the regional circuit courts of appeals. Perhaps the most significant finding of this study is that the Federal Circuit’s use of legal scholarship appears quite similar to that of the regional circuits, challenging conventional wisdom that the court is more insular and somehow less intellectually curious than the regional circuit courts of appeals. This finding and others discussed have obvious implications for the evaluation of other proposals for national circuit courts of appeals. The study also provides directions for future research into meta-questions about Federal Circuit decisionmaking specifically, and judicial decisionmaking more broadly.

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108. See, e.g., *Events and Activities: JEP Economics Institute for Judges Week 1*, MASONLEC.ORG.CTR., <http://www.masonlec.org/events/economics-institute-for-judges-week-1/> (last visited Jan. 25, 2012) (reporting an example of a judge training class).

109. See, e.g., *The Faculty: Richard A. Posner*, U. CHI. L. SCH., <http://www.law.uchicago.edu/faculty/posner-r> (last visited Jan. 25, 2012) (indicating that Judge Richard A. Posner is a Senior Lecturer in Law).

# CAN'T THE PTO GET A LITTLE RESPECT?

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## ABSTRACT

The decisions and proceedings of the U.S. Patent and Trademark Office (“PTO”) are at least implicitly at issue in every patent infringement lawsuit filed in federal court. Nonetheless, this Article argues that federal courts adjudicating patent cases systematically refuse to give the PTO the deference that courts usually give to the decisions and proceedings of federal administrative agencies. In such areas as patent invalidity, inequitable conduct, and stays pending reexamination, courts simply ignore or refuse to apply general principles of administrative deference. This Article further argues that courts’ lack of deference to the PTO can be explained (though not justified) by a deep judicial skepticism about the quality and pace of PTO decision-making.

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## TABLE OF CONTENTS

I.	INTRODUCTION.....	1604
II.	A BRIEF OVERVIEW OF PATENT PROSECUTION AND PATENT LITIGATION .....	1606
	A. PATENT PROSECUTION .....	1606
	B. PATENT LITIGATION.....	1608
	C. PATENT REEXAMINATION.....	1610
III.	HOW COURTS FAIL TO EXTEND NORMAL ADMINISTRATIVE RESPECT TO THE PTO .....	1613
	A. INVALIDITY .....	1613
	B. INEQUITABLE CONDUCT .....	1616
	1. <i>The Pre-Therasense Judicial Definition: Broader Than         Rule 56(b)</i> .....	1617
	2. <i>The Therasense Judicial Definition: Narrower Than         Rule 56(b)</i> .....	1618
	3. <i>Both Judicial Definitions Violate Long-Standing Principles of         Administrative Law</i> .....	1619
	C. STAYS PENDING REEXAMINATION.....	1625
IV.	WHY COURTS FAIL TO EXTEND NORMAL ADMINISTRATIVE RESPECT TO THE PTO AND WHAT CAN BE DONE ABOUT IT .....	1629
	A. JUDICIAL DISSATISFACTION WITH THE QUALITY OF PTO DECISION-MAKING AND EXPERTISE .....	1630
	B. JUDICIAL DISSATISFACTION WITH THE SPEED OF PTO DECISION-MAKING.....	1635
V.	CONCLUSION .....	1639

### I. INTRODUCTION

The administrative decisions of the U.S. Patent and Trademark Office (“PTO”) are explicitly or implicitly at issue in every patent infringement suit filed in federal court.<sup>1</sup> After all, the PTO is the agency that grants U.S. patents, so every plaintiff who brings a patent infringement suit is effectively suing to enforce the monopoly that the PTO has granted him on his

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1. Patent infringement suits are the exclusive domain of the federal courts. State courts have no jurisdiction to hear such suits. *See* 28 U.S.C. § 1338(a) (2006).

invention. Moreover, a patent defendant may defend against the infringement suit by claiming that the patent is “invalid”—which essentially is an argument that the PTO erred in granting the patent. Relatedly, a defendant may seek to declare the patent unenforceable by claiming that the patentee engaged in “inequitable conduct” by hiding material information from the PTO while the PTO was considering whether to grant the patent. A defendant may even initiate a reexamination action before the PTO, which asks the PTO itself to reexamine whether the invention at issue is truly patent-worthy.

Despite the central role that the PTO plays in federal patent suits, this Article argues that federal courts systematically denigrate the PTO and refuse to give it the deference that courts normally give to the decisions and proceedings of federal administrative agencies. Specifically, this Article focuses on three areas of patent law—invalidity, inequitable conduct, and stays pending reexamination—in which federal courts fail to give the PTO the normal levels of administrative “respect.”

First, the judicially-crafted burden for proving patent invalidity is “clear and convincing evidence.”<sup>2</sup> Yet, a judicial decision to invalidate a patent is essentially a judicial overturning of the PTO’s decision to *grant* the patent. Viewed in this context, “clear and convincing evidence” is a significantly lower standard of proof than the normal standard that a litigant must satisfy before a court will overturn an administrative decision.<sup>3</sup> Relatedly, a defendant mounting an invalidity challenge is allowed to introduce new evidence that was not before the PTO—a practice that is at odds with the general rule that review of agency actions is limited to the evidence that was before the agency.

Second, when determining whether a patentee committed inequitable conduct by hiding material information from the PTO, the courts have adopted a definition of “material” information that is at odds with the definition that the PTO adopted in its interpretive regulations. By refusing to apply the PTO’s own definition of “material” information, courts violate the long-standing rule that courts should generally defer to agencies’ interpretations of their own regulations and their governing statutes.

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2. *See Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1331 (Fed. Cir. 2010) (“Because a patent is presumed to be valid, the evidentiary burden to show facts supporting a conclusion of invalidity is one of clear and convincing evidence.” (internal quotation marks omitted)).

3. *See* 5 U.S.C. § 706(2) (stating that courts may overturn agency decisions that are, *inter alia*, “arbitrary, capricious, an abuse of discretion” or “unsupported by substantial evidence”).

Finally, when a patent defendant (or other party) brings a reexamination proceeding before the PTO while a patent suit is underway in federal court, the federal court will exercise its discretion about whether to stay the suit pending resolution of the reexamination proceeding. Statistically speaking, courts decide to stay the suit only about half the time. Yet the general administrative doctrine of “primary jurisdiction” holds that courts should stay proceedings when the resolution of the suit involves the resolution of a question that is within the “special competence” of an administrative agency. Given the PTO’s special competence in determining whether a given invention meets the standard for patentability, the primary jurisdiction doctrine suggests that courts should stay patent suits in many (if not all) cases where the PTO has agreed to conduct a reexamination.

After explaining *how* courts fail to give the normal administrative deference to the PTO, this Article discusses *why* courts fail to give this deference. This necessarily requires a certain amount of inference, since courts generally do not even acknowledge (much less attempt to justify) their relative lack of deference to the PTO. Nonetheless, this Article proposes that courts’ lack of deference to the PTO can be explained by two broad factors: (1) judicial dissatisfaction with the quality of PTO decision-making and expertise; and (2) judicial dissatisfaction with the speed of PTO decision-making. This Article concludes by suggesting ways to combat these factors and increase the deference that courts give to the PTO.

## II. A BRIEF OVERVIEW OF PATENT PROSECUTION AND PATENT LITIGATION

Before delving into the ways in which the PTO fails to receive normal administrative deference, it would be helpful to sketch out the process by which patents are awarded by the PTO and litigated in federal court, with particular emphasis on the roles that patent invalidity, inequitable conduct, and reexamination play in this process.

### A. PATENT PROSECUTION

The process by which an individual applies for and obtains a U.S. patent on his invention is known as “patent prosecution.” The first step in this process is for the inventor and prospective patent-holder (“patentee”) to file a patent application with the PTO.<sup>4</sup> This application must contain a description of the invention that is sufficiently detailed and complete so it

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4. See 37 C.F.R. § 1.53(b) (2011).

would enable a person of ordinary skill in the relevant technological field to make and use the invention.<sup>5</sup> The patent application must also contain one or more “claims” that “particularly point[] out and distinctly claim[] the subject matter which the applicant regards as his invention or discovery.”<sup>6</sup>

After receiving the patent application, the PTO assigns it to one of roughly 6,000 patent examiners<sup>7</sup> who begins the process of determining whether the invention meets the standards for patentability. In large part, this process involves the examiner determining whether the invention described in the patent application is truly novel. An invention is generally not patentable if it was previously known, used, or described by others.<sup>8</sup> The examiner also determines whether the invention is “obvious” in light of previous inventions, since even a technically novel invention is not patentable if a person of ordinary skill would consider it an “obvious” advancement over prior inventions.<sup>9</sup>

To determine whether the invention claimed in the patent application meets the novelty and non-obviousness criteria for patentability, the examiner conducts a search of the “prior art”—i.e., previous patents and non-patent literature that describe inventions in the same field as the patent application.<sup>10</sup> The patentee has a duty to aid the examiner’s search by submitting an Information Disclosure Statement that lists all the relevant prior art of which the patentee is aware.<sup>11</sup>

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5. *Id.*; *see also* 35 U.S.C. § 112; 37 C.F.R. § 1.71(a).

6. 37 C.F.R. § 1.75(a); *see also* § 112.

7. As of fiscal year 2009, the PTO employed 6,243 patent examiners. *See* U.S. PATENT & TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT: FISCAL YEAR 2009, at 11 (2009) [hereinafter 2009 FISCAL REPORT], *available at* <http://www.uspto.gov/about/stratplan/ar/2009/2009annualreport.pdf>.

8. This is admittedly an oversimplification, as federal law sets forth two main tests to determine whether an invention is truly “novel” for purposes of patentability. *See* 35 U.S.C. § 102(a)–(b) (“A person shall be entitled to a patent unless—(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.”). Moreover, the recently enacted America Invents Act of 2011 will eliminate the territoriality (i.e., “in this country”) limitations of § 102, although this change does not take effect until March 16, 2013. *See* Leahy-Smith America Invents Act of 2011, Pub. L. No. 112-29, § 3(b)(1), 125 Stat. 284, 285–86 (to be codified at 35 U.S.C. § 102).

9. *See* 35 U.S.C. § 103; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

10. *See* U.S. PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 904.02 (8th ed. Rev. 8, July 2010) [hereinafter MPEP] (describing the protocol for the examiner’s search of patents and non-patent literature).

11. *See* 37 C.F.R. § 1.98.

What follows is often a protracted back-and-forth dialogue between the examiner and the patentee. The examiner may issue non-final rejections of the application based on prior art and the patentee may respond by arguing why his invention is patentable in light of the prior art and/or amending the claims of the application to avoid the prior art that the examiner has cited.<sup>12</sup> Throughout this process, the patentee and his representatives (such as attorneys) are bound by a duty of candor, which means that they must disclose to the examiner “all information known . . . to be material to patentability.”<sup>13</sup> Eventually, the examiner will either issue a final rejection of the application or will allow the application to mature and issue as a U.S. Patent.<sup>14</sup>

## B. PATENT LITIGATION

After the PTO issues a patent, the patent owner may bring an infringement suit in federal court<sup>15</sup> against any person or entity who allegedly infringes the patent.<sup>16</sup> The allegedly infringing party will often defend against the suit by arguing that it does *not* infringe the patent, but it may also bring a number of affirmative defenses to defeat the plaintiff’s suit. As relevant here,

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12. See Sheila R. Arriola, *Biotechnology Patents After Festo: Rethinking the Heightened Enablement and Written Description Requirements*, 11 FED. CIR. B.J. 919, 920 n.6 (2002) (“Patent prosecution . . . involves a dialogue between the applicant and a USPTO patent examiner, usually through written correspondence, although sometimes via telephone or in person. Typically, after review of the application, the examiner issues rejections in a document called an Office Action. The applicant then responds to the rejections either by amending the claims or appealing the rejection.”).

13. 37 C.F.R. § 1.56.

14. See Arriola, *supra* note 12, at 920 n.6 (“This back-and-forth dialogue continues until the two can come to agreement about the scope of the patent and its claims and the patent is granted, or until the examiner issues a final rejection.”). Even after final rejection, the patentee may continue prosecution by filing an appeal with the Board of Patent Appeals and Interferences or by amending the claims and then filing a request for continued examination (“RCE”). See 37 C.F.R. § 1.113(a).

15. See *supra* text accompanying note 1 (explaining that the federal courts have exclusive jurisdiction over patent infringement suits).

16. See 35 U.S.C. § 281 (2006) (“A patentee shall have remedy by civil action for infringement of his patent.”). Technically, standing to sue for infringement extends to the original patentee, any successors to the patent’s title, and any exclusive licensee who holds “all substantial rights” to the patent. *Int’l Gamco, Inc. v. Multimedia Games, Inc.*, 504 F.3d 1273, 1276 (Fed. Cir. 2007). In addition, an exclusive licensee who does not possess all substantial rights to the patent may sue for infringement as long as he joins the current patent owner as a co-plaintiff. *Mentor H/S, Inc. v. Med. Device Alliance, Inc.*, 240 F.3d 1016, 1017 (Fed. Cir. 2001).

two of the most common affirmative defenses are invalidity and inequitable conduct.<sup>17</sup>

An invalidity defense requires the defendant to prove to the court, by clear and convincing evidence,<sup>18</sup> that the patent is invalid for failure to meet one of the various standards for patentability. For instance, a defendant may argue that the patent claims are invalid because a single piece of prior art contains all the elements of those claims and thereby “anticipates” them.<sup>19</sup> Alternatively, the defendant may argue that the claims are invalid because they constitute an “obvious” combination of elements found in one or more pieces of prior art.<sup>20</sup> If a defendant can prove to the court that the claims are invalid—for anticipation, obviousness, or any other reason<sup>21</sup>—then the patentee will be barred from asserting them against the defendant or (usually) any third party.<sup>22</sup>

An inequitable conduct defense requires the defendant to prove to the court, also by clear and convincing evidence, that the patentee breached his

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17. See Simone A. Rose & Debra R. Jessup, *Whose Rules Rule? Resolving Ethical Conflicts During the Simultaneous Representation of Clients in Patent Prosecution*, 12 FED. CIR. B.J. 571, 579 n.33 (2003) (“In patent infringement actions, the most common defense is invalidity of the patent for failure to meet one of the above-noted statutory requirements.”); Roy H. Wepner & Richard W. Ellis, *The Federal Circuit’s Presumptively Erroneous Presumption of Irreparable Harm*, 6 TUL. J. TECH. & INTELL. PROP. 147, 158 (2004) (“Another common defense to an infringement action is unenforceability of the patent due to inequitable conduct in its procurement.”).

18. See, e.g., *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1331 (Fed. Cir. 2010).

19. See 35 U.S.C. § 102; *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312, 1318 (Fed. Cir. 2009) (“To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation.” (internal quotation marks omitted)).

20. See 35 U.S.C. § 103; *Network Appliance, Inc. v. Bluearc Corp.*, 374 F. Supp. 2d 825, 836 (N.D. Cal. 2005) (“[T]he question of a patent claim’s obviousness turns on whether an accused infringer can show by clear and convincing evidence that one or more prior art references, either alone or in combination, would have rendered the invention obvious to one of ordinary skill in the art on the patent’s critical date.”).

21. Besides the invalidity defenses of anticipation and obviousness, a patent may also be invalidated if it does not contain an adequate written description, 35 U.S.C. § 112, or if it attempts to cover non-patentable subject matter such as a law of nature or an abstract idea. See *Diamond v. Diehr*, 450 U.S. 175, 185 (1981) (explaining that “laws of nature, natural phenomena, and abstract ideas” are outside the scope of patentable subject matter).

22. See *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971); 4 JOHN GLADSTONE MILLS III ET AL., *PATENT LAW FUNDAMENTALS* § 20:9 (2d ed. 2011) (“[W]here a patentee has had a full and fair opportunity to litigate the validity of his patent, a resulting judgment of invalidity may be interposed as a bar even by one who was not a party to that earlier suit.”). As this quote suggests, an invalidity holding in one suit bars the patentee from asserting his patent in future suits only if the patentee had a “full and fair opportunity” to litigate the validity issue in the first suit.

duty of candor to the PTO during patent prosecution “by failing to disclose material information, or submitting false material information, with an intent to deceive the PTO.”<sup>23</sup> If the court finds that the patentee was guilty of inequitable conduct, it may declare the patent unenforceable,<sup>24</sup> meaning that the patent cannot be asserted against any allegedly infringing party.

### C. PATENT REEXAMINATION

Besides attacking the validity and enforceability of the asserted patent in court, a defendant may also seek reexamination of the asserted patent in the PTO. Essentially, a request for reexamination is a formal request that the PTO reconsider its own decision to issue a patent.<sup>25</sup> Federal law allows “any person” to file a reexamination request “at any time.”<sup>26</sup> Unsurprisingly, however, the persons who are often the most interested in requesting reexamination of a patent are defendants currently facing an infringement suit over that patent.<sup>27</sup>

Indeed, from a defendant’s perspective, there are several advantages to seeking reexamination of the patent in the PTO in addition to litigating the validity of the patent in federal court. For one thing, the standard of proof for invalidating a patent in a reexamination is a mere “preponderance of the evidence,” which is a significantly lower standard than the “clear and

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23. *Monsanto Co. v. Bayer Bioscience N.V.*, 514 F.3d 1229, 1234 (Fed. Cir. 2008); *see also Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc) (“To prevail on the defense of inequitable conduct, the accused infringer must prove that the applicant misrepresented or omitted material information with the specific intent to deceive the PTO.”).

24. *See AstraZeneca Pharm. LP v. Teva Pharm. USA, Inc.*, 583 F.3d 766, 770 (Fed. Cir. 2009) (“Upon determining that there was inequitable conduct in obtaining the patent, the district court may in its discretion declare the patent permanently unenforceable.”).

25. Max Stul Oppenheimer, *Patents, Taxes, and the Nuclear Option: Do We Need a ‘Tax Strategy Patent’ Ban Treaty?*, 2008 U. ILL. J.L. TECH. & POL’Y 1, 26–27 (“The patent statute allows any party to request that the patent office reconsider its decision to issue a patent, by filing a request for reexamination.”).

26. *Id.*; *see also* 35 U.S.C. § 302 (“Any person at any time may file a request for reexamination by the Office of any claim of a patent . . .”).

27. *See, e.g., Leslie T. Grab, Equitable Concerns of eBay v. Mercexchange: Did the Supreme Court Successfully Balance Patent Protection Against Patent Trolls?*, 8 N.C. J.L. & TECH. 81, 98 (2006) (“Often in patent infringement litigation, the defendant may request that the USPTO conduct a reexamination procedure. The reexamination may confirm the patent was properly granted or may result in finding the patent is invalid and unenforceable.”); Megan Keane, *Patent Reexamination and the Seventh Amendment*, 77 GEO. WASH. L. REV. 1101, 1101 (2009) (“Because the reexamination statutes allow any party to challenge patent validity, defendants to infringement actions often collaterally attack validity by raising that issue with the PTO. Consequently, patents are often reexamined by the PTO when the patent holder is already involved in contentious litigation.”).

convincing evidence” required to invalidate a patent in federal court.<sup>28</sup> Moreover, the PTO gives patent claims their “broadest reasonable interpretation . . . [during] reexamination proceedings,”<sup>29</sup> which will frequently result in broader claim interpretations than a court would adopt during infringement litigation.<sup>30</sup> Broader claim interpretations, in turn, make it more likely that prior art will be deemed to fit within the scope of the claim for purposes of anticipating the claim or rendering it obvious.

Another potential advantage of reexamination, from a defendant’s perspective, is the ability to seek a stay of the infringement suit while the reexamination is underway. The Federal Circuit has explained that district courts have inherent authority to grant a stay pending reexamination—authority that is part and parcel of their more general authority to manage the flow of cases on their docket.<sup>31</sup> In determining whether to stay a suit pending reexamination, courts generally weigh the following factors: (1) the stage of the suit, (2) whether a stay will simplify the issues in the suit, and (3) whether a stay will prejudice the nonmoving party.<sup>32</sup> Courts grant contested motions to stay suits pending reexamination a little over half the time.<sup>33</sup>

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28. See *In re Swanson*, 540 F.3d 1368, 1377 (Fed. Cir. 2008) (“In PTO examinations and reexaminations, the standard of proof—a preponderance of evidence—is substantially lower than in a civil [patent] case.”); *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (“Before the courts, a patent is presumed valid and the party asserting invalidity must prove the facts to establish invalidity of each claim by clear and convincing evidence. In a reexamination proceeding, on the other hand, there is no presumption of validity and the ‘focus’ of the reexamination ‘returns essentially to that present in an initial examination,’ at which a preponderance of the evidence must show nonpatentability . . . .” (citations omitted)).

29. *In re Trans Tex. Holdings Corp.*, 498 F.3d 1290, 1298 (Fed. Cir. 2007). Incidentally, the “broadest reasonable interpretation” standard does not only apply to reexamination, but also applies to initial patent examinations. See *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

30. See DONALD S. CHISUM, CHISUM ON PATENTS § 18.01 (2007).

31. See *Procter & Gamble Co. v. Kraft Food Global, Inc.*, 549 F.3d 842, 848–49 (Fed. Cir. 2008). While district courts have inherent authority to grant a defendant’s request to stay a suit pending reexamination, they have both inherent and statutory authority to stay such a suit upon the patent owner’s request. See 35 U.S.C. § 318. Nonetheless, it is relatively unusual for a patent owner to seek a stay pending reexamination, given that patent owners are usually plaintiffs (or plaintiffs’ allies) during infringement litigation and wish to see the litigation proceed promptly.

32. See, e.g., *TouchTunes Music Corp. v. Rowe Int’l Corp.*, 676 F. Supp. 2d 169, 177–79 (S.D.N.Y. 2009) (weighing these three factors); *Premier Int’l Assoc. L.L.C. v. Hewlett-Packard Co.*, 554 F. Supp. 2d 717, 720–24 (E.D. Tex. 2008) (weighing the same factors); *Telemac Corp. v. Teledigital, Inc.*, 450 F. Supp. 2d 1107, 1111 (N.D. Cal. 2006) (weighing the same factors).

33. See LEGALMETRICS, NATIONWIDE STAYS PENDING REEXAMINATION REPORT 4 (2009) (tabulating recent decisions showing that courts grant such motions 59% of the time);

As for the conduct of the reexamination itself, the PTO must determine whether the reexamination request raises a “substantial new question of patentability” within three months of receiving the request.<sup>34</sup> If the PTO finds that the reexamination request *does* raise a substantial new question of patentability, then it will commence reexamination on one of two tracks, depending upon which type of reexamination the reexamination requestor has requested. If the requestor has requested an *ex parte* reexamination, then the reexamination proceeds like an initial examination of a patent application—i.e., it is a dialogue between the patent owner and the PTO examiner, with no further input from the reexamination requestor.<sup>35</sup> By contrast, if the reexamination requestor has requested an *inter partes* reexamination, he has the ability to respond throughout the reexamination process to each submission and argument made between the patent owner and the PTO examiner.<sup>36</sup>

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Katherine D. Prescott, *Interplay Between Reexamination and Litigation: Temporary Restraining Orders, Preliminary Injunctions, and Litigation Stays*, 908 PLI/PAT 125, 131 (2007) (“While nationally roughly fifty percent of motions for litigation stays pending reexamination are granted, the percentage is significantly higher in some jurisdictions such as the Northern District of California and significantly lower in others such as the Eastern District of Texas.”).

34. See 35 U.S.C. § 303(a). For requests filed on or after September 16, 2011, *inter partes* reexaminations will commence if “there is a reasonable likelihood that the requester would prevail,” rather than if the request raises a “substantial new question of patentability.” Leahy-Smith America Invents Act of 2011, Pub. L. No. 112-29, § 6(c)(3)(A)(i), 125 Stat. 284, 305 (to be codified at 35 U.S.C. § 312).

35. This is a slight oversimplification, since even an *ex parte* reexamination applicant has the ability to submit a single “reply” statement after the patent owner has submitted his own statement in response to the PTO’s substantial new question of patentability. 35 U.S.C. § 304. Apart from submitting this one reply statement, however, an *ex parte* reexamination applicant has no further ability to participate in the reexamination proceedings, and “reexamination will be conducted according to the procedures established for initial examination” of the patent application. 35 U.S.C. § 305.

36. See 35 U.S.C. § 314(b)(2) (“Each time that the patent owner files a response to an action on the merits from the Patent and Trademark Office, the third-party [inter partes] requester shall have one opportunity to file written comments addressing issues raised by the action of the Office or the patent owner’s response thereto . . .”). It should also be noted that, as of September 16, 2012, the current *inter partes* reexamination process will be replaced by a substantially similar “*inter partes* review” process conducted before the newly-created Patent Trial and Appeal Board. See America Invents Act § 6.

### III. HOW COURTS FAIL TO EXTEND NORMAL ADMINISTRATIVE RESPECT TO THE PTO

Courts' treatment of invalidity, inequitable conduct, and stays pending reexamination all show a striking lack of deference to the PTO's decisions, rules, and proceedings. Indeed, courts seem to ignore the generally accepted principles of deference to administrative agencies when confronting these issues.

#### A. INVALIDITY

As noted above, courts have held that the burden on a patent defendant to prove invalidity is "clear and convincing evidence."<sup>37</sup> Importantly, this "clear and convincing evidence" standard is a judicially created standard, not a statutory one. The relevant invalidity statute, 35 U.S.C. § 282, simply states that "[a] patent shall be presumed valid"<sup>38</sup> and "[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."<sup>39</sup> The statute nowhere defines the *quantum* of proof required for a defendant to carry its burden of proving invalidity, and it certainly does not mention "clear and convincing evidence."<sup>40</sup>

From an administrative law perspective, it is quite strange for courts to adopt a "clear and convincing evidence" standard for proving patent invalidity, absent any specific statutory basis for that standard. When a court rules a patent invalid, the court is essentially ruling that the PTO erred in granting that patent. In more general terms, a judicial invalidity ruling is the judicial overturning of an executive agency decision. Yet administrative law does not recognize "clear and convincing evidence" as a proper standard for judicial review of agency actions. Rather, the Administrative Procedure Act ("APA")<sup>41</sup>—the "fundamental statute" of administrative law<sup>42</sup>—instructs courts to overturn agency actions if those actions are "arbitrary, capricious,

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37. *See Enzo Biochem., Inc. v. Applera Corp.*, 599 F.3d 1325, 1331 (Fed. Cir. 2010). As recently as June 2011, the Supreme Court reiterated that "clear and convincing evidence" is the proper standard for a court to apply when determining whether a patent is invalid. *See Microsoft Corp. v. i4i Ltd.*, 131 S. Ct. 2238, 2252 (2011).

38. 35 U.S.C. § 282.

39. *Id.*

40. *See id.*; *see also* James W. Dabney, KSR: *It Was Not a Ghost*, 24 SANTA CLARA COMPUTER & HIGH TECH. L.J. 131, 161 n.182 (2007) ("The statute [35 U.S.C. § 282] makes no reference to 'clear and convincing evidence.'").

41. Administrative Procedure Act, 5 U.S.C. §§ 500–596, 701–706 (2010).

42. *See* PETER L. STRAUSS ET AL., GELLHORN & BYSE'S ADMINISTRATIVE LAW 252 (10th ed. 2003).

an abuse of discretion, or otherwise not in accordance with law”<sup>43</sup> or “unsupported by substantial evidence.”<sup>44</sup> Given that a judicial invalidity ruling is simply the judicial overturning of a PTO decision, one would expect courts to apply the APA’s review standards to determine whether a patent is invalid. Conversely, there is no sound basis for courts to invent a “clear and convincing evidence” standard that is foreign to the APA. After all, the APA was intended to be a generally applicable statute that sets uniform standards for court review of agency action, regardless of the particular agency whose action is being reviewed.<sup>45</sup>

The issue of which review standard to apply is not simply a debate over semantics. Rather, the “clear and convincing evidence” standard is a substantively stricter (i.e., less deferential) standard of review than the APA standards, and it allows courts to invalidate patents more readily than if they applied the APA standards. For example, the Supreme Court in *Dickinson v. Zurko*<sup>46</sup> compared the APA standards of review to the “clearly erroneous” standard that appellate courts employ when reviewing district court factual findings. The Court noted that the APA standards are “somewhat less strict” than the “clearly erroneous” standard<sup>47</sup> and further explained that “[t]he upshot in terms of judicial review is some practical difference in outcome depending upon which standard is used.”<sup>48</sup> If the APA standards are less strict than a “clearly erroneous” standard, then they presumably are also less strict than a “clear and convincing evidence” standard. After all, saying that a patent is invalid by “clear . . . evidence” is equivalent to saying that it was “clearly erroneous” for the PTO to grant that patent. In short, courts’ use of the “clear and convincing evidence” standard to judge patent invalidity results in stricter and less deferential review of the PTO’s decisions than would otherwise exist under the traditional APA standards.

The *Zurko* case—which was itself a patent case—also provides a helpful illustration of how anomalous it is for courts to eschew the normal APA review standards when judging patent invalidity. In *Zurko*, the PTO had rejected a patent application on the grounds that the claimed invention was obvious in light of the prior art.<sup>49</sup> The patentee appealed the PTO’s decision to the Federal Circuit, which reversed the PTO on the grounds that the

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43. 5 U.S.C. § 706(2)(A).

44. § 706(2)(E).

45. *See infra* notes 135–36 and accompanying text.

46. 527 U.S. 150 (1999).

47. *See id.* at 162.

48. *Id.*

49. *See id.* at 153.

agency made “clearly erroneous” findings of fact about what the prior art covered.<sup>50</sup> In turn, the PTO appealed to the Supreme Court, which reversed the Federal Circuit on the grounds that the Federal Circuit should not have used a “clearly erroneous” standard to judge the accuracy of the PTO’s fact-finding. Rather, the Federal Circuit should have used the normal APA standards of review.<sup>51</sup>

If courts must employ the APA standards of review when reviewing the PTO’s denial of a patent application (as was the case in *Zurko*), then it makes little sense for courts to ignore the APA standards of review when judging the invalidity of an issued patent. After all, the two situations are mirror images of each other. When a patentee seeks judicial review of the PTO’s decision to reject his patent application, he is asking a court to rule that the PTO erred in *rejecting* the application. Likewise, when a defendant raises an invalidity defense during infringement litigation, he is asking the court to rule that the PTO erred in *granting* the patent. To be sure, an invalidity defense constitutes an indirect or collateral attack on the PTO’s decision-making (since the PTO is not a party to the suit), whereas a *Zurko* situation is a more direct form of judicial review. But this is a distinction of form rather than substance. In both cases, a litigant is seeking judicial review of the PTO’s decision with respect to a specific patent or patent application. If courts must apply the APA standards of review in *Zurko* situations, then they logically should apply those same APA standards when judging an invalidity defense during infringement litigation. In other words, the question should not be whether a defendant can prove the invalidity of the patent by “clear and convincing evidence.” The question should be whether the PTO’s decision to grant the patent was “arbitrary, capricious, an abuse of discretion” or “unsupported by substantial evidence.”<sup>52</sup>

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50. *See id.*

51. *See id.* at 152 (“We must decide whether § 706 [of the APA] applies when the Federal Circuit reviews findings of fact made by the Patent and Trademark Office (PTO). We conclude that it does apply, and the Federal Circuit must use the framework set forth in that section.”).

52. After *Zurko* required the Federal Circuit to apply APA standards to the review of PTO patent denials, the Federal Circuit determined that “unsupported by substantial evidence” was the appropriate APA standard to apply. *See In re Gartside*, 203 F.3d 1305, 1311 (Fed. Cir. 2000). However, the distinction between the “arbitrary and capricious” standard and the “substantial evidence” standard is generally considered to be slight if not outright trivial. *See, e.g., Assoc. of Data Processing Serv. Orgs., Inc. v. Bd. of Governors of the Fed. Reserve Sys.*, 745 F.2d 677, 683–84 (D.C. Cir. 1984) (Scalia, J.) (finding “no substantive difference” between these two standards).

One rejoinder to this argument might be that defendants often base their invalidity defenses on “new” prior art—i.e., prior art that was not before the PTO<sup>53</sup>—and a court logically cannot give normal administrative deference to the PTO’s decision-making with respect to prior art that the PTO never considered. But this rejoinder simply highlights another anomalous aspect of the invalidity defense—namely, the fact that defendants may base this defense on “new” prior art in the first place. After all, administrative law generally holds that a party cannot challenge administrative action by citing new evidence that was not before the agency.<sup>54</sup> This practice is designed to promote judicial deference to agency decisions, on the theory that the judicial consideration of “new” evidence “inevitably leads the reviewing court to substitute its judgment for that of the agency.”<sup>55</sup> If this theory is correct, then courts’ willingness to consider new prior art in invalidity challenges—rather than limiting their review to the prior art before the PTO—is another way in which courts fail to give normal levels of deference to PTO decisions.

In short, courts’ consideration of the invalidity defense is based on a series of administrative anomalies. For prior art that was before the PTO, administrative law appears to require that courts give APA-prescribed deference to the PTO’s analysis of this art. For prior art that was *not* before the PTO, administrative law appears to require that courts refuse to consider this art altogether.

#### B. INEQUITABLE CONDUCT

Like the invalidity defense, the inequitable conduct defense is also applied in a way that fails to give normal administrative deference to the PTO. Recall that the inequitable conduct defense allows a court to declare a patent

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53. See *In re Portola Packaging*, 110 F.3d 786, 789 (Fed. Cir. 1997) (noting Congress’s recognition “that holdings of patent invalidity by courts were mostly based on prior art that was not before the PTO”).

54. See, e.g., *Camp v. Pitts*, 411 U.S. 138, 142 (1973) (“The appropriate standard for review was, accordingly, whether the Comptroller’s adjudication was ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,’ as specified in 5 U.S.C. § 706(2)(A). In applying that standard, the focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court.”); *Shell Offshore, Inc. v. Babbitt*, 238 F.3d 622, 630 n.8 (5th Cir. 2001) (“[I]t is well established that reviewing courts generally should, in evaluating agency action, avoid considering evidence that was not before the agency when it issued its final decision.”).

55. *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 450 F.3d 930, 943 (9th Cir. 2006); see also *Lands Council v. Powell*, 395 F.3d 1019, 1030 (9th Cir. 2005) (“Were the federal courts routinely or liberally to admit new evidence when reviewing agency decisions, it would be obvious that the federal courts would be proceeding, in effect, *de novo* rather than with the proper deference to agency processes, expertise, and decision-making.”).

unenforceable if it finds that the patentee breached his duty of candor to the PTO by failing to submit material information during patent prosecution.<sup>56</sup> The duty of candor is defined in the PTO's own regulations: 37 C.F.R. § 1.56, colloquially known as "Rule 56," states in subsection (a) that

[e]ach individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section.<sup>57</sup>

Subsection (b) of Rule 56, which was promulgated fifteen years after subsection (a),<sup>58</sup> defines the types of information that are deemed "material" for purposes of the duty of candor:

Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or (2) It refutes, or is inconsistent with, a position the applicant takes in: (i) Opposing an argument of unpatentability relied on by the Office, or (ii) Asserting an argument of patentability.<sup>59</sup>

However, when adjudicating an inequitable conduct defense, courts have explicitly adopted definitions of "material" information that are very different from the definition set forth in subsection (b) of Rule 56. Indeed, as explained below, courts have shifted from a definition of "material" information that is much *broader* than Rule 56(b) to one that is much *narrower* than Rule 56(b).

1. *The Pre-Therasense Judicial Definition: Broader Than Rule 56(b)*

Until May 2011, the judicial definition of "material" information was significantly broader than the PTO's own definition. As the Federal Circuit

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56. *See* AstraZeneca Pharm. LP v. Teva Pharm. USA, Inc., 583 F.3d 766, 770 (Fed. Cir. 2009); Monsanto Co. v. Bayer Bioscience N.V., 514 F.3d 1229, 1233–34 (Fed. Cir. 2008).

57. 37 C.F.R. § 1.56(a) (2011).

58. As early as 1977, what is now subsection (a) of Rule 56 required patentees to disclose "material" information to the PTO. By contrast, the current definition of material information, set forth in subsection (b), was not promulgated until 1992. *See* Digital Control, Inc. v. Charles Mach. Works, 437 F.3d 1309, 1314–15 (Fed. Cir. 2006) (describing the historical evolution of Rule 56).

59. 37 C.F.R. § 1.56(b).

explained in the 2008 case *Monsanto v. Bayer Bioscience*,<sup>60</sup> “[a] misstatement or admission can be material for the purposes of showing inequitable conduct even if it does not meet the standard for Rule 56 if, in the totality of the circumstances, a reasonable examiner would have considered such information important in deciding whether to allow the parent application.”<sup>61</sup> Similarly, the Federal Circuit held in *Digital Control, Inc. v. Charles Machine Works*<sup>62</sup> that information is “material” for purposes of inequitable conduct if it satisfies the definition in Rule 56(b) or if it satisfies any of the “materiality” tests that courts had devised before the current subsection (b) was promulgated in 1992.<sup>63</sup>

## 2. *The Therasense Judicial Definition: Narrower Than Rule 56(b)*

This judicial definition of “material” information changed dramatically in the May 2011 case of *Therasense, Inc. v. Becton, Dickinson & Co.*<sup>64</sup> In *Therasense*, the en banc Federal Circuit tightened the standards for proving inequitable conduct, largely due to its view that inequitable conduct had become an overused defense that had corrosive effects on the overall patent system.<sup>65</sup> As relevant here, the *Therasense* court greatly narrowed the definition of “material” information for purposes of inequitable conduct.<sup>66</sup> Specifically, *Therasense* held that “the materiality required to establish inequitable conduct is but-for materiality. When an applicant fails to disclose prior art to the PTO, that prior art is ‘but-for’ material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art.”<sup>67</sup> In pronouncing this new definition, the *Therasense* court explicitly stated that “[t]his court does not adopt the definition of materiality in PTO Rule 56.”<sup>68</sup>

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60. 514 F.3d 1229.

61. *Id.* at 1237 n.11 (emphasis added).

62. 437 F.3d 1309.

63. *See id.* at 1316 (“[I]f a misstatement or omission is material under the new Rule 56 standard, it is material. Similarly, if a misstatement or omission is material under the ‘reasonable examiner’ standard or under the older three tests, it is also material.”).

64. 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

65. *See id.* at 1290 (“While honesty at the PTO is essential, low standards for intent and materiality [i.e., the intent and materiality prongs of inequitable conduct] have inadvertently led to many unintended consequences, among them, increased adjudication cost and complexity, reduced likelihood of settlement, burdened courts, strained PTO resources, increased PTO backlog, and impaired patent quality. This court now tightens the standards for finding both intent and materiality in order to redirect a doctrine that has been overused to the detriment of the public.”).

66. *See id.* at 1294–96.

67. *Id.* at 1291.

68. *Id.* at 1293.

Indeed, it is readily apparent that the *Therasense* definition of “material” information is narrower than the Rule 56 definition. For instance, Rule 56(b)(2) holds that information is “material” if it is inconsistent with a position the patentee has previously taken during patent prosecution.<sup>69</sup> By contrast, the *Therasense* standard would allow applicants to withhold all manner of information that contradicts their sworn positions before the PTO, as long as this information would not actually cause the PTO to reject the pending claims. Also, Rule 56(b)(1) states that information is “material” if it merely raises a prima facie case of unpatentability.<sup>70</sup> But the set of information that would raise a prima facie case of unpatentability for a claim (i.e., “material” information under Rule 56(b)(1)) is broader than the set of information that would ultimately cause the PTO to reject the claim (i.e., “material” information under *Therasense*). After all, a major aspect of patent prosecution involves a back-and-forth dialogue in which patentees attempt (often successfully) to distinguish or explain away prior art that the PTO had found to be prima facie invalidating.<sup>71</sup>

3. *Both Judicial Definitions Violate Long-Standing Principles of Administrative Law*

For courts to adopt a definition of “material” information that is broader or narrower than the PTO’s definition violates a long-standing canon of administrative law. Specifically, the canon known as *Seminole Rock* deference<sup>72</sup> states that an agency’s interpretation of its own regulation is entitled to “controlling weight unless it is plainly erroneous or inconsistent with the regulation.”<sup>73</sup> *Seminole Rock* deference is a close cousin to *Chevron* deference,<sup>74</sup> which instructs courts to defer to agency interpretations of their governing statutes.<sup>75</sup> As with *Chevron* deference, *Seminole Rock* deference first asks the reviewing court to determine whether the agency regulation to be interpreted

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69. See 37 C.F.R. § 1.56(b)(2) (2011).

70. See *id.*

71. See *supra* note 12 and accompanying text.

72. This name is taken from *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410 (1945), the germinal case to set forth the canon.

73. *Id.* at 414; see also *Thomas Jefferson Univ. v. Shalala*, 512 U.S. 504, 512 (1993); *Stinson v. United States*, 508 U.S. 36, 37 (1993); *Acs v. Detroit Edison Co.*, 444 F.3d 763, 770 (6th Cir. 2006) (“*Seminole Rock* deference [is] the ‘controlling weight’ that federal courts generally give an agency’s interpretation of its own ambiguous regulation.” (internal quotation marks omitted)).

74. See Victor L. Prial & Michael Kruse, *Administrative Law*, 58 SYRACUSE L. REV. 637, 637–38 (2008) (calling *Seminole Rock* deference “*Chevron*’s less widely known cousin”).

75. See *infra* notes 92–96 and accompanying text.

has a single unambiguous meaning.<sup>76</sup> If so, then the court need not and should not defer to an agency interpretation that contradicts the unambiguous meaning.<sup>77</sup> If the regulation is ambiguous, however, then the court will defer to any agency interpretation of the regulation that is not “plainly erroneous or inconsistent with the regulation.”<sup>78</sup>

In this case, as stated above, subsection (a) of Rule 56 requires a patentee “to disclose to the [PTO] all information known to that individual to be material to patentability as defined in this section.”<sup>79</sup> Subsection (b) of Rule 56, promulgated fifteen years after the “materiality” requirement was first announced,<sup>80</sup> defines and clarifies the classes of information that are considered “material” for purposes of subsection (a).<sup>81</sup> In other words, subsection (b) *interprets* subsection (a) by defining what is meant by the term “material”. Indeed, the PTO’s 1992 commentary on the addition in subsection (b) explained that “Section 1.56 has been amended to present a clearer and more objective *definition* of what information the Office considers material to patentability.”<sup>82</sup>

This being the case, one would expect courts to defer under *Seminole Rock* to the PTO’s own interpretation of “material” information. For one, it cannot be said that the word “material” has a single unambiguous meaning, given that courts had fashioned a variety of different “materiality” tests in the years before the current subsection (b)’s definition was announced in 1992.<sup>83</sup>

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76. *Ohio Valley Envtl. Coal. v. Aracoma Coal Co.*, 556 F.3d 177, 193 (4th Cir. 2009) (“Because we are asked here to review the Corps’ interpretation of its own regulations, our review is cabined to assessing the reasonableness of that interpretation. . . . In applying this principle, also known as ‘*Auer* deference’ or ‘*Seminole Rock* deference,’ we must first determine whether the regulation itself is unambiguous; if so, its plain language controls.”).

77. *Id.*; see also Scott H. Angstreich, *Shoring Up Chevron: A Defense of Seminole Rock Deference to Agency Regulatory Interpretations*, 34 U.C. DAVIS L. REV. 49, 71 (2000) (“If the court finds the regulation has a clear meaning, then for all practical purposes that is the end of the matter: if the agency disagrees, then the court will not defer; if the agency agrees, then the deference doctrine does no work.”).

78. See *Ohio Valley*, 556 F.3d at 193–94 (“If ambiguous, however, *Auer/Seminole Rock* deference is applied.”); *id.* at 193 (“This kind of review is highly deferential, with the agency’s interpretation controlling unless plainly erroneous or inconsistent with the regulation.” (internal quotation marks omitted)).

79. See 37 C.F.R. § 1.56(a) (2011).

80. See *supra* note 58.

81. See § 1.56(b).

82. Duty of Disclosure, 57 Fed. Reg. 2021, 2024 (Jan. 7, 1992) (codified at 37 C.F.R. § 1.56) (emphasis added).

83. *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1315 (Fed. Cir. 2006) (“[S]everal different standards of materiality [have] emerged from the courts. These standards included: the objective ‘but for’ standard, where the misrepresentation was so

Nor has any court ever claimed that subsection (b)'s definition is plainly erroneous or inconsistent with the overall duty of candor set forth in subsection (a). Rather, courts simply ignore the *Seminole Rock* canon altogether when they reject subsection (b)'s definition of "material" and instead adopt a broader or narrower definition for purposes of the inequitable conduct defense.

Courts' refusal to defer to the PTO's definition of "material" information is particularly distressing given the policy rationales behind *Seminole Rock* deference, which strongly support deference to the PTO in this situation. As one leading treatise explains, *Seminole Rock* deference is based on the principle that an "agency typically is in a superior position to determine what it intended when it issued a rule, how and when it intended the rule to apply, and the interpretation of the rule that makes the most sense given the agency's purposes in issuing the rule."<sup>84</sup> These rationales strongly support deference to the PTO in this case. The PTO is the agency that established the duty of candor, and it is the agency to whom the duty is owed. It is uniquely qualified to determine what the duty of candor is intended to mean and how it is intended to apply. Accordingly, courts should respect the PTO's prerogative to set forth the metes and bounds of the duty by defining the types of "material" information that the duty covers.

Furthermore, as Professor John Manning has explained, *Seminole Rock* deference can be justified on the theory that "an agency's interpretation of a regulation may entail the exercise of judgment grounded in policy concerns."<sup>85</sup> In this case, there are competing policy concerns that the PTO must weigh when determining what types of information a patentee must disclose during patent prosecution. On the one hand, an overly narrow duty of disclosure would make it more likely that the PTO would fail to receive relevant information during patent prosecution. On the other hand, given the hundreds of thousands of patent prosecutions that the PTO must handle every year,<sup>86</sup> an overly broad duty of disclosure could overwhelm the PTO

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material that the patent should not have issued; the subjective 'but for' test, where the misrepresentation actually caused the examiner to approve the patent application when he would not otherwise have done so; and the 'but it may have' standard, where the misrepresentation may have influenced the parent [sic] examiner in the course of prosecution.").

84. KENNETH CULP DAVIS & RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE § 6.10 (3d ed. 1994).

85. John F. Manning, *Constitutional Structure and Judicial Deference to Agency Interpretations of Agency Rules*, 96 COLUM. L. REV. 612, 629 (1996) (internal quotation marks omitted).

86. In fiscal year 2009, the PTO received roughly 485,000 patent applications and granted roughly 190,000 patents. See 2009 FISCAL REPORT, *supra* note 7, at 112 tbl.1.

with minimally relevant information and significantly slow down the patent prosecution process. The PTO is surely in a better position than the courts to weigh these competing policy concerns and craft a definition of “material” information that properly balances these concerns. Conversely, when courts ignore the PTO’s definition of “material” information and instead adopt a broader or narrower definition for the purpose of the inequitable conduct defense, they upset this balance.

For instance, the pre-*Therasense* judicial definition of “material” information tilted the balance in favor of fulsome and potentially overbroad disclosure. After all, a prudent patentee had every incentive to obey the courts’ broader definition of “material” information—not the PTO’s narrower definition—in order to proactively guard against an inequitable conduct charge in future infringement litigation.<sup>87</sup> In other words, by refusing to defer to the PTO’s interpretation of “material” information, courts usurped the PTO’s role of setting policy for the duty of candor. This type of usurpation is precisely what *Seminole Rock* deference is designed to prevent.

Conversely, the *Therasense* definition tilts the balance toward overly narrow disclosure, by incentivizing patentees to ignore the dictates of Rule 56(b) and disclose only the narrower subset of information that would be considered “material” under *Therasense*. This may seem counterintuitive at first—one might think that prudent patentees would disclose “*Therasense*-material” information to guard against inequitable conduct charges and would also disclose the broader set of “Rule 56-material” information in order to satisfy Rule 56 itself. In practice, however, the PTO depends heavily on the threat of inequitable conduct charges to enforce compliance with Rule 56 and has little ability to enforce Rule 56 compliance by itself.<sup>88</sup> After all, when an applicant violates Rule 56 by withholding material information from the PTO, the PTO is by definition unaware of this violation. And while a defendant in infringement litigation typically has the means and motivation

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87. Robert A. Armitage, *The Conundrum Confronting Congress: The Patent System Must Be Left Untouched While Being Radically Reformed*, 5 J. MARSHALL REV. INTEL. PROP. L. 267, 285 (2006) (noting that, under current law, “[t]he inventor has an incentive to do two things in order to proactively defend against allegations of inequitable conduct. First, there is the incentive to tell the Patent Office everything, no matter how trivial its relationship to patent examination might seem. If a person under the duty of candor withholds any information, no matter how seemingly trivial, the withholding can be later alleged to have been material, permitting an inference of intentionally deceptive conduct.”).

88. *Therasense Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1306 (Fed. Cir. 2011) (Bryson, J., dissenting) (“The PTO advises us that the prospect of enforcing the duty of disclosure other than through the threat of inequitable conduct claims is not possible or practical.”).

to depose the patentees and subpoena documentation to try to unearth evidence of inequitable conduct, the PTO hardly has the resources to investigate the hundreds of thousands of patentees who submit successful patent applications each year. Even random audits are probably beyond the PTO's ability, given that the PTO is chronically overworked as it is<sup>89</sup> and also lacks the tools to conduct meaningful investigations of patentee conduct.<sup>90</sup> Thus, in the post-*Therasense* world, patentees have strong incentives to disclose only “*Therasense*-material” information and to quietly sweep other “Rule 56-material” information under the rug, particularly if disclosing such information would harm their chances of successfully navigating patent prosecution.

From an administrative law perspective, are there any persuasive arguments *against* according *Seminole Rock* deference to the PTO's definition of “material” information? Perhaps. *Seminole Rock* deference may be deemed inapplicable to this situation because Rule 56(a) (which establishes the duty to disclose “material” information) and Rule 56(b) (which defines the term “material”) are part of the same overall regulation—namely, Rule 56 itself. Thus, rather than viewing subsection (b) as an interpretation of the otherwise-ambiguous subsection (a), one might instead view Rule 56 as a unitary, self-defined regulation that needs no further interpretation.

While this unitary view of Rule 56 would eliminate the need for *Seminole Rock* deference—because there would be no extrinsic PTO “interpretation” of Rule 56 to defer to—it does not justify courts' failure to adopt the Rule 56 definition of “material” information. Rather, even under a unitary view of Rule 56, administrative law principles would require that courts defer to the

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89. See, e.g., Jack George Abid, *Software Patents on Both Sides of the Atlantic*, 23 J. MARSHALL J. COMPUTER & INFO. L. 815, 836 (2005) (“Unfortunately, the PTO is notoriously overworked . . . .”); Michael H. Davis, *Patent Politics*, 56 S.C. L. REV. 337, 370 n.131 (2004) (“Everyone seems to recognize that the PTO is overworked and underfunded.”).

90. *Therasense*, 649 F.3d at 1306 (Bryson, J., dissenting) (“The PTO explains that it rarely has access to relevant facts regarding inequitable conduct, because it lacks investigative resources.”). Indeed, unlike the parties in infringement litigation, the PTO generally lacks the power to issue subpoenas—a fact that the PTO pointed out in its amicus brief in *Therasense*. See Brief for the United States as Amicus Curiae on Rehearing En Banc in Support of Neither Party at 16, *Therasense*, 649 F.3d 1276 (Fed. Cir. 2010) (No. 2008-1511), 2010 WL 3390234 (“[T]he agency is constrained in its ability to investigate ‘fraud on the PTO’ because OED [the PTO's Office of Enrollment and Discipline] cannot issue subpoenas during their investigations.”). Without the power to subpoena the documents and testimony of patentees, it is very difficult to determine whether those patentees failed to disclose material information during patent prosecution.

Rule 56 definition of “material” when judging whether a patentee has engaged in inequitable conduct.<sup>91</sup>

*Chevron* deference would likely be the operative framework here, as opposed to *Seminole Rock* deference. *Chevron* addresses the level of deference that courts must give to agency regulations that interpret or effectuate the agency’s governing statute. In its most familiar form, *Chevron* states that courts should defer to agencies’ “reasonable” interpretations of ambiguous language in the statutes that they administer.<sup>92</sup> This deference “is premised on the theory that a statute’s ambiguity constitutes an *implicit* delegation from Congress to the agency to fill in the statutory gaps.”<sup>93</sup> However, *Chevron* also recognized that Congress’s delegation of power to an agency can be explicit rather than implicit,<sup>94</sup> and deference to agency regulations is just as appropriate in cases of explicit delegation.<sup>95</sup> Specifically, where “there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation[,] [s]uch legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute.”<sup>96</sup>

In this case, the PTO’s governing statute—35 U.S.C. § 2—explicitly grants the PTO authority to establish regulations to “govern the conduct of proceedings in the Office”<sup>97</sup> and “govern the recognition and conduct of agents, attorneys, and other persons representing applicants or other parties before the Office.”<sup>98</sup> By establishing the duty of candor as set forth in Rule 56, the PTO is simply exercising its statutorily granted authority to set regulations governing the “conduct” of individuals who appear before it.

Accordingly, one would expect courts to defer under *Chevron* to the Rule 56 standards for determining what sorts of “material” information must be disclosed during patent prosecution. Indeed, the Federal Circuit has acknowledged that the PTO’s procedural regulations are generally entitled to *Chevron* deference, given the PTO’s broad statutory mandate to establish

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91. See *infra* notes 92–101 and accompanying text.

92. See *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843–44 (1984); Manning, *supra* note 85, at 613 (“*Chevron* . . . settled the now familiar principle of federal administrative law that a reviewing court must accept an agency’s ‘reasonable’ interpretation of a gap or ambiguity in a statute the agency is charged with administering.”).

93. *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000) (emphasis added).

94. *Chevron*, 467 U.S. at 844.

95. See *id.* at 843–44.

96. *Id.*

97. 35 U.S.C. § 2(b)(2)(A) (2006).

98. § 2(b)(2)(D).

regulations governing the conduct of its own proceedings.<sup>99</sup> The duty of candor set forth in Rule 56 is one such procedural regulation, which fills in a broad statutory gap about the conduct of PTO proceedings and (more specifically) the required conduct of individuals who appear before the PTO. Yet, like *Seminole Rock* deference, the concept of *Chevron* deference is simply absent from courts' analysis of inequitable conduct and Rule 56.

When courts refuse to defer to the Rule 56 definition of "material" information and instead create their own broader or narrower definition for purposes of the inequitable conduct defense, they vitiate the very purpose of *Chevron* deference. They effectively set the standard for what sorts of "material" information must be disclosed to the PTO, since (as discussed above) patentees have strong incentives to follow the courts' definition of "material" information and to ignore the PTO's definition.<sup>100</sup> Despite the PTO's statutory authority to regulate the conduct of those who appear before it, the courts effectively usurp the PTO's authority by setting a new standard of disclosure, which prudent patentees are bound to follow. This usurpation is directly antithetical to *Chevron*, since *Chevron* recognized that agencies—not courts—have the authority to fill in statutory gaps through regulation.<sup>101</sup>

In sum, either *Seminole Rock* or *Chevron* would seem to require that courts defer to the PTO's definition of "material" information for purposes of the inequitable conduct defense. Courts' failure to defer to the PTO's definition of this term constitutes a severe departure from the normal principles of administrative law.

### C. STAYS PENDING REEXAMINATION

Finally, courts also ignore general principles of administrative law in their determinations of whether and when to stay infringement litigation pending reexamination of the patent-in-suit. As noted above, courts grant roughly half of all motions to stay litigation pending reexamination of the patent.<sup>102</sup>

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99. See *Cooper Tech. Co. v. Dudas*, 536 F.3d 1330, 1337 (Fed. Cir. 2008) ("Because the Patent Office is specifically charged with administering statutory provisions relating to 'the conduct of proceedings in the Office,' 35 U.S.C. § 2(a)(2)(A), we give *Chevron* deference to its interpretations of those provisions.").

100. See *supra* text accompanying notes 87–90.

101. See *Chevron*, 467 U.S. at 843 ("The power of an administrative agency to administer a congressionally created . . . program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.") (quoting *Morton v. Ruiz*, 415 U.S. 199, 231 (1974)).

102. See *supra* text accompanying note 33.

In determining whether to stay the litigation, courts generally consider: (1) the stage of the litigation, (2) whether a stay will simplify the issues in the litigation, and (3) whether a stay will prejudice the nonmoving party.<sup>103</sup> Curiously, however, courts virtually *never* consider a general administrative law doctrine—the primary jurisdiction doctrine—that would seem highly relevant to the question of whether the litigation should be stayed.<sup>104</sup>

As explained by the Supreme Court, the primary jurisdiction doctrine

is a doctrine specifically applicable to claims properly cognizable in court that contain some issue within the special competence of an administrative agency. It requires the court to enable a ‘referral’ to the agency, staying further proceedings so as to give the parties reasonable opportunity to seek an administrative ruling.<sup>105</sup>

While “[n]o fixed formula exists for applying the doctrine of primary jurisdiction,”<sup>106</sup> it is particularly appropriate “in cases raising issues of fact not within the conventional experience of judges.”<sup>107</sup> The benefits of applying the doctrine include “the desirable uniformity which would obtain if initially a specialized agency passed on certain types of administrative questions”<sup>108</sup> and the ability to invoke “the expert and specialized knowledge of the agencies involved.”<sup>109</sup>

When a patent defendant requests reexamination of the patent before the PTO, this would seem to be a strong candidate for a court to invoke the primary jurisdiction doctrine and stay the suit pending the outcome of the reexamination. The question of whether an invention meets the standards for patentability is presumably within the “special competence” of the PTO, given that the PTO is tasked with deciding this very question for every patent

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103. *See, e.g.*, *TouchTunes Music Corp. v. Rowe Int’l Corp.*, 676 F. Supp. 2d 169, 177 (S.D.N.Y. 2009); *Premier Int’l Assoc. L.L.C. v. Hewlett-Packard Co.*, 554 F. Supp. 2d 717, 720 (E.D. Tex. 2008); *Telemac Corp. v. Teledigital, Inc.*, 450 F. Supp. 2d 1107, 1111 (N.D. Cal. 2006).

104. Indeed, a review of the case law indicates only one instance in which a Federal court considered the primary jurisdiction doctrine in determining whether to stay a patent suit pending reexamination of the subject patent. *See Ralph Gonnocci Revocable Living Trust v. Three M Tool & Mach., Inc.*, No. 02-74796, 2003 WL 22870902, at \*4–5 (E.D. Mich. Oct. 7, 2003). This court, applying questionable logic, held that the primary jurisdiction doctrine should not apply. *See infra* note 115.

105. *Reiter v. Cooper*, 507 U.S. 258, 268 (1993).

106. *United States v. W. Pac. R.R.*, 352 U.S. 59, 64 (1956).

107. *Id.* (citation omitted).

108. *Id.*

109. *Id.*

application filed in the United States.<sup>110</sup> Likewise, the question of whether a given invention is patentable over the prior art often involves “issues of fact not within the conventional experience of judges.”<sup>111</sup> Even though courts may routinely adjudicate invalidity defenses during patent litigation,<sup>112</sup> the invalidity question often turns on extremely technical and abstruse issues of fact. Particularly for patents on the cutting edge of biotechnology, computer science, or chemical composition, the question of how a given patent maps against prior inventions is simply not the sort of factual question that generalist district judges are well-equipped to answer.<sup>113</sup> Thus, the goals of the primary jurisdiction doctrine would be well served if courts faced with technically complex invalidity issues were willing to invoke the primary jurisdiction doctrine, stay the case pending reexamination, and thereby harness the “expert and specialized knowledge of the [PTO]”<sup>114</sup> to help decide the invalidity question.<sup>115</sup>

The most obvious rejoinder to this argument would be that the PTO has *already* brought its “expert and specialized knowledge”<sup>116</sup> to bear on the patent in question before the infringement suit even began, as no patent can issue until the PTO is satisfied that the invention meets the standards for patentability. On this theory, invoking the primary jurisdiction doctrine in order to harness the PTO’s expert and specialized knowledge yet again would be duplicative and unwarranted.

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110. See 35 U.S.C. § 2 (2006).

111. *W. Pac. R.R.*, 352 U.S. at 64 (citation omitted).

112. See Rose & Jessup, *supra* note 17.

113. See David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 260–61 (2008) (“The issues in a typical patent case may be so complex that legal minds without a background in science cannot appropriately resolve them. . . . Various judges have acknowledged that deciding patent law issues is extremely difficult without fully understanding the underlying technology. Thus, the technology itself may be insurmountable for generalist trial court judges.”).

114. *W. Pac. R.R.*, 352 U.S. at 64.

115. For this reason, the lone case to consider the interplay between primary jurisdiction and stays pending reexamination, *Ralph Gonnocci*, took an overly simplistic view of this issue. *Ralph Gonnocci Revocable Living Trust v. Three M Tool & Mach., Inc.*, No. 02-74796, 2003 WL 22870902 (E.D. Mich. Oct. 7, 2003). The *Ralph Gonnocci* court held that the primary jurisdiction doctrine did not apply because “the determination as to whether a patent is valid is a question of law ‘within the conventional experience of judges.’” *Id.* at \*5. As discussed above, however, the invalidity determination is often based on complex scientific or technical questions of fact that are not within the conventional experience of generalist judges. In any event, invalidity based on anticipation is a factual question through and through, not a “question of law” as the *Ralph Gonnocci* court suggested. See *Orion IP, L.L.C. v. Hyundai Motor Am.*, 605 F.3d 967, 974 (Fed. Cir. 2010).

116. *W. Pac. R.R.*, 352 U.S. at 64.

While this rejoinder has some force, it is ultimately unsatisfying. For one thing, defendants bringing reexamination requests usually cite new prior art that was not before the PTO during the initial patent prosecution.<sup>117</sup> By definition, the PTO has not had a chance to consider this new prior art, so there is every reason to stay the suit so that the PTO may take the first crack at analyzing whether and how the new prior art affects the validity of the patent.

Moreover, whether a reexamination request is based on new or old prior art, the reexamination cannot proceed until the PTO determines that the request raises a “substantial new question of patentability” (for *ex parte* requests)<sup>118</sup> or that “there is a reasonable likelihood that the requester petitioner would prevail” (for *inter partes* requests).<sup>119</sup> By making this determination, the PTO is effectively conceding that its initial examination was inadequate and that it would like the chance to examine the patent anew. Thus, the fact that the PTO had previously examined the patent during the original patent prosecution is no reason to abandon the primary jurisdiction doctrine or refuse to stay a suit pending the outcome of the reexamination.

This is not to say that courts must *necessarily* invoke the primary jurisdiction doctrine to stay a patent case *whenever* the PTO has initiated a reexamination. Indeed, it is not clear whether the primary jurisdiction doctrine is mandatory or merely discretionary. Some courts have held that a court *must* invoke the doctrine to stay a case whenever the policies and rationales of the doctrine would be served by a stay,<sup>120</sup> while others have stressed that the doctrine is a discretionary one.<sup>121</sup> But even those courts that

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117. See Tun-Jen Chiang, *Fixing Patent Boundaries*, 108 MICH. L. REV. 523, 532 (2010) (“A reexamination is typically initiated by someone other than the patentee, because the third party discovers new prior art that raises a substantial question as to the validity of the patent.”).

118. See 35 U.S.C. § 303(a) (2006).

119. See Leahy-Smith America Invents Act of 2011, Pub. L. No. 112-29, § 6(c)(3)(A)(i), 125 Stat. 284, 305 (to be codified at 35 U.S.C. § 312).

120. See, e.g., *United States v. Gen. Dynamics Corp.*, 828 F.2d 1356, 1364 n.15 (9th Cir. 1987) (“In discussing the [primary jurisdiction] doctrine, the Supreme Court frequently has used language at odds with the notion of discretionary application.”); *Phone-Tel Commc’ns, Inc. v. AT&T Corp.*, 100 F. Supp. 2d 313, 321 (E.D. Pa. 2000) (“[A]pplication of the doctrine of primary jurisdiction is not discretionary. Rather, once the court determines that a claim ‘contain[s] some issue within the special competence of an administrative agency, [the doctrine of primary jurisdiction] requires the court to refer the matter to the administrative agency.’”).

121. See, e.g., *Tassy v. Brunswick Hosp. Ctr., Inc.*, 296 F.3d 65, 72 (2d Cir. 2002) (“We emphasize that primary jurisdiction is a discretionary doctrine whose applicability in any given case depends on ‘whether the reasons for the existence of the doctrine are present and

emphasize the discretionary nature of the doctrine generally hold that a court *should* apply the doctrine when doing so would bring administrative expertise to bear on complex questions that judges are not well equipped to answer.<sup>122</sup>

Accordingly, given the special expertise that the PTO has (or should have) in comparing patents against the prior art, and given that this comparison often involves highly technical issues not within the conventional experience of generalist judges, it seems strange and unjustified that courts would ignore the primary jurisdiction doctrine when determining whether to stay suits pending reexamination. Even if primary jurisdiction is considered to be a discretionary rather than a mandatory doctrine, it should at least be a heavy “thumb on the scale” that weighs in favor of a stay whenever the invalidity question (and pending reexamination) involves complex scientific or technical questions that the district judge is ill equipped to answer. Conversely, courts’ near-universal failure to even *consider* this doctrine is a puzzling and seemingly unjustified departure from the normal principles of administrative law.

#### IV. WHY COURTS FAIL TO EXTEND NORMAL ADMINISTRATIVE RESPECT TO THE PTO AND WHAT CAN BE DONE ABOUT IT

There are few clear explanations for *why* courts fail to give normal levels of administrative deference to the PTO. This is because courts usually do not acknowledge—much less attempt to justify—their lack of deference. For instance, there are no on-the-record judicial explanations for why courts eschew the APA standards when judging patent invalidity or why they fail to give *Seminole Rock* or *Chevron* deference to the PTO’s definition of “material” information for purposes of inequitable conduct. Rather, the APA review standards and the *Chevron* and *Seminole Rock* canons are simply absent from

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whether the purposes it serves will be aided by its application in the particular litigation.’”); *Wahi v. Charleston Area Med. Ctr.*, No. 2:04-CV-0019, 2004 U.S. Dist. LEXIS 21726, at \*67 (S.D. W. Va. Oct. 27, 2004), *aff’d*, 562 F.3d 599 (4th Cir. 2009) (“[T]he primary jurisdiction doctrine is a discretionary tool that allows a court to *refer* certain complex factual questions to an administrative body for an *initial* determination.”).

122. The Second Circuit, for instance, has taken a decidedly discretionary view of the doctrine. *See Tassy*, 296 F.3d at 72. Yet it has also acknowledged that “[a] court should delay forging ahead when there is a likelihood that agency action may render a complex fact pattern simple” and has construed Supreme Court primary jurisdiction opinions as holding that “issues of fact not within the ordinary ken of judges and which required administrative expertise should be resolved preliminarily by the agency.” *Golden Hill Paugussett Tribe of Indians v. Weicker*, 39 F.3d 51, 60 (2d Cir. 1994).

court opinions. Similarly, there appears to be only *one* case in which a federal court explicitly addressed whether to apply the primary jurisdiction doctrine to stay a suit pending reexamination of the subject patent.<sup>123</sup>

Thus, determining why courts fail to give normal administrative deference to the PTO requires a certain amount of inference. Nonetheless, this Article proposes that two broad factors can explain the lack of deference: (1) judicial dissatisfaction with the quality of PTO decision-making and expertise; and (2) judicial dissatisfaction with the speed of PTO decision-making.<sup>124</sup> This Part discusses these factors and the ways in which they likely discourage judicial deference to the PTO. It also proposes ways to combat these factors to possibly increase judicial deference.

#### A. JUDICIAL DISSATISFACTION WITH THE QUALITY OF PTO DECISION-MAKING AND EXPERTISE

One reason why the PTO fails to receive normal administrative deference may be that courts are simply unimpressed with the quality of PTO decision-making and expertise. While judicial decorum prevents judges from making on-the-record criticisms of the PTO,<sup>125</sup> numerous non-judicial commentators have routinely leveled these types of criticisms against the PTO. For instance, one criticism is that the PTO conducts insufficiently rigorous examinations and grants patents far too liberally.<sup>126</sup> Indeed,

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123. See *Ralph Gonnocci Revocable Living Trust v. Three M Tool & Mach., Inc.*, No. 02-74796, 2003 WL 22870902, at \*4–5 (E.D. Mich. Oct. 7, 2003).

124. At this point, the reader might question whether courts' lack of deference to the PTO can be explained by a third factor—namely, the idea that the Federal Circuit (the circuit with nearly exclusive jurisdiction over patent appeals) is a relatively specialized “patent court” that lacks familiarity with the general principles of administrative deference. As discussed in Part V, *infra*, this Article concludes that such an explanation is unconvincing and fails to account for the Federal Circuit's significant familiarity with administrative law.

125. See, e.g., *W. Elec. Co. v. Piezo Tech., Inc.*, 860 F.2d 428, 433 (Fed. Cir. 1988) (“It is no more appropriate to question a patent examiner's technical expertise than it is to question the quality of a judge's law school education or judicial experience.”).

126. See, e.g., Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1495 (2001) (“The PTO has come under attack of late for failing to do a serious job of examining patents, thus allowing bad patents to slip through the system.”); see also Jay P. Kesan, *Carrots and Sticks To Create a Better Patent System*, 17 BERKELEY TECH. L.J. 763, 765 (2002) (“Commentators have long complained about the performance of the U.S. Patent & Trademark Office . . . . Much of this criticism is directed at the quality of the patents that are granted by the Patent Office. It is widely suggested that the Patent Office issues patents that are either ‘facially’ invalid or broader than the actual innovation disclosed in the patent application.”); Jay P. Kesan & Andres A. Gallo, *Why “Bad” Patents Survive in the Market and How Should We Change? The Private and Social Costs of Patents*, 55 EMORY L.J. 61, 63 (2006) (“The common criticism from all sides is that the Patent Office grants patent claims that are

commentators have suggested that PTO examiners have incentives to allow rather than reject patent applications, in part because examiners must set forth reasoned explanations when rejecting an application but have no such obligation when issuing a patent.<sup>127</sup> Commentators have also criticized the expertise of PTO examiners, claiming they often are too young and inexperienced to conduct a thorough examination.<sup>128</sup> In particular, some argue that PTO examiners lack the skill and the time to conduct thorough prior art searches,<sup>129</sup> which is a crucial part of the examination process.<sup>130</sup>

Assuming that judges share these negative views about the quality of PTO decision-making and the expertise of the decision-makers, it is hardly surprising that they would resist giving normal levels of administrative deference to the PTO. For instance, a judge would presumably be disinclined to apply highly deferential APA review to the PTO's decision to grant a patent if she suspected that the PTO's decision was made hurriedly by a

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broader than what is merited by the invention and the prior art, resulting in so-called 'bad' or improvidently granted patents.”).

127. See John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 324–25 (“Patent Office practice requires that examiners articulate their reasons for a rejection, while most often examiners need say nothing if they chose to allow a case. The belief is widely held that this regime encourages examiners to allow rather than to reject applications.”); see also Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 75 (2004) (stating that “an examiner faced with a determined applicant has every incentive to give in and allow the patent”).

128. See, e.g., Jason D. Grier, *Chasing Its Own Tail? An Analysis of the USPTO's Efforts To Reduce the Patent Backlog*, 31 HOUS. J. INT'L L. 617, 645 n.222 (2009) (noting that “55% of the patent examiners at the USPTO had less than five years experience” even though “[a] patent examiner needs three to five years experience to achieve proficiency”); see also Ashley Chuang, *Fixing the Failures of Software Patent Protection: Detering Patent Trolling by Applying Industry-Specific Patentability Standards*, 16 S. CAL. INTERDISC. L.J. 215, 243 (2006) (“Patent examiners face high turnover rates, with only forty-five percent having more than five years of experience. A recent study conducted by the National Academy of Public Administration finds that the USPTO ‘lacks an adequate number of seasoned patent examiners to operate efficiently.’ Patent examiners in the USPTO are under-trained and overworked, thus compromising the quality of patents.”).

129. See, e.g., Beth Simone Noveck, *“Peer to Patent”: Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J.L. & TECH. 123, 135 (2006) (“Empirical data confirms the inadequacy of USPTO search capabilities. In a recent study of 502,687 utility patents, examiners were found to have a disadvantage in searching for non-patent prior art or foreign patents.”); Michael Risch, *The Failure of Public Notice in Patent Prosecution*, 21 HARV. J.L. & TECH. 179, 196 (2007) (“[P]atent examiners often perform inadequate searches of prior art. A high-quality prior art search is difficult because of resource and time limitations.”).

130. See MPEP, *supra* note 10, at ch. 900 (“Prior Art, Classification and Search”); see also 35 U.S.C. §§ 304–305 (2006).

young and unseasoned examiner. As Professor Mark Lemley somewhat caustically remarked:

I've seen what happens in the U.S. PTO. The average amount of time that an examiner spends on a patent application in the U.S. PTO is something on the order of ten hours. . . . There is simply no reason that a court should be bound by the outcome of this abbreviated proceeding.<sup>131</sup>

Likewise, courts' willingness to consider "new" prior art that was not before the PTO during prosecution may be based on a lack of confidence in the PTO's ability to locate all of the relevant prior art. Finally, courts' refusal to defer to the PTO's definition of "material" information for purposes of inequitable conduct, and their prior, pre-*Therasense* insistence on a broader definition of the term, may have been a judicial attempt to force a greater volume of relevant information before the PTO to compensate for the perceived deficiencies in searching for relevant prior art.<sup>132</sup>

This is not to say that courts are *correct* to eschew APA standards when judging patent invalidity or to ignore the PTO's own definition of "material" information when judging inequitable conduct. Given the Supreme Court's clear mandate in *Zurko* that the APA standards apply to judicial review of PTO decisions,<sup>133</sup> it would seem that courts should also follow the APA standards when judging patent invalidity. After all, an invalidity challenge simply seeks judicial review of the PTO's decision to grant a patent, even though this review occurs in the context of private litigation.<sup>134</sup> Furthermore, the *Zurko* Court rejected the notion that any specific deficiencies of the PTO justified a departure from the normal APA review standards. Rather, *Zurko*

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131. Mark A. Lemley, *Reconceiving Patents in the Age of Venture Capital*, 4 J. SMALL & EMERGING BUS. L. 137, 146 (2000).

132. Paradoxically, even the *Therasense* definition of "material" information might evince a judicial skepticism with the quality of PTO decision-making. As noted above, *Therasense* requires patentees to disclose only information that would ultimately cause the PTO to reject the pending claims, while Rule 56(b) requires patentees to disclose information that would create a prima facie case of unpatentability. *See* 37 C.F.R. § 1.56(b) (2011); *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1291 (Fed. Cir. 2011) (en banc); *see also supra* note 58 and Section III.B. By holding that disclosure of prima facie invalidating art is unnecessary and only actually invalidating art must be disclosed, *Therasense* effectively denigrates the back-and-forth dialogue between patentees and the PTO, during which patentees commonly seek to distinguish art that the PTO found to be prima facie invalidating. *Therasense*, 649 F.3d at 1291. The *Therasense* position is entirely consistent with that of a court that distrusts PTO examiners' ability to hold their ground against skilled and determined patent applicants who are seeking to distinguish prima facie invalidating art. *Id.*

133. *See Dickinson v. Zurko*, 527 U.S. 150, 152 (1999).

134. *See* Administrative Procedure Act, 5 U.S.C. § 706(2)(A), (E) (2010).

stressed that “[t]he APA was meant to bring uniformity to a field full of variation and diversity”<sup>135</sup> and further noted that there was no apparent reason why judicial review of the PTO “demands a stricter fact-related review standard than is applicable to other agencies.”<sup>136</sup> That being the case, it would seem improper for courts to eschew APA standards for invalidity challenges simply because of the PTO’s perceived deficiencies.

Likewise, even if PTO examiners are relatively unskilled at locating prior art or sparring with patentees, that would not justify courts’ refusal to adopt the PTO’s own definition of “material” information for purposes of inequitable conduct. As noted above, any standard for the sorts of “material” information patentees must disclose is an inherent compromise between a narrow duty of disclosure (which would increase the likelihood that some relevant information might never come to the PTO’s attention) and a broad duty of disclosure (which might slow down the patent prosecution process by swamping the PTO with minimally relevant information).<sup>137</sup> The PTO is surely better equipped than courts to weigh the inherent trade-offs between narrow and broad disclosure requirements—and to craft a definition of “material” information that strikes the appropriate balance in light of the PTO’s own workload and capacity to process information from patentees. It follows that courts should defer to the PTO’s own definition of “material” information, as set forth in Rule 56.

Nonetheless, if this Article is correct that courts’ lack of deference to the PTO stems from judicial dissatisfaction with the quality of PTO decision-making, then perhaps the best way to increase the level of judicial deference to the PTO would be to increase the quality of PTO decision-making (which, admittedly, would be a worthy goal even leaving aside issues of judicial deference). Commentators have proposed various strategies to increase the quality of PTO decision-making. For instance, Professor John Thomas has proposed offering cash bounties to third parties who bring relevant prior art to the PTO’s attention during the patent prosecution process.<sup>138</sup> Under Thomas’s proposal, a bounty would be paid to any member of the public who submits noncumulative art that the PTO ultimately relies upon to reject one or more claims of the patent application.<sup>139</sup> These bounties might even be funded by fines on patentees whose applications are rejected, rendering

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135. *Zurko*, 527 U.S. at 155.

136. *Id.* at 165.

137. *See supra* note 86 and accompanying text.

138. *See* Thomas, *supra* note 127, at 342–44.

139. *See id.* at 342.

the system as a whole revenue-neutral.<sup>140</sup> By deputizing members of the public to act as “private patent examiners,”<sup>141</sup> Thomas’s bounty system has the potential to increase the quantity and quality of prior art that patent examiners may draw upon when judging the patentability of an invention. And given the common belief that patent examiners are ill equipped to conduct their own prior art searches,<sup>142</sup> proposals such as Thomas’s that bring more relevant prior art to examiners’ attention are likely to improve the quality of PTO decision-making.

A less capitalistic and more regulatory proposal for increasing the prior art at patent examiners’ disposal would be to require patentees to affirmatively *search* for prior art, rather than simply requiring them to disclose material prior art of which they are aware.<sup>143</sup> Such “prior art search duties” have been a feature of various patent reform bills throughout the past decade,<sup>144</sup> though such a duty has never been passed into law.

Meanwhile, the best way to increase the collective expertise of patent examiners would probably be to increase retention of experienced examiners. The presently high attrition rate of experienced examiners, and their replacement by unseasoned recruits, results in an examiner corps that is collectively quite young and inexperienced.<sup>145</sup> If this attrition could be slowed or halted, then the collective experience of the examiner corps would inevitably rise.

An obvious way to decrease attrition might be to increase the pay of patent examiners. By way of illustration, the European and Japanese Patent Offices pay their examiners significantly more than the U.S. PTO, and neither of these offices faces the kind of attrition problems that plague their

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140. *Id.*

141. *Id.* at 343.

142. *See supra* note 129 and accompanying text.

143. *See* Kevin M. Baird, *Business Method Patents: Chaos at the USPTO or Business as Usual?*, 2001 U. ILL. J.L. TECH & POL’Y 347, 360 (2001) (“Currently, the patentee has a ‘duty of disclosure’ to the USPTO requiring the patentee to disclose all relevant prior art known to them. However, this duty does not go so far as to require the patentee to actually conduct any search of the prior art whatsoever. . . . An affirmative duty on the patentee that goes beyond a ‘duty of disclosure’ would help assure that more of the relevant prior art was disclosed during examination.”).

144. *See* Gina M. Bicknell, *To Disclose or Not To Disclose: Duty of Candor Obligations of the United States and Foreign Patent Offices*, 83 CHI.-KENT L. REV. 425, 455 (2008) (discussing the inclusion of mandatory prior art search duties in the House and Senate versions of the abortive Patent Reform Act of 2007).

145. *See* Grier, *supra* note 128, at 645; Chuang, *supra* note 128, at 243.

American counterpart.<sup>146</sup> Yet increased examiner pay might be difficult if not impossible to enact in an era of budget deficits and government cutbacks—cutbacks which have already impacted the PTO's budget and operations.<sup>147</sup>

Another way to decrease attrition of experienced examiners might be for the PTO to aggressively promote flextime, work-from-home options, maternity and paternity leaves, and other benefits that would presumably be most attractive to older, more experienced examiners who must balance work and family obligations. The PTO is certainly aware of these possibilities—indeed, it has instituted a “telework” program in recent years that allows certain employees (including certain patent examiners) to work from home up to four days a week.<sup>148</sup> In a similar vein, the 2011 America Invents Act authorizes the PTO to establish satellite offices around the country in an effort to “enhance patent examiner retention.”<sup>149</sup> While it is too early to tell whether these specific efforts will bear fruit, the PTO should continue to pursue such quality-of-life and work-flexibility initiatives if it wishes to stem the attrition of experienced patent examiners.

#### B. JUDICIAL DISSATISFACTION WITH THE SPEED OF PTO DECISION-MAKING

Ironically, while Professor Lemley and others complain about the abbreviated and even cursory nature of PTO examinations, the PTO has also been criticized for the slow pace of reexaminations.<sup>150</sup> Despite a statutory requirement that the PTO conduct reexamination proceedings with “special dispatch,”<sup>151</sup> it is undeniable that reexaminations are often quite slow and protracted. One recent survey found that the average inter partes

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146. See Grier, *supra* note 128, at 649.

147. Indeed, the PTO was forced to temporarily freeze hiring in 2009 due to the challenging economic climate. See 2009 FISCAL REPORT, *supra* note 7, at 3.

148. See generally U.S. PATENT & TRADEMARK OFFICE, 2008 TELEWORK ANNUAL REPORT 6–8 (2008), available at [http://archive.teleworkexchange.com/pdfs/uspto\\_2008\\_telework\\_annual\\_report.pdf](http://archive.teleworkexchange.com/pdfs/uspto_2008_telework_annual_report.pdf).

149. Leahy-Smith America Invents Act of 2011, Pub L. No. 112-29, § 23(b)(2), 125 Stat. 284, 336.

150. See, e.g., Gene Quinn, *Patent Litigation Stayed Before PTO Grants Reexam Request*, IPWATCHDOG.COM (Jan. 17, 2010), <http://www.ipwatchdog.com/2010/01/17/patent-litigation-stayed-before-ptto-grants-reexam-request/id=8446> (“As an entrepreneur I just shudder to think about the delay that is imposed while a patentee waits for the Patent Office to go through the excruciatingly slow reexamination process. As a former law professor, and one who has taught both Patent Litigation and Civil Procedure, I find it extremely distasteful that the entire process would be made to drag out for so long.”).

151. 35 U.S.C. § 305 (2006).

reexamination takes twenty-seven months,<sup>152</sup> while another recent article found that the average ex parte reexamination takes twenty-four months.<sup>153</sup> By way of comparison, some district courts take an average of less than twelve months to litigate an entire patent case<sup>154</sup>—including infringement issues as well as the validity issues that are present in reexamination proceedings.

Unlike judges' decorous refusal to directly criticize the quality of PTO decision-making or the expertise of its examiners, judges are quite willing to voice their displeasure with the slow pace of reexaminations—and often cite the length of the reexamination process as a reason not to stay suits pending reexamination.<sup>155</sup> This is hardly a surprising position. Courts generally consider potential prejudice to the nonmoving party in deciding whether to grant a stay pending reexamination,<sup>156</sup> and there are numerous circumstances in which a patent plaintiff might be prejudiced by a protracted stay. Even beyond the general maxim of “justice delayed is justice denied,”<sup>157</sup> a lengthy stay may allow for the loss of documentary evidence or fading witness

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152. See Roger Shang, *Inter Partes Reexamination and Improving Patent Quality*, 7 NW. J. TECH. & INTELL. PROP. 185, 194 (2009).

153. E. Patrick Ellisen & Daniel McCloskey, *Cost Effective Defense of Patent Infringement Suits Brought by Non-practicing Entities*, 21 INTELL. PROP. & TECH. L.J., no. 10, 2009, at 1, 3 (relying on 2007 data).

154. See David P. Enzminger & David P. Dalke, *Selecting a Litigation Forum from Among the District Courts and the International Trade Commission*, 1020 PLI/PAT 283, 287 (2010) (“[C]ases in the Western District of Wisconsin proceed[] to trial, on average, in about 8 months, while cases in the Eastern District of Virginia progress to trial in just under one year.”).

155. See, e.g., *Affinity Labs. of Tex. v. Apple Inc.*, No. 09-4436, 2010 WL 1753206, slip. op. at \*2 (N.D. Cal. Apr. 29, 2010) (“As of December 31, 2009, the average length of an inter partes reexamination is 36.2 months. The average length of delay is likely to increase considering the steady rise in the number of reexaminations filed in the past several years. . . . Overall, these significant delays weigh heavily against granting the stay.”); *Alltech, Inc. v. Cenzone Tech., Inc.*, No. 06-153, 2007 WL 935516, at \*2 (S.D. Cal. Mar. 21, 2007) (denying stay in part because “a stay lasting possibly twenty-one months would likely cause undue prejudice to Plaintiffs”); *Lexington Lasercomb I.P.A.G. v. Unger*, No. 06-80079, 2006 WL 2370247, at \*1 (S.D. Fla. July 31, 2006) (“A stay for purposes of reexamination of a patent is within the court’s discretion, and is not a requirement for reexamination. Here, a stay of this action could result in an [sic] delay of months, if not years. Accordingly, this Court declines to stay, and thus prolong for an indefinite period of time, the instant litigation.” (citations omitted)).

156. See, e.g., *TouchTunes Music Corp. v. Rowe Entvl. Corp.*, 676 F. Supp. 2d 169, 177 (S.D.N.Y. 2009); *Premier Int’l Assoc. L.L.C. v. Hewlett-Packard Co.*, 554 F. Supp. 2d 717, 720 (E.D. Tex. 2008); *Telemac Corp. v. Teledigital, Inc.*, 450 F. Supp. 2d 1107, 1111 (N.D. Cal. 2006).

157. This legal maxim is generally attributed to nineteenth century British Prime Minister William E. Gladstone, though this attribution has not been verified. See LAWRENCE J. PETER, *PETER’S QUOTATIONS: IDEAS FOR OUR TIME* 275 (1977).

recollections<sup>158</sup> and can also prevent a plaintiff from halting ongoing infringement through injunctive relief.<sup>159</sup>

The prejudice that can result from a protracted stay of litigation might also explain why courts studiously ignore the primary jurisdiction doctrine in determining whether to grant a stay pending reexamination. As discussed above, the primary jurisdiction doctrine has mandatory or quasi-mandatory application in cases involving complex factual issues that judges are ill equipped to answer.<sup>160</sup> Yet district judges, concerned with the prejudice that could result from a lengthy stay of litigation, might not *want* to be constrained by a mandatory or quasi-mandatory doctrine that would require them to grant a stay. Thus, instead of confronting and applying the primary jurisdiction doctrine, they simply ignore it.

Again, this is not to say that it is *correct* for patent courts to ignore the primary jurisdiction doctrine simply because invoking that doctrine could cause a lengthy stay of litigation. For one thing, there is some dispute among the courts about whether the possibility of delay is ever a valid factor to consider when deciding whether to invoke the primary jurisdiction doctrine.<sup>161</sup> In addition, there are ways to ameliorate the potential delay that could result from application of the primary jurisdiction doctrine, short of ignoring the doctrine altogether. For instance, courts in non-patent contexts have sometimes invoked the doctrine and stayed a case, but built a “time limit” into their stay order that allows the litigation to resume if the agency does not decide the relevant issue within a reasonable period of time.<sup>162</sup>

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158. See *BarTex Research, LLC v. FedEx Corp.*, 611 F. Supp. 2d 647, 651–52 (E.D. Tex. 2009) (“A stay could potentially prevent BarTex from enforcing its rights for 6.5 years. This extreme delay . . . could allow for a loss of critical evidence as witnesses could become unavailable, their memories may fade, and evidence may be lost.”).

159. See *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, No. 04-32, 2008 WL 4809093, at \*2 (E.D. Tex. Oct. 29, 2008).

160. See *supra* notes 120–22 and accompanying text.

161. Compare *Ellis v. Tribune Television Co.*, 443 F.3d 71, 90 (2d Cir. 2006) (“[S]uch considerations of judicial economy should not be considered because ‘the Supreme Court has consistently held that there are only two purposes to consider in determining whether to apply the primary jurisdiction doctrine—uniformity and expertise’ and ‘the Supreme Court has never identified judicial economy as a relevant factor.’”), with *Am. Auto. Mfrs. Ass’n v. Mass. Dep’t of Env’tl. Prot.*, 163 F.3d 74, 81 (1st Cir. 1998) (“These factors, however, must be balanced against the potential for delay inherent in the decision to refer an issue to an administrative agency.”).

162. See *Am. Auto.*, 163 F.3d at 82 (“[A] court might refer a matter to an administrative agency, explicitly providing, however, that if the agency fails to rule within a reasonable amount of time, the court would . . . vacate the referral order and decide the matter itself . . . .”); *Wagner & Brown v. ANR Pipeline Co.*, 837 F.2d 199, 206 (5th Cir. 1988)

Nonetheless, while it may not be correct for patent courts to ignore the primary jurisdiction doctrine just because of the possibility of delay, this Article contends that courts' fear of delay does indeed cause their reluctance to invoke the doctrine and stay cases pending reexamination. Accordingly, one way to increase courts' willingness to invoke the primary jurisdiction doctrine and stay suits pending reexamination—i.e., increase their deference to parallel PTO proceedings—would be to reduce the time that it takes to conduct a reexamination. This, in turn, may be as simple as readjusting the workload among PTO reexaminers. Since 2005, reexaminations have been conducted exclusively by an elite cadre of examiners in the PTO's newly created Central Reexamination Unit ("CRU").<sup>163</sup> CRU examiners, who are selected from among the general PTO examiner corps, have "an average of 17 years of examining experience"—far more than the median PTO examiner—and often possess "advanced technical and/or legal degrees."<sup>164</sup> Yet while the PTO allocates a single examiner to each initial patent examination, it allocates *three* CRU examiners to each reexamination.<sup>165</sup> Given the high level of expertise that each CRU examiner can bring to bear, this is probably an inefficient use of scarce CRU resources.<sup>166</sup> After all, the lion's share of reexaminations is still *ex parte* reexaminations,<sup>167</sup> which are conducted nearly identically to initial patent examinations.<sup>168</sup> If a single examiner is entrusted with handling each initial patent examination, then surely a single CRU examiner—who will have far more expertise than the

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("[W]e direct that the district court modify its judgment by . . . staying proceedings before it for a period of 180 days to afford FERC an opportunity to rule on ANR's complaint. If no such ruling is forthcoming within that time, or such extension thereof as the district court is persuaded would not irreparably harm Wagner & Brown's rights and is required for good cause shown by FERC, then the district court should proceed to adjudicate the rights of the parties without further deference to the expertise of FERC.")

163. See Robert Greene Sterne et al., *Reexamination Practice with Concurrent District Court Litigation or Section 337 USITC Investigations*, 10 SEDONA CONF. J. 115, 158 (2009).

164. *Id.* at 158–59.

165. See Stephen G. Kunin & W. Todd Baker, *Inter Partes Reexamination Overview, Trends and Strategies*, 991 PLI/PAT 85, 87 (2010).

166. In 2008, the last year for which there is available data about CRU manpower, the CRU contained fifty-three examiners who collectively handled the 848 reexaminations filed that year. See Sterne, *supra* note 163, at 158; U.S. PATENT & TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT: FISCAL YEAR 2008, at 127 tbls.13(a), 13(b) (2008), available at <http://www.uspto.gov/about/stratplan/ar/2008/2008annualreport.pdf>.

167. In 2009, seventy-two percent of all reexamination requests that were filed were *ex parte* requests. See 2009 FISCAL REPORT, *supra* note 7, at 124 tbls.13(a) & 13(b).

168. 35 U.S.C. § 305 (2006) ("After the times for filing the statement and reply provided for by section 304 of this title have expired, reexamination will be conducted according to the procedures established for initial examination . . .").

typical examiner—could handle each ex parte reexamination. And an inter partes reexamination might be even easier for a single CRU examiner to adjudicate, since the CRU examiner has the benefit of an adversarial party (the inter partes requestor) to help critique the arguments made by the patentee. Simply put, assigning three CRU examiners to each reexamination smacks of overkill and does not seem to be an efficient use of CRU resources. The pace of reexamination might pick up significantly if the PTO assigned a single CRU examiner to each reexamination—and quicker reexaminations would likely increase courts' willingness to stay infringement suits pending the outcome of the reexamination.

## V. CONCLUSION

Admittedly, the aforementioned rationales for why the PTO fails to receive judicial deference are normatively unsatisfying. Blaming this lack of deference on the quality and pace of PTO decision-making may be akin to “blaming the victim.” It is tempting, therefore, to search for alternative explanations. One facially attractive explanation may be that the Federal Circuit—the circuit court with nearly exclusive jurisdiction over patent appeals<sup>169</sup>—is a relatively specialized “patent court” that is not institutionally equipped to place patent issues in the broader context of administrative law. For instance, it has been suggested that the Federal Circuit’s preoccupation with patent law gives its judges “tunnel vision” and causes them to view patent law as *sui generis*.<sup>170</sup> Under this theory, the Federal Circuit’s eschewing of APA review standards for patent invalidity, and its refusal to apply *Seminole Rock* or *Chevron* deference to the PTO’s Rule 56, might reflect the judges’ inability to “think outside the patent box” and apply general administrative law principles to patent litigation.

Yet while this explanation is superficially attractive, it is ultimately unpersuasive. For one thing, while the Federal Circuit does have specialized jurisdiction, this jurisdiction is not limited to patent cases. Rather, the Federal Circuit hears cases from a number of different subject-matter enclaves,

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169. See 28 U.S.C. § 1295(a)(1).

170. See, e.g., Rochelle Dreyfuss, *Pathological Patenting: The PTO as Cause or Cure*, 104 MICH. L. REV. 1559, 1567 (2006) (“Because the Federal Circuit is so specialized and hears mainly from patent lawyers, there is always a suspicion that, in the authors’ words, the judges will ‘turn inward,’ [and] ‘be swayed by the unique importance of the field . . . .’”) (reviewing ADAM B. JEFFER & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS* (2004)); Arti K. Rai, *Engaging Facts and Policy: A Multi-institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035, 1110 (2003) (“That the Federal Circuit’s jurisprudence would be narrowly formalist is not surprising. Tunnel vision is a well-known liability for specialist courts.”).

including appeals from such diverse tribunals as the Court of Federal Claims,<sup>171</sup> International Trade Commission,<sup>172</sup> and Merit Systems Protection Board.<sup>173</sup> Less than thirty percent of the Federal Circuit's docket comprises patent cases,<sup>174</sup> and its other subject-matter enclaves expose the court and its judges to a variety of administrative law issues.<sup>175</sup> Moreover, the majority of past and present Federal Circuit judges have not come from predominantly patent law backgrounds,<sup>176</sup> which further undercuts the argument that these judges are incapable of "thinking outside the patent box." In short, there is every reason to believe that Federal Circuit judges are capable of comprehending the general principles of administrative deference and applying those principles to patent cases. They simply choose not to defer.

As discussed above, the most plausible explanation for this state of affairs is that Federal Circuit judges—and judges more generally—are simply unimpressed by the quality and/or pace of PTO decision-making. Whether justified or not, the PTO is unlikely to garner increased deference from courts until it adequately addresses these issues. To put it another way, the PTO likely will not receive formal administrative "respect" as long as judges do not informally "respect" its overall decision-making process.

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171. See 28 U.S.C. § 1295(a)(3).

172. See § 1295(a)(6).

173. See § 1295(a)(9).

174. See Paul D. Carrington & Paulina Orchard, *The Federal Circuit: A Model for Reform?*, 78 GEO. WASH. L. REV. 575, 580 (2010).

175. See, e.g., *Guerra v. Shinseki*, 642 F.3d 1046, 1049 (Fed. Cir. 2011) (applying *Chevron* deference to a Department of Veterans' Affairs regulation); *Cal. Indus. Prods., Inc. v. United States*, 436 F.3d 1341, 1350 (Fed. Cir. 2006) (analyzing primary jurisdiction doctrine in the context of a Customs Service dispute).

176. See John M. Golden, *The Supreme Court as "Prime Percolator": A Prescription for Appellate Review on Questions in Patent Law*, 56 UCLA L. REV. 657, 666 (2009).

# PROTECTING YOUR ONLINE YOU: A NEW APPROACH TO HANDLING YOUR ONLINE PERSONA AFTER DEATH

*Noam Kutler*<sup>†</sup>

## ABSTRACT

People create online personas through email, social networking, and virtual world services. Upon signing up for one of these services, a person enters into a contractual agreement governing the terms of use. These agreements include limitations on what will happen to his account after he dies. The conditions governing what happens to the account after the creator dies vary widely, which gives rise to a situation where it is nearly impossible to know how all of one's digital assets will be handled after death. Due to the increased use of these services, the lack of clarity in what happens to one's online persona after death is becoming a greater problem.

This Note proposes treating one's online persona as part of one's estate and handling it in a similar manner as other assets, which can be bequeathed to a designated person. An exception to this general probate treatment, however, arises when a person's digital assets are left unresolved in his will. In much the same way that past love letters from a deceased husband offer a window into his life, a person's e-mail, social network postings, and other digital artifacts should also be available after death and the solution proposed here makes that a more likely reality while still protecting the creator's potential privacy interest. Such a system will result in the fulfillment of the digital creator's wishes, better guarantees of privacy, and the assurance of a more equitable and better defined legal system for addressing one's online persona after death.

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## TABLE OF CONTENTS

I.	INTRODUCTION.....	1642
II.	ASSESSING THE CURRENT HANDLING OF ONE'S ONLINE PERSONA .....	1645
III.	A PROPOSED MOVE AWAY FROM CONTRACT LAW AND TOWARD A MORE PROPERTY LAW-BASED APPROACH .....	1649
	A. A NEW SOLUTION .....	1650
	B. REASONS FOR RECOGNIZING THE RIGHT TO POSTHUMOUSLY CONTROL ONE'S ONLINE PERSONA .....	1651
	1. <i>Online Persona: The Modern Right of Publicity</i> .....	1652
	2. <i>An Online Persona Has Value</i> .....	1653
	3. <i>Recognizing Property Rights in an Online Persona Ensures Efficient Ownership</i> .....	1654
IV.	LEGAL MEANS OF ACHIEVING POSTHUMOUS CONTROL OVER ONE'S ONLINE PERSONA .....	1656
	A. A LEGISLATIVE APPROACH .....	1656
	B. A JUDICIAL SOLUTION .....	1657
	1. <i>Overcoming Terms of Service Agreements</i> .....	1657
	2. <i>Beyond the Contractual Agreement: Asserting Control over an Online Persona in Court</i> .....	1659
	3. <i>Potential Problems with Recognizing a Person's Right To Control His Online Persona After Death</i> .....	1663
V.	CRITIQUES AND RESPONSES TO RECOGNIZING POSTHUMOUS CONTROL OF ONE'S ONLINE PERSONA.....	1664
VI.	CONCLUSION .....	1667
	APPENDIX: PROPOSED CHANGES TO THE UNIFORM PROBATE CODE .....	1669

### I. INTRODUCTION

In 2004, Marine Lance Corporal Justin Ellsworth died in the line of duty while serving in Iraq. His family wanted to gain access to his Yahoo! e-mail account to capture every last insight into their son's tragically short life. Many people's initial response might be to grant this sentimental request. However, Yahoo! denied the parents' request, citing the e-mail service's Terms of

Service, which mandate the deletion of an account upon notification of the owner's death.<sup>1</sup> In another instance, Pam Weiss's twenty-one-year-old daughter died in a sledding accident. She found comfort through her daughter's Facebook<sup>2</sup> account and the ability to connect with her daughter's friends. Facebook's policy is to freeze the account of the deceased and create a memorial version for friends and family to reconnect and remember.<sup>3</sup> In yet another instance, Orlando radio host Erika Roman died in a car accident, and her family was left with no way to reach out to her online friends and fans because Erika's laptop was destroyed in the accident and no one knew her account passwords.<sup>4</sup> Without any further legal wrangling, her online persona was lost to everyone. Finally, consider the hypothetical situation of a spouse dying suddenly. The surviving spouse potentially is left without access to family photos stored online, e-mail accounts storing important documents, account numbers and passwords, or personal love letters and correspondence between the couple. Such a situation abruptly disconnects the surviving spouse from the digital world and can have ramifications in the real world as well, including the immediate inability to pay bills or liquidate assets.

And yet, what if also stored in the deceased spouse's e-mail or Facebook account were private correspondence with a secret lover or divorce attorney; should not these documents remain private and removed from the prying eyes of third parties? Or what if Ms. Roman's family wanted access to the accounts in order to exploit her celebrity for profit? Would this matter? Or what if Pam Weiss's daughter never imagined her Facebook account existing long after she died and would have preferred its deletion upon her death? Finally, what if Lance Corporal Ellsworth would have preferred a sibling, significant other, or another third party handle the e-mails in his account instead of his father; should the law allow him to dictate such a right of succession? The advent of "Web 2.0"<sup>5</sup> and the ability of internet sites to store

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1. See Susan Llewelyn Leach, *Who Gets To See the E-mail of the Deceased?*, CHRISTIAN SCI. MONITOR, May 2, 2005, at 12 (reporting on Justin's parents' efforts to access their dead son's e-mail); see also *Justin's Family Fights Yahoo over Access to His E-Mail Account*, JUSTIN MARK ELLSWORTH, <http://www.justinellsworth.net/email/yahoofight.htm> (last visited Jan. 1, 2012) (offering links to press releases documenting the parents' battle with Yahoo!).

2. FACEBOOK, <http://www.facebook.com> (last visited Jan. 1, 2012).

3. Gaëlle Faure, *How To Manage Your Online Life When You're Dead*, TIME (Aug. 18, 2009), <http://www.time.com/time/business/article/0,8599,1916317,00.html>.

4. Etan Horowitz, *How Will You Manage Your Virtual Afterlife?*, ORLANDO SENTINEL, Aug. 30, 2009, at A1.

5. "Web 2.0" is the term commonly used to describe the recent advent of web applications that facilitate interactive information sharing between users and web sites. These new applications allow users to interact with the sites and make the web a more participatory environment, rather than the first generation of websites, which were more static. Examples

large amounts of data raise a number of new concerns regarding privacy and data access. In addition, given the relatively young age of the average internet user, many questions regarding death and rights of succession have yet to reach the critical mass necessary to garner public attention—but they will soon.

Currently, when a person signs up for a social network, e-mail service, or virtual community, he enters into a contractual agreement governing the terms of use, including limitations on what will happen to his account after he dies. Such a system gives rise to a situation where it is nearly impossible to know how all of one's digital assets will be handled after death because of the wide variation among terms of service agreements. In addition, because of some of these sites' restrictive terms, potential heirs of a person's estate have little recourse to gain access to a loved one's digital identity.

This Note proposes treating one's online persona as part of one's estate and handling it in a similar manner as other assets are handled. An exception to this general probate treatment, however, arises when a person's digital assets are left unresolved in his will. In that case, rather than applying traditional rules of intestacy, a court should default to deleting the account, while still allowing potential heirs to challenge this action through the probate process. In much the same way that past love letters from a deceased husband offer a window into his life, a person's e-mail, social network postings, and other digital artifacts should also be available after death and the solution proposed here makes that a more likely reality. Such a system will result in the fulfillment of the digital creator's wishes, better guarantees of privacy, and the assurance of a more equitable and better defined legal system for addressing one's online persona after death.

Part II of this Note reviews the current practices of several popular online sites and examines how a person's digital identity is handled after his death. In addition, this Part will look at current solutions available to users who wish to control the use of their accounts after they die. Part III addresses the reasons why a person's online persona should be protected and how such an approach will benefit both the parties using the services and the companies offering these e-mail, social network, and virtual world services. Part IV analogizes posthumous digital rights to past cases dealing with bailment laws and the posthumous transfer of semen, thereby providing additional justification for the proposed solution and demonstrating that it is workable in practice. Finally, Part V compares this argument to other

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of popular Web 2.0 sites include Facebook, Wikipedia, Flickr, and Twitter. See Tim O'Reilly, *What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software*, O'REILLY (Sept. 30, 2005), <http://oreilly.com/web2/archive/what-is-web-20.html>.

proposed solutions and addresses some of the concerns raised by privacy and business interests.

## II. ASSESSING THE CURRENT HANDLING OF ONE'S ONLINE PERSONA

A persona consists of an individual's attributes that identify him to a reasonable third party and is comprised of his name, signature, photograph, image, likeness, and voice.<sup>6</sup> The persona is an intangible, yet legally protectable, asset that the deceased's heirs can also protect and use after his death.<sup>7</sup> An online persona therefore identifies a person to others online through his e-mail accounts, social network profiles, digital creations, and characters in virtual worlds. Such an encompassing definition includes items on a varying scale of privacy and personal characteristics. E-mails and social network messages may be less personal than the character a person creates through a service such as the online virtual world Second Life. In these virtual worlds, the generated characters become an extension of the person's being and allow for the formation of separate relationships, personalities, and private lives.<sup>8</sup> Somewhere in between those two endpoints on the spectrum lie other digital creations such as photographs and music stored online. While at times a more personal reflection of the person than routine e-mail messages, online photographs are also potentially less personal than a person's online character in a virtual world.

The discussion of the best means to handle posthumously this online persona begins with a discussion of how it is currently handled. When a person signs up for an online service, he usually clicks a small button near the bottom of a web page certifying that he agrees to the service's terms of use.<sup>9</sup>

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6. *See, e.g.*, *Toney v. L'Oreal USA, Inc.*, 406 F.3d 905, 908–09 (7th Cir. 2005) (explaining what constitutes a person's identity under the law).

7. *See, e.g.*, *Martin Luther King Jr., Ctr. for Soc. Change, Inc. v. Am. Heritage Prods., Inc.*, 296 S.E.2d 697, 706 (Ga. 1982) (holding that personas are protectable after death, even for those who did not take commercial advantage of their fame during life); *Estate of Presley v. Russen*, 513 F. Supp. 1339, 1354 (D.N.J. 1981) (recognizing the right of publicity and holding that a person can transfer such a property right).

8. The extent to which these virtual characters become extensions of a person's persona is apparent by the many social interactions and commitments that people make while participating in Second Life and other virtual worlds. *See, e.g.*, *Second Life Affair Ends in Divorce*, CNN (Nov. 14, 2008), [http://articles.cnn.com/2008-11-14/world/second.life.divorce\\_1\\_second-life-virtual-world-online-relationship](http://articles.cnn.com/2008-11-14/world/second.life.divorce_1_second-life-virtual-world-online-relationship) (describing a British couple who divorced in real life after the wife caught her husband having an "affair" in the online world).

9. These agreements between the user and the website are referred to as "terms of service agreements," and they generally form a contractual agreement governing behavior on the site and the guarantees of service that the site makes in return.

The person rarely reads the agreement<sup>10</sup> and proceeds to use the service while oblivious to the particular terms of service. Such “browsewrap” or “clickwrap” agreements<sup>11</sup> have come into vogue on the Internet, and courts traditionally uphold these agreements.<sup>12</sup> By requiring a person to click “I Agree” or some derivation thereof, the site provides the requisite notice to the user that a contract is being formed, and the person manifests his consent by clicking “I Agree.”<sup>13</sup> As a result, terms that people rarely read<sup>14</sup> govern an individual’s various social network, virtual community, and e-mail accounts, which make up his digital persona. Add to this the wide range of terms used on various sites and these online services create an environment where managing a plethora of accounts may become difficult or confusing.<sup>15</sup>

The Canadian Privacy Commission drew attention to Facebook, the world’s most popular online social network,<sup>16</sup> when it released a report criticizing Facebook’s Terms of Service, and particularly the way it handled

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10. Cf. MARY J. CULNAN & GEORGE R. MILNE, THE CULNAN-MILNE SURVEY ON CONSUMERS & ONLINE PRIVACY NOTICES: SUMMARY OF RESPONSES 2 (2001), <http://www.ftc.gov/bcp/workshops/glb/supporting/culnan-milne.pdf> (reporting that half of the respondents surveyed by the authors stated that they rarely, if ever, read the privacy policies).

11. “Browsewrap” contracts involve terms of use agreements that are available from the site’s home page, but the user is never required to actually click any agreement button. MICHAEL D. SCOTT ET AL., SCOTT ON MULTIMEDIA LAW § 23.08[A][2] (3d ed. 2011). Alternatively, “clickwrap” agreements require the user to click an “I Agree” button or some variation thereof to demonstrate acceptance. Both types of contracts are used regularly on the Internet. See CHARLES L. KNAPP ET AL., PROBLEMS IN CONTRACT LAW 267–68 (6th ed. 2007).

12. See, e.g., *Register.com, Inc. v. Verio, Inc.* 356 F.3d 393, 403–04 (2d Cir. 2004) (enforcing the terms of service agreement on Register.com’s website because Verio was aware of the terms and so by using the website, it implicitly agreed to the terms); *Caspi v. Microsoft Network*, 732 A.2d 528, 530–31 (N.J. Super. Ct. App. Div. 1999) (upholding a forum selection clause included in the terms of service agreement, despite plaintiff’s contention that he had never manifested agreement to the terms). But see *Specht v. Netscape Commc’ns Corp.*, 306 F.3d 17, 31 (2d Cir. 2002) (holding that the terms of service agreement was unenforceable when the provider could not prove that the user was at least on inquiry notice that further terms existed).

13. Cf. *Specht*, 306 F.3d at 29 (declining to enforce a clause in the terms of service agreement because the user never manifested his consent by clicking “I agree” and so could not be held to the contractual terms).

14. See CULNAN & MILNE, *supra* note 10 (describing evidence showing that half of survey respondents rarely or never read online privacy policies).

15. See Andrea Coombes, *You Need an Online Estate Plan*, WALL ST. J. MARKETWATCH (July 19, 2009), <http://online.wsj.com/article/SB124796142202862461.html> (recommending an online estate plan in order to ensure that heirs will be able to access these accounts after the user’s death); Faure, *supra* note 3 (describing the various terms websites use to govern their actions upon a user’s death).

16. See *Facebook*, N.Y. TIMES, [http://topics.nytimes.com/top/news/business/companies/facebook\\_inc/index.html](http://topics.nytimes.com/top/news/business/companies/facebook_inc/index.html) (last updated Feb. 1, 2012).

the accounts of the deceased.<sup>17</sup> The Canadian government singled out the social network for what it categorized as a privacy violation—the “memorializing” of a deceased member’s account without offering proper notification or choice to the user.<sup>18</sup> When memorializing a deceased user’s account, Facebook freezes the account but allows previously confirmed friends to continue to access the user’s public posting board, so that “[f]riends and family can leave posts in remembrance.”<sup>19</sup> Until recently, users’ only option was to delete their account before death in order to opt-out of Facebook’s memorializing program. However, Facebook modified this policy in 2010 to allow a close family member to request the account be deleted instead.<sup>20</sup> The effective exercise of that option, however, requires that family members be aware of the account owner’s deletion wishes and be willing to carry them out. Coupled with the strict prohibition against sharing one’s password or transferring one’s account to another person,<sup>21</sup> a Facebook user is still left with no recourse other than to relinquish control over how others will use his account after he dies.

Yahoo!,<sup>22</sup> a leading internet portal that offers an internet search engine, e-mail service, and photo storage capabilities, approaches the issue of one’s digital persona after death in a different manner. Yahoo! explicitly rejects any right of survivorship and requires a user to agree that “[u]pon receipt of a copy of a death certificate, [his] account may be terminated and all contents therein permanently deleted.”<sup>23</sup> Although some privacy advocates laud this response as an appropriate means of handling concerns regarding stolen e-mails or illicit photographs,<sup>24</sup> Yahoo!’s “take-it-or-leave-it” approach still leaves the user with no control over how to handle his digital persona upon his death.

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17. See ELIZABETH DENHAM, ASSISTANT PRIVACY COMM’R OF CAN., REPORT OF FINDINGS INTO THE COMPLAINT FILED BY THE CANADIAN INTERNET POLICY & PUBLIC INTEREST CLINIC (CIPPIC) AGAINST FACEBOOK INC. UNDER THE PERSONAL INFORMATION PROTECTION AND ELECTRONIC DOCUMENTS ACT 67–68 (2009), available at [http://www.priv.gc.ca/cf-dc/2009/2009\\_008\\_0716\\_e.pdf](http://www.priv.gc.ca/cf-dc/2009/2009_008_0716_e.pdf).

18. See *id.*

19. *Privacy: Deactivating, Deleting, and Memorializing Accounts*, FACEBOOK, <http://www.facebook.com/help/?page=842> (last visited Feb. 20, 2012).

20. See *id.*

21. See *Statement of Rights and Responsibilities*, FACEBOOK, § 4 (Apr. 26, 2011), <http://www.facebook.com/terms.php?ref=pf>.

22. YAHOO!, <http://www.yahoo.com> (last visited Jan. 1, 2012).

23. *Yahoo! Terms of Service*, YAHOO!, § 27 (Nov. 24, 2008), <http://info.yahoo.com/legal/us/yahoo/utos/utos-173.html>.

24. See Anick Jesdanun, *Digital Life Can’t Pass On When Someone Passes Away: What Happens to Data Becomes Issue of Conflict*, HOUS. CHRON., Dec. 26, 2004, at 5.

Further underscoring the nebulous and often difficult-to-understand details of terms of service agreements, Google,<sup>25</sup> the leading internet search engine in the United States,<sup>26</sup> offers no clear description of how it will handle a person's account upon death. Although Google's Terms of Service prohibit the transfer or licensing of one's account to another person,<sup>27</sup> it also states that the user retains the copyright and other rights to the data.<sup>28</sup> This leaves it unclear how the transfer of one's digital persona may be treated after death. As a result of Google's prohibition on the transfer or licensing of the account, any effort to transfer access to one's account after death would violate the Terms of Service.

Second Life,<sup>29</sup> a popular virtual community that offers users the opportunity to develop a character, purchase virtual land, and utilize a virtual currency convertible to U.S. dollars,<sup>30</sup> used to have a more permissive policy regarding the rights of succession available to its users. However, in April 2010, Second Life removed a provision in its Terms of Service that stated it would "not unreasonably withhold consent to the transfer of an Account"<sup>31</sup> and replaced it with an explicit statement that a user may not assign or transfer his account.<sup>32</sup>

These are just a few examples of the many approaches companies adopt to deal with the rights of succession and transfer of online accounts and assets. Internet sites use widely varying language and terms, which makes it nearly impossible for a person using several different online services to know

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25. GOOGLE, <http://www.google.com> (last visited Jan. 1, 2012).

26. Press Release, comScore, comScore Releases September 2010 U.S. Internet Search Engine Rankings (Oct. 13, 2010), *available at* [http://www.comscore.com/Press\\_Events/Press\\_Releases/2010/10/comScore\\_Releases\\_September\\_2010\\_U.S.\\_Search\\_Engine\\_Rankings](http://www.comscore.com/Press_Events/Press_Releases/2010/10/comScore_Releases_September_2010_U.S._Search_Engine_Rankings) (reporting that in 2010, Google was the top search engine with a 66.1% market share).

27. *See Google Terms of Service*, GOOGLE, § 10 (Apr. 16, 2007), <http://www.google.com/accounts/TOS>.

28. *See id.* § 11.

29. SECOND LIFE, <http://www.secondlife.com> (last visited Jan. 1, 2012).

30. Second Life's market is called LindeX and has a floating currency averaging around 260 Linden dollars to one U.S. dollar. *See LindeX Market Data*, SECOND LIFE, <http://secondlife.com/statistics/economy-market.php> (last visited Oct. 19, 2011). As of 2009, Second Life's total GDP was estimated at \$567 million U.S. dollars. *See T. Linden, 2009 End of Year Second Life Economy Wrap Up (Including Q4 Economy in Detail)*, SECOND LIFE (Jan. 19, 2010, 9:00 AM), <http://community.secondlife.com/t5/Features/2009-End-of-Year-Second-Life-Economy-Wrap-up-including-Q4/ba-p/653078>.

31. *Linden Labs Official: Terms of Service Archive / Through 29 April 2010*, SECOND LIFE, [http://wiki.secondlife.com/wiki/Linden\\_Lab\\_Official:Terms\\_of\\_Service\\_Archive/Through\\_29\\_April\\_2010](http://wiki.secondlife.com/wiki/Linden_Lab_Official:Terms_of_Service_Archive/Through_29_April_2010) (last visited Oct. 19, 2011).

32. *See Terms of Service*, SECOND LIFE, § 13.2 (Dec. 15, 2010), <http://secondlife.com/corporate/tos.php>.

what his rights within all of those services will be after death. Additionally, most internet sites frequently change their terms,<sup>33</sup> making it burdensome to properly keep abreast of what rules affect one's digital persona.

Websites have arisen to address these questions and propose solutions, but all have their inherent weaknesses. These websites propose several different solutions: (1) storing all of a person's passwords in his will and thereby transferring access to the accounts;<sup>34</sup> (2) using an online service such as Legacy Locker<sup>35</sup> that offers to store all of one's accounts and passwords on its servers and then transfer them to the designee upon death; or (3) seeking a court order to force the online service to turn over the requested information.<sup>36</sup> Each option has serious flaws.<sup>37</sup> The basic problem with these proposals is apparent after only a quick glance at the terms of service of sites such as Facebook and Yahoo!, which strictly prohibit sharing or transferring the passwords to one's accounts. The use of online services such as Legacy Locker therefore depends upon the violation of online services' terms of service.

### III. A PROPOSED MOVE AWAY FROM CONTRACT LAW AND TOWARD A MORE PROPERTY LAW-BASED APPROACH

Contract law does not offer the best solution for handling one's online persona after death. The varying terms and vague wording used by each online service, along with the service's ability to change the terms at its discretion, make the cost of conforming to the various terms of service agreements prohibitively high for the average user. Instead, this Note proposes that the probate process should control one's online persona in a similar manner as it governs other real-world property. This solution would allow a person to leave instructions in his will for the proper handling of his digital assets. If the deceased does not address those digital assets in his will, the court should destroy them after first providing an opportunity through the probate process for potential heirs to challenge the destruction of any assets in court. A state's intestacy laws determine the proper course of

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33. See, e.g., Jill Duffy, *Facebook Changes on Its Terms, Not Yours*, PC MAG. (Sept. 23, 2011), <http://www.pcmag.com/article2/0,2817,2393399,00.asp> (highlighting Facebook's ever-changing privacy controls and user settings).

34. See *Estate Planning—Keep Track of Passwords, Access Keys and PINs*, FINDLAW, <http://estate.findlaw.com/estate-planning/estate-planning-other-topics/keeping-track-of-passwords.html> (last visited Jan. 21, 2012).

35. LEGACY LOCKER, <http://www.legacylocker.com> (last visited Jan. 1, 2012).

36. See Leach, *supra* note 1; text accompanying *supra* note 1.

37. See discussion of Legacy Locker and Deathswitch *infra* text accompanying notes 76–78.

succession and which heirs have standing to potentially inherit the unaddressed items.<sup>38</sup> Although not going so far as to recognize full property rights in all online accounts,<sup>39</sup> the limited approach proposed in this Note of treating online assets as part of a person's estate provides the appropriate legal structures necessary to address the challenge of handling one's posthumous online persona.

#### A. A NEW SOLUTION

When dealing with the matters of a deceased's estate, the first distinction is whether the deceased passed with a will or without one.<sup>40</sup> A person who dies and leaves a will is known as a testator,<sup>41</sup> and a person who dies without a will dies intestate.<sup>42</sup> Following a person's death, his estate goes through a process of administration known as probate, which a court traditionally oversees in order to ensure proper dissemination of the person's property.<sup>43</sup> If a will exists, then the administrator of the deceased's estate handles the appropriate distribution of the estate according to the wishes expressed therein.<sup>44</sup> Alternatively, when all or part of the deceased's estate is not disposed of through a will, those assets are left to be managed intestate.<sup>45</sup>

To allow greater control over the handling of one's online persona after death, one's digital assets should be treated as part of the estate. This would allow the deceased to leave instructions in his will to distribute the various e-mail, social network, and virtual world accounts according to his wishes. This control should, however, be limited to avoid over-burdening the online services. To this end, much like courts limit the deceased's ability to control his estate for generations after death through the rule against perpetuities,<sup>46</sup> courts should limit one's control over the future of one's online assets.

38. *See, e.g.*, DEL. CODE ANN. tit. 12, § 502 (2010); TEX. PROB. CODE ANN. § 38 (West 2009); VA. CODE ANN. § 64.1-1 (2010).

39. Although this Note does not address the larger discussion of granting full property rights to digital assets, others have argued for such recognition. *See* Deven R. Desai, *Property, Persona, and Preservation*, 81 TEMP. L. REV. 67, 77 (2008).

40. *See* JESSE DUKEMINIER ET AL., WILLS, TRUSTS, AND ESTATES 71 (8th ed. 2009).

41. *See* BLACK'S LAW DICTIONARY 1514 (8th ed. 2004).

42. *See id.* at 840.

43. *See* DUKEMINIER, *supra* note 40, at 40.

44. A detailed accounting of the precise steps and challenges afforded to the beneficiaries of a will is unnecessary here. When discussing the process by which one's digital assets will be distributed via a will, the particular state's estate laws apply and affect the particular details as they would any other aspects of a person's personal estate.

45. *See* UNIF. PROBATE CODE §§ 2-101 to -105 (amended 2008); *see also* DUKEMINIER, *supra* note 40, at 72 (defining partial intestacy).

46. *See* W. Barton Leach, *Perpetuities in a Nutshell*, 51 HARV. L. REV. 638, 639-40 (1938).

This Note proposes keeping an account open for an additional six months following the completion of probate; after that time, the service should delete the account.<sup>47</sup> Such a system provides the beneficiaries with adequate time to archive past messages, videos, and other digital assets without forcing the online services to spend significant resources maintaining now-defunct accounts.<sup>48</sup> Finally, for those who die without adequately addressing their desires in a will, their digital assets should be treated as a special form of intestate property. For reasons of online security and privacy, courts should default to ordering the deletion of all digital assets left intestate, while still providing an opportunity for any potential beneficiaries<sup>49</sup> to challenge this deletion and apply for control over a particular digital asset. This Note discusses the legal methods for achieving this solution in Part IV, *infra*; the basics described above, however, serve as a foundation for exploring, in the remainder of this Part, the legal and philosophical underpinnings of this new estate law-based approach to handling one's online persona after death.

B. REASONS FOR RECOGNIZING THE RIGHT TO POSTHUMOUSLY CONTROL ONE'S ONLINE PERSONA

The use of the Internet has exploded in recent years, leaving the law to catch up with many new issues.<sup>50</sup> As a result, many traditional business models have caused unforeseen problems leading to a need for refinement and development. With respect to the way current service providers handle online services and virtual accounts, one legal scholar described these providers as trying to act like gods through the use of restrictive service agreements.<sup>51</sup> Such an approach threatens to stifle the future growth of the industry.<sup>52</sup> Evaluating the current handling of online services, he poses the

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47. For a complete proposal, see *infra* Part IV.

48. This solution also provides the added benefit of addressing many of the privacy concerns that arise when storing one's accounts online indefinitely. See Ari Schwartz, Deirdre Mulligan & Indrani Mondal, *Storing Our Lives Online: Expanded E-mail Storage Raises Complex Policy Issues*, 1 I/S: J.L. & POL'Y INFO. SOC'Y 597, 608–09 (2005) (raising concerns regarding the disclosure of private e-mails to family members and noting the rising threat of unwanted disclosure). However, testators should be allowed to take advantage of any special provisions provided by the particular online service in question. As discussed earlier, Facebook memorializes a person's account in perpetuity. This Note's proposal should be seen as not eliminating such options, but rather giving a person the ability to decide whether or not to take advantage of such offers by services such as Facebook.

49. See UNIF. PROBATE CODE § 2-103 (providing a traditional list of survivors to intestate estates).

50. See *supra* note 12 and accompanying text (providing examples of courts' struggles to apply traditional contract law to the Internet).

51. See Joshua A.T. Fairfield, *The God Paradox*, 89 B.U.L. REV. 1017, 1024 (2009).

52. See *id.*

following hypothetical: “imagine if early telephone companies had tried to exercise this level of control” over their phone lines, imposing restrictive and onerous policies; the telephone “would not have become the engine of discourse and communication it currently is.”<sup>53</sup> Such is the current state of the online world. These online service agreements that restrict the means of users to control the future use of their accounts now threaten to stymie the potential growth of the industry. The restrictions impose rules that encourage users to look elsewhere for a creative outlet.<sup>54</sup>

1. *Online Persona: The Modern Right of Publicity*

In particular, these restrictive agreements do not reflect developments in state law regarding the rights and interests of the deceased. Heirs to a person’s estate retain the right to control the deceased’s right of publicity. An online persona concerns the way a person is portrayed to the public through the Internet; similarly, the right to control one’s posthumous right of publicity addresses how a person is portrayed to the public after death. Nearly thirty years ago, the U.S. District Court for the District of New Jersey took up the issue of the rights of a decedent in the seminal case *Estate of Presley v. Russen*.<sup>55</sup> In that instance, the court considered Elvis Presley’s estate’s right to protect his “right of publicity” from being misused after death.<sup>56</sup> The *Estate of Presley* case recognized that personas merited protection and that Presley’s had “attained a concrete form” that permitted its transfer to his beneficiaries.<sup>57</sup> The court held that allowing people to transfer the rights of their personas would encourage them to invest in their personas while alive and therefore benefit all of society.<sup>58</sup> Today, posthumous protection of the right of publicity has become even more important as the use of images of the dead for commercial profit has increased greatly with the advent of digital replicas.<sup>59</sup> And while Elvis Presley is not your average individual, the advent

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53. *Id.*

54. See Robert Levine, *Billy Bragg’s MySpace Protest Movement*, N.Y. TIMES, July 31, 2006, at C5 (detailing the decision of one musician to temporarily remove songs from MySpace after fine print led him to believe content posted on the site became MySpace property).

55. 513 F. Supp. 1339 (D.N.J. 1981).

56. See *id.* at 1354 (asking whether the right of publicity descends to the estate at the death of an individual).

57. *Id.* at 1355 (quoting *Lugosi v. Universal Pictures*, 603 P.2d 425, 446 (Cal. 1979)) (holding that because Elvis made commercial use of his persona during his lifetime, he had the right to transfer that persona and the rights accorded to it).

58. See *id.*

59. Examples of such digital replicas can be seen in television and film today. In recent years, Elvis Presley has appeared in Pizza Hut commercials, Fred Astaire has danced with Dirt Devil vacuum cleaners, and John Wayne has become a pitchman for Coors Beer. See *Ad Strategies Seeking To Raise the Dead*, L.A. TIMES, July 8, 1997, at D13.

of social media and Web 2.0 has created value in everyone's online persona, not just celebrities. Popular viral videos turn regular people into internet celebrities overnight and websites like YouTube commercialize those personas.<sup>60</sup> Today, everyone's right of publicity has value that should be protected to the same extent that Elvis's was after his death.

The court's reasoning in *Estate of Presley* should apply to the control of a person's online persona after he dies. The right to posthumously control one's online persona is akin to controlling one's publicity after death in that both situations address the image of the person to others and some value exists in possessing the online persona or right of publicity. While the exact contours of what makes up a digital identity and what rights one should be afforded regarding that persona are still debated,<sup>61</sup> courts and legislatures recognize that the assets comprising a person's digital identity should be granted some greater protection.<sup>62</sup> Because of the similarities between online personas and the right of publicity, the *Estate of Presley* court's holding that Elvis could transfer the right of publicity to his descendants<sup>63</sup> should also apply to posthumous control of one's online persona and enable a person to control his digital identity through the probate process.

## 2. *An Online Persona Has Value*

The consequences of not recognizing such a right are serious since, without such control, digital creations stand to be lost forever upon the author's death or, alternatively, potential creations will go unmade for fear of lost control.<sup>64</sup> In 1841, Justice William Story, sitting as circuit justice in Massachusetts, recognized the risk to both individuals and society if courts did not protect one's persona and therefore found monetary value in the unpublished private letters of President George Washington.<sup>65</sup> Justice Story's decision allowed him to protect these writings by finding that they had

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60. See Rosemary Ford, *Gone Viral: Online Videos Turning Regular People into Celebrities*, EAGLE-TRIB. (N. Andover, Mass.) (Apr. 10, 2011), <http://www.eagletribune.com/latestnews/x1075334051/Gone-viral-Online-videos-turning-regular-people-into-celebrities>.

61. See generally Joseph J. Beard, *Clones, Bones and Twilight Zones: Protecting the Digital Persona of the Quick, the Dead and the Imaginary*, 49 J. COPYRIGHT SOC'Y U.S.A. 441 (2001); Anthony L. Pessino, Note, *Mistaken Identity: A Call To Strengthen Publicity Rights for Digital Personas*, 4 VA. SPORTS & ENT. L.J. 86 (2004) (addressing the broader subject of the legal rights for newly developing digital personas used in television and film).

62. See Pessino, *supra* note 61, at 101 (noting the number of states beginning to pass laws protecting the post-mortem right of commercial appropriation of digital personas).

63. See *Estate of Presley*, 513 F. Supp. at 1355.

64. See *supra* Part II (discussing the terms of service for companies like Yahoo! and Facebook).

65. *Folsom v. Marsh*, 9 F. Cas. 342, 345 (C.C.D. Mass. 1841).

monetary value and could therefore be owned and transferred like other personal property.<sup>66</sup> This enabled him to recognize ownership in the letters.<sup>67</sup> In so holding, Justice Story developed the proper framework for understanding the value of personal e-mails, Facebook accounts, and other digital artifacts in modern times.

While perhaps not quite as valuable to society as George Washington's private letters, a person's communications and online accounts have value. Not recognizing and protecting those assets harms people. Professor Devin Desai defines three groups of people potentially harmed by not recognizing a property interest in one's digital assets: the creator, "potential inheritor[s]," and society as a whole.<sup>68</sup> Both Immanuel Kant and George Hegel saw literary creations as an embodiment of the person himself<sup>69</sup> and a similar embodiment of the person exists in today's digital identity. A financial and emotional stake also exists for the creator's heirs in many of these creations; these interests are ones Justice Story recognized more than one hundred years ago.<sup>70</sup> Finally, while a more persuasive interest exists for both the creator and his heirs, society also retains an interest in such creations as both informative snapshots of current society for the benefit of future generations and as a means of encouraging societal creativity.<sup>71</sup>

### 3. *Recognizing Property Rights in an Online Persona Ensures Efficient Ownership*

Jeremy Bentham once wrote that "[p]roperty is nothing but a basis of expectation—the expectation of deriving certain advantages from a thing, which we are said to possess."<sup>72</sup> Such an expectation continues to exist today with regard to this new form of digital creation. People posting on Facebook, Flickr, or Twitter all have a certain expectation of ownership and control. In much the same way that early America was settled through land grants and property rights,<sup>73</sup> granting further control over creations on the Internet will encourage more responsible investment of resources in this new frontier.

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66. *Id.*

67. *Id.*

68. *See* Desai, *supra* note 39, at 72.

69. *See id.* at 85.

70. *See id.* at 87–88.

71. *See id.* at 89.

72. 1 JEREMY BENTHAM, *THEORY OF LEGISLATION* 137 (1840).

73. *See* Douglas W. Allen, *Homesteading and Property Rights; or "How the West Was Really Won,"* 34 J.L. & ECON. 1, 5 (1991) (discussing how the granting of property rights in unsettled land was used to encourage people to quickly settle the land without having to use force to expel the Native Americans already living there).

The development of a more robust means of controlling one's online persona after death is in the interest of both the companies running these sites and the interested parties discussed above—the creators, their heirs, and society as a whole.<sup>74</sup> A similar kind of interest led England in the early twelfth century to recognize the inheritability of land as a way of ensuring greater production and development in service of the King.<sup>75</sup> Incentivizing the development of land by recognizing the ownership claims of both real and personal property led to the foundations of modern property law and continues to justify further recognition in today's virtual assets as well. The website companies will benefit from this control because it will encourage greater use of their services and more creativity in that use. As a result, both business and society benefit by recognizing a person's right to control the use of his online persona.

Absent further legal development and recognition of a person's right to control the use of his online persona, companies and individuals will resort to inefficient, or at times even ineffective, means to assert ownership. Already, websites such as Legacy Locker<sup>76</sup> and Deathswitch<sup>77</sup> offer online options that provide a seeming bridge to mortality and claim to grant loved ones access to the deceased's online assets. These sites do not, however, offer a tenable solution because they depend upon a violation of the online service providers' terms of service to pass along the passwords.<sup>78</sup> In addition, they require the decedent to maintain an active list of passwords so that the services can transfer the accounts to the designated parties as planned. Also, as with any internet service, no guarantee exists that the site will stay in business long enough to fulfill its commitment to the decedent. Finally, such solutions do not provide legal accountability for a beneficiary to enforce his rights to the accounts. Unlike the solution proposed in this Note, the potential recipient of Deathswitch's e-mail or Legacy Locker's list of passwords will likely lack standing in court to assert any claim to the online assets, especially since the access was predicated upon the violation of an online service's terms of service.

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74. See Desai, *supra* note 39.

75. See A.W.B. SIMPSON, A HISTORY OF THE LAND LAW 54–63 (2d ed. 1986) (discussing the historical developments of the feudal land system in England that eventually led to the Quia Emptores Statute in 1290, which fully established the right of alienation and inheritability to all owned land).

76. LEGACY LOCKER, *supra* note 35.

77. DEATHSWITCH, <http://www.deathswitch.com> (last visited Feb. 20, 2012).

78. See *supra* Part II (discussing the terms of service agreements used by most major online services, all of which include a provision against the transfer of passwords to third parties).

#### IV. LEGAL MEANS OF ACHIEVING POSTHUMOUS CONTROL OVER ONE'S ONLINE PERSONA

Companies running online services (e.g., Facebook, Yahoo!, and Google) offer the easiest means of addressing a person's posthumous online persona by simply revising their terms of service to reflect a person's need and right to control his digital assets posthumously. Recognizing that no site has taken this step yet is a strong signal that none will do so any time soon, if for no other reasons than inertia and corporate culture. Thus, legislative or judicial action must offer a solution. This Note proposes two approaches—one legislative and one judicial—that will work well either together or as separate approaches to ensure greater control of one's digital assets after death.

##### A. A LEGISLATIVE APPROACH

First, states should amend current estate laws to address the legal rights of one's posthumous digital identity. Although this Note later addresses the means of asserting this right in court,<sup>79</sup> a legislative approach assures a more standard means of handling this new form of property. The Appendix to this Note details such a solution.<sup>80</sup> A legislative approach should focus on amending the Uniform Probate Code ("UPC"), which serves as a model for many states' estate laws. The amended UPC would provide guidance to state legislatures on how to better protect citizens' online personas.<sup>81</sup>

Section 1-201, which defines the various terms used throughout the UPC, should be amended to define "property" to include one's digital assets, including e-mail, social networking accounts, and other online creations. This expansion would allow these items to be treated similarly to other aspects of one's estate. Additionally, section 2-101 addresses the subject of intestacy and its subsequent distribution. A third subsection should be added to this section that creates an exception for those assets considered to be digital. Instead of the general rights of succession, digital assets should be destroyed following proper notification to potential beneficiaries. This approach strikes a proper balance among the privacy interests of the creator, the potential interests of beneficiaries, and the needs of the online services.

In addressing the administration of the estate, section 3-706 provides for the duties of one's personal representative during probate. An effective amendment to this section would require the administrator of the estate to inventory the decedent's online assets and provide a full accounting to

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79. *See infra* Section IV.B.

80. *See infra* Appendix (offering a chart with all proposed changes to the Uniform Probate Code included in this Section).

81. *See generally* UNIF. PROBATE CODE (amended 2008).

potential beneficiaries. Such a requirement would allow for the proper deletion of all accounts without expressed intent, while also allowing family members or other interested parties to raise timely objections. To manage this added obligation, section 3-709 should grant the administrator of the estate the right to take control not only of all real and tangible property, but also the decedent's digital assets. This addition would provide the necessary legal framework for the administrator to properly carry out the wishes of the deceased, particularly deleting any accounts as expressly stated. Finally, section 3-814 should also be amended to provide the administrator the freedom to pay online service account maintenance fees in order to ensure the accounts remain open through the probate period.<sup>82</sup> If states were to adopt these proposed amendments, they would better protect their citizens' online personas.

#### B. A JUDICIAL SOLUTION

Depending on how many states adopt the amendments suggested in this Note, the judicial process may still have to enforce the decedent's rights in his digital assets. Legal precedent exists to enforce a person's right to control his digital assets as well as a means to invalidate the terms of service agreements that may restrict such efforts. This Section discusses both the means for overcoming the oppressive terms of these online agreements and the proper legal framework for achieving legal recognition of the deceased's right to posthumously control his online persona. Finally, this Section addresses and resolves the subject of waste and the potential of posthumously destroying one's online persona, which some courts could see as an obstacle to the proposed judicial solution.

##### 1. *Overcoming Terms of Service Agreements*

The first obstacle that an estate will face when trying to exert control over the decedent's online persona is the terms of service contract that the decedent and the service already formed. Precedent exists, however, for finding the contractual agreements between the user and the various internet sites unenforceable. In *Bragg v. Linden Research, Inc.*, the court found parts of the arbitration clause in the terms of service agreement unconscionable for the online role-playing game, *Second Life*.<sup>83</sup> Unconscionable terms are those judged to be extremely unfair and oppressive;<sup>84</sup> such terms invalidate a

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82. Online maintenance fees are forms of debt owed by the estate; therefore, this section of the UPC is the best area for this addition.

83. 487 F. Supp. 2d 593, 612 (E.D. Pa. 2007).

84. BLACK'S LAW DICTIONARY, *supra* note 41, at 1561.

contract.<sup>85</sup> To succeed on a claim of unconscionability, a party must prove both that the contract terms unreasonably favor the other party and that a “gross inequality of bargaining power” exists that leaves the claiming party with no meaningful choice as to the terms of the agreement.<sup>86</sup> The court considers the reasonableness of the terms under the commercial standards used at the time of the contract’s formation.<sup>87</sup> Unconscionable terms are those “so extreme as to appear unconscionable according to the mores and business practices” used at the time.<sup>88</sup>

In *Bragg*, Marc Bragg sued the corporate owners of Second Life after they expelled him from the online community and reclaimed his virtual assets.<sup>89</sup> Second Life moved to compel arbitration according to the terms of service agreement. Bragg, however, argued successfully that the contractual terms between Bragg and Second Life were unconscionable because the service agreement assumed too much power and was unreasonably biased against the user.<sup>90</sup> *Bragg* demonstrates that courts are inclined to invalidate terms of service agreements when companies assert too much control over the user’s creations. And lest one believe that Second Life is the outlier, legal scholars are already turning to Facebook’s Terms of Service and finding similar provisions and controls.<sup>91</sup> Given the *Bragg* decision and the similarity in the structure of the agreements among other services, future challenges to terms of service agreements are likely to fare similarly when challenged in court.

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85. See U.C.C. § 2-302 (amended 2003).

86. *Williams v. Walker-Thomas Furniture Co.*, 350 F.2d 445, 449 (D.C. Cir. 1965); see also *Carnival Cruise Lines, Inc. v. Shute*, 499 U.S. 585, 600–01 (1991) (Stevens, J., dissenting) (approving of the approach used in *Walker-Thomas*, which applied a reasonableness standard to contracts of adhesion).

87. See *Walker-Thomas*, 350 F.2d at 450.

88. 2 JOSEPH M. PERILLO & HELEN HADJIYANNAKIS BENDER, CORBIN ON CONTRACTS 78 (rev. ed. 1995).

89. See *Bragg v. Linden Research, Inc.*, 487 F. Supp. 2d 593, 597 (E.D. Pa. 2007) (describing the situation where Second Life reclaimed a parcel of virtual land that Bragg had purchased and then expelled him from the game world, “effectively confiscating all of the virtual property and currency that he maintained on his account”).

90. *Id.* at 611 (outlining the aspects of the arbitration clause that were substantively unconscionable—in particular, Second Life’s ability to unilaterally suspend or expel users’ accounts).

91. See Steven Hetcher, *User-Generated Content and the Future of Copyright: Part Two—Agreements Between Users and Mega-sites*, 24 SANTA CLARA COMPUTER & HIGH TECH. L.J. 829, 843 (2008) (drawing similarities between Facebook’s Terms of Service and Second Life’s Terms of Service, particularly that both provide inadequate notice to users and bury surprise clauses deep within the terms).

2. *Beyond the Contractual Agreement: Asserting Control over an Online Persona in Court*

Defeating any existing contractual agreement with an online service, however, is only the first part of effectively asserting the deceased's right to handle his online estate posthumously. A party arguing this right in court must still justify legally recognizing the right to designate the future of one's online assets. Bailment laws offer further support for protecting one's online persona. Much like probate law, states primarily determine the laws of bailment.<sup>92</sup> A bailment relationship arises, for example, when a person drops his clothes off at the dry cleaner, leaves a watch at the repair shop, or deposits jewelry in a safe deposit box at a bank. In all of these situations, personal property is given to the bailee for a specific reason, but the original person always maintains ownership of the personal property.<sup>93</sup> In much the same way as parties establish traditional bailment relationships,<sup>94</sup> a person submits digital assets to the e-mail server or social network provider with the understanding that when he accesses his account, the assets will be available.

Courts consider intangible property, such as the contents of a letter, as also holdable in bailment,<sup>95</sup> and a reasonable extension of that thinking would apply bailment laws to one's e-mail or social network account stored on a third-party server. The safe deposit box provides a particularly relevant example because in both instances the user retains some key (or password) to open the box and retrieve the items inside. Furthermore, even if a person loses the key to a safe deposit box, the bank still cannot withhold access to the contents. Those items belong to the beneficiary of the estate, not the bank.<sup>96</sup> The bank is responsible for ensuring the proper transfer of the assets

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92. The Ninth Circuit defines a bailment relationship as occurring "when the owner, while retaining general title, delivers personal property to another for some particular purpose upon an express or implied contract to redeliver the goods when the purpose has been fulfilled." *Maulding v. United States*, 257 F.2d 56, 60 (9th Cir. 1958); *see also* *Barnette v. Casey*, 19 S.E.2d 621, 623 (W. Va. 1942) (explaining that bailment is a type of contractual relationship and therefore state law applies).

93. *See* *Little, Brown & Co. v. Am. Paper Recycling Corp.*, 824 F. Supp. 11, 17 (D. Mass. 1993).

94. *See, e.g.,* *Christensen v. Hoover*, 643 P.2d 525, 528–59 (Colo. 1982) (holding that a bailment relationship exists anytime a person takes possession of another person's property with an agreement that the property will be returned upon the bailor's request).

95. *See* *Liddle v. Salem Sch. Dist.*, 619 N.E.2d 530, 533 (Ill. App. Ct. 1993) (holding that information contained within a letter is still subject to bailment rules).

96. *See* *Hurt v. Bank One*, 718 N.E.2d 485, 486 (Ohio Ct. App. 1998) (providing an example of a beneficiary recovering, after her husband's death, the assets in the box, despite the lost key).

to the deceased's next of kin.<sup>97</sup> Banks and other bailees must exercise ordinary care in returning goods held in bailment to the rightful beneficiary of the estate.<sup>98</sup> Similarly, when a person dies, the online service should properly transfer the digital assets held in bailment to the decedent's authorized heirs. Postal carriers<sup>99</sup> and mailbox rental centers<sup>100</sup> are in bailment relationships with customers, and so too should e-mail providers and social networking services.

Additionally, legal developments regarding the treatment of posthumous reproductive rights offer further insight into the proper handling of one's posthumous online identity.<sup>101</sup> A person's online persona ranges from traditional e-mail accounts to more personal virtual world characters, or avatars. While bailment laws may provide a means to address parts of the digital persona such as e-mail and Facebook postings, the bailment approach falls short when addressing the more personal and less definite parts of a digital persona—the online avatars and personalities developed in the virtual world. These types of creations take on more personal attributes, reflecting the Hegelian view of serving as embodiments of the creator.<sup>102</sup> As such, these online assets become a part of the person's very being.<sup>103</sup> Avatars and other more personal aspects of one's digital persona do reflect a person's actual

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97. *See Nat'l Safe Deposit Co. v. Stead*, 232 U.S. 58, 69 (1914) (affirming the view that the bank does not own the property in the safe deposit box and must transfer the property to the authorized heir); *Glynn v. Mercantile Safe Deposit Co.*, 143 N.Y.S. 849, 850–51 (App. Div. 1913) (holding that banks merely act as bailees when storing a person's property in a safe deposit box and therefore the items must be transferred to the beneficiary regardless of any other repercussions).

98. *See* 11 AM. JUR. 2D *Banks and Financial Institutions* § 1024 (1997) (stating that upon “the death of a depositor, a safe deposit company is bound to deliver the contents of the box only to the person or persons on whom the law casts the title” and must exercise ordinary care to prevent loss); *see also Jewelers Mut. Ins. Co. v. Firststar Bank Ill.*, 820 N.E.2d 411, 417 (Ill. 2004) (holding that a bank cannot contract out of exercising reasonable care over the properties left in its safe deposit boxes); *Hurt*, 718 N.E.2d at 487.

99. *See, e.g., U.S. Fid. & Guar. Co. v. United States*, 246 F. 433, 435 (9th Cir. 1917).

100. *See, e.g., Thompson v. Anderson*, 824 P.2d 712, 714–15 (Alaska 1992) (finding that plaintiff was in a bailment relationship with Mailboxes Etc. when he shipped goods through their service).

101. As technology has advanced, science's ability to preserve semen and allow for impregnation after a man dies has created a new challenge in estate law: how to deal with the challenges to this new type of asset that has a particularly personal characteristic. The relative infancy of this science results in limited case law, but the cases that do exist provide a good path for further discourse. *See generally* Monica Shah, *Modern Reproductive Technologies: Legal Issues Concerning Cryopreservation and Posthumous Conception*, 17 J. LEGAL MED. 547 (1996).

102. *See* Desai, *supra* note 39, at 84 n.95.

103. *See Second Life Affair Ends in Divorce*, *supra* note 8 (discussing a spouse's reaction to her husband's online infidelity on the website Second Life as something akin to the more traditional notion of infidelity).

being more than other, traditional assets. As a result, the way that courts address a person's right to posthumously control the use of his reproductive abilities provides guidance for how courts should handle the more personal, representative aspects of one's estate.

California courts have addressed this struggle for posthumous ownership over sperm, which can offer a good framework for how courts should deal with some of the more personal parts of an online persona. The cases involve two parties contesting ownership over the deceased's sperm: the deceased's significant other and his children from a previous marriage. In a series of decisions,<sup>104</sup> the California courts took up the issue of how a contractual arrangement between the parties affects the terms of a will and the deceased's wishes regarding the transfer of his semen.

In 1991, William Kane committed suicide, leaving behind two children from a previous marriage and a will that named the woman he was living with at the time, Deborah Hecht, as recipient of a large part of his estate.<sup>105</sup> Mr. Kane's children contested the will and eventually reached a settlement agreement with Ms. Hecht regarding the distribution of Kane's estate.<sup>106</sup> The agreement, however, did not specifically address the issue of fifteen vials of Mr. Kane's frozen semen that he had bequeathed to Ms. Hecht.<sup>107</sup> The children and Ms. Hecht subsequently fought over who had the right to the semen and whether the contractual agreement distributing the assets also applied to this item.

Five years after Mr. Kane's death, a California court of appeal overruled the contract arrangement and granted the semen to Ms. Hecht.<sup>108</sup> The court held that the decedent's sperm is "unique material" and therefore "not subject to division through an agreement among . . . potential beneficiaries."<sup>109</sup> The court reasoned that reproductive assets, such as a man's sperm, are different from traditional property and merit greater protection.<sup>110</sup> The court looked only to the intent of the sperm donor to control the disposition and held that a "decedent's right to procreate with whom he

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104. *Hecht v. Superior Court*, 59 Cal. Rptr. 2d 222 (Ct. App. 1996); *Kane v. Superior Court*, 44 Cal. Rptr. 2d 578 (Ct. App. 1995); *Hecht v. Superior Court*, 20 Cal. Rptr. 2d 275 (Ct. App. 1993).

105. *See Kane*, 44 Cal. Rptr. 2d at 580.

106. *See id.*

107. *See id.*

108. *See Hecht*, 59 Cal. Rptr. 2d at 223.

109. *Id.* at 226.

110. *See id.* (characterizing the sperm as "the seed of life" that was a fundamental aspect of the person's being).

chooses cannot be defeated by some contract.”<sup>111</sup> Other courts found similarly, holding that when it comes to personal items with special meaning, such as a man’s semen, the decedent’s intent overcomes any contractual obligation.<sup>112</sup> For instance, the Tennessee Supreme Court struggled with this issue, eventually holding that such pre-embryonic items hold a special classification in probate law.<sup>113</sup> Since such pre-embryonic assets are neither living beings nor pure property, courts should accord assets such as the deceased’s sperm special rights in probate disputes.<sup>114</sup>

While not to the same degree as pre-embryonic material, the more personal aspects of one’s digital identity also reflect an intimate aspect of the individual and therefore merit greater protection than traditional properties. A person’s Facebook account or avatar in a virtual world provides a very intimate and personal glance into the individual, far beyond that which money, stock options, or real estate provide. Viewed on a spectrum of varying property interests, for many, a person’s online persona carries deep personal meaning more closely aligned with that of a donor’s sperm than traditional property. In a sense, it becomes an extension of his or her very being. Therefore, courts should grant similar deference to the decedent’s intent. Courts only allow for posthumous conception when intent is explicit; if the decedent fails to provide that intent in his will, the pre-embryonic material is destroyed.<sup>115</sup> Courts should adopt a similar approach to a person’s online persona. When a person leaves digital assets intestate, courts should destroy those assets unless a potential beneficiary can demonstrate the deceased’s intent. While regular intestate law transfers unaddressed assets to the proper heir, the courts’ treatment of reproductive assets demonstrates that such rules can be overcome when public policy warrants. The importance of privacy and intent, as discussed above, warrants such an approach when addressing parts of one’s online persona left intestate.

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111. *Id.*

112. *See, e.g.,* Woodward v. Comm’r of Soc. Sec., 760 N.E.2d 257, 269 (Mass. 2002) (holding that any potential beneficiary must demonstrate the clear intent of the decedent in order to successfully assert a claim to the deceased’s sperm); A.Z. v. B.Z., 725 N.E.2d 1051, 1056–57 (Mass. 2000) (finding that without the husband’s clear intent, the ex-wife could not lay claim to his frozen sperm in the final distribution of their estate).

113. *See* Davis v. Davis, 842 S.W.2d 588, 597 (Tenn. 1992), *cert. denied*, 507 U.S. 911 (1993).

114. *See id.*

115. *See* Kirsten Rabe Smolensky, *Rights of the Dead*, 37 HOFSTRA L. REV. 763, 784 (2009).

3. *Potential Problems with Recognizing a Person's Right To Control His Online Persona After Death*

This proposed solution raises some concerns regarding destruction and waste of property. In the legal sense, destruction occurs “when an owner’s acts or omissions eliminate the value of all otherwise valuable future interests in a durable thing.”<sup>116</sup> Although historically the right to destroy one’s property has been inherent in ownership,<sup>117</sup> later courts have demonstrated their unwillingness to permit the frivolous destruction of property.<sup>118</sup> Courts do, however, recognize a person’s right to be buried with his wedding ring, in a nice suit, or in other clothing, so there is some line-drawing, primarily on the grounds of excessive waste and public policy reasoning.<sup>119</sup> Professor Lior Strahilevitz suggested that the current application of the law encourages people to destroy their property, both electronic and real, before they die and as a result, this application of the law actually harms society even more.<sup>120</sup> Instead, he proposes allowing greater flexibility when determining whether to permit posthumous destruction—not to allow this only encourages a person to destroy the property while still living.<sup>121</sup>

In much the same way, by not permitting a person to control the destruction of his online persona, the current law only encourages him to destroy the accounts before he dies. Such a situation benefits no one and, as Strahilevitz argues, “creates perverse incentives for sincere testators who care about what happens to their property after death[.]”<sup>122</sup> Unlike the situation in *Eyerman v. Mercantile Trust Co.*, in which a court upheld the plaintiff’s right to prevent the carrying out of the deceased’s wish to destroy her house because the destruction would harm the neighbors,<sup>123</sup> here no one is unduly harmed by the posthumous destruction of a person’s Facebook or Yahoo! account. The *Eyerman* court defined the public policy concern as that which “contravenes any established interest of society” and causes harm to the

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116. See Lior Jacob Strahilevitz, *The Right To Destroy*, 114 YALE L.J. 781, 793 (2005).

117. See *id.* at 788 (discussing the early American legal tradition regarding the right to destroy one’s own property).

118. See, e.g., *Eyerman v. Mercantile Trust Co.*, 524 S.W.2d 210, 217 (Mo. Ct. App. 1975) (refusing to recognize the decedent’s right to destroy her home after she died); *In re Meksras Estate*, 63 Pa. D. & C.2d 371, 373 (Orphans’ Ct. 1974) (refusing to allow the decedent to be buried with her valuable jewelry); *In re Capers Estate*, 34 Pa. D. & C.2d 121 (Orphans’ Ct. 1964) (holding void the clause in the deceased’s will that called for the destruction of her dog).

119. See Strahilevitz, *supra* note 116, at 806 (discussing various reasons for tolerable forms of destruction).

120. See *id.* at 849–50.

121. See *id.* at 852.

122. *Id.* at 854.

123. *Eyerman*, 524 S.W.2d at 214.

state.<sup>124</sup> Such a public policy concern does not arise, however, with the destruction of one's online persona, and therefore, the policy against destruction does not apply. This policy still benefits society even when a particularly famous person, say a modern-day Shakespeare, wants to destroy his online persona. In such a situation, the lack of posthumous control would only encourage the modern-day Shakespeare to destroy his accounts before dying and thereby deprive society of his creations.<sup>125</sup> Adopting this proposed policy of giving a person more control over the posthumous destruction of his online persona would at least provide society with this famous person's work for a longer time.

## V. CRITIQUES AND RESPONSES TO RECOGNIZING POSTHUMOUS CONTROL OF ONE'S ONLINE PERSONA

A legal solution that recognizes posthumous control of one's online persona faces several hurdles. This Part addresses those concerns and offers accommodations and explanations as to how courts should reconcile such issues. As the court in *Intel Corp. v. Hamidi* made clear,<sup>126</sup> courts are loathe to recognize full property rights in what are essentially a few lines of code residing on a computer server. And while this Note does not advocate full recognition of property rights including such common tort remedies as trespass to chattels and conversion, a limited acceptance of this property right is necessary to establish the right to transfer after death. In addressing the issue of courts' recognition of virtual property, scholars point out that over the past 200 years, the law has continued to move from defining property as purely tangible to including more intangible assets. These scholars predict that this continued progression in the law soon may include virtual assets as well.<sup>127</sup>

One proposed solution defines this new virtual property as code that is (1) persistent, in that it does not disappear when the computer is turned off;

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124. *Id.* at 217.

125. Alternatively, this modern-day Shakespeare may choose to simply not post his works online and shun these online services all together. Such a situation arose with musician Billy Bragg and demonstrates the likelihood of similar situations occurring again in the future. *See* Levine, *supra* note 54.

126. 71 P.3d 296, 308–11 (Cal. 2003) (rejecting plaintiff's argument that computer servers should be treated as real property and accordingly refusing to apply the tort of trespass to chattels to plaintiff's sending of electronic messages).

127. *See* F. Gregory Lastowka & Dan Hunter, *The Laws of the Virtual Worlds*, 92 CALIF. L. REV. 1, 43–50 (2004) (discussing the normative accounts of property as applied to virtual property).

and (2) interconnected, so that “[o]ther people can interact with” the code.<sup>128</sup> By adopting this virtual property definition, courts could limit the scope of virtual property while still recognizing certain rights inherent in these assets. Such recognition would adequately protect a person’s posthumous online persona and allow for its proper dissemination through the probate process. As discussed earlier, the historical development of property is predicated upon the belief that greater ownership will encourage further development in the assets. As such, it is in society’s, and therefore the courts’, interest to recognize such a right in this new online frontier.

Another critique raised in considering potential property rights inherent in digital items, such as e-mail and virtual world accounts, is the ability to duplicate these digital items an infinite number of times. However, it is because of this potential for duplication that property rights can exist in the virtual world simultaneously with both sender and recipient. In *McCormick Estates*, the court held that the letters a soldier wrote to his daughter were the property of the daughter, not the soldier’s estate, affirming the rule that the “property rights in the material on which the letter is written is in the receiver.”<sup>129</sup> With a letter, the sender writes the letter and then transfers ownership of the contents—and the physical letter—to the recipient. With an e-mail, on the other hand, both the sender and recipient retain simultaneous possession of the e-mail’s contents. The general jurisprudence regarding ownership of letters and other communication<sup>130</sup> would seem to prohibit the decedent’s retention of his e-mails and virtual world accounts, and therefore prevent their eventual posthumous dissemination. The unique nature of e-mails and other virtual communication methods, however, suggests that the traditional transfer of ownership for communications should not occur. Since both the sender and the receiver retain digital copies of the e-mail and never surrender them, concurrent ownership over the particular e-mail exists rather than the exclusive ownership that occurs with traditional letters.<sup>131</sup> This recognition allows for a better refinement of the idea of one’s digital assets. Ownership of such a digital item entails

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128. Joshua A.T. Fairfield, *Virtual Property*, 85 B.U. L. REV. 1047, 1049–50 (2005).

129. *In re McCormick Estates*, 80 Pa. D. & C. 413, 415 (Orphans’ Ct. 1952).

130. *See generally* Folsom v. Marsh, 9 F. Cas. 342, 345 (C.C.D. Mass. 1841) (establishing the essential right to ownership and value in letters, particularly those of the late George Washington); Baker v. Libbie, 97 N.E. 109, 112 (Mass. 1912) (outlining the currently accepted law regarding transfer of rights when a letter is sent).

131. This concurrent ownership applies to both sent and received e-mails. When leaving orders for the transfer or destruction of one’s e-mail account, the decedent is controlling his ownership over those e-mails while not affecting the same rights in the other corresponding party.

ownership not over the actual item but over the particular set of bytes used in that particular setting.

Besides the property concern, privacy is another issue frequently raised when considering the handling of one's online assets after death. Yahoo! automatically deletes the accounts of all users upon notification of their death in order to ensure their privacy.<sup>132</sup> Ari Schwartz, currently the Internet Policy Advisor within the Department of Commerce, raised many of these concerns in a 2005 article, eventually concluding that further study was required before he could offer an appropriate policy recommendation.<sup>133</sup> However, extreme privacy policies, such as those used by Yahoo! and other services, are actually detrimental to the privacy of individuals. By not recognizing the rights of a person to transfer his accounts, services like Yahoo! only encourage greater password sharing and other unsecure behavior, which the emergence of services such as Legacy Locker demonstrates. In addition, online service providers should not primarily focus on the privacy concerns of the deceased because courts generally hold that the right to privacy ends upon the person's death.<sup>134</sup>

Finally, at least two states have taken strides to address the question of posthumously controlling an online persona. Connecticut enacted legislation that requires e-mail providers to supply copies of all e-mails sent and received by the deceased to the executor or administrator of the deceased's estate.<sup>135</sup> And Oklahoma amended its probate procedure in 2010 to give the administrator of an estate the power to control and terminate online accounts of the decedent.<sup>136</sup> While these solutions are a great step forward in recognizing the value of controlling one's online persona through the decedent's estate rather than through a terms of service agreement, they end up creating another set of problems. Currently, the Connecticut statute provides the executor of the estate with complete copies of all electronic correspondence, but the statute still ignores the wishes of the deceased.<sup>137</sup> Returning to the example at the beginning of this Note,<sup>138</sup> had Marine Lance Corporal Ellsworth wanted to delete his e-mails rather than transfer them to his father, the same restrictive situation would have existed under this Connecticut law as it did when Yahoo!'s Terms of Service governed.

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132. See Leach, *supra* note 1 (providing Yahoo!'s reasoning for denying the dead soldier's father access to his son's e-mail account).

133. See Schwartz, Mulligan & Mondal, *supra* note 48, at 616–17.

134. See RESTATEMENT (SECOND) OF TORTS § 652I(b) (1977).

135. CONN. GEN. STAT. § 45a-334a(2)(b) (2005).

136. OKLA. STAT. tit. 58, § 269 (2010).

137. See CONN. GEN. STAT. § 45a-334a(2)(b).

138. See *supra* Part I.

A more effective version of Connecticut's statute would recognize the importance of the deceased's intent in deciding whether to compel the e-mail provider to turn over copies of all e-mails. Additionally, legislators should consider expanding the scope of the statute from just e-mail services to also cover other forms of a person's online persona. The Oklahoma statute grants the control of the online accounts to the executor, but it fails to address whether the executor even has the ability to take control of these accounts that often reside in other states.

## VI. CONCLUSION

The solution proposed in this Note attempts to strike a balance between the interests of the individual and his heirs with those of the companies providing the online services. Rather than existing in a state of constant tension, both sides share a common interest in developing new mediums for communication and self-expression. Recognizing the special rights inherent in a person's online persona will encourage greater use of these online services. Posthumous control over one's online persona will be better accomplished by states adopting this Note's proposed amendments to the UPC and/or by potential beneficiaries enforcing their rights in court.

The proposed solution would increase the level of posthumous control over online personas in prior instances where such control was lacking, such as in the examples in Part I, *supra*.<sup>139</sup> For instance, in the case of Lance Corporal Ellsworth, had the proposed legal solution been adopted at the time, Ellsworth's digital estate would have been intestate. Although the father would still have had to go to court to challenge the deletion of his son's account, the court's focus would have shifted to Corporal Ellsworth's intent rather than the mere interest of the beneficiary. The outcome in this instance may not have changed, but the added guarantee of greater privacy would have encouraged people to remain confident in the sanctity of their online assets.

In the second situation, that of Pam Weiss's daughter,<sup>140</sup> the proposed solution would allow Pam's daughter to grant Pam control over her Facebook account in the event of her death, while also ensuring that this would have been what Pam's daughter wanted. In the instance of Orlando radio host Erika Roman,<sup>141</sup> rather than having her online persona lost forever, Ms. Roman could have left instructions in her will for the proper

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139. See Leach, *supra* note 1.

140. See Faure, *supra* note 3.

141. See Horowitz, *supra* note 4.

handling of her online persona—e-mail, social networking accounts, and other services would have been transferred to the designated beneficiary and handled accordingly. Rather than encouraging the sharing of passwords or depending on third-party websites, Ms. Roman could have handled this part of her estate in much the same way as she would the rest of her estate. Such a system is both more efficient and more equitable than the current system, which often leaves people confused and powerless to control the future of their digital assets.

Inherent in these new solutions is the continued emphasis on estate planning. Estate attorneys will need to inform online account holders about the issue of posthumous control and how to address it. In the future, when someone sits down with his estate attorney to plan out the posthumous distribution of his assets, that conversation will also include a look at the person's online persona. And now, by providing a person with the ability to control how to manage his persona after death, a person planning his estate will possess the necessary tools to address that situation.

A person's online persona has inherent value. Similar to other real assets, a person should have the right to dispose of that persona as he sees fit upon his death. Probate law is the natural vehicle for exercising that control. The best means of ensuring this is for legislatures to amend the state probate laws to ensure adequate protection, but even without such legislative action the legal structures already exist for people to assert their rights to control their online personas after death. Court rulings on issues such as posthumous recreation, bailment law, and contract law all offer a framework for enforcing a person's wishes regarding the handling of his online persona. Such an approach is in everyone's interest and like the progression of traditional property and probate rights, it is a natural succession that should occur. This Note offers a path for such progression to follow that ensures the greatest growth for this important, developing field.

**APPENDIX: PROPOSED CHANGES TO THE  
UNIFORM PROBATE CODE<sup>142</sup>**

**UPC § 1-201: General Definitions**

Current Text	Proposed Amended Language
(38) “Property” includes both real and personal property or any interest therein and means anything that may be the subject of ownership.	<p>“Property” includes both real and personal property or any interest therein and means anything that may be the subject of ownership, <u>including one’s digital assets.</u></p> <p><u>“Digital assets” include those accounts that make up one’s online identity including e-mail, social network, and other online interactive accounts.</u></p>

**UPC § 2-101: Intestate Estate**

Current Text	Proposed Amended Language
(a) Any part of a decedent’s estate not effectively disposed of by will passes by intestate succession to the decedent’s heirs as prescribed in this Code, except as modified by the decedent’s will.	[Added at the end of the section.]
(b) A decedent by will may expressly exclude or limit the right of an individual or class to succeed to property of the decedent passing by intestate succession. If that individual or a member of that class survives the decedent, the share of the decedent’s intestate estate to which that individual or class would have succeeded passes as if that individual or each member of that class had disclaimed his [or her] intestate share.	<u>(c) The digital assets of one’s estate are excluded from traditional intestate succession and instead, for reasons of privacy and security, deleted. Potential heirs are, however, provided an opportunity to demonstrate the intent or wishes of the deceased and thereby transfer the account accordingly.</u>

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142. UNIF. PROBATE CODE (amended 2008).

**UPC § 3-706: Duty of Personal Representative; Inventory and Appraisement**

Current Text	Proposed Amended Language
<p>Within 3 months after his appointment, a personal representative, who is not a special administrator or a successor to another representative who has previously discharged this duty, shall prepare and file or mail an inventory of property owned by the decedent at the time of his death, listing it with reasonable detail, and indicating as to each listed item, its fair market value as of the date of the decedent's death, and the type and amount of any encumbrance that may exist with reference to any item.</p> <p>The personal representative shall send a copy of the inventory to interested persons who request it. He may also file the original of the inventory with the Court.</p>	<p>[Added at the end of the section.]</p> <p><i><u>Additionally, a listing of all e-mail, social network, and other Internet-based accounts that comprise the deceased's digital assets should be compiled with reasonable care and conveyed along with the rest of the inventory to interested parties.</u></i></p>

**UPC § 3-709: Duty of Personal Representative; Possession of Estate**

Current Text	Proposed Amended Language
<p>Except as otherwise provided by a decedent's will, every personal representative has a right to, and shall take possession or control of, the decedent's property, except that any real property or tangible personal property may be left with or surrendered to the person presumptively entitled thereto . . . .</p>	<p>Except as otherwise provided by a decedent's will, every personal representative has a right to, and shall take possession or control of, the decedent's property <i><u>and digital assets</u></i>, except that any real property or tangible personal property may be left with or surrendered to the person presumptively entitled thereto . . . .</p>

**UPC § 3-814: Encumbered Assets**

Current Text	Proposed Amended Language
<p>If any assets of the estate are encumbered by mortgage, pledge, lien, or other security interest, the personal representative may pay the encumbrance or any part thereof, renew or extend any obligation secured by the encumbrance . . . .</p>	<p>If any assets, <i><u>real or digital</u></i>, of the estate are encumbered by mortgage, pledge, lien, <i><u>rent</u></i>, or other security interest, the personal representative may pay the encumbrance or any part thereof, renew or extend any obligation secured by the encumbrance . . . .</p>