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FEAR AND NORMS AND ROCK & ROLL: WHAT JAMBANDS CAN TEACH US ABOUT PERSUADING PEOPLE TO OBEY COPYRIGHT LAW

By Mark F. Schultz[†]

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[†] Assistant Professor, Southern Illinois University School of Law. Earlier versions of this Article were presented at the Fifth Annual Intellectual Property Scholars Conference at DePaul University School of Law, the Second Annual Intellectual Property and Communications Law and Policy Scholars Roundtable at Michigan State University College of Law, the 2005 Law and Society Annual Meeting in Las Vegas, Nevada, and various faculty workshops at the Southern Illinois University School of Law. The Author thanks the participants of these events, in particular Irene Calboli, Gregory Duhl, Brett Frischmann, Eric Goldman, Shubha Ghosh, Jay Kesan, Patricia McCubbin, Adam Mossoff, Katherine Strandburg, and Peter Yu for their valuable comments and suggestions. Work on this Article was supported by a Summer Research Grant from the Southern Illinois University School of Law, and the author wishes to thank Dean Peter Alexander for his generous support. He also expresses his appreciation and gratitude to Jason Green, Todd Chapman, and Mike Fritz for excellent research and editorial assistance.

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How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortunes of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it.

—Adam Smith, *A Theory of Moral Sentiments*¹

*Think this through with me
Let me know your mind
Woh-oh, what I want to know
Is, are you kind?*

—Robert Hunter and Jerry Garcia, Uncle John's Band²

1. ADAM SMITH, *THE THEORY OF MORAL SENTIMENTS* I.I.1 (London, 6th ed. 1790).

2. Annotated Grateful Dead Lyrics, Uncle John's Band, <http://arts.ucsc.edu/gdead/AGDL/uncle.html> (last visited Mar. 13, 2006).

I. INTRODUCTION

Among fans of popular music, there is one group that is far more likely than most to respect copyright law. These fans scrupulously observe restrictions bands impose on the copying and distribution of their music. They keep track of these rules and make sure their fellow fans are aware of them. If they find fellow fans stepping out of line, they quickly scold them. They even cooperate with bands' lawyers to enforce the rules. Who are these responsible, rule-loving fans who embrace authority? None other than the fans of the Grateful Dead and their descendants in the jamband community.³ Notwithstanding their stereotypical image as laidback types with little taste for rules or authority, jamband fans are extremely supportive of the rights of artists to control the copying and distribution of their work. Therein lies a story that is interesting in its own right, but which also tells us a great deal about law, social norms, and persuading people to comply with copyright law.

The jamband community is a vital and growing movement in popular music that includes some of the top-grossing touring bands in the country. The original jamband was the Grateful Dead, but the label now applies to bands from many genres—rock, jazz, country, folk, bluegrass, and even gospel—and includes major acts like Phish, Widespread Panic, and the String Cheese Incident. What defines a jamband more than anything else is its policy regarding intellectual property: jambands allow their fans to record live shows and to copy and distribute the recordings freely. Jambands have enjoyed great commercial success in distributing music via the internet in forms that other bands have not dared to try. They explicitly attribute their success to the bond of trust they have with their fans.

Jambands can trust their fans because the fan community has developed social norms against copying musical works that jambands have designated as “off limits.” These restricted works typically comprise studio recordings or certain live releases sold commercially. The community enforces these norms internally and externally, sometimes even reporting violations to the bands' attorneys. The jamband community has also developed its own file-sharing applications which respect copyright holders' rights.

These social norms certainly make jambands an interesting phenomenon, but one might ask why they are significant. First, they are significant because they defy conventional wisdom, which says that the average indi-

3. See *infra* Part III for description and history of jambands. See generally jamband, WIKIPEDIA: THE FREE ENCYCLOPEDIA, <http://en.wikipedia.org/wiki/Jamband> (last visited Apr. 15, 2006).

vidual is unlikely to be persuaded to comply voluntarily with copyright law.⁴ As is usually the case, conventional wisdom is conventional for a reason. It finds ample justification in the actions and attitudes of tens of millions of users of peer-to-peer networks. It is widely agreed that a vast divide separates copyright law and social norms.⁵ The jamband community, however, provides evidence that this divide is not inevitable.

4. See, e.g., *Why Are Music Sales Falling? DOWNLOADING*, PR NEWSWIRE, June 17, 2003, available at LEXIS, News Library (summarizing results of national record buyers survey conducted by Edison Media Research for the trade publication *Radio & Records*). Edison Media Research's survey conducted in May 2003 found "61% of 12-17-year-olds have burned someone else's copy of a CD instead of buying their own copy, a 13% increase in one year." *Id.* Also, "71% of heavy downloaders say that 'Instead of buying a CD they have burnt someone else's copy of a CD,' and 48% of them say 'They no longer have to buy CDs because they could download music for free over the Internet.'" *Id.* McLeod argues that the massive lawsuits the Recording Industry Association of America (RIAA) filed against file-sharing will not stop file-sharing, that consumers have grown attached to it, and that more and more musicians believe file-sharing can help promote their music, even though the RIAA made a statement that file-sharing is directly responsible for the widely reported slump in CD sales from 2000 to 2003. Kembrew McLeod, *Share the Music*, N.Y. TIMES, June 25, 2004, at A23; Daniel J. Gervais, *The Price of Social Norms: Towards a Licensing Regime for File-Sharing*, 12 J. INTELL. PROP. L. 39, 52 (2004) (stating that efforts to stop illegal copyrighted file-sharing will likely fail, since the market for prepackaged physical compact discs of ten or twelve songs will eventually be replaced with technology to adapt to demand for file-sharing); Jon Healy, *Legal Victory for File Sharing*, L.A. TIMES, Aug. 20, 2004, at A1 (explaining how even though the "battles between entertainment companies and new technologies [including copyright]" change with the times, there are no central computers that track all the songs available for downloading [like Napster did] and file-sharing networks cannot monitor nor reign in users); John Healy, *States Press File Sharing Issues*, L.A. TIMES, Aug. 5, 2004, at 8 ("[F]ile-sharing networks have fueled rampant piracy by enabling users to copy songs, movies and other digital files from one another's computers for free. The music and movie industries have tried to blunt the copying through the federal courts, but their efforts have yet to pay off."); David McGuire, *'F' is for File Sharing: Area Colleges Strive to Curtail Illegal Downloads*, WASHINGTONPOST.COM, Sept. 9, 2004, available at LEXIS, News Library (noting that "education . . . is not effective in changing [students' attitudes in order to comply with copyright law]," particularly since the university environment is a crucial venue for selling music and "80% of the bandwidth within a university is being taken up by peer to peer").

5. See, e.g., Ann Bartow, *Electrifying Copyright Norms and Making Cyberspace More Like a Book*, 48 VILL. L. REV. 13, 15 (2003) (noting that when thirty million people swap music files over the internet, federal judges cannot make those thirty million people obey copyright laws as a matter of "collective conscience"); Lawrence B. Solum, *The Future of Copyright Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*, 83 TEX. L. REV. 1137, 1148 (2005) (reviewing LAWRENCE LESSIG, *FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY* (2004)) ("In one segment of the culture, college dorms and teenage bedrooms, the copynorms went one way: This is just

Second, the social norms of the jamband community are significant because social norms are one of the keys to solving the file-sharing dilemma.⁶ File-sharing software has made compliance with copyright law at least partly voluntary for a vast group of people with access to the internet. The music industry has responded with lawsuits—mostly pursued by the Recording Industry Association of America (RIAA)—calculated to deter file-sharers. The recording industry hopes these lawsuits will change the behavior of file-sharers by instilling fear in potential file-sharers. The problem with a “fear strategy” is that it is very difficult to project threats of detection and legal action credible enough to alter behavior. Some enforcement is useful to demonstrate the moral seriousness of the law and to deter those who are averse to *any* risk of enforcement, but more enforcement will not necessarily yield significantly more compliance. This problem is not unique to copyright law, as researchers have found that deterrence factors are not the most essential influences on people’s decision to obey a law. Rather, most people obey the law most of the time because they think it is the right thing to do. In other words, social norms play a large role in securing compliance with the law. While lawsuits are a useful part of an overall strategy for securing compliance, there may not be a great deal more to gain from them.⁷ The music industry’s most efficient

sharing; it’s like swapping compilation cassette tapes. In the IP industry, not unexpectedly, copynorms went another way: This is just theft; it’s like running a pirate CD pressing plant.”); Peter K. Yu, *The Copyright Divide*, 25 CARDOZO L. REV. 331 (2003); Jessica Litman, *Copyright as Myth*, 53 U. PITT. L. REV. 235, 238 (1991) (“[T]he lay public seems to have a startlingly concrete idea of what copyright is . . . This popular idea, however, has little to do with actual copyright law.”); Gervais, *supra* note 4 (stating if policymakers want to outlaw socially acceptable behavior with regards to technology, they will not be able to do so simply by making it illegal); Jeff Howe, *Listen, It Isn’t in the Labels. It’s the Law*, WASH. POST, Oct. 5, 2003, at B01 (explaining that listeners of music “can’t be bothered to respect the perfectly reasonable provisions of copyright law” and “a lack of public awareness and congressional support has doomed various legislative proposals to reform the DMCA”).

6. As Lawrence Solum has said, [c]opynorms are the sea we swim in when we think about copyright law. We don’t see them, except when they begin to break down or change. . . . Which version of copynorms will prevail? The norms embraced by the Napster generation or the norms pushed by the [Motion Picture Association of America (MPAA)] and the [Recording Industry Association of America (RIAA)]? This battle over copynorms is paramount to the shape of copybehavior and copyright law in the future.

Solum, *supra* note 5, at 1148.

7. *But see* Matthew Sag, *Twelve Year-Olds, Grandmothers, and Other Good Targets for the Recording Industry’s File Sharing Litigation*, NW. J. TECH. & INTELL. PROP. (forthcoming 2006) [hereinafter *Twelve Year-Olds, Grandmothers, and Other Good Tar-*

and effective strategy for saving itself is to seek ways to change social norms regarding unauthorized copying.

It thus appears that the jamband community can teach us some useful lessons about persuading people to obey copyright law by fostering pro-copyright norms. These lessons would be particularly helpful if the norms of the jamband community are founded on something beyond the unique circumstances, history, and customs of this particular community. Fortunately, they are. The norms of the jamband community appear to conform to a fundamental norm of human behavior called reciprocity.⁸

In recent years, scholars of law and norms have focused on reciprocity as an explanation for the emergence and endurance of certain social norms. Dan Kahan describes reciprocity as a product of settings that call on people to cooperate with others. In these cooperative settings,

individuals adopt not a materially calculating posture but rather a richer, more emotionally nuanced reciprocal one. When they perceive that others are behaving cooperatively, individuals are moved by honor, altruism, and like dispositions to contribute to public goods even without the inducement of material incentives. When, in contrast, they perceive that others are shirking or otherwise taking advantage of them, individuals are moved by resentment and pride to withhold their own cooperation and even to engage in personally costly forms of retaliation.⁹

Kahan, Lior Strahilevitz, and others contend that under the right conditions, reciprocity fosters norms that promote pro-social, cooperative behaviors.¹⁰ For example, Kahan and others have used reciprocity to explain

gets] (contending that the RIAA can make additional gains by targeting marginal downloaders in addition to the major uploaders targeted thus far). The incremental effect would depend in part on how well downloaders understand that only major uploaders are targeted at this time.

8. See *infra* Section III.B.

9. Dan M. Kahan, *The Logic of Reciprocity: Trust, Collective Action, and Law*, 102 MICH. L. REV. 71, 71 (2003) [hereinafter *Logic of Reciprocity*].

10. See Dan M. Kahan, *Trust, Collective Action, and Law*, 81 B.U. L. REV. 333, 333-35 (2001) [hereinafter *Trust*]; Lior Jacob Strahilevitz, *Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks*, 89 VA. L. REV. 505, 509-10 (2003) [hereinafter *Charismatic Code*]; Lior Jacob Strahilevitz, *How Changes in Property Regimes Influence Social Norms: Commodifying California's Carpool Lanes*, 75 IND. L.J. 1231, 1232-35 (2000) [hereinafter *Commodifying California's Carpool Lanes*]; Lior Jacob Strahilevitz, *Social Norms from Close-Knit Groups to Loose-Knit Groups*, 70 U. CHI. L. REV. 359, 359-60 (2003) [hereinafter *Social Norms*].

why people pay taxes,¹¹ while Strahilevitz has proposed that reciprocity governs certain norms of loose-knit groups, including mainstream file-sharers.¹²

This Article contributes to the literature on law and reciprocity by adding another detailed case study of how reciprocity makes a community more or less likely to comply with the law. It also reviews in detail the behavioral and experimental economics literature that provides support for, and defines, the phenomenon of reciprocity. This research helps to show how reciprocity explains the social norms of the jamband community. The jamband community has found a way to tap into reciprocity, thus inspiring norms that are unusually supportive of the rights of musicians.

Based on these observations, this Article makes several specific suggestions the mainstream music industry can follow to develop a better relationship with its fans and thus encourage the development of pro-copyright social norms. It concludes that both copyright compliance and the future health of the music industry depend on building loyal, sustained, and mutually beneficial relationships between musicians and their fans. Digital distribution—both legal and illegal—is bringing about the demise of the old business model. No longer can the music industry rely on one-hit-wonders to sell relatively high-priced pieces of plastic or vinyl containing one or two hits bundled with less desirable songs. People have choices now, and among those choices is the choice whether to comply with copyright law. The music industry thus needs to think in terms of building loyal communities that have reciprocal relationships with artists rather than merely moving physical products into the hands of consumers.¹³

Part II of this Article describes the limitations of a strategy that relies only on legal deterrence and explains why norms are essential to solving the file-sharing problem. Part III is a case study of the jamband commu-

11. See Leslie Book, *The Poor and Tax Compliance: One Size Does Not Fit All*, 51 U. KAN. L. REV. 1145 (2003); Kahan, *Logic of Reciprocity*, *supra* note 9, at 80-85.

12. Strahilevitz, *Charismatic Code*, *supra* note 10, at 509-10.

13. Not everyone needs to be so conscientious and involved. Rather, conditions must be right for the most cooperative members of a community—the “conditional cooperators”—to set the tone and conditions of participation for more casual or selfish members. If people can communicate, see others cooperating, and sanction non-cooperators, then reciprocity makes people more inclined to cooperate. Cross-cultural field and laboratory experiments indicate that conditional cooperators exist in all human populations, not just ones that are (arguably) exceptionally kind like the jamband community. The presence of conditional cooperators in all populations makes it more likely that other segments of the music industry can follow its example by tapping into reciprocity. See *infra* notes 344-353 and accompanying text.

nity, particularly focusing on its norms that support artists' copyrights. Part IV surveys various theories regarding the formation of social norms and concludes that the behavioral trait of reciprocity best explains the norms of the jamband community. Part V suggests some lessons that the mainstream recording industry can draw from the jamband community.

II. SOCIAL NORMS: WHO NEEDS THEM?

Although it is a now tiresome and perhaps discredited cliché that the internet has changed everything, it really did change music piracy. File-sharing has made unauthorized copying of music a mass consumer phenomenon. This Part discusses how file-sharing has fundamentally changed the nature of the challenge of persuading people to comply with copyright law. Despite aggressive litigation, the music industry has not yet fully adapted its enforcement strategy to this new reality. As it has long done with commercial pirates, the music industry has attempted to instill fear in potential file-sharers. This Part reviews research regarding the effectiveness of such deterrence strategies when they are aimed at the general public. It concludes that the music industry's strategy is far better suited to a relatively small number of commercial pirates than to millions of consumers. Research indicates that fostering social norms against unauthorized copying is a key part of an effective strategy for securing compliance with law.

A. The Changing Nature of Music Piracy

As late as 1994, the music industry expressed optimism that it could beat the problem of piracy.¹⁴ Although it saw piracy as an urgent prob-

14. For example, music industry executives saw the General Agreement on Tariffs and Trade (GATT) as a significant step toward battling piracy. See Judy Holland, *GATT is Good News for Music Industry*, STATES NEWS SERV., Nov. 30, 1994, available at LEXIS, News Library [hereinafter *GATT is Good News*]. As a Broadcast Music, Inc. executive said, "[a] lot of countries will have meat in their enforcement now." *Id.* Local efforts that year raised even greater hopes, with a Russian record executive declaring that international trade association efforts in Russia would end that country's role in worldwide piracy: "This organization has the money and the links to solve any problem in this area." Beth Knobel, *Association Announces War on Music Piracy in Russia*, L.A. TIMES, Dec. 6, 1994, at D5. Similarly, record executives enthused that a crackdown in Mexico would "cause piracy in Mexico to drop dramatically in the coming years." John Lannert, *Will The New Political Mood Motivate Latin America's "Most Enthusiastic Record-Buyers"?*, BILLBOARD, Nov. 26, 1994, at 66. In the People's Republic of China, authorities believed that new inspection requirements for CD factories would "possibly wipe out the piracy activities from the root." *Hong Kong Police Close CD Factories*, UNITED PRESS INT'L, Nov. 12, 1994, available at LEXIS, News Library.

lem,¹⁵ it contended that increased enforcement efforts and stricter penalties could greatly alleviate the problem.¹⁶ This focus and attendant optimism made sense at the time, because music piracy was still a problem of illicit commercial competition rather than a mass consumer problem.¹⁷ These illicit competitors—commercial pirates—were in it for the money. If one could convince them that the risk and consequences of getting caught outweighed the reward from copying, then they were likely dissuaded.¹⁸ With sufficient help from authorities, the music industry might have reasonably hoped to make commercial pirates fear getting caught.¹⁹

By contrast, the problem of file-sharing has not proven amenable to such straightforward strategies. The music industry first tried to cut off the supply of music by imposing copy-protection technology²⁰ and suing file-

15. At the time, the music industry (somewhat incredibly) claimed to be losing \$2 billion a year worldwide from unauthorized copying. Holland, *supra* note 14.

16. It thus championed such requirements in the GATT negotiations which led to the World Trade Organization (WTO). See Bill Holland, *Biz Pleased With Senate Passage of GATT Bill*, BILLBOARD, Dec. 17, 1994, at 6. For the TRIPS Agreement, which linked increased intellectual property protection to trade liberalization, see Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments, Results of the Uruguay Round, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994).

17. At the time, relatively few people were internet users, and making a digital music file was a time-consuming and complicated process. Michael Meyer & Anne Underwood, *Crimes of the 'Net'*, NEWSWEEK, Nov. 14, 1994, at 46 (noting then-current difficulty of “pirating a digital version [of a single song because it] can require anywhere from 30 minutes to several hours, depending on your equipment”). It took expensive equipment to create commercial grade copies and significant (albeit illicit) distribution channels to sell enough copies to make the cost and risk of copying worthwhile, as consumer CD-recorders had not yet hit the market. See Kathleen O’Steen, *Little Disc Sparks Big Problems for Studios*, VARIETY, Nov. 7, 1994, at 7.

18. See Paul H. Robinson & John M. Darley, *The Role of Deterrence in the Formulation of Criminal Law Rules: At Its Worst When Doing Its Best*, 91 GEO. L.J. 949, 953 (2003) [hereinafter *Role of Deterrence*] (setting forth criteria for effective deterrence strategies based on enforcement and penalties). Although Robinson and Darley believe that most individuals are motivated to comply with the law by social norms, they believe that deterrence will work under rare circumstances where people understand a law and perceive that they are likely to be caught. *Id.*

19. Since commercial pirates are relatively few in number and must set up physical manufacturing facilities and distribution channels, the music industry could devote enough resources to make the threat of being detected plausible. Such plausibility is a keystone of deterrence. See *id.* at 980.

20. See, e.g., *Macrovision Shows Systems to Foil DVD Copying, P2P Sharing*, CONSUMER ELECS. DAILY, July 12, 2004, available at LEXIS, News Library, Consumer Electronics Daily File (explaining two copy prevention systems called Ripguard and Hawkeye that prevent “ripping programs”—programs used to circumvent a DVD’s Content Scrambling System encryption—from being downloaded to a hard drive and copied

sharing services and software providers.²¹ So far, copy-protection technology has proven ineffective both technologically and commercially and may remain so for the foreseeable future.²² Suits against file-sharing technology providers likely reached their zenith with the recent U.S. Supreme Court decision in *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*²³ In *Grokster*, the Court introduced the doctrine of “inducement,” which imposes liability on product and software providers for “distribut[ing] a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement.”²⁴ This is not the result for which the music industry might have hoped, as future developers and distributors of file-sharing technology may be able to avoid liability, provided that they are very careful in their words and actions. In the end, the technology for file-sharing remains available and likely will continue to be available. Indeed, the creators of BitTorrent, the most heavily used file-sharing program for illegal copying, may escape any liability under *Grokster*.²⁵

As these supply-side strategies have faltered, the music industry has taken a page from its strategy against commercial pirates by trying to instill fear in file-sharers. Since 2003, the RIAA has sued over ten thousand individuals for uploading files onto file-sharing networks.²⁶ The purpose of the suits appears to be exemplary rather than compensatory. As an attorney for one defendant put it: “This case had very little to do with [the defendant] and everything to do with the recording industry’s attempt to intimidate internet users around the country and college students in particular, . . . They looked to instill fear”²⁷ At this point, the results

to a blank disc by interrupting the unauthorized copy process by reading phony “bad sectors” as disc errors); Laura M. Holson, *The Year Ahead: Giving an Audience What It Wants, but Not Giving It Away - Movies; Studios Fight Piracy With Education*, N.Y. TIMES, Dec. 29, 2003, § C, at 6.

21. See, e.g., *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); *Copyright.net Music Publ’g LLC v. MP3.com*, 256 F. Supp. 2d 214 (S.D.N.Y. 2003).

22. See Peter K. Yu, *P2P and the Future of Private Copying*, 76 U. COLO. L. REV. 653, 721-28 (2005) [hereinafter *P2P*] (surveying ineffective efforts at copy protection).

23. 125 S. Ct. 2764 (2005).

24. *Id.* at 2780.

25. See Posting of Mark F. Schultz to Technology and Marketing Law Blog, http://blog.ericgoldman.org/archives/2005/06/what_happens_to.htm (June 28, 2005, 09:26 EST).

26. See 725 More File-sharers Sued; 10,037 Total(!), RIAA Watch, <http://sharenomore.blogspot.com/> (Apr. 29, 2005, 18:17 EST); see also Yu, *supra* note 22, at 658-67 (detailing early history of RIAA suits).

27. Jon Healey & P.J. Huffstutter, *4 Pay Steep Price for Free Music*, L.A. TIMES, May 2, 2003, at A1.

seem mixed at best. Notwithstanding the RIAA's lawsuits, it is estimated that thirteen million households download files each month.²⁸ Moreover, in a recent Pew internet survey, fifty-eight percent of those who download music said they did not care whether it was copyrighted.²⁹

B. The Problem with Deterrence-Based Strategies

The RIAA's experience with its lawsuits has echoed the general experience with such deterrence-based strategies: they are enthusiastically pursued but not necessarily effective.³⁰ Like the RIAA, lawmakers and other authorities focus almost exclusively on deterrence strategies for securing compliance with law.³¹ To many, increasing penalties seems to be the obvious and only way to change behavior. As one commentator put it, "the only way to fend off the non-profit Internet pirate is by increasing prison sentences for Internet pirates."³² The problem with this strategy is

28. John Borland, *RIAA Lawsuits Yield Mixed Results*, CNET NEWS.COM, Dec. 4, 2003, http://news.com.com/2100-1027_3-5113188.html (explaining that while thirteen million households download files every month, there is also "evidence that file swapping is growing overall").

29. Lee Rainie et al., Pew Internet Project and comScore Media Metrix Data Memo, at 11 (Apr. 2004), http://www.pewinternet.org/pdfs/PIP_Filesharing_April_04.pdf (asking, "Do you care whether or not the music you download onto your computer is copyrighted, or isn't that something you care much about?").

30. See, e.g., Robert J. MacCoun, *Drugs and the Law: A Psychological Analysis of Drug Prohibition*, 113 PSYCHOL. BULL. 497, 501 (1993) (summarizing and analyzing research regarding the effect of deterrence factors on drug use and concluding that "[c]ertainty and severity effects are quite modest in size, generally accounting for less than 5% of the variance in marijuana use reported in perceptual deterrence surveys").

31. See Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 956-57. Deterrence strategies focus on causing people to fear the consequences of breaking the law "by threatening to deliver or by actually delivering negative sanctions for rule-breaking." COMM. TO REVIEW RESEARCH ON POLICE POLICY AND PRACTICES, FAIRNESS AND EFFECTIVENESS IN POLICING: THE EVIDENCE 294 (Wesley G. Skogan & Kathleen Frydl eds., 2004) [hereinafter FAIRNESS AND EFFECTIVENESS IN POLICING]. This is a standard rational choice approach: "In this view, individuals minimize their personal costs and maximize their rewards." *Id.* Therefore, the law and authorities seek to control people's behavior by creating "a credible risk that [they] will be caught and punished for wrongdoing, that is, 'by manipulating an individual's calculus regarding whether crime pays in the particular instance.'" Tom Tyler, *Enhancing Police Legitimacy*, 593 ANNALS AM. ACAD. OF POL. & SOC. SCI. 84, 86 (2004) (quoting Tracy L. Meares, *Norms, Legitimacy and Law Enforcement*, 79 OR. L. REV. 391, 396 (2000)).

32. Karen J. Bernstein, *The No Electronic Theft Act: The Music Industry's New Instrument in the Fight Against Internet Piracy*, 7 UCLA ENT. L. REV. 325, 326 (2000); see also Andrea L. Foster, *Lawmakers Demand That Colleges Crack Down on Illegal File Sharing*, CHRON. HIGHER EDUC., Feb. 27, 2003, available at <http://chronicle.com/free/2003/02/2003022701t.htm> (describing similar sentiment among lawmakers regarding file-sharing).

that while having a law and enforcing it has some effect on people's behavior, marginal changes in penalties or enforcement may not change behavior much or at all.³³

A strategy based on scaring people into complying with copyright law by ratcheting up enforcement and penalties will quickly surpass the point of diminishing returns. Some enforcement is helpful and necessary, because laws do derive a deterrent effect merely from existing and from being credibly enforced.³⁴ Since consumers were not significant targets of copyright enforcement until recently,³⁵ the RIAA's suits have the important effect of putting people on notice that infringement is an illicit act that incurs a risk (albeit a vanishingly remote one) of legal sanctions. For some people, this notice alone is enough to change behavior, either because they are unwilling to tolerate any risk of sanctions at all or because illegality represents a symbolic threshold they are unwilling to cross.³⁶ Nevertheless, increasing penalties or enforcement may not appear to have the direct effect of increased compliance that some lawmakers and music industry advocates seem to assume.³⁷ Many studies find very little or no deterrent effect at all from increasing the level of enforcement or penalties.³⁸

33. See MacCoun, *supra* note 30, at 501.

34. See FAIRNESS AND EFFECTIVENESS IN POLICING, *supra* note 31, at 294. The existence of law and credible law enforcement has an important general effect on people's behavior. See *id.* (citing studies); Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 951 ("There seems little doubt that having a criminal justice system that punishes violators, as every organized society does, has the general effect of influencing the conduct of potential offenders.").

35. As described earlier, commercial piracy was the focus of enforcement. See notes 14-29 and accompanying text. Consumers could not infringe copyrights in ways that were truly commercially significant. For consumers, music was largely a chattel rather than a public good—embedded in vinyl, plastic, or tape.

36. See MacCoun, *supra* note 30, at 501. MacCoun distinguishes between "absolute deterrence" and "relative deterrence." MacCoun posits that a large part of the deterrent effect of a law comes simply from its existence—"absolute deterrence"—the effect that a law has by simply existing, because some people are averse to *any* non-zero risk or because they are unwilling to engage in illicit behavior for reasons of personal morality or social status. *Id.* at 501, 503-04. He distinguishes such effects from "relative deterrence"—the amount of additional deterrence gained from increasing enforcement and/or severity of punishment. *Id.* at 501.

37. See FAIRNESS AND EFFECTIVENESS IN POLICING, *supra* note 31, at 295. *But see* Sag, *supra* note 7, at 24-25, 28 (contending that there are still additional groups the RIAA might productively target).

38. FAIRNESS AND EFFECTIVENESS IN POLICING, *supra* note 31, at 295 (citing MacCoun, *supra* note 30) ("[D]eterrence effects, when they are found, are small in magnitude. For example, in a review of studies of deterrence in the area of drug use, MacCoun

The primary shortcoming of relying solely on increasing the fear of punishment to deter wrongdoing is that it is very difficult to convince people that they are likely to be caught and punished.³⁹ “To influence behavior, [people’s] estimates [of the risk of getting caught] need to be high enough to exceed some threshold of being psychologically meaningful.”⁴⁰ Typically, neither the reality nor the perception of enforcement meets this goal. Most laws are not enforced stringently enough to create a strong deterrent effect.⁴¹ Compounding this difficulty is the fact that people often underestimate their chance of getting caught.⁴² The actual risk of getting caught and punished for most crimes is already low, even before filtered through people’s perceptions—for example, the likelihood of getting caught for burglary is as low as thirteen percent.⁴³ Homicide is the rare crime for which society devotes resources sufficient to ensure a deterrent effect—the likelihood of getting caught is about seventy percent.⁴⁴ The picture for file-sharing is far bleaker. The RIAA has sued about ten thousand file-sharers,⁴⁵ while reports estimate that millions use illegal file-sharing services monthly.⁴⁶ The RIAA has a long way to go before it even catches up with the rates for burglary.⁴⁷

. . . finds that around 5 percent of the measured variance in drug use behavior can be explained by variations in indicators of the expected likelihood or severity of punishment.”)

39. See Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 954-55; see also FAIRNESS AND EFFECTIVENESS IN POLICING, *supra* note 31, at 295. Robinson and Darley state that there are three challenges to making deterrence work: “The potential offender must know of the rule; he must perceive the cost of violation as greater than the perceived benefit; and he must be able and willing to bring such knowledge to bear on his conduct decision at the time of the offense.” Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 953. Unfortunately, it is often the case that one or more of these conditions is not met. In particular, (a) people do not know or understand the law; and (b) the likelihood of getting caught is quite low, and they tend to discount it further. *Id.* at 954-55.

40. FAIRNESS AND EFFECTIVENESS IN POLICING, *supra* note 31, at 295.

41. See Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 NW. U. L. REV. 453, 458-64 (1997) (describing how actual apprehension and punishment of law-breakers falls far short of the level needed to deter people effectively).

42. Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 954-55; Robinson & Darley, *Utility of Desert*, *supra* note 41, at 461-62.

43. See Robinson & Darley, *Utility of Desert*, *supra* note 41, at 459.

44. See *id.*

45. See *supra* note 26 and accompanying text.

46. See *supra* note 28 and accompanying text.

47. There is some question as to whether the research regarding the deterrent effect of enforcement of criminal laws is applicable to the enforcement of civil copyright laws. See Tom Tyler, *Compliance With Intellectual Property Laws: A Psychological Perspective*, 29 N.Y.U. J. INT’L L. & POL. 219, 222 (1997) (“[T]his research has primarily focused upon issues of criminal behavior . . . [w]e do not know whether changing the context from criminal to civil law will change the nature of the social dynamics underlying

Nevertheless, we might consider increasing enforcement and penalties for copyright infringement to the point where people are too scared to not comply. In a free society, however, it is difficult and inefficient to control people's behavior by relying solely on the coercive power of the state.⁴⁸ Tom Tyler described the problem in his seminal study on voluntary compliance with the law, aptly titled *Why People Obey the Law*. Tyler states: "This type of leadership is impractical because government is obliged to produce benefits or exercise coercion every time it seeks to influence citizens' behavior. These strategies consume large amounts of public resources and such societies would be 'in constant peril of disequilibrium and instability.'"⁴⁹ Copyright law already has become controversial enough. Drastically increasing penalties is unlikely to be a politically viable strategy.

Eric Goldman's study of the effect of the No Electronic Theft Act on "warez" trading is particularly instructive of the long odds that the RIAA faces in attempting to change behavior largely by means of litigation.⁵⁰ Long before music file-sharing emerged as a problem, small, informal groups used the internet to engage in warez trading—illegally copying and trading software for fun and boasting rights.⁵¹ In 1997, Congress passed the No Electronic Theft Act⁵² (NET Act) specifically to address the problem of warez trading.⁵³ The NET Act imposed criminal penalties for warez trading, including jail time of one to six years depending on the se-

compliance. Therefore, research on the factors shaping public willingness to comply with intellectual property laws is crucial."). Nevertheless, there are reasons to believe that the deterrent effect of copyright law is similar to, but perhaps weaker than, that of criminal law. Copyright law is an unusual civil law in that it regulates the everyday, common behavior of the average citizen and can result in large, rather painful, liability in the form of statutory damages, unrelated to any amount of damages actually caused. In these ways—broad applicability and punitive consequences—it resembles criminal law more than most torts. Copyright law may not, however, deter people as strongly as criminal law, as infringement may not carry the same stigma as breaking the criminal law. *See MacCoun, supra* note 30, at 504 (discussing how the stigma of illicit labels deter some individuals).

48. *See* Tom Tyler, *Why People Obey the Law* 22 (1990).

49. *Id.* at 22-23.

50. *See* Eric Goldman, *A Road to No Warez: The No Electronic Theft Act and Criminal Copyright Infringement*, 82 OR. L. REV. 369 (2003) [hereinafter *Road to No Warez*].

51. *Id.* at 370-71.

52. Pub. L. No. 105-147, 111 Stat. 2678 (1997), available at <http://www.usdoj.gov/criminal/cybercrime/17-18red.htm> [hereinafter NET Act]; *see* Goldman, *Road to No Warez, supra* note 50, at 371-77 (discussing motivations for and development of the NET Act).

53. Goldman, *supra* note 50, at 370-71.

riousness of the offense.⁵⁴ Since passage of the NET Act, the U.S Department of Justice has successfully prosecuted dozens of warez traders, with a number of cases receiving significant publicity.⁵⁵

Goldman concluded that despite these prosecutions, the NET Act “has not conformed the behavior of warez traders or had any real effect on piracy generally.”⁵⁶ According to Goldman, warez traders were likely ignorant of the law or, despite the numerous prosecutions, did not believe they would get caught.⁵⁷ In addition, however, warez traders were not likely to comply with the law because they did not believe in it. As Goldman concluded: “Warez traders do have standards and codes of ethics, but they are indifferent to rules they do not believe in.”⁵⁸ This conclusion is supported by a large body of social psychology research that says people are most likely to comply with laws that accord with social norms.⁵⁹ Neither warez traders nor file-sharers are likely to respond to a remote possibility of penalties in the absence of social norms that support copyright. The next Section discusses the benefits of pursuing a normative strategy.

C. Normative Strategies

The most efficient and effective way to persuade people to comply with copyright law is to convince them that it is the right thing to do.⁶⁰ This strategy is not as idealistic as it might at first sound. Authorities rely on the voluntary compliance of most people with most laws, most of the time.⁶¹ In fact, many scholars contend that the legal system in a democracy cannot function without widespread voluntary compliance with the law.⁶² If you ask people why they obey the law, they most often cite moral

54. NET Act, *supra* note 52, § 2319(c).

55. *See* Goldman, *supra* note 50, at 381-96 (discussing prosecutions under the NET Act).

56. *Id.* at 396.

57. *Id.* at 399-401.

58. *Id.* at 409.

59. *See infra* notes 60-67 and accompanying text.

60. *See* Robinson & Darley, *Utility of Desert*, *supra* note 41, at 468-71 (surveying research indicating that social norms are the key factor in convincing people to comply with the law).

61. *See* LON L. FULLER, *Human Interaction and the Law*, in THE PRINCIPLES OF SOCIAL ORDER: SELECTED ESSAYS OF LON L. FULLER 211, 234 (Kenneth I. Winston ed., 1981) (“The lawgiver must be able to anticipate that the citizenry as a whole will . . . generally observe a body of rules he has promulgated.”).

62. *See* STUART A. SCHEINGOLD, THE POLITICS OF RIGHTS: LAWYERS, PUBLIC POLICY AND POLITICAL CHANGE (1974); David Easton, *A Re-assessment of the Concept of Political Support*, 5 BRIT. J. POL. SCI. 435 (1975); Richard L. Engstrom & Michael W. Giles, *Expectations and Images: A Note on Diffuse Support for Legal Institutions*, 6 LAW

reasons.⁶³ More important, studies show that people's actions confirm what they say: the most important factor in securing compliance with law is social norms.⁶⁴

People are most likely to comply with law out of a sense of internal obligation or fear of informal sanction from peers for violating community norms.⁶⁵ In Tyler's review of a number of studies regarding what influences people to obey the law, he concluded that "personal assessments of the morality of the law typically have a strong influence on whether citizens say that they break the law."⁶⁶ In his review, about twenty percent of the variance in obedience to law could "be explained by differences in judgments about the morality of law."⁶⁷

Normative support for law can come from many places, including enforcement of the law itself.⁶⁸ As described above, the very fact that a law makes something illicit is enough to change the behavior of some people.⁶⁹ The law can serve as a signal for what is right, and enforcement of the law can serve to educate people about what behavior is acceptable and unacceptable.⁷⁰ Nevertheless, enforcement and penalties that get too far

& SOC'Y REV. 631 (1972); *see, e.g.*, Talcott Parsons, *Some Reflections on the Place of Force in Social Process*, in *SOCIOLOGICAL THEORY AND MODERN SOCIETY* 264 (Talcott Parsons ed., 1967); Austin Sarat, *Studying American Legal Culture: An Assessment of Survey Evidence*, 11 *LAW & SOC'Y REV.* 427 (1977).

63. Catherine A. Sanderson & John M. Darley, "I Am Moral But You Are Deterred": *Differential Attribution About Why People Obey the Law*, 32 *J. APPLIED SOC. PSYCHOL.* 375, 375-88 (2002). Interestingly, they attribute moral reasons to their own behavior, but believe that only the threat of punishment deters many others in society. *Id.*

64. *See* Robinson & Darley, *Utility of Desert*, *supra* note 41, at 468-71.

65. *Id.*

66. TYLER, *supra* note 48, at 36-37.

67. *Id.*

68. A number of scholars contend that the law serves an "expressive function," indicating to people what is right and wrong. Richard H. McAdams, *A Focal Point Theory of Expressive Law*, 86 *VA. L. REV.* 1649, 1650-51 (2000) [hereinafter *Focal Point Theory*]; *see also* Robert D. Cooter, *Expressive Law and Economics*, 27 *J. LEG. STUD.* 585 (1998); Dhammika Dharmapala & Richard H. McAdams, *The Condorcet Jury Theorem and the Expressive Function of Law: A Theory of Informative Law*, 5 *AM. LAW & ECON. REV.* 1 (2003); Dan M. Kahan, *What Do Alternative Sanctions Mean?*, 63 *U. CHI. L. REV.* 591 (1996); Richard H. McAdams, *An Attitudinal Theory of Expressive Law*, 79 *OR. L. REV.* 339 (2000) [hereinafter *Expressive Law*]; Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 *MICH. L. REV.* 338, 400-07 (1997) [hereinafter *Norms*]; Cass R. Sunstein, *On the Expressive Function of Law*, 144 *U. PA. L. REV.* 2021 (1996).

69. *See supra* note 36 and accompanying text.

70. *See* Robinson & Darley, *Utility of Desert*, *supra* note 41, at 471-76. *See generally supra* note 68.

out ahead of social norms can have the opposite of their intended effect.⁷¹ If penalties are out of line with expectations about what is just, they can have “crimogenic effects.”⁷² That is, people may lose respect for the law, and some who would have been inclined to follow it become willing to disobey it or support those who do.⁷³ Laws can contribute to a social norm—but they cannot compel support for it.⁷⁴ If copyright law is to be rescued from non-compliance, it will be because most people choose to obey it voluntarily, like they do most other laws. More thought should be put into increasing normative support for copyright law.

Although the normative strategy sounds like a wonderfully efficient solution, there is a catch. The deterrence strategy may not work as intended, but it has visceral appeal because it offers a very clear prescription: increase consequences, increase compliance. The prescription of the normative strategy, on the other hand, is clear only in the abstract: change social norms to favor compliance. The difficulty, of course, is that changing social norms is, in reality, a very complex challenge. Building norms is not like building a house. Hard work, strong desire, and resources are not enough. Norms likely arise from a variety of sources, including relig-

71. How much enforcement and punishment can contradict social norms but remain effective is a difficult question. In his seminal article *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, Dan Kahan concluded that law enforcement that noticeably and strongly contradicts social norms—a “hard shove”—may get people’s attention, but may ultimately prove ineffective and counterproductive as authorities charged with enforcing the law hold back because of their own beliefs and because of political pressure. See Dan Kahan, *Gentle Nudges vs. Hard Shoves: Solving the Sticky Norms Problem*, 67 U. CHI. L. REV. 607, 619 (2000). Hesitance in enforcement thus reinforces the undesirable social norm rather than deterring behavior. *Id.* Kahan contends that a “gentle nudges” approach is more effective where law moves out of line with social norms only a bit at a time, thus gradually “nudging” society toward a goal. See *id.* at 644-45. Kahan’s example of a successful “gentle nudges” campaign is the evolution of drunken driving laws in recent decades. See *id.* at 634. While the RIAA’s rhetoric often evinces affection for a “hard shoves” approach, it almost certainly does not have the resources to match. Despite highly publicized cases, the chances of getting caught file-sharing are vanishingly small. So much light with so little heat is likely to send exactly the same wrong message as harsh, but unenforced laws: everybody is doing this and nobody is really serious about stopping it.

72. Robinson & Darley, *Role of Deterrence*, *supra* note 18, at 985-87.

73. *Id.*

74. Robinson & Darley, *Utility of Desert*, *supra* note 41, at 473 (“Notice that we said that laws can contribute to the formation and change of community norms and individuals’ moral reasoning; laws cannot themselves compel community acceptance.”).

ion, philosophy, culture, education, and biology.⁷⁵ There likely is no universal or easy way to establish a social norm.

There are, however, certain behavioral regularities that strongly influence the formation of social norms. This Article's goal, in part, is to contribute to the understanding of how one such human behavioral trait called reciprocity encourages the formation of social norms that support compliance with law. The next Part sets forth a case study of the unlikely pro-copyright social norms of the jamband community. The Part following the case study of jambands applies research regarding reciprocity to illustrate how reciprocity helps to explain the norms of the jamband community.

III. THE JAMBAND COMMUNITY: A CASE STUDY IN VOLUNTARY COMPLIANCE

Although widespread illegal file-sharing appears to be the rule, this Part presents a case study of the social norms of an important exception to this rule. Fans of bands known as "jambands" have developed social norms that encourage voluntary compliance with the restrictions that bands place on the copying of their music. Paradoxically, this community is also remarkably permissive with its intellectual property. Jambands allow their fans to record live concerts and distribute the recordings freely. The recording and distribution of concerts forms the basis of a unique community whose norms are far more respectful of intellectual property than those of mainstream music fans. This Part provides a brief history of the jamband community, and then describes the social norms that support the reciprocal relationship between the bands and fans in this community.

A. A Brief History of Jambands

As the name indicates, most jambands do indeed "jam"—that is, they improvise heavily while playing live music. Many genres, however, share this characteristic. A bit more revealing is the fact that the original and prototypical jamband was the Grateful Dead. Nevertheless, using the Grateful Dead as a reference point for jambands may serve to obscure as much as it does to enlighten. The status of the band as a 1960s counterculture icon carries a certain amount of baggage. When one brings up the

75. While there is a vast amount of research on social norms across the social sciences offering many explanations regarding how norms emerge, there is no consensus theory. See generally Richard McAdams & Eric B. Rasmussen, *Norms in Law and Economics*, in THE HANDBOOK OF LAW AND ECONOMICS (A. Mitchell Polinsky & Steven Shavell, eds., forthcoming 2006), available at <http://www.rasmusen.org/papers/norms.wpd> (last visited Mar. 13, 2006) (describing biological, religious, philosophical, and cultural explanations for the origin of norms).

Grateful Dead and its fans, known as “Deadheads,” some see a uniquely kind and generous community,⁷⁶ others see strung-out counterculture dropouts,⁷⁷ and still others see a lot of tiresome tie dye kitsch.⁷⁸ One must put aside such preconceptions and look past the band’s admittedly colorful legacy to understand its true impact. The Grateful Dead’s most enduring influence on later musicians may be a different way of doing business, which includes letting people record and trade music freely and a community of music fans dedicated to sharing that intellectual property.

For thirty years, the Grateful Dead and its zealous fans, known as Deadheads, constituted a unique community.⁷⁹ The band toured endlessly, and its fans followed them from show to show, with a core group fashioning their lives and livelihoods around the band.⁸⁰ The Grateful Dead’s reputation and fortune were largely based on concert performances. The Grateful Dead made each show a unique experience, presenting a unique set list and improvising heavily, often with extended jamming. The band allowed fans to tape these shows openly, and the fans avidly traded the tapes.⁸¹

Before the Grateful Dead, taping and trading of live concerts was a common but largely underground practice among fans of different bands and musical genres, sometimes tolerated and sometimes not.⁸² The Grate-

76. See generally Dennis McNally, *Long Strange Trip* (2002).

77. BLAIR JACKSON, *GARCIA: AN AMERICAN LIFE* xii (1999) (“Garcia and the Dead were badly misunderstood . . . they were routinely dismissed as lazy, aimless hippies playing for an army of burnouts and would-be flower children bent on recapturing the lost spirit of the ’60s.”).

78. See, e.g., Jerry Carroll, *A Plateful of History*, S.F. CHRON., Mar. 13, 1998, at C2 (“Its inexorable descent into kitsch continues: A Grateful Dead plate is being advertised by the Hamilton Collection in the National Enquirer. Yours for \$29.95, plus shipping. Comes with a ‘certificate of authenticity’ so no one can say you don’t have the genuine article.”); *‘Dead’ Merchandise Big in Fashion Circles: Counter-Culture Band Reviving Hippie ’60s*, CLEV. PLAIN DEALER, Nov. 17, 1993, at 2F (discussing “neo-hippie” fashion trend of the early ’90s, which, among other things, spawned a Grateful Dead chia pet).

79. See generally MCNALLY, *supra* note 76 (history of the Grateful Dead by its official historian and publicist); DEADHEAD SOCIAL SCIENCE: YOU AIN’T GONNA LEARN WHAT YOU DON’T WANT TO KNOW (Rebecca G. Adams & Robert Sardiolo eds., 2000) (sociological studies of Deadheads); JACKSON, *supra* note 77 (biography of Jerry Garcia, guitarist and acknowledged leader of the Grateful Dead).

80. See MCNALLY, *supra* note 76, at 385-90 (discussing unique bond with fans).

81. JACKSON, *supra* note 77, at 277.

82. See Jackie Loohaus, *Getting an Earful*, MILWAUKEE J. SENTINEL, Apr. 30, 2000, at O1E (describing long history of taping and trading concerts in rock music and other genres). For decades, fans have taped live performances of jazz, see, e.g., *id.* (noting legendary Charlie Parker bootlegs); Hollie I. West, *The Belated Grammy*, WASH. POST, Feb. 29, 1980, at D1 (discussing Grammy Award winning 1980 release of forty-

ful Dead community turned taping and trading into an institution. Grateful Dead taping started out surreptitiously in the late '60s, but grew every year.⁸³ By the mid-'70s, fans began to tape and trade more openly, and the band and its organization condoned the practice.⁸⁴ In the mid-'80s, tapers became so numerous and well-accepted that the band created a tapers' section at concerts, allowing tapers to mail order tickets for this large special section, typically located behind the soundboard.⁸⁵

Over the years, a community grew up around Grateful Dead tape trading and flourished.⁸⁶ Grateful Dead lyricist John Perry Barlow described the importance of tape trading to the existence of the Deadhead community:

I think it is probably the single most important reason that we have the popularity that we have . . . [T]he proliferation of tapes . . . formed the basis of a culture and something weirdly like a religion. . . . A lot of what we are selling is community. That is our main product, it's not music.⁸⁷

The Deadhead community was an avid consumer of new recording and communications technology. The recording medium of choice moved from reel-to-reel tapes, to cassettes, to digital audio ("DAT") tapes. They

year-old audience recording made with Duke Ellington's permission); opera, *see, e.g.*, Bill Gowen, *It's All About The Money: Opera Broadcasts Becoming An Endangered Species*, CHI. DAILY HERALD, July 11, 2003, at 9 (noting long tradition of bootlegging Metropolitan Opera broadcasts); Stephen Humphries, *Get Your Official 'Bootleg' Here!*, CHRISTIAN SCI. MONITOR, Nov. 21, 2003, at 16 (noting that bootlegging of Metropolitan Opera performances goes back to 1901); bluegrass, *see* JACKSON, *supra* note 77, at 277 (noting that Grateful Dead guitarist Jerry Garcia taped bluegrass music in the mid-'60s); and rock and roll, *see* Loohaus, *supra*.

83. JACKSON, *supra* note 77, at 277.

84. *Id.* Having been a taper himself, Garcia was particularly sympathetic. In 1975, he said of taping:

I think it's okay. . . . If people like it they can keep doing it. I don't have any desire to control people as to what they're doing and what they have. There's something to be said for being able to record an experience you've liked, or being able to obtain a recording of it. . . . My responsibility to the notes is over after I've played them. At that point I don't care where they go.

Id. By the tours of the late '70s, soundman Dan Healy embraced audience tapes as a way to check the quality of his work. *Id.* at 277-78.

85. Jeremy Ritzer, *Deadheads and Dichotomies: Mediated and Negotiated Readings*, in DEADHEAD SOCIAL SCIENCE 241, 246-47 (Rebecca G. Adams & Robert Sardiolo eds., 2000).

86. *See id.*

87. MCNALLY, *supra* note 76, at 386.

communicated at first through classified ads in magazines such as *Relix*.⁸⁸ Soon after, they were among the early adopters of internet technology,⁸⁹ using Usenet newsgroups⁹⁰ and then forming the core of one of the world's very first online communities, the WELL, in 1985.⁹¹ By the time

88. *Relix* Magazine still exists to this day.

[*Relix*] was launched in 1974 under the name Dead Relix. In its earliest incarnation, this hand-stapled, homegrown newsletter was an outlet for Grateful Dead tape traders . . . avid concertgoers who taped and traded Grateful Dead concerts. The first issues were small (less than 20 pages), had hand-drawn black and white covers and focused on taping tips and Grateful Dead news. It also provided a forum for tape traders and music fanatics to communicate with each other.

About Relix, Relix Magazine Website, <http://www.relix.com/aboutrel.phtml> (last visited Mar. 13 2006).

89. "Deadheads were electronic pioneers long before it became fashionable to use the internet or to populate the World Wide Web. Even prior to the establishment of the Usenet in 1979, Deadheads were communicating electronically." Rebecca G. Adams, "What Goes Around, Comes Around": Collaborative Research and Learning, in *DEAD-HEAD SOCIAL SCIENCE 35* (Rebecca G. Adams & Robert Sardiolo eds., 2000).

90. *Id.* Usenet was one of the early institutions through which internet users communicated—akin to modern message boards or e-mail discussion lists. Google has been able to preserve some, but not all of the earliest Usenet posts. For one of the earliest extant Usenet posts regarding the Grateful Dead, see Deadheads, Usenet Discussion Thread Archived at Google, Apr. 13, 1982, http://groups-beta.google.com/group/net.music/browse_thread/thread/81bee47dd976bc30/e606e6b77f031c06?lnk=st&q=%22grateful+dead%22&rnum=3&hl=en#e606e6b77f031c06. In the early days of Usenet newsgroups, administrators tried to keep them limited to a handful of general topics. The general discussion group for music, net.music, however, became so dominated by Deadheads that the community spent much of its time discussing (a) the Grateful Dead and (b) whether Deadheads should have their own discussion group. See, e.g., Beware the coming of NET WARS, Usenet Discussion Thread Archived at Google, Feb. 8, 1983, http://groups-beta.google.com/group/net.news/browse_frm/thread/ec6641941f97f888/ef0aa58ef880d9dd?lnk=st&q=gdead&rnum=8&hl=en#ef0aa58ef880d9dd. Administrators finally acquiesced, creating rec.music.gdead in 1986.

91. The WELL was

created by Stewart Brand in 1985 using a personal computer on his houseboat in Sausalito [sic], California. . . . On the WELL, members could create and host their own topical discussion boards, and the most popular one was devoted to the Grateful Dead, the Deadhead conference. One of the Sysops for the WELL was John Perry Barlow, who was also a lyricist for the Dead . . . People from all across the country called in to the bulletin board to join the online community. It was a successful experiment and was copied by other bulletin board systems. Using the WELL and the internet, Brand and Barlow are now cyberspace activists and are founding members of the Electronic Frontier Foundation.

Nerds 2.0.1, PBS Website, http://www.pbs.org/opb/nerds2.0.1/wiring_world/thewell.html (last visited Mar. 13, 2006).

the world wide web became widely available in the mid '90s, and CD burners affordable a few years later, Deadheads were well prepared for the new world of easy digital trading and downloading.⁹² Perhaps it is no coincidence that lyricist John Perry Barlow went on to become a prominent cyberspace visionary and activist and co-founder of the Electronic Frontier Foundation after beginning his online activities in connection with the Grateful Dead.⁹³

Meanwhile, the phenomenon of tape trading and Deadhead type communities had expanded far beyond the Grateful Dead. By the late '80s, a new generation of musicians began to consciously imitate what the Grateful Dead had made up as it went along.⁹⁴ The most prominent among these musicians was the band Phish.⁹⁵ Phish began as a college band in 1984⁹⁶ and hit the road to tour heavily in the late '80s.⁹⁷ By the early '90s, they had their own large following of fans ("Phans"), who often traveled with the band.⁹⁸ Like the Grateful Dead, they changed their set lists nightly, improvised heavily, and allowed their fans to tape shows.⁹⁹ By 1992, several other bands, including Widespread Panic and Blues Trav-

92. The first proposal on the Grateful Dead Usenet group for a trade of concert recordings on CDRs occurred in early 1997, *see* CDR, DAT trades, Usenet Discussion Thread Archived at Google, Jan. 22, 1997, <http://groups.google.com/groups?selm=5c5js7%2485r%40agate.berkeley.edu&output=gplain>, when CDR recorders and media were still expensive (but soon to drop in price drastically).

93. *See* Brian Doherty, *John Perry Barlow 2.0: The Thomas Jefferson of Cyberspace*, REASON, Aug./Sept. 2004, <http://www.reason.com/0408/fe.bd.john.shtml>; Elec. Frontier Found., John Perry Barlow Profile, <http://homes.eff.org/~barlow/> (last visited Mar. 13, 2006).

94. *See* RICHARD GEHR & PHISH, *THE PHISH BOOK* 41, 45 (1998) (noting that Phish, Blues Traveler, Widespread Panic, and the Aquarium Rescue Unit, all influenced by the Grateful Dead and Allman Brothers and sharing the "improve/groove aesthetic," broke out at the same time in the early '90s). Many of these bands consciously avoided mimicking the Grateful Dead musically, but rather adopted a similar improvisational approach and attitude toward their fans. *See id.* at 116-19 (discussing Phish's relationship with the Grateful Dead).

95. *See generally* DEAN BUDNICK, *JAMBANDS: THE COMPLETE GUIDE TO THE PLAYERS, MUSIC & SCENE* 161-68 (Backbeat Books 2003) [hereinafter *JAMBANDS*] (entry on Phish in encyclopedic work on jambands).

96. *See* Phish.com, Band History, <http://www.phish.com/bandhistory/index.php?year=1983> (last visited Mar. 13, 2006).

97. GEHR & PHISH, *supra* note 94, at 40-41.

98. *See id.* at 109-12 (discussing fans).

99. When Phish signed its first major label contract with Elektra in 1992, the band successfully argued for allowing their fans to continue taping concerts, a very unusual concession from a major label. Patt Lall, *Phish Tour Diary*, MUSIC MONITOR, <http://www.penduluminc.com/MM/articles/phishtour.html> (last visited Mar. 13, 2006).

eler, had also achieved some success with this model.¹⁰⁰ They pulled together with Phish that year for a joint tour, named H.O.R.D.E., in order to combine their audiences to play at larger venues.¹⁰¹ The first H.O.R.D.E. tour was only moderately successful, but it helped form the core of a community and define the jamband scene.¹⁰² It was around this time that the press began to refer to these bands as “jambands” or “jam bands,” often in connection with the H.O.R.D.E. tour.¹⁰³ In succeeding years (until it was last held in 1998), the H.O.R.D.E. tour grew to be extremely successful and helped launch the careers of popular musicians including the Dave Matthews Band and some non-jamband acts like Sheryl Crow and Joan Osborne.¹⁰⁴ Most important, H.O.R.D.E. helped define the jamband scene.

In August 1995, Jerry Garcia, the guitarist and heart of the Grateful Dead, passed away.¹⁰⁵ The Grateful Dead stopped touring and disbanded,¹⁰⁶ and its many fans sought a new musical home. At this point, the jamband scene truly coalesced.¹⁰⁷ Phish’s already large following be-

100. See GEHR & PHISH, *supra* note 94, at 41.

101. See Blues Traveler Official Website, H.O.R.D.E. Festival, <http://www.blustraveler.net/projects/horde/> (last visited Mar. 13, 2006). The 1992 H.O.R.D.E. tour included Aquarium Rescue Unit, Blues Traveler, Bela Fleck and the Flecktones, Phish, Spin Doctors, and Widespread Panic. See BUDNICK, *supra* note 95, at 25.

102. See Blues Traveler Official Website—HORDE Page, <http://www.blustraveler.net/projects/horde/> (last visited Mar. 13, 2006); BUDNICK, *supra* note 95, at 25.

103. See Scott Aiges, *Following the Hordes*, NEW ORLEANS TIMES-PICAYUNE, July 16, 1993, at L8 (“Often referred to as neo-hippie jam bands, the groups share a laid-back attitude and a penchant for extended improvisations.”). Sometimes they were not viewed as a new genre so much as a retro throwback. See *id.*; Steve Morse, *Get Set for Splashy Phish at Music Awards*, BOSTON GLOBE, Apr. 2, 1993, at 97 (describing Phish as a “neo-hippie jam band”).

104. See Blues Traveler Official Website, H.O.R.D.E. Festival, <http://www.blustraveler.net/projects/horde/> (last visited Mar. 13, 2006); Blues Traveler Official Website, H.O.R.D.E. 1994, <http://www.blustraveler.net/projects/horde/94/index.html> (last visited Mar. 13, 2006).

105. JACKSON, *supra* note 77, at 452-56.

106. See MCNALLY, *supra* note 76, at 614-15. The hiatus lasted several years. Starting in 2003, and as of this writing, the surviving members are touring from time to time as “The Dead.” See Official Homepage of the Grateful Dead, <http://www.dead.net/> (last visited Mar. 13, 2006).

107. Ann Powers notes that:

[O]bservers agree that not until the Grateful Dead disbanded after the 1995 death of its leader, Jerry Garcia, did the jam-band scene solidify. ‘People started to look to the clubs, where you could have that immediacy with the bands and with one another,’ said Dean Budnick, author of the book “Jambands” . . . and editor of the website <http://www.jambands.com>.

came larger, and many other bands gained new fans.¹⁰⁸ By 2004, the jamband scene was big enough to support several simultaneous major tours,¹⁰⁹ as well as numerous festivals¹¹⁰ and smaller bands.¹¹¹

In keeping with the traditions of Deadheads as tech-savvy pioneers, jamband fans embraced the internet and other new technology.¹¹² From the early '90s and onward, jamband fans created a vast network of online communities, including countless e-mail discussion lists,¹¹³ websites,¹¹⁴ databases,¹¹⁵ and a vast network for digital music trading called e-tree.¹¹⁶ The jamband community also developed several open-source software ap-

Ann Powers, *A New Variety Of Flower Child In Full Bloom: Music and the Internet Nourish a Counterculture*, N.Y. TIMES, July 21, 1999, at E1.

108. *Id.*

109. The summer of 2004 saw tours by Phish (its farewell tour), String Cheese Incident, the Dead, and the Dave Matthews Band. These tours all filled mid to large sized venues. See Edna Gunderson, *Mayer, Madonna, Idols Among The Tours of Summer*, USA TODAY, May 28, 2004, at 2E; Michael Endelman & Raymond Fiore, *Tours Calendar; You can't spend all summer playing Playstation. Here's a look at the hottest acts now hitting the road*, ENTMT WKLY., May 28, 2004, at 64.

110. See BUDNICK, *supra* note 95, at 253-57 (describing jamband festival scene, including Bonnaroo which has drawn over 70,000 fans each of the past few years).

111. See generally *id.* at 1-240 (encyclopedic listing of over 150 jambands).

112. As a 1999 article on the online jamband magazine site, PauseRecord, described: It is undeniable the effect the internet has had promulgating the wonderful music and community that we all are an integral part of. Going back to the early 1990's (and even mid-80's), fans of the Grateful Dead and Phish could be found on local BBS's and The Well. Since then, a huge consortium of websites have been erected to honor bands, facilitate tape trading, grow community, and provide breaking news.

John Procopio, *Ten Websites A Jam Fan Can't Live Without*, Pause Record Website (Dec. 27, 1999) (defunct website archived at the Internet Archive), http://web.archive.org/web/20000303014913/http://www.pauserecord.com/eyesoftheweb/Best_Sites.html.

113. Aaron Hawley, *Life on the Lists*, Jambands.com (Mar. 30, 2004), http://www.jambands.com/Features/content_2004_03_30.02.phtml (discussing proliferation and history of jamband e-mail discussion lists stretching back to the pre-world wide web days of the internet).

114. See, e.g., *Jambase.com Website Links*, <http://www.jambands.com/FanSiteLinks/> (last visited Mar. 13, 2006) (listing numerous band sites and general interest sites related to jambands). A 1999 article noted over 3,000 jamband sites. Procopio, *supra* note 112.

115. See, e.g., *The Traders' Database*, <http://db.etree.org/> (last visited Mar. 13, 2006) (listing jamband show recordings in circulation); *Phishtistics*, <http://www.ihoz.com/PhishStats.html> (last visited Mar. 13, 2006) (compiling statistics about performances by the band Phish).

116. See *EtreeWiki*, <http://wiki.etree.org> (last visited Feb. 22, 2006); see also Paul Jones, *Strategies and Technologies of Sharing in Contributor-Run Archive*, LIBRARY TRENDS, Spring 2005, http://www.findarticles.com/p/articles/mi_m1387/is_4_53/ai_n14732771 (describing origin and organization of etree community).

plications for use in sharing jamband music, some of which are beginning to have a major impact on the mainstream music community.¹¹⁷

These days, the jamband community has expanded far beyond its neo-hippie roots. In fact, jambands now encompass many genres of music including rock, blues, jazz, funk, folk, reggae, bluegrass, and even gospel.¹¹⁸ Although most jambands still do indeed “jam” and jamband fans still attend multiple shows, the community is defined more by how bands and fans treat one another. At this point, the jamband label indicates that the band belongs to a community with shared norms and follows business practices that depart from the mainstream. Curiously, many of these unique norms and business practices center on the treatment of intellectual property. The next Section sets forth a case study of the jamband community, focusing on the reciprocal relationship between bands and their fans and the unusual treatment of intellectual property.

B. A Case Study of a Reciprocating Community¹¹⁹

Jambands and their fans have forged a unique community based on a mutual passion for music and reciprocal generosity, trust, and respect. As the history recounted above describes, this community grew up organically, as the Grateful Dead and its fans made it up as they went along. In recent years, however, latter day jambands have more consciously copied the business model and culture of the Grateful Dead and its fans. This unique way of doing business begins with an assertion of control—most jambands are far more entrepreneurial than mainstream bands and thus have far more control over their art and business affairs. This control then allows them, paradoxically, to give up some of that control to their most passionate fans, whom they allow to record and distribute live shows. The surrender of control is not complete, however, as the bands set very particular rules regarding the use and distribution of their music, particularly

117. These applications include the file-sharing programs Furthurnet and BitTorrent as well as the lossless audio compression program FLAC. *See infra* notes 139-154 and accompanying text.

118. *See generally* BUDNICK, *supra* note 95.

119. The case study set forth in this Section III.B is drawn from a number of sources. Primary sources of this information included monitoring various jamband community websites, including etree.org and the Internet Archive, from January 2002 to June 2005; monitoring selected jamband community e-mail lists including the “etree announce” e-mail list, the “bt.etree.org e-mail list” and the Yahoo Groups (e-mail lists administered by Yahoo) for the Grateful Dead, New Monsoon, String Cheese Incident, and Yonder Mountain String Band from 2002 to June 2005; and interviews with several members of the jamband community. Secondary sources include the online magazine Jambands.com, Jambase.com, the print magazine *Relix*, and various news accounts.

their commercial releases. Perhaps the most extraordinary part of the story is that social norms of the jamband community encourage fans not only to respect these rules, but also to help enforce them. The next subparts recount these facts in detail.

1. Asserting and Giving Up Control

In many ways that would surprise the casual observer, the Grateful Dead was a paradigm of capitalism. The band ran its own business very effectively, gaining a tremendous amount of freedom and independence from the large amounts of income generated by its endless touring.¹²⁰ It supported its own large business organization, Grateful Dead Productions, quite generously.¹²¹ It was able to do things its own way, rarely releasing radio-friendly albums and allowing its fans to tape shows, behaviors that most record companies find alarming. The bands that followed in its wake, like Phish, embraced this spirit of independence.¹²² A number of bands have even surpassed the Grateful Dead's model of taking control of their own business affairs. Many have their own labels and promotion companies. The band String Cheese Incident may be the ultimate example of this model: their organization includes a record label, a promotion company, a travel agency, and a ticketing agency.¹²³ They have never had a deal with a record label, but have secured national distribution for their CDs and DVDs and tour extensively, selling out numerous mid- to large-size venues.¹²⁴ In the world of jambands, the band is often its own business rather than an employee of the music industry.

Jambands use their independence to do things that many other musicians cannot. Among other things, jambands are unique among popular musicians in their generosity toward their fans. The norms of the jamband community encourage bands to let their fans record live concerts and then

120. See generally MCNALLY, *supra* note 76.

121. Trey Anastasio, Phish guitarist, once spoke of his aspiration to follow the Grateful Dead's business practices:

"For a rock act, the Dead have a couple of incredible things about them that other bands don't have," says Anastasio. "One is their level of improvisation . . . But the other is organizational. The Dead are very family-oriented and have health insurance for all their crew, and profit-sharing. That's a definite influence on us from the Dead's scene. They also put their crew's children through school, so you end up with people who are a lot happier working for you."

Morse, *supra* note 103, at 97.

122. As noted above, upon signing with a major label, Phish fought for the right of fans to record concerts. See *supra* note 99 and accompanying text.

123. See BUDNICK, *supra* note 95, at 209.

124. See *id.*

widely and freely copy and distribute those recordings.¹²⁵ The most obvious consequence of this practice is that jambands let people copy a great deal of creative product without paying. Slightly less obvious, but perhaps just as important, jambands surrender a tremendous amount of control over their works. The jamband community's embrace of taping and trading goes far beyond looking the other way at non-commercial bootlegging, and instead forms the basis for the community.¹²⁶

Unlike mainstream concerts, where tapers are considered bootleggers and any taping is surreptitious and secretive, jambands welcome and accommodate tapers.¹²⁷ At a large show, for example a Dave Matthews Band or Phish show, one will see a forest of microphone stands in a special designated "tapers" section.¹²⁸ Some bands even let tapers plug directly into the soundboard, allowing them to create a commercial quality recording untainted by ambient noise. Tapers are a ubiquitous and highly visible presence on the jamband scene. A jamband show rarely goes unrecorded, and many bands even rely on their fans to keep historical archives of their performances.¹²⁹

2. *A Community Founded on Sharing Music*

Taping is not a solitary pursuit, but rather provides the foundation for a vast community that shares concert recordings. The norms of the jamband community encourage more than just generosity from the bands to tapers. The generosity extends from tapers to other fans and then among fans in general. While tapers certainly collect, enjoy, and trade their own tapes,

125. The Internet Archive, located at <http://www.archive.org/audio/etree.php>, is one of the best examples of this norm. It currently contains over 30,000 concert recordings. It is enabled by the generosity of the many bands who allow their concerts to be recorded and posted and the many fans who maintain the archive on a volunteer basis. A recent controversy occurred when the Grateful Dead required the Internet Archive to block access to its recordings hosted on the Archive. The Dead quickly (but not completely) backpedaled from the policy change due to fan reaction, thus illustrating the strength and resilience of these norms as well as the passion with which fans regard them. See Richard B. Simon, *The Grateful Dead Enter the Digital Copyright Wars . . . On the Other Side?*, RELIX, Feb./Mar. 2006, at 72.

126. Jones, *supra* note 116.

127. *Id.*

128. *Id.*

129. See John Patrick Gada, Interview with Grateful Dead Archivist David Lemieux, Jambands.com (Aug. 9, 2005) http://www.jambands.com/Features/content_2005_08_09.07.phtml [hereinafter Interview with David Lemieux] (discussing extensive archive of Grateful Dead tapes and role of fans in supplementing archive).

they also create recordings they can distribute free of charge to others.¹³⁰ The taper, or another who receives a copy of the initial recording, first formats the recording for distribution by breaking it into individual tracks, compressing the files using lossless music compression software, and creating an information sheet with a set list, source information, and other information.¹³¹ The recording is then “seeded,” i.e., released to the community. From there it quickly spreads from one fan to another.

Jamband fans devote large amounts of time and effort to distributing recordings to one another.¹³² While some of this activity is in the form of recording-for-recording trades, in no event does money ever change hands.¹³³ Fans distribute music to other fans at the expense of their own time, efforts, resources, and even money, using technology as simple as the postal service or as complex as cutting edge file-sharing programs created by the jamband community. All of these methods of distribution have an altruistic aspect. A fan who starts with no shows to trade could accumulate a large collection quite quickly just by responding to the frequent free offers on jamband e-mail lists and bulletin boards.¹³⁴ The most basic forms of distribution occur via e-mail lists and message boards, typically devoted to specific bands, where fans offer to make copies of a particular recording for a limited number of other fans.¹³⁵ Fans also organize “trees,” where each recipient of a recording sends copies to a pre-determined group of other recipients, who then make recordings for others. Broadband technology has enabled other ways to distribute jamband recordings,¹³⁶ allowing fans to set up computer servers on high speed connections.¹³⁷ They fill these computer servers up with copies of shows so that other,

130. Interview with Mike Wren, one of the founders of etree.org and Furthurnet and long-time member of the jamband community (July 17, 2000) (on file with author) [hereinafter Wren Interview].

131. See Seeding Guidelines, ETREEWIKI, <http://wiki.etree.org/index.php?page=SeedingGuidelines> (last visited Feb. 12, 2006) (providing guidelines and setting forth community standards for preparing a concert recording for distribution or “seeding”).

132. See Loohauis, *supra* note 82, at 01E.

133. *Id.*

134. “‘Some people are charitable. If you don’t have any shows someone wants, they might say ‘Send me two blank cassettes’ and then he keeps one. And sometimes they just do it because you want to,’ said Wythes. Traders report they have rarely been ripped off in a tape swap.” *Id.*

135. *Id.*

136. Etree.org is the center of most of this activity. See etree.org, Getting Started, <http://wiki.etree.org/index.php?page=GettingStarted> (last visited Mar. 13, 2006) for a description of how this process works.

137. See *id.*

anonymous fans may download the shows.¹³⁸ In recent years, jamband fans have also collaborated to create open source¹³⁹ file-sharing programs for the jamband community.¹⁴⁰

A large community has formed around this sharing of concert recordings and the bands who allow it. There really is no way to tell how large this community is, since membership is fluid, often anonymous, and requires no membership card. All indications, including the size of various online communities and the scope of various community projects, suggest that the community is substantial. Hundreds of e-mail lists and discussion boards are devoted to jambands and the distribution of their recordings.¹⁴¹ In the summer of 1998, a community of jamband fans formed an entity called “etree.org,” dedicated to the distribution of live recordings.¹⁴² Etree.org has been the springboard for a number of substantial projects, including Furthurnet (an open source software program that facilitates legal file-sharing only), db.etree.org (a huge database that tracks tapes in circulation), the Free Lossless Audio Codec (“FLAC”) (an open source lossless compression program), and the Live Music Archive (a huge archive of music available for high speed download on demand).¹⁴³ As of

138. They publish the internet addresses of these servers to an e-mail list (or sometimes publicly) and allow all comers to download the show. *See id.*

139. Open source software is developed by programmers (often working as unpaid volunteers) who distribute the uncompiled, original source code with the intention that other programmers and end-users will adjust and improve the source code and share it with the community. Gradually, “a simple open-source program distributed for free will grow as more members manipulate the source code and re-distribute their changes to the community . . .” Josh McDonald, *Open-Source Programs Will Open Up Knowledge*, DAILY BRUIN, Jan. 12, 2006, available at LEXIS, News Library. Some prominent examples of open source software are the Mozilla Firefox web browser and OpenOffice, both of which are competing with Microsoft products. Barry Collins, *Why Not Break Free?*, SUNDAY TIMES (London), Feb. 5, 2006, at 30, available at LEXIS, News Library. *See also* Open Source Initiative, <http://www.opensource.org/> (last visited Feb. 12, 2006).

140. *See infra* notes 141-154 and accompanying text.

141. *See supra* notes 112-114 and accompanying text.

142. *See* Jones, *supra* note 116.

143. Interview with Diana Hamilton, Live Music Archive contributor (July 2005) (on file with author) [hereinafter Hamilton Interview]. Dr. Diana Hamilton is a long-time participant in the jamband community and helped establish both the etree.org community and the Live Music Archive at the Internet Archive. *See also* <http://wiki.etree.org> (last visited Mar. 28, 2006) (providing extensive links to and information about jamband-related resources, including Furthurnet, db.etree.org, FLAC, and the Live Music Archive).

spring 2006, the Live Music Archive hosted over 30,000 concert recordings, often in multiple formats.¹⁴⁴

By now, the volume of concert recordings readily available is staggering. Thirty years of Grateful Dead recordings, amounting to thousands of shows, are freely available for download at any given moment.¹⁴⁵ Major artists like Dave Matthews and Phish seem to have every live performance in their history recorded, including early college bar and fraternity house gigs.¹⁴⁶ Jambands' every moments are recorded for posterity, all the stage patter both profound and inane, including the shows where the band caught lightning in a bottle, the flat nights, the inadequately rehearsed new songs, broken guitar strings, and blown amps. If a fan wants to hear a jamband song, he or she need not run out to the music store, as a dozen live versions are available free for the taking.

This all represents, of course, a tremendous surrender of artistic and commercial control. How do the bands make it work? The answer seems to lie in trust: the fans obey the limits set by the bands, they keep paying for commercial recordings, and they remain fiercely loyal.

3. *Setting Rules*

Jambands may surrender a great deal of control over their intellectual property to their fans, but they set some very definite rules. Like any other artist, they do not allow their commercial releases to be copied. They also do not allow people to make any commercial gain off their live recordings.

The Grateful Dead's statement on taping and distribution of concerts is an example of a fairly typical taping policy:

The Grateful Dead and our managing organizations have long encouraged the purely non-commercial exchange of music taped at our concerts and those of our individual members. That a new medium of distribution has arisen - digital audio files being traded over the Internet - does not change our policy in this regard. Our stipulations regarding digital distribution are merely extensions of those long-standing principles and they are as follows:

No commercial gain may be sought by websites offering digital files of our music, whether through advertising, exploiting databases compiled from their traffic, or any other means.

144. See Live Music Archive, <http://www.archive.org/audio/etree.php> (last visited Mar. 13, 2006).

145. See *id.*

146. See Gada, *supra* note 129.

All participants in such digital exchange acknowledge and respect the copyrights of the performers, writers and publishers of the music.

This notice should be clearly posted on all sites engaged in this activity.

We reserve the ability to withdraw our sanction of non-commercial digital music should circumstances arise that compromise our ability to protect and steward the integrity of our work.¹⁴⁷

Phish has similar, but even more extensive rules. Their rules detail recording policies,¹⁴⁸ fan site policies,¹⁴⁹ and duplication policies.¹⁵⁰

Besides these basic rules, many bands add specific wrinkles. For example, some bands insist that fans stop trading all recordings of a show if it is included in a commercially released live album.¹⁵¹ Other bands require soundboard recordings to be withdrawn if a show is released commercially, but they allow fans to continue to trade audience tapes. "Audience tapes" are made using microphones in the audience, while soundboard tapes are made by patching into the soundboard. Some bands allow distribution through on-demand archives like the Live Audio Archive, while others do not. Some allow only a limited number of releases to be traded, while others restrict only a handful of shows from circulation.

4. *Playing by the Rules*

Fans pay attention to the rules set by jambands and work diligently to comply.¹⁵² As a result, a culture of voluntary compliance with intellectual property rules pervades the jamband community. Fans carefully track information about bands' rules, communicate with the bands to clarify them, and publicize them to one another.¹⁵³ In addition, jamband fans enforce bands' rules through: (1) informal sanctions such as shaming and banishing; (2) specific rules and policies of fan organizations such as etree; (3) monitoring and reporting illegal activities to band management and attorneys; and (4) software code in file-sharing programs that allow only per-

147. Grateful Dead MP3 Statement, http://www.archive.org/audio/etree-band-details.php?band_id=3 (last visited Mar. 28, 2006); <http://www.etree.org/legal.html>.

148. Among other things, Phish's policy sets firm guidelines regarding the behavior of tapers. See Phish Taping Statement, <http://www.phish.com/guidelines/index.php?category=6> (last visited Mar. 13, 2006).

149. *See id.*

150. *See id.*

151. *See id.*

152. Hamilton Interview, *supra* note 143.

153. *Id.*

mitted trading. Fans also appear to base their compliance on a perception that bands' rules are generally legitimate. To the extent that they do not always agree with a band's rules about particular shows, they note that compliance is warranted by the band's continuing generosity.¹⁵⁴

As noted above, a loose organization called etree.org lies at the heart of the online jamband community, and it exemplifies the community's culture of compliance. Etree is a volunteer effort organized around a set of websites and e-mail lists. Etree describes its mission as follows:

etree.org is the award-winning leader in lossless digital audio distribution on the Internet! We are a community committed to providing the highest quality live concert recordings in a losslessly-compressed,¹⁵⁵ downloadable format. All of the music on etree.org is free, and 100% legal to download, trade, and burn. We also assist new traders in learning to trade online through our extensive guides[.]¹⁵⁶

Etree scrupulously plays by the rules. As one etree webpage notes, "The etree.org server team strives to be in strict compliance with the taping policies of every etreed band."¹⁵⁷ It maintains a "zero tolerance" policy against those who violate the rules, stating: "there are performers who are notoriously against taping and trading (Bob Dylan and Live, to name only two). You may *not* use the etree.org mailing lists to discuss such artists. Solicitations to exchange music by these artists are prohibited and will not be tolerated."¹⁵⁸ In case of doubt as to a band's policies, etree puts the burden on the fan to demonstrate that the band has given permission.¹⁵⁹

Etree and other jamband community sites maintain detailed information on bands' taping and trading policies. There are sites dedicated exclu-

154. See *infra* note 193 and accompanying text.

155. The most popular music compression format, MP3, deletes and alters data when it compresses a music file. Although the changes are difficult to detect in high quality (i.e., larger) MP3 files, they are still present. Audiophiles thus tend to spurn the MP3 format and use "lossless" formats that do not delete or alter information. The jamband community includes many audiophiles and also values archival preservation of music. It thus tends to reject the use of the MP3 format. Lossless formats include Shorten and FLAC, formats popularized or created by the jamband community and now widely embraced by audiophiles and high-end consumer electronics manufacturers.

156. EtreeWiki, <http://wiki.etree.org/> (last visited Mar. 13, 2006).

157. SHNs and FLACs in Circulation, <http://db.etree.org/messageboards/read.php?f=1&i=949&t=949> (last visited Mar. 13, 2006). An "etreed" band is one that permits taping and trading of live shows and whose shows are hosted on etree servers. See EtreeWiki, <http://wiki.etree.org/> (last visited Mar. 13, 2006).

158. Etree.org Legal, <http://etree.org/legal.html> (last visited Mar. 13, 2006).

159. See *id.*

sively to listing “taper friendly bands,”¹⁶⁰ webpages dedicated to publicizing bands’ taping and trading policies,¹⁶¹ and sites that contain lengthy discussions of taping etiquette.¹⁶² There are discussion forums dedicated to listing particular shows designated as off limits by otherwise taper friendly bands.¹⁶³ The Live Music Archive has contacted hundreds of bands to receive express permission to add the band to its on-demand archive¹⁶⁴ and has carefully documented those bands (many otherwise friendly to taping and trading) that refused.¹⁶⁵

The jamband community has several ways of helping to enforce the rules of the community. People who deviate from the norms of the community are chastened on e-mail lists and discussion boards.¹⁶⁶ If their of-

160. See, e.g., Bands That Allow Taping, <http://btat.wagnerone.com/> (last visited Mar. 13, 2006); Trade Friendly Bands, <http://www.archive.org/audio/etree-band-showall.php> (last visited Mar. 13, 2006).

161. See, e.g., Trade Friendly Bands, <http://www.archive.org/audio/etree-band-showall.php> (last visited Mar. 13, 2006); Our Legally Traded Bandlist, <http://furthurnet.org/bandlist/> (last visited Mar. 13, 2006); Jamgrass Recording Guide, <http://nashphil.com/recording.html> (last visited Mar. 13, 2006).

162. See, e.g., Taping Etiquette, <http://btat.wagnerone.com/cgi-bin/forum/ikonboard.cgi?s=4d41637986bd85343f10088f9578d75a;act=ST;f=1;t=1;r=1;&#top> (last visited Mar. 13, 2006).

163. See, e.g., Furthurnet Forums—Untradable Shows, <http://forums.furthurnet.org/viewforum.php?f=18> (last visited Feb. 12, 2006); see also etree.org Forums—Legal Inc., <http://forums.etree.org/viewforum.php?f=23&sid=7d91e6608b42276ef1935b9c8fc09150> (last visited Feb. 12, 2006).

164. See Internet Archive Frequently Asked Questions, <http://www.archive.org/about/faqs.php#100> (last visited Mar. 13, 2006). Answer to “Why are there no shows by band X?”:

We’d like to make sure that a trade-friendly band would not mind having their shows in the Archive for public download. The best way for us to find out is by getting permission from a band representative or by the band’s having an explicit policy that covers this type of site. If there are no shows by the band, either we don’t have enough of this information to go forward with archiving, or we are ready to accept shows but no one has uploaded anything yet. You can check on the status of bands in the Archive here (and see next FAQ question).

Id.

165. See Trade Friendly Bands, <http://www.archive.org/audio/etree-band-showall.php> (last visited Mar. 13, 2006) (section on “Bands that have opted-out of the Archive project” and links therein).

166. For example, these are typical e-mails in which the moderator of etree’s etrade list stepped in to discipline users who were breaking the rules:

On Tue, 20 Jul 2004, Rob Macdonald wrote:
> I have a long list of phish concerts on CD-R (some from .shn sources,
> most from mp3, ack.) And a few nice VCD phish concerts. If anyone
> can help me with this i will be forever indebted to you.

fenses are viewed as grievous enough, they may be labeled “bad traders” and banned from participating in groups or even publicly shamed on “bad trader” websites.¹⁶⁷ Etree declares that its sanctions include “[b]locking the IP address of known offenders from etree.org web and FTP servers,” and “[r]emoving and banning known offenders from all etree.org mailing lists.”¹⁶⁸

One of the most remarkable ways in which the jamband community enforces rules is by working directly with authority figures. Etree notes that it monitors the eBay, Amazon.com, and Yahoo! auction sites for illegal sales of bootlegs.¹⁶⁹ To enable its users to report illegal activity, it provides e-mail links to the proper authorities at eBay, Amazon.com, and Yahoo!, and also to the legal teams for several bands.¹⁷⁰ A recent news item on the Jambands.com website (an online jambands magazine) is indicative of how jamband fans work with bands on legal enforcement matters:

Have You Seen *The Gregg Allman Anthology*?

The Allman Brothers’ website is asking for fans’ help in tracking down bootleg copies of *The Gregg Allman Anthology*. It is believed that records were illegally manufactured in Mexico, Singapore or Thailand. If you have purchased a foreign manufactured copy of the album, contact lanam@allmanbrothersband.com. The site also states that anyone who turns in an illegal copy of the album, “will be rewarded by Gregg.”¹⁷¹

Trading video is strictly forbidden by etree.org (as well as by Phish).

Trading illegally at etree.org will get you banned - so don't do it!

E-mail from E. Damien Raba, etree Moderator, to Rob MacDonald and etree.org etrade mailing list (July 21, 2004, 6:58 PM) (on file with author).

On Tue, 20 Jul 2004, Bob Bonham wrote:

> okay, I think I got exchanged my phish, Smiths, Black Crowes, Cat
> Stevens, Herbie Hancock, Jefferson Airplane, Led Zep, Miles Davis,
> Bob Marley, Doc Watson, Old and In the Way

Sorry - you managed to name quite a list of illegal music there. Trading illegal music will get you banned. It endangers etree.org. Stop it now.

E-mail from E. Damien Raba, etree Moderator, to Bob Bonham and etree.org etrade mailing list (July 21, 2004 6:56 PM) (on file with author).

167. See, e.g., The Traders’ Den—Good & Bad Traders, <http://www.thetradersden.org/forums/forumdisplay.php?f=60> (last visited Feb. 12, 2006); see also Phishhook.com—Vine Killer List, <http://www.phishhook.com/board/viewtopic.php?t=468561&sid=f96c91887a7177b49963252a3400e96a> (last visited Feb. 12, 2006).

168. Etree.org Legal, <http://etree.org/legal.html> (last visited Mar. 13, 2006).

169. *Id.*

170. *Id.*

171. Jambands.com, News Section, Feb. 28, 2000, http://www.jambands.com/NewsArchives.phtml?newsfile=redesign_news28.html.

One Grateful Dead fan even took it upon himself to hire a lawyer and sue eBay for allowing people to sell bootleg recordings on its site (he lost).¹⁷²

Contrast the image of jamband fans working cheerfully with band management and legal teams to catch bootleggers and rule breakers with the mutual antipathy between mainstream music fans and “the music industry.”¹⁷³ Jamband fans seem to view band management as people who work for the artists and themselves as part of a community that includes the band.¹⁷⁴ Mainstream music fans, on the other hand, often portray band management as part of a ruthless industry that merely employs musicians and mistreats fans and musicians alike.¹⁷⁵

The jamband community also helps to enforce rules through software code, building file-sharing programs that are not amenable to illegal copying. These software programs provide a nearly perfect example of what Larry Lessig described in his book *Code and Other Laws of Cyberspace*:¹⁷⁶ software that controls behavior by eliminating the option not to comply. The programs created by the jamband community, however, are an interesting twist on this concept. While Lessig assumes that code will

172. *Judge Says eBay Not Liable for Bootleg Music*, TELEGRAPH HERALD, Nov. 10, 2000, at B5.

173. *See* Yu, *supra* note 22, at 721-28 (noting distrust of mainstream music fans for industry).

174. *See* BUDNICK, *supra* note 95, at 209 (describing extensive business enterprises of the String Cheese Incident, which runs the businesses on its own behalf).

175. Over the last several years, consumers' opinions of record labels and the music industry have grown more and more negative. *See, e.g.*, Fredric Paul, *Why Everyone Hates The Music Industry*, <http://www.techweb.com/wire/172300219> (last visited Mar. 13, 2006); National Purchase Diary Group, *Consumers Delete Large Numbers of Digital Music Files From PC Hard Drives*, Nov. 5, 2003, available at http://www.npd.com/dynamic/releases/press_031105.htm (“Two-thirds of consumers who had recently shared files on P2P networks reported that the lawsuits caused them to have a ‘much more’ or ‘somewhat more’ negative opinion of record companies in general.”). In addition, a recent survey of music executives in Europe indicates that seventy-three percent of those surveyed believe they must change current consumer perceptions of the industry in order to reduce casual copyright infringement. Macrovision, Digital Play Research, <http://www.digital-play.net/form1.htm> (last visited Mar. 13, 2006). When questioned whether “stopping people from freely sharing copyrighted music files through a file-sharing network is the honest and fair thing to do,” twenty-three percent of recent file-sharers agreed, while forty-two percent of those who had not downloaded music in the previous four weeks did not agree. National Purchase Diary Group, *RIAA Lawsuits Appear to Be a “Win” for the Record Industry, but Winning Back the Hearts of Consumers is Another Matter*, Nov. 5, 2003, available at http://www.npd.com/press/releases/press_031105.htm.

176. LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999).

be imposed upon people,¹⁷⁷ the jamband community imposes code upon itself. The most copyright friendly of these programs is a file-sharing application called Furthurnet.¹⁷⁸ Furthurnet is built on an “opt-in” model—only bands that allow taping can be shared on Furthurnet.¹⁷⁹ Furthurnet confronts all users—uploaders and downloaders—with a drop-down menu that contains only bands that permit file-sharing. Uploaders cannot share a file from a band that does not permit taping and downloaders cannot even search for files from a band other than the “taper friendly” ones on the list.¹⁸⁰ Furthurnet also allows users to report improper files (e.g., commercial releases), keeps track of “off limits” shows from otherwise taper friendly bands, and cooperates with bands in removing improper material.¹⁸¹ The Live Music Archive also has similar policies, in that it only allows people to upload shows from bands that have granted permission to be included in this on-demand archive.¹⁸²

Another file-sharing program written for the etree community is BitTorrent,¹⁸³ currently the hottest new file-sharing program.¹⁸⁴ Intrigued by the problem of limited bandwidth faced by his friends in the jamband community, Bram Cohen created a powerful solution with BitTorrent.¹⁸⁵

177. *See id.* at x-xi.

178. *See* About Furthurnet, <http://www.furthurnet.org/about/> (last visited Mar. 13, 2006).

179. *See* Furthurnet Frequently Asked Questions, <http://www.furthurnet.org/community/etiquette.html> (last visited Mar. 13, 2006).

180. *See id.*

181. *See id.*

182. *See* Internet Archive Frequently Asked Questions, <http://www.archive.org/about/faqs.php#115> (last visited Mar. 13, 2006).

183. When Bram Cohen was developing BitTorrent during the summer of 2001, he created an e-mail list for communication between him and others who were coding and testing BitTorrent. As he noted in an early version of the FAQ posted to the list, “BitTorrent’s customer is etree. Etree is a loose-knit community of people who distribute live concert recordings online. They never charge money, and only distribute recordings of bands which give permission. Etree suffers from not having nearly as much upload offered as there is download demand, a problem BitTorrent is intended to solve.” Posting of Bram Cohen, to BitTorrent@yahoogroups.com (July 29, 2001), *available at* <http://groups.yahoo.com/group/BitTorrent/message/62>.

184. BitTorrent accounted for fifty-three percent of all P2P traffic in June 2004. Johan Pouwelse, *The BitTorrent P2P File-sharing System*, http://www.isa.its.tudelft.nl/~pouwelse/Bittorrent_Measurements_6pages.pdf (last visited Mar. 13, 2006). Since then, many major P2P systems have moved to incorporate BitTorrent into their technology. John Borland, *P2P rivals flock to BitTorrent*, CNET NEWS, Feb. 10, 2005, http://news.com.com/P2P+rivals+flock+to+BitTorrent/2100-1032_3-5571354.html?tag=st.rm.

185. *Id.*; *see also* Seth Schiesel, *File-sharing’s New Face*, N.Y. TIMES, Feb. 12, 2004, at G1 (stating that Cohen “was intrigued by a problem familiar to many internet users and felt acutely by friends who were trading music online legally: the excruciating wait while

As the New York Times described it, “BitTorrent . . . uses what could be called a Golden Rule principle: the faster you upload, the faster you are allowed to download. BitTorrent cuts up files into many little pieces, and as soon as a user has a piece, they immediately start uploading that piece to other users.”¹⁸⁶ This architecture allows for faster downloads and fits the jamband community’s norms of sharing quite well. The jamband community helped test BitTorrent in the summer of 2002 and then quickly adopted it and spread it throughout the jamband community and beyond.¹⁸⁷ Since then, users have widely employed it for other legal purposes, such as distribution of Linux kernel releases and other open source programs,¹⁸⁸ and illegal purposes, including distribution of pirated movies, television shows, and software.¹⁸⁹

Cohen cites etree in defense of the legality of his work and motives.¹⁹⁰ He claims that BitTorrent is best suited to legal applications, like etree.org, as it is not at all anonymous and its use is easily traceable. As Cohen stated in a New York Times interview, “[i]t amazes me that sites like Suprnova continue to stay up, because it would be so easy to sue them.’ . . . Using BitTorrent for illegal trading, he added, is ‘patently stupid because it’s not anonymous, and it can’t be made anonymous because it’s fundamentally antithetical to the architecture.’”¹⁹¹ Etree uses this transpar-

files were being downloaded.”), available at <http://www.nytimes.com/2004/02/12/technology/circuits/12shar.html?ei=5007&en=da75cefbee224928&ex=1391922000&partner=USERLAND&pagewanted=all&position>.

186. *Id.*

187. Hamilton Interview, *supra* note 143; Douglas Volk, *Brand-New Lag*, VILLAGE VOICE (Apr. 27, 2004).

188. *See, e.g.*, The Linux Mirror Project, <http://www.tlm-project.org/> (last visited Mar. 13, 2006). The use of BitTorrent has been credited with greatly easing the burdens associated with the massive distribution of new versions of the Linux kernel.

189. *See* Clive Thompson, *The BitTorrent Effect*, WIRED MAG., Jan. 2005, available at <http://www.wired.com/wired/archive/13.01/bittorrent.html>.

190. Slashdot, Interview Responses from BitTorrent’s Bram Cohen, <http://interviews.slashdot.org/interviews/03/06/02/1216202.shtml?tid=126&tid=185&tid=95> (last visited Mar. 13, 2006). Cohen and his fellow developers did indeed seem to have jamband show trading in mind when developing BitTorrent. Their earliest test files were concert recordings from various jamband heroes. *See, e.g.*, Posting of Sarah Tohnen, to BitTorrent@yahoogroups.com (July 6, 2001, 9:05 pm) (providing upload of all-star jam recorded at H.O.R.D.E. tour, which included jamband stalwarts John Medeski and John Popper), available at <http://groups.yahoo.com/group/BitTorrent/message/25>; Posting of Sarah Tohnen, to BitTorrent@yahoogroups.com (July 22, 2001, 4:35 pm) (distributing various jamband concert files recorded by the poster), available at <http://groups.yahoo.com/group/BitTorrent/message/46>.

191. Schiesel, *supra* note 185.

ent architecture to its advantage, diligently policing and preventing posting of illegal seeds on its BitTorrent tracker site.¹⁹²

Finally, it should be noted that the jamband community buys into the rules set by artists and their right to set the rules. Fans are willing and active participants in this system. Personal websites frequently refer to the rules, making it clear that any trades must comply. Community members frequently encourage one another to buy jambands' commercial releases.¹⁹³ E-mail lists and forums contain careful discussions of the rules and angry flames of those who challenge the community's norms. Unlike the mainstream music world, copyright holders and fans peacefully co-exist in the jamband community.

5. *A Reciprocal Relationship*

Jambands and their fans have a healthy reciprocal relationship that goes beyond the bands giving away music and the fans respecting and enforcing artists' rights. Jamband fans are incredibly loyal and passionate about the bands they follow. They will travel great distances to attend shows. They will often follow the band on tour, just as Deadheads followed the Grateful Dead. They will proselytize for their favorite bands

192. See bt.etree.org Community Tracker, <http://bt.etree.org/> (last visited Mar. 13, 2006) (emphasizing that all seeds added must be "trade friendly," i.e., sanctioned for trading by bands).

193. One fan's note exemplifies this common practice and the underlying concern and gratitude toward musicians. In a review of a live recording of singer-songwriter Jack Johnson available at the Internet Archive: "One more thing, live recordings are great and all but PLEASE make sure you buy the original albums . . . I want [Jack Johnson] to be around to make many more albums. THANKS!" Show Details for Jack Johnson: 2002-11-11, Posting of Acoustic Dreamer to <http://www.archive.org/audio/etree-details-db.php?id=3820> (Mar. 16, 2004). Umphrey's McGee, an up and coming jamband, recently suffered a premature leak of its latest commercial release, enabling fans to download the recording for free two months before its release. Fans hotly debated the ethics of downloading the album early, but largely urged one another to pay for a legitimate version once it became available. See, e.g., Umphrey's McGee Miscellany, Posting of Justin Ward to LiveMusicBlog, <http://www.livemusicblog.com/music/06/02/17/umphreys-mcgee-safety-in-numbers-info-snucka-easter-eggs.php> (Feb. 17, 2006, 20:08 EST) (urging fans of Umphrey's McGee to "support the artist by purchasing this album" even though it had been leaked and available for illegal download two months prior to release); Patience is a True Virtue, Posting of "Sumbodyelse" to The Bort, <http://umphreaks.com/forums/index.php?topic=46302.0> (Feb. 19, 2006, 17:45 EST) (writing in Umphrey McGee's fan forum that "Support for a band comes in many forms . . . emotional is a huge one, but financial is also important . . . if we want them to continue putting out high quality products, the support must be there."). This typical, oft-repeated statement is noted at the Internet Archive in connection with a Grateful Dead show: "Please support the artist and their commercial releases." Show Details for Grateful Dead: 1991-03-31, <http://www.archive.org/audio/etree-details-db.php?id=13559> (last visited Mar. 13, 2006).

endlessly, often volunteering to help promote the band by plastering the town with posters.

The bands do a great deal to foster this loyalty and sense of community. They pay attention to the comfort and enjoyment of their fans, holding festivals in pleasant places and setting up travel tour packages for fans traveling to shows.¹⁹⁴ Band management communicates directly with fans on e-mail lists and websites. Fans are offered chances to purchase concert tickets early, and tickets are generally less expensive than mainstream concerts. Many bands also give away music directly—they seed high quality live recordings to the fan community or make them available on their websites.¹⁹⁵

Fans may also feel more loyal toward jambands because they feel closer to them. As described above, jambands often control their own destinies. In contrast to the mainstream music business, jamband fans are less likely to be separated from bands by a vast industry of middlemen.

6. *New Distribution Models*

The trust engendered by this reciprocity between jambands and their fans has allowed jambands to exploit digital distribution channels with unique success. They have used distribution models that most other musicians dare not try. The bands attribute this success to the bond of trust they have with their fans.

The most prominent experiment has been with the sale of high quality live recordings. Phish,¹⁹⁶ the String Cheese Incident,¹⁹⁷ the Dead,¹⁹⁸ and others have all begun to sell fans copies of every show on their recent tours. The bands have made these CDs available through downloads as well as through traditional retail distribution channels. The downloads are in the lossless FLAC compression format created by the jamband community, and contain no copy protection or digital rights management. The bands also allow fans to continue making and trading recordings of these shows.

These live releases have been very successful, quickly growing from experiment to institution. Phish's service, known as Live Phish, "generat[ed] more than \$1 million in revenue via several hundred thousand

194. See BUDNICK, *supra* note 95, at 209.

195. See, e.g., SCI Sounds, <http://www.stringcheeseincident.com/copy.sounds.htm> (last visited Feb. 27, 2006).

196. See Live Phish, <http://www.livephish.com> (last visited Feb. 27, 2006).

197. See Live Cheese, <http://www.livecheese.com/> (last visited Feb. 27, 2006).

198. See Grateful Dead Store, <http://gdstore.com/> (last visited Feb. 27, 2006).

successful downloads” during the first seven months after its launch in January 2003.¹⁹⁹

Other jambands have begun to sell studio albums via downloads as well.²⁰⁰ These downloads are also in the FLAC format, and contain no copy protection or digital rights management technology.²⁰¹ The mainstream music industry has been wary of such wholesale, non-copy protected online distribution. Many entertainment industry executives are certain that unprotected downloads will lead to widespread file-sharing.²⁰² It is considered a testament to the clout and persuasiveness of Apple CEO Steve Jobs that he was able to persuade so much of the music industry to participate in i-Tunes with its limited, albeit persistent, copy protection.²⁰³

Why can jambands use such a form of digital distribution where other bands dare not? As Forrester analyst Josh Bernoff noted of Phish, “Phish has the kind of fans who would download these files and pay for them . . . [i]t shows an enormous amount of trust in the fan base to put these recordings out there in MP3 format.”²⁰⁴ The Live Phish website makes it clear that trust is the basis of this venture: “Live Phish Downloads relies on an honor system, and we ask that you do not abuse the unrestricted nature of these files. If you would like to see this type of delivery of shows continue and flourish, please respect our taping policy and don’t abuse the system.”²⁰⁵

Another reason that jambands can experiment with digital distribution is that they control their own destinies far more than most bands. Big labels typically do not let bands determine policies regarding concert recordings or try new methods of distribution. As noted earlier, Phish has

199. Josh Grossberg, *Phish Spawning Big Music Downloads*, E! ONLINE NEWS, Aug. 8, 2003, <http://www.eonline.com/News/Items/0%2C1%2C12295%2C00.html>.

200. See, e.g., Yonder Mountain String Band, <http://www.livedownloads.com/stash.asp?artist=1> (last visited Mar. 13, 2006).

201. See id.

202. Jon Healey, *Big Music Labels Have Digital Trust Issues*, L.A. TIMES, July 4, 2005, at C1 (“The major labels have declined . . . entreaties [to allow unprotected downloads] in part because they do not trust their online customers not to sabotage their business.”).

203. See Jeff Goodell, *Steve Jobs: The Rolling Stone Interview*, ROLLING STONE, Dec. 3, 2003, available at http://www.rollingstone.com/news/story/5939600/steve_jobs_the_rolling_stone?rnd=114&rnd=1142310630610&has-player=true&version=6.0.12.1040.

204. *Phish Fan’s Devotion Offers Lucrative Net Opportunity*, USA Today, Aug. 5, 2003, available at http://www.usatoday.com/tech/webguide/internetlife/2003-08-05-phish_x.htm.

205. Livephish.com Frequently Asked Questions, <http://www.livephish.com/faq.asp> (last visited Mar. 13, 2006).

always been a special case for its label, Elektra.²⁰⁶ Elektra has made an exception for taping and trading by Phish fans and also consented to Live Phish (in exchange for a share of the profits). SCI did not need to get permission for digital distribution, as they own their own record label. The same is true of smaller bands like Yonder Mountain String Band, which now sells its studio releases via download.²⁰⁷

7. Summary

The jamband community thus offers an intriguing example of how things could be different for the mainstream music industry. Bands and their fans have a mutually beneficial, reciprocal relationship. The fans get a lot of free music and decent treatment. The bands get loyalty, voluntary compliance with and enforcement of their intellectual property rights, and unique business opportunities. Fans support the right of the bands to set limits on the use of their intellectual property, and the bands set limits that are viewed as not only reasonable, but generous. The key question to ask, however, is whether this model is transferable. Is it unique to the jamband community, or is it based on principles that can be applied elsewhere? The next Part discusses explanations for the norms of the jamband community that indicate there are some general lessons that the rest of the music industry could draw from the jamband experience.

IV. EXPLAINING THE SOCIAL NORMS OF THE JAMBAND COMMUNITY

The social norms of the jamband community seem to defy expectations. In the view of some, the opportunistic behavior of mainstream file-sharers seems far more natural. Much of the recent legal scholarship that explores social norms would tend to agree. The law and norms literature often explains norms as a product of clearly self-interested behavior, like the satisfaction of pecuniary interests or the desire to advance social or economic status.²⁰⁸ The norms of the jamband community do not comfortably fit this model, as jambands and their fans cooperate and behave with apparent altruism even where personal gain is uncertain or unlikely.

One might resolve this puzzle by concluding that the jamband community is simply an all-too-rare example of a community that practices

206. See *supra* note 99.

207. See, e.g., Yonder Mountain String Band, <http://www.livedownloads.com/stash.asp?artist=1> (last visited Mar. 13, 2006).

208. See *infra* notes 220-235.

what it preaches.²⁰⁹ Ever since the Grateful Dead posed the lyrical question “Let me know your mind . . . what I want to know is, are you kind?”²¹⁰ the jamband community has embraced the ideal of “kindness” as a catch-all concept encompassing generosity, benevolence, and sharing.²¹¹ One could thus conclude that the behavior described in Part III of this Article is interesting and perhaps even charming, but destined to be confined to this unique subculture.

This explanation has some superficial appeal, but its dismissal of the jamband phenomenon is too facile. It wrongly assumes that opportunistic behavior is the rule, while the kind of pro-social, cooperative behavior exhibited by the jamband community is a quirky, unpredictable exception. Common experience, confirmed by field studies and laboratory research, says otherwise.²¹² Although examples of selfish motivations and behavior abound, people also provide volunteer services, give to charities, and help strangers with no appreciable expectation of any sort of personal gain.²¹³ Ernst Fehr and Klaus Schmidt have summed up the seemingly conflicting evidence: “Some pieces of evidence suggest that many people are driven by fairness considerations, other pieces indicate that virtually all people behave as if completely selfish, and still other types of evidence suggest that cooperation motives are crucial.”²¹⁴ Fehr, Schmidt, and other scholars have determined that this distribution of outcomes is not as random as it may seem. Rather, it results from a set of behavioral characteristics commonly grouped under the label of “reciprocity.”²¹⁵

209. The problem with this assertion is that to the extent that many think of jamband fans at all, they retain a stereotype of neo-hippies. One might expect them to share, but be surprised that they also embrace the property rights of bands. One might also expect them to embrace community, but be surprised to find them so *responsible*, enthusiastically embracing rules and cooperating with authorities.

210. David Dodd, The Annotated “Uncle John’s Band,” <http://arts.ucsc.edu/gdead/AGDL/uncle.html> (last visited Mar. 13, 2006).

211. See Art O’Sullivan, *Miss Him When He’s Gone*, METRO SANTA CRUZ, Aug. 3, 2005, available at <http://www.metroactive.com/papers/cruz/08.03.05/garcia-0531.html> (“The Grateful Dead’s spiritual vision embodied freedom and kindness—celebrated at the concerts and carried beyond.”); Grateful Dead, Posting of J. Loftus to Crowdcafe, <http://www.crowdsafe.com/whathap.asp?ID=38> (Jan. 24, 1998, 09:08 CST) (“I was impressed at the way the fans took care of each other. I do believe that this kindness and respect really cut down on the need for security and police. It was their own society separate from the world.”).

212. See *infra* notes 254-259.

213. See *id.*

214. Ernst Fehr & Klaus M. Schmidt, *A Theory of Fairness, Competition and Cooperation*, 114 Q. J. OF ECON. 817, 818 (1999) [hereinafter *Theory of Fairness*].

215. *Id.* at 855-56.

Reciprocity motivates people to repay the actions of others with like actions—value received repaid with value given, kindness with kindness, cooperation with cooperation, and non-cooperation with retaliation.²¹⁶ Under favorable conditions, it takes only a minority of people influenced by reciprocity to push a group to a sustained equilibrium of cooperation.²¹⁷ If conditions favor opportunism, however, reciprocity may actually hasten the demise of cooperation by causing people to withhold cooperation.²¹⁸ A number of laboratory and field experiments have helped researchers to identify the conditions under which reciprocity is most likely to facilitate cooperation.²¹⁹ As discussed below, it appears that the jamband community has happened upon a way of doing things that taps into reciprocity to create norms that encourage fans to respect copyright restrictions. This observation holds promise for the mainstream music community. If it can reproduce some of the conditions that allow reciprocity to encourage pro-copyright norms in the jamband community, it may be able to change mainstream norms that currently favor illegal file-sharing.

This Part begins by briefly reviewing the law and social norms scholarship, explaining why the dominant self-interest based models do not satisfactorily explain the social norms of the jamband community. It then delves into behavioral and experimental economics research that supports and explains the existence of reciprocity in order to better understand how reciprocity generates support for law in the jamband community and elsewhere.

A. Signaling and Esteem as Sources for Social Norms

Beginning with Robert Ellickson's now-classic 1991 study of social norms among cattle ranchers in Shasta County, California,²²⁰ a large body of legal scholarship has examined social norms.²²¹ Ellickson's study

216. See Ernst Fehr & Simon Gächter, *Fairness and Retaliation: The Economics of Reciprocity*, 14 J. OF ECON. PERSP. 159, 159-60 (2000) [hereinafter *Economics of Reciprocity*].

217. See Armin Falk, Ernst Fehr & Urs Fischbacher, *Appropriating the Commons—A Theoretical Explanation*, in THE DRAMA OF THE COMMONS 157, 158-59 (Elinor Ostrom et al. eds., 2002) [hereinafter *Appropriating the Commons*].

218. See *id.* at 159-61.

219. See *infra* note 262.

220. ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991).

221. For a comprehensive survey of the literature, see generally Richard McAdams & Eric B. Rasmusen, *Norms in Law and Economics*, in THE HANDBOOK OF LAW AND ECONOMICS (A. Mitchell Polinsky & Steven Shavell, eds., forthcoming 2006), available at <http://www.rasmusen.org/papers/norms.wpd> (describing biological, religious, philosophical, and cultural explanations for the origin of norms). There is an older body of

awakened interest in the fact that social norms often regulate human behavior more powerfully than law.²²² Since then, law and social norms scholarship has addressed the origin and evolution of norms,²²³ the mechanisms by which they affect behavior,²²⁴ and how law interacts with social norms.²²⁵ Social science has advanced many possible sources for social norms—mutual self-interest, culture, religion, education, psychology, and evolution are all candidates.²²⁶ Recent law and social norms theorists, however, have largely favored rational choice theory, focusing on game theory and rational self-interest to explain how social norms influence behavior.²²⁷

Many law and social norms scholars thus eschew explanations for social norms that rely on altruism, psychology, or cultural forces. Instead, they contend that people enforce and comply with norms as a result of self-interest expressed through mutually beneficial cooperation.²²⁸ This

legal literature that examines social norms in the field of law and society. See Mark Tushnet, “*Everything Old Is New Again*”: *Early Reflections On The “New Chicago School”*, 1998 WIS. L. REV. 579 (1998). The more recent literature, which started with Ellickson’s *Order Without Law*, tends not to address this earlier literature. See *id.*

222. Ellickson’s seminal study was a prime example—hence the title, *Order Without Law*. The cattle ranchers he studied resolved property disputes according to norms in ways that differed from applicable laws (of which they were largely ignorant).

223. See, e.g., ERIC POSNER, *LAW AND SOCIAL NORMS* (2000); McAdams, *Norms*, *supra* note 68. See generally McAdams & Rasmussen, *supra* note 221.

224. See, e.g., Robert Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1662 (1996); Robert Cooter, *Normative Failure Theory of Law*, 82 CORNELL L. REV. 947 (1997). See generally McAdams & Rasmussen, *supra* note 221.

225. See *supra* note 68.

226. See McAdams & Rasmussen, *supra* note 221, at 15-16. One reason there are so many plausible possibilities may be that the definition of social norms is very broad. Richard McAdams offers a typical formulation of social norms as “informal social regularities that individuals feel obligated to follow because of an internalized sense of duty, because of fear of external non-legal sanctions, or both.” McAdams, *Norms*, *supra* note 68, at 340.

227. This includes Robert Ellickson’s work, see Robert C. Ellickson, *Law and Economics Discovers Social Norms*, 27 J. LEGAL STUD. 537 (1998), the empirical work of Lisa Bernstein on the norms of close-knit commercial groups like the diamond and cotton industry, see Lisa Bernstein, *Merchant Law in a Merchant Court: Rethinking the Code’s Search for Immanent Business Norms*, 144 U. PA. L. REV. 1765 (1996); Lisa Bernstein, *Private Commercial Law in the Cotton Industry: Creating Cooperation Through Rules, Norms, and Institutions*, 99 MICH. L. REV. 1724 (2001), and the theoretical work of Eric Posner, see POSNER, *supra* note 223, and McAdams, *Norms*, *supra* note 68.

228. See, e.g., POSNER, *supra* note 223. The treatment is not entirely consistent. Sometimes, norms are treated as a given, exogenous variable. People comply with the

work owes much to Robert Axelrod's groundbreaking study in game theory, *The Evolution of Cooperation*.²²⁹ Axelrod used computer simulations to show that rational actors were likely to cooperate under conditions where a "tit-for-tat" strategy could produce a stable equilibrium of pro-social, cooperative behavior.²³⁰ The necessary conditions include the possibility for mutually beneficial exchange, repeat interactions among the actors, knowledge of how actors behaved in the past, and the ability to withhold cooperation from actors who had failed to cooperate in the past (i.e., to react "tit-for-tat").²³¹ A group of rational actors will thus engage in cooperative, other-regarding behavior when conditions are such that it is in the self-interest of all actors to do so.

A number of law and norms theorists posit that other-regarding, cooperative social norms are manifestations of the kind of equilibria that Axelrod described. In this view, norms emerge from and are reinforced by tit-for-tat behavior and self-interest. For example, Eric Posner asserts that complying with norms, and punishing those who do not, serves as a signal.²³² Through these actions, one informs one's peers that one is a "good type" with a "low discount rate," i.e., someone with whom one might want to engage in future transactions.²³³ Richard McAdams offers a similar, but slightly different theory, contending that esteem is a primary motivation for complying with norms.²³⁴ People want the esteem of their peers. They fear that they will lose the esteem of others if they violate norms, and hope to gain esteem by complying with and enforcing norms.²³⁵

Two important features of these models limit their usefulness for explaining the social norms of the jamband community. First, they tend to look to some form of rational self-interest, narrowly understood, to explain the content of norms.²³⁶ Second, they work best to explain the origin and

norm because it is in their self-interest to do so, which explains the persistence of a norm but not its origin.

229. ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* (1985).

230. *Id.* at 173-91.

231. *Id.*

232. *See* POSNER, *supra* note 223, at 19-27.

233. *See id.*

234. *See* McAdams, *Norms*, *supra* note 68, at 340.

235. *Id.* Note that the peers who or may not be people who our actions have directly affected or will directly affect, but we behave because we value their good opinion.

236. *See, e.g.*, POSNER, *supra* note 223, at 19-27 (describing rational self-interest as the source of norms). By rational self-interest, Posner usually appears to mean self-regarding behavior that very directly benefits the actor by improving status, material well being, or the like. *See id.* This Article's reliance on reciprocity does not per se conflict with rational choice theory, as rational choice models can accommodate other-regarding preferences and preferences for fairness. Nevertheless, the dominant rational choice mod-

evolution of social norms within small, close-knit groups where people repeatedly interact with one another.²³⁷ The norms of the jamband community are difficult to explain completely and plausibly in terms of rational self-interest. In any event, the jamband community is not the type of small, close-knit community likely to maintain adherence to norms through the prospect of repeat interaction.

Rational self-interest cannot fully explain the social norms of the jamband community. The seemingly altruistic, other-regarding behavior of jambands and their fans is not easy to reconcile with a narrow understanding of rational self-interest. Nevertheless, Posner and others might theorize that jamband community members engage in pro-social behaviors to gain future benefits or avoid sanction. They thus might propose that bands allow taping, tapers distribute recordings, fans abstain from copying commercial releases, and community members promote and enforce rules against unauthorized copying in order to gain and maintain the good opinion of their peers. There are two difficulties with such an explanation. First, it does not tell us why the jamband community values such behavior while the mainstream music community does not. Both groups appear to have the same pecuniary interests: revenue maximization for bands and inexpensive or free music for fans. Self-interest thus cannot account for all of the difference.²³⁸ Second, many of the behaviors encouraged by the norms of the jamband community are relatively costly with an uncertain payoff. While each community member might hope that *other* members of the community comply with restrictions that bands place on copying and

els of social norms such as Posner's typically assume more self-regarding behavior and preferences than those embodied in reciprocity.

237. See Strahilevitz, *Social Norms*, *supra* note 10, at 359-60.

238. This inability to explain differences between the norms of similarly situated groups is a drawback of rational choice models of social norms in general. They explain why a group might *maintain* a particular equilibrium that is embodied in a norm—because the group values a particular behavior and members wish to signal certain qualities or gain the esteem of others. They do not, however, explain why the group values the behavior in the first place. For example, Posner discusses racial discrimination and nationalism. See POSNER, *supra* note 223, at 132-47. He offers a few speculative reasons for the content of such norms: “historical accidents” that cause people to perceive the target group as a threat, *id.* at 135; competition for scarce resources such as jobs, *id.*; and norm entrepreneurs who propagate racist ideologies to support a need for national unity, *id.* at 142. The difficulty with such explanations is that as Posner notes, an “array of equilibriums [is] possible.” *Id.* at 136. Posner relies on self-interest as the equilibrium selection mechanism, but self-interest hardly explains why similarly situated groups with similar interests settle on different equilibria. The jamband community appears to have settled on a much more other-regarding equilibrium than the mainstream music community. The question is why the difference?

trading lest the bands choose to cut off the supply of free music, there is little incentive for each individual to comply with or enforce rules personally. The community is set up so that it is quite easy to collect free music quietly while leaving the work of building the community and enforcing its norms to others.²³⁹ One's peers are unlikely to know that one has refrained from unauthorized copying or has corrected others who are not complying with the rules,²⁴⁰ because the jamband community exists largely online.

In a loose-knit, partly anonymous community like the jamband community, self-interest alone is unlikely to maintain compliance with social norms.²⁴¹ The jamband community is a large, diverse group that exists across many e-mail lists, online message boards, cooperative efforts like etree and the Internet Archive, and small social groups that meet in person at shows or in particular communities. As with any large, online community, identities are often pseudonymous and people can easily come and go anonymously, with little repeat interaction. In such a large, loose-knit group, it is difficult to establish the conditions for an Axelrod type tit-for-tat game. People engage in many interactions with people they may not see again or in situations where no relevant peers can observe their actions.²⁴² There is great incentive to "cheat" in such situations because of the absence of the signaling or esteem benefits proposed by Posner and

239. Indeed, some members of the community bemoan the fact that the ease of downloading shows—as opposed to the more personal trading of tapes or CDRs through the mail—has detracted from the sense of community. See Wren Interview, *supra* note 130. For this reason, some bands like the jazz trio Medeski, Martin, and Wood limit trading to more personal forms. See Hamilton Interview, *supra* note 143. In fact, members of the Grateful Dead organization cited this lack of community as a reason for their recent decision to end free, easy downloads of high quality soundboard recordings from Internet Archive. Jeff Leeds, *Deadheads Outraged over Web Crackdown*, N.Y. TIMES, Nov. 30, 2005, at E1.

240. Violators are often rebuked privately and discretely, Hamilton Interview, *supra* note 143, and reports of misbehavior to community administrators are also private, Wren Interview, *supra* note 130. There is not much opportunity to signal to others or gain esteem in such situations.

241. The "loose-knit" terminology was coined by Lior Strahilevitz: "Loose-knit groups are clusters of individuals among whom information pertinent to informal control does not circulate easily." Strahilevitz, *Social Norms*, *supra* note 10, at 359-60. The significance of loose-knit groups is that they do not create favorable conditions for tit-for-tat models of social norms: "These loose-knit groups are typically composed of members who do not expect to be repeat players or who are unable to gather accurate information about another member's reputation even if repeat-player interactions do occur." *Id.*

242. See Dan M. Kahan, *Signaling or Reciprocating? A Response to Eric Posner's Law and Social Norms*, 36 U. RICH. L. REV. 367, 376 (2002).

MacAdams.²⁴³ For a large, loose-knit group like the jamband community, something more than rational self-interest is thus necessary to explain the emergence and maintenance of social norms.

Recently, law and social norms scholarship has begun to focus on social psychology to explain the norms of large, loose-knit groups.²⁴⁴ Of particular promise is work that focuses on a human behavioral trait known as reciprocity.²⁴⁵ These scholars contend that under the right conditions, reciprocity fosters norms that promote pro-social, cooperative behaviors.²⁴⁶ Although reciprocity is certainly not the only source of social norms, this behavioral trait appears to explain a great deal about how social norms develop in situations calling for collective action and social and economic exchange.²⁴⁷ A survey of the extensive research on the nature of reciprocity in the next Section confirms that it accounts for many of the differences between the norms of the jamband community and the norms of the mainstream music community.

B. Reciprocity: What It Is and How It Works

At first glance, the norms of the jamband community seem to defy expectations. The jamband community provides a contrast to the behavior of the mainstream music industry and its fans, as jambands and their fans seem more cooperative and less self-interested than either common experience or some theoretical models would predict. Nevertheless, the norms of the jamband community are not at all extraordinary.

243. Strahilevitz, *Social Norms*, *supra* note 10, at 362.

244. See, e.g., Kahan, *Trust*, *supra* note 10; Mark A. Lemley, *The Law and Economics of Internet Norms*, 73 *CHL.-KENT L. REV.* 1257 (1998); Geoffrey P. Miller, *Norm Enforcement In the Public Sphere: The Case of Handicapped Parking*, 71 *GEO. WASH. L. REV.* 895 (2003); Neel P. Parekh, Note, *When Nice Guys Finish First: The Evolution Of Cooperation, The Study Of Law, And The Ordering Of Legal Regimes*, 37 *U. MICH. J.L. REFORM* 909 (2004); Strahilevitz, *Charismatic Code*, *supra* note 10; Strahilevitz, *Commodifying California's Carpool Lanes*, *supra* note 10; Strahilevitz, *Social Norms*, *supra* note 10; Katherine J. Strandburg, *Privacy, Rationality, and Temptation: A Theory of Will-power Norms*, 57 *RUTGERS L. REV.* 1235 (2005).

245. See Kahan, *Trust*, *supra* note 10; Strahilevitz, *Charismatic Code*, *supra* note 10; Strahilevitz, *Commodifying California's Carpool Lanes*, *supra* note 10; Strahilevitz, *Social Norms*, *supra* note 10, at 364-65.

246. See Strahilevitz, *Social Norms*, *supra* note 10, at 364-65.

247. See Kahan, *Logic of Reciprocity*, *supra* note 9 (describing reciprocity as the behavioral trait that determines whether or not people will cooperate in collective action situations); Vernon L. Smith, Inaugural Pope Lecture: Some Economics and Politics of Globalization 4-5, Mar. 2, 2005, available at <http://www.mgt.ncsu.edu/pdfs/pope-smith/SomeEconomics.pdf> (describing reciprocity as the fundamental norm governing economic and social exchange, beginning with primitive societies).

Every day, people cooperate with and behave kindly to strangers, even those they will likely never see again.²⁴⁸ A group of scholars studying such pro-social, cooperative behavior has described its pervasiveness and importance thus:

Despite its reputation for fostering competitive behavior, the contemporary market economy sustains important forms of cooperation. Employees cooperate with one another and with management in the enterprise, agents are more or less trustworthy in exchange situations, family members provide for one another, people give to charity, volunteer for public service, and support government redistributive expenditures.²⁴⁹

Many scholars trace the origin of such cooperative behavior to a deeply held human behavioral trait known as reciprocity. Reciprocity dictates that people's actions should be repaid with like actions—value received repaid with value given, kindness with kindness, cooperation with cooperation, and non-cooperation with retaliation.²⁵⁰ People are thus conditional cooperators. They are willing to cooperate, but their continuing cooperation depends on what others are doing, the intentions of others, and how well others are doing (for better or worse) relative to themselves.²⁵¹ Ernst Fehr and Simon Gächter have described the strong case for the existence and strength of reciprocity: “There is now little disagreement among experimental researchers about the facts indicating reciprocal behavior.”²⁵² They “now agree that reciprocity is a rather stable behavioral response by a non-

248. See Elinor Ostrom, *Collective Action and the Evolution of Social Norms*, 14 J. ECON. PERSP. 137, 138 (2000) (“such cooperative behavior is widespread, although far from inevitable”). A classic example of such “irrational” generosity is the act of leaving a tip at a restaurant far from home. See, e.g., Fehr & Gächter, *supra* note 216, at 161. There would seem to be little benefit from leaving a tip if one is alone and never expects to return to the restaurant. The tipper has no incentive to show his peers that he is generous or secure good service upon a return visit, and yet people do it anyway. Daniel Kahneman et al., *Fairness as a Constraint on Profit Seeking: Entitlements in the Market*, 76 AM. ECON. REV. 728, 737 (1986) [hereinafter *Entitlements in the Market*] (revealing from a telephone survey that people are likely to leave the same tip in a restaurant in another city as one they visit frequently). Anonymous giving to charities is another example of seemingly irrational generosity.

249. Samuel Bowles et al., *Homo Reciprocans: A Research Initiative On The Origins, Dimensions, And Policy Implications Of Reciprocal Fairness* (working paper, 1997), available at http://www-unix.oit.umass.edu/~gintis/homo_abst.html.

250. See Fehr & Gächter, *supra* note 216, at 159.

251. *Id.*

252. *Id.* at 162 (emphasis omitted).

negligible fraction of the people that can be reliably elicited under appropriate circumstances.”²⁵³

Social scientists have studied and confirmed reciprocity in laboratory settings through a variety of experimental games. These social dilemma games—including the ultimatum game, the public goods game, and the dictator game—are set up to pose a variety of scenarios where people have the choice of cooperating for mutual benefit, acting opportunistically, and/or acting benevolently. The Sections below examine the research confirming and describing reciprocity in greater detail.

1. *Evidence for Reciprocity*

Evidence of reciprocity comes from a number of sources. Scholars tend to cite three categories: common experience, historical evidence and field research, and experimental games.²⁵⁴ The evidence is strong and widely accepted. Its interpretation is debated, but broad areas of agreement have emerged.

The scholarship on reciprocity often begins by noting common examples of cooperative and benevolent behavior. As noted above, people leave tips and donate money to charity. Others have observed that “people vote, pay their taxes honestly, participate in unions and protest movements, or work hard in teams even when their pecuniary incentives go in the opposite direction.”²⁵⁵ Other examples include support for social welfare programs,²⁵⁶ volunteer service, and care for family members.²⁵⁷ Some have also noted that cooperation is not always “nice.” People will cooperate and incur a cost in order to punish others—for example, socially snubbing somebody who violates community norms or taking a risk to steal from an employer who is perceived as unfair.²⁵⁸ This common experience is con-

253. *Id.* at 163.

254. Bowles and Gintis sum up the evidence: “The experimental evidence, casual observation of everyday life, ethnographic and paleoanthropological accounts of hunter-gatherer foraging bands from the late paleolithic to the present, and historical narratives of collective struggles—these have combined to convince us that strong reciprocity is a powerful and ubiquitous motive.” Samuel Bowles & Herbert Gintis, *Is Equality Passé? Homo Reciprocans and the Future of Egalitarian Politics*, BOSTON REV., Dec. 1998/Jan. 1999, at 23, available at <http://www.bostonreview.net/BR23.6/bowles.html> [hereinafter *Future of Egalitarian Politics*].

255. Fehr & Schmidt, *supra* note 214, at 818.

256. See generally Bowles & Gintis, *supra* note 254 (discussing reciprocity’s effect on support for and opposition to social welfare programs).

257. *Id.*

258. Fehr & Schmidt, *supra* note 214, at 818.

firmed more rigorously by fieldwork and historical examples from various disciplines such as ethnography, anthropology, and social psychology.²⁵⁹

Although common experience and field studies indicate the existence of reciprocity, they do not tell us exactly how it works. We know that people also behave selfishly under many conditions. The “bewildering variety of evidence” calls for controlled study and detailed models.²⁶⁰ Although common experience and field studies indicate that institutions and behavioral factors affect how and whether reciprocity influences human behavior, “it is . . . almost impossible to isolate the impact of individual factors. This is why we need controlled laboratory experiments”²⁶¹

Researchers have indeed performed hundreds of such experiments,²⁶² setting up social dilemma games in the laboratory that participants must solve by cooperating or declining to cooperate. The social dilemma games most relevant to this Article’s discussion of reciprocity are the public goods game, the ultimatum game, and the dictator game. The following subsections describe these experiments and what they tell us about reciprocity.

a) The Public Goods Game

The public goods game is one of the most important for understanding the nature of reciprocity. In the public goods game, a group of players has the opportunity to benefit from a common resource—i.e., a public good. Its conditions evoke the central problem of cooperation: while we all gain from cooperating, each individual has an incentive to free ride on the ef-

259. See Bowles & Gintis, *supra* note 254, at 4-15 (describing reciprocity as the result of 100,000 years of human cultural evolution and discussing laboratory, field, and historical research by primatologists, anthropologists, economists, psychologists, and others validating reciprocity); Ernst Fehr & Simon Gächter, *Reciprocity and Economics: The Economic Implications of Homo Reciprocans*, 42 EURO. ECON. REV. 845 (1998) [hereinafter *Homo Reciprocans*] (discussing studies). See generally JOSEPH HENRICH ET AL., FOUNDATIONS OF HUMAN SOCIALITY: ECONOMIC EXPERIMENTS AND ETHNOGRAPHIC EVIDENCE FROM FIFTEEN SMALL-SCALE SOCIETIES (2004) (collecting papers describing such evidence). Nobel Prize winning economist Vernon Smith suggests that “exchange had its origin in reciprocity and sharing norms in the family, the extended family and tribes,” and ultimately produced market economies. Smith, *supra* note 247, at 4.

260. Fehr & Schmidt, *supra* note 214, at 818.

261. Falk et al., *supra* note 217, at 157.

262. *Id.* at 180 n.3 (“The importance of reciprocity has been established in dozens if not hundreds of experiments.”). For overviews of the literature on experiments regarding reciprocity, see Colin F. Camerer & Ernst Fehr, *Measuring Social Norms and Preferences Using Experimental Games: A Guide for Social Scientists*, in FOUNDATIONS OF HUMAN SOCIALITY 55 (Joseph Henrich et al., eds., 2004); Fehr & Schmidt, *supra* note 214.

forts of the other players. The game is “designed to illuminate such problems as the voluntary payment of taxes and the restriction of one’s use of an endangered environmental resource.”²⁶³ These problems have certain parallels to compliance with copyright law. Choosing not to pay taxes is like choosing not to pay for copyrighted works—the consequences of getting caught are undesirable, but unlikely to occur. Similarly, one who downloads free music is in some sense like one who uses an environmental resource—in the aggregate such actions may “deplete” the resource (by undermining incentives to create), but one’s individual actions increase one’s own welfare without having a tremendous impact on the whole. Each file-sharer free rides on the work of those who create and the willingness of others to compensate that creativity.

In the public goods game, the public good to which players may contribute is typically a pool of shared money.²⁶⁴ Each player is given money at the start of each round and must decide how much to contribute to the pool. The benefit of contributing is that each contribution is matched by the experimenter, and the increased pool is divided among the players. The catch is that the increased pool of money is shared by all players, without regard to whether they contributed or not.

This is how a typical variant²⁶⁵ of the public goods game works, with ten players:²⁶⁶ at the start of each round, each player is given \$1, and may anonymously contribute any portion of that \$1 to the common pool. The experimenter then divides the amount in the common pool in half, and gives that amount of money to each player. If all 10 players contribute \$1 each, the common pool is \$10, and they each receive \$5. The optimal outcome for the group as a whole occurs when everyone contributes all of their money to the common pool. For example, after 10 rounds each player would have \$50 in exchange for a \$10 contribution (\$1 each round).

The problem that the public goods game presents is the potential for free riding: the selfish player²⁶⁷ or “rational egoist”²⁶⁸ can do better by

263. Herbert Gintis, *Cultural Darwinism*, BOSTON REV., Feb./Mar. 1998, at 23, available at <http://www.bostonreview.net/br23.1/gintis.html>.

264. Sometimes the money is real, sometimes it consists of imaginary “monetary units,” depending, one might suppose, on the generosity of the funding of the researcher. See John O. Ledyard, *Public Goods: A Survey of Experimental Research*, in HANDBOOK OF EXPERIMENTAL ECONOMICS 111-12 (John H. Kagel & Alvin E. Roth, eds. 1995) (providing overview of public goods experiments).

265. This variant is a “linear public good” game. Ostrom, *supra* note 248, at 139.

266. This scenario is described by a number of authors. See *id.* at 139-40; Bowles & Gintis, *supra* note 254, at 10-11.

267. Bowles & Gintis, *supra* note 254, at 10

268. Ostrom, *supra* note 248, at 139.

contributing nothing, provided that the other nine players do contribute.²⁶⁹ In that scenario, the selfish player keeps his \$10 plus the \$45 that results from the contributions of others, for a total of \$55. If everyone does this, however, the common pool is empty and each player ends up with only \$10. The worst outcome would occur if a player contributes \$1 and nobody else does, in which case the player receives back only \$.50. Absent the opportunity to communicate and make enforceable agreements, the expectation is that a rational player will desire the optimal outcome (\$55), want to avoid the worst outcome (\$.50), will expect other players to see things the same way, and will thus contribute nothing.²⁷⁰ The predicted outcome is thus “an ‘iterated prisoner’s dilemma’ in which self-regarding players contribute nothing.”²⁷¹

This prediction is not borne out when the game is actually played, which tells us some interesting things about human behavior. The experiment has been run often enough with sufficiently consistent results that it is now possible to make generalizations.²⁷² During the first round, people contribute on average about half of their money to the common pool.²⁷³ This contribution rate occurs even in one round, “one shot” games where there is no potential for future cooperation.²⁷⁴ If the game is played for several rounds under the standard conditions of anonymity, cooperation deteriorates.²⁷⁵ Nevertheless, in the last round, where there is no longer a possibility for future cooperation, over 25% of subjects still contribute something.²⁷⁶ The experimental evidence thus only partly confirms the

269. This is, of course, the problem of collective action, as defined by Mancur Olson in his seminal work. *See* MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOALS AND THE THEORY OF GROUPS* (1965).

270. Bowles & Gintis, *supra* note 254, at 11; Ostrom, *supra* note 248, at 139. For the mathematical expression of the dominant strategy, *see* Falk et al., *supra* note 217, at 176.

271. Bowles & Gintis, *supra* note 254, at 11; *see* Ledyard, *supra* note 264, at 112 (discussing how economics and game theory predicts free riding in this context). Ostrom notes that these predictions are “based on the assumptions that all players are fully rational and interested only in their own immediate financial payoff, that all players understand the structure of the game fully and believe that all other players are fully rational, and that no external actor can enforce agreements between the players.” Ostrom, *supra* note 248, at 139-40.

272. *See* Ostrom, *supra* note 248, at 140; Fehr & Schmidt, *supra* note 214, at 838 (summarizing, in chart form, results of various public good experiments in various different countries).

273. *See* Ostrom, *supra* note 248, at 140.

274. *See* Fehr & Schmidt, *supra* note 214, at 838.

275. *See id.*

276. *See id.* (meta study of twelve experimental studies). Still, it is significant that without the opportunities for communication and punishment described below, 73% choose the strategy of complete free riding (zero contribution). *Id.*

prediction of an iterated prisoner's dilemma. Some people free ride, but not all do. Free riding may cause cooperation to deteriorate, but never completely eliminates it.

When the rules of the game reduce anonymity, cooperation increases. Simply allowing players to observe each other silently increases cooperation.²⁷⁷ More important, if players are allowed to communicate, they coordinate their efforts and make agreements; as a result, cooperation increases dramatically and free riding declines.²⁷⁸ These benefits continue, even into the last round.²⁷⁹ Communication improves cooperation even in one round games,²⁸⁰ which contradicts the standard model.²⁸¹ These results are surprising, because without enforcement of agreements, it is easy to make and break promises.²⁸²

When the rules of the game are further refined to allow people to punish others for non-compliance, cooperation increases even more dramatically. People will punish non-cooperators, even at a cost to themselves.²⁸³ In a series of experiments, Ernst Fehr and Simon Gächter introduced the opportunity to punish non-cooperators.²⁸⁴ There is a cost to the punisher, but the cost to the one punished is even greater. The self-interested model of behavior would predict that such an opportunity for punishment would not change the outcome because a rational actor would not incur a cost to punish others.²⁸⁵ People might hope that other players would punish bad behavior, but would not voluntarily give up their own income to do so. Rational players would anticipate that motivations would play out this way, so they would not alter their contributions.²⁸⁶ But people do not behave according to this prediction. The availability of punishment increases and sustains high levels of contribution. In fact, many players incur a cost

277. See Iris Bohnet & Bruno S. Frey, *The Sound of Silence in Prisoner's Dilemma and Dictator Games*, 38 J. ECON. BEHAV. & ORG. 43, 44 (1999) [hereinafter *Sound of Silence*].

278. See Elinor Ostrom & James Walker, *Neither Markets Nor States: Linking Transformation Processes in Collective Action Arenas*, in PERSPECTIVES ON PUBLIC CHOICE: A HANDBOOK 61-67 (Dennis C. Mueller, ed., 1997) [hereinafter *Neither Markets Nor States*] (exploring the role of face-to-face communication in various common-pool resource settings).

279. *Id.*

280. See Ledyard, *supra* note 264, at 121.

281. *Id.* at 156-58; Ostrom, *supra* note 248, at 140-41.

282. See Ledyard, *supra* note 264, at 156; Ostrom, *supra* note 248, at 140.

283. See Ernst Fehr & Simon Gächter, *Cooperation and Punishment in Public Goods Experiments*, 90 AM. ECON. REV. 980, 993 (2000).

284. See generally *id.*

285. Camerer & Fehr, *supra* note 262, at 68.

286. *Id.*

to punish non-cooperators and 82.5% of the players cooperate fully—contributing all their resources to the common pool.²⁸⁷ This effect is so strong that even in the final round of the game, where future punishment is no longer a threat, players still contribute 90% on average.²⁸⁸

Several models have emerged to explain the behavior of people in public goods games.²⁸⁹ These models fall into two broad categories—“models of inequality aversion and models of reciprocity. In inequality-aversion [also called inequity aversion] theories, players prefer more money and also prefer that allocations be more equal.”²⁹⁰ Under inequity aversion theories, people have a preference for equitable outcomes and are willing to act on those preferences.²⁹¹ Reciprocity theories are a bit more complex, as they posit preferences that focus on the intent and actions of others.²⁹² If people perceive others to be behaving kindly, they will reciprocate with kind behavior.²⁹³ If they perceive others as behaving unkindly, they will retaliate.²⁹⁴

Falk, Fehr, and Fischbacher have proposed an integrated model to fully account for pro-social behavior in social dilemma situations.²⁹⁵ They contend that people are conditional cooperators.²⁹⁶ People are willing to cooperate provided that others cooperate and outcomes are equitable.²⁹⁷ If people are convinced that others will contribute to the public good, they will contribute too.²⁹⁸ If they expect that some free-riders will holdout, however, their aversion to inequity will cause them to withhold cooperation.²⁹⁹ They are also willing to punish others, both to achieve more equitable outcomes, as well as to reciprocate unkind behavior.³⁰⁰

287. See Falk et al., *supra* note 217, at 176-77.

288. See Fehr & Gächter, *supra* note 216, at 166.

289. See Falk et al., *supra* note 217, at 159-60 (describing and summarizing various models); Camerer & Fehr, *supra* note 262, at 78-84 (same).

290. Camerer & Fehr, *supra* note 262, at 80.

291. *Id.*

292. *Id.* at 82.

293. *Id.*

294. *Id.*

295. See Falk et al., *supra* note 217 (integrating inequity aversion model with reciprocity model). At times in the past, all three had proposed both inequity aversion and reciprocity theories. See *id.*

296. *Id.* at 179.

297. *Id.* at 176-79.

298. *Id.*

299. *Id.*

300. *Id.* Herbert Gintis and Samuel Bowles label this behavior “strong reciprocity.” Herbert Gintis & Samuel Bowles, *The Evolution of Strong Reciprocity: Cooperation in Heterogeneous Populations*, in 65 THEORETICAL POPULATION BIOLOGY 17, 18 (2004)

The conditional cooperator model has been tested further in laboratory and field experiments. Fischbacher, Gächter, and Fehr examined these tendencies in a unique public goods game that specifically measured how much people's willingness to cooperate was based on the cooperation of others.³⁰¹ In this game, people were given the opportunity to fill out a table of contributions, indicating their preferred contribution based on increasing levels of average contributions by the group.³⁰² The experimenters found that most people were neither free-riders nor pure altruists.³⁰³ About 50% were conditional cooperators, increasing their contributions in proportion to the contributions of others.³⁰⁴ About 30% of the subjects turned out to be free-riders.³⁰⁵ In a field experiment designed to test conditional cooperation, experimenters informed students about the contributions of others to a voluntary social fund.³⁰⁶ People who were informed that contributions were higher than they expected tended to increase their contributions.³⁰⁷ The data thus supported the conclusion that "people behave pro-socially conditional on the pro-social behavior of other persons."³⁰⁸

b) The Ultimatum Game

The ultimatum game is another social dilemma game that focuses specifically on people's propensity for benevolent and vengeful behavior. In this game, the experimenter selects random pairs of people and gives them

[hereinafter *Evolution of Strong Reciprocity*]. A plethora of labels exists in this area. For simplicity's sake, this paper labels inequity aversion, strong reciprocity, and other such behaviors that are conditioned on what and how well others are doing as "reciprocity."

301. Urs Fischbacher et al., *Are People Conditionally Cooperative? Evidence from a Public Goods Experiment*, 71 *ECON. LETTERS* 397, 397-98 (June 2001), available at <http://sciencedirect.com>.

302. *Id.* at 400.

303. *Id.*

304. *Id.*

305. *Id.* at 401

306. Bruno S. Frey & Stephan Meier, Social Comparisons and Pro-social Behavior: Testing "Conditional Cooperation" in a Field Experiment, 94 *AM. ECON. REV.* 1717, 1719 (2004).

307. *Id.*

308. *Id.* at 1720. Researchers obtained similar results in a Minnesota Department of Revenue experiment that has been much discussed in the tax law and law and social norms literature. See, e.g., Kahan, *Trust*, *supra* note 10, at 340-44. Taxpayers were informed that the overwhelming majority of people do not cheat on their taxes. Taxpayers who received the letter paid taxes at a higher rate than the control group, which did not receive the letter. STEPHEN COLEMAN, THE MINNESOTA INCOME TAX COMPLIANCE EXPERIMENT: STATE TAX RESULTS 18-19, 25 (1996), http://www.taxes.state.mn.us/taxes/legal_policy/research_reports/content/complnce.pdf.

a sum of money to divide.³⁰⁹ One player—the Proposer—is given the power to propose how to divide the money.³¹⁰ The Proposer can make only one offer and cannot negotiate with the other subject—the Responder.³¹¹ If the Responder accepts, then she may keep the amount offered.³¹² If the Responder rejects the offer, however, then both get nothing.³¹³ Standard assumptions about rational self-interest lead one to expect that the Proposer would offer as little as possible—e.g., one cent—and the Responder would accept, since something is better than nothing.³¹⁴

In this game too, however, people's behavior defies expectations, thus supporting the inequality aversion and reciprocity models. This experiment has been performed many times in different cultures, with different amounts, and with different procedures.³¹⁵ While there are almost no offers over 50%, the vast majority of Proposers offer between 40% and 50%, with almost no offers below 20%.³¹⁶ Responders often reject low offers (e.g., less than 30%), and the likelihood of rejection decreases with the size of the offer.³¹⁷

The ultimatum game thus demonstrates that people will cooperate at a cost to themselves and will punish others at a cost to themselves.³¹⁸ The behavior of Responders particularly supports the existence of reciprocity. They are willing to incur a significant cost³¹⁹ in order to punish what they perceive as unkind behavior.³²⁰ People are far more spiteful than most

309. This game was first developed and employed by Werner Guth et al., *An Experimental Analysis of Ultimatum Bargaining*, 3 J. ECON. BEH. & ORG. 367 (1982).

310. See Bowles & Gintis, *supra* note 254, at 9-10.

311. See *id.*

312. See *id.*

313. See *id.*

314. See Camerer & Fehr, *supra* note 262, at 69.

315. See Fehr & Schmidt, *supra* note 214, at 825-26.

316. *Id.* Fehr and Schmidt aggregated the results of ten studies conducted in Indonesia, Germany, the United States, Slovenia, Israel, Japan, and Slovakia, and determined that 71% of offers were between 40% and 50%. *Id.* at 827. The aggregate result also showed that only 3.8% of offers were for less than 20%. *Id.*

317. *Id.* at 825-27.

318. See *id.* at 827-29; Bowles & Gintis, *supra* note 254, at 9-10; Camerer & Fehr, *supra* note 262, at 69-72.

319. The amounts vary, but in one study conducted in Indonesia the total amount was the equivalent of three months' wages. See Lisa Cameron, *Raising the Stakes in the Ultimatum Game: Experimental Evidence from Indonesia*, 37 ECON. INQUIRY 47, 47 (1999). In any event, since the money is all surplus, willingness to forego it shows that people are willing to incur a cost to back up their preference for reciprocity.

320. See Fehr & Schmidt, *supra* note 214, at 827-28; Gintis & Bowles, *supra* note 300, at 17-18.

standard economic models predict.³²¹ The actions of Proposers also support a preference for equity, but they may just be acting strategically.³²² Proposers bring their knowledge of human nature into the laboratory. They know that people are willing to punish behavior perceived to be unfair, so they know they may end up with nothing if their offers are too low.³²³

c) The Dictator Game

The dictator game drastically simplifies the conditions of the ultimatum game to isolate the behavior and motivations of Proposers. The Proposer decides how to split the money provided by the experimenter.³²⁴ The other player is not a Responder in the dictator game because he has no opportunity to respond.³²⁵ Instead, the other player is a Recipient—an anonymous person in another room.³²⁶ It is completely left to the Proposer's discretion whether to give the Recipient any money.³²⁷ "Dictator games are an interesting vehicle for studying the meaning and interpretation of 'fairness'" because they "control[] for strategic behavior in the ultimatum game."³²⁸ At this point, self-interest might be expected to come to the fore because the Proposer can simply walk away with all the money.³²⁹

Once again, the result defies the predictions of the self-interest model. At least some Proposers still give Recipients money.³³⁰ Perhaps unsurprisingly, the allocations are much lower than in the ultimatum game. On average, Proposers dictate an allocation between 10% and 25% to the Recipient.³³¹ This result indicates that some of the generosity displayed by

321. See Bowles & Gintis, *supra* note 254, at 9-10.

322. See Camerer & Fehr, *supra* note 262, at 71-72.

323. *Id.*

324. The dictator game originated in Daniel Kahneman et al., *Fairness and the Assumptions of Economics*, 59 J. OF BUS. 285 (1986) [hereinafter *Assumptions of Economics*].

325. See Elizabeth Hoffman et al., *Social Distance and Other-Regarding Behavior in Dictator Games*, 86 AM. ECON. REV. 653, 653 (1996) [hereinafter *Social Distance*].

326. *Id.*

327. *Id.*

328. *Id.*

329. See Camerer & Fehr, *supra* note 262, at 72.

330. *Id.*

331. See *id.* at 16-17 (using data from NATALIE HENRICH & JOSEPH HENRICH, *EVOLUTION, CULTURE AND THE CHALDEAN*, available at <http://www.anthropology.emory.edu/FACULTY/ANTJH/Chaldeanbook/Table%20of%20Contents.htm> (last visited Mar. 13, 2006)).

Proposers in the ultimatum game is motivated by fear of rejection.³³² On the other hand, since many Proposers offer something in the dictator game, at least some Proposers in the ultimatum game may be motivated by preferences for equitable outcomes.³³³

The generosity of the Proposers also varies based on the degree of social distance between the Proposer and the Recipient or others who know about the Proposer's actions. "Social distance can be defined as the degree of reciprocity that subjects believe exists within a social interaction."³³⁴ In the standard dictator game, the Proposer knows that the experimenter will know whether he allocated any money.³³⁵ One group of experimenters set out to determine how much generosity in the dictator game was influenced by observation of the experimenter.³³⁶ The group created a double-blind procedure that assured the Proposer of anonymity. Nobody else, including the experimenter, could observe or find out what the Proposer chose to do.³³⁷ In the double-blind experiment, 64% of the offers were \$0 and only 8% offered 40% or more.³³⁸ The differences between these outcomes and those in standard dictator experiments were statistically significant—in the standard dictator experiment, 18% offered \$0 and 32% offered 40% or more.³³⁹ In a later set of experiments, the researchers changed elements of the language and procedures to vary social distance.³⁴⁰ They found that changing the degree of social distance changed the outcome, with the distributions becoming more generous as social distance decreased.³⁴¹ In another experiment where Recipients gave a short description of themselves heard by Proposers, the average allocation rose to 50%.³⁴² Context can further increase allocations by making the recipient more "deserving" or sympathetic—as in an experiment where the Recipient was the Red Cross.³⁴³

332. See Camerer & Fehr, *supra* note 262, at 72.

333. See *id.*; Fehr & Schmidt, *supra* note 214, at 827-28.

334. Hoffman et al., *Social Distance*, *supra* note 325, at 654 n.3.

335. *Id.*

336. See Elizabeth Hoffman et al., *Preferences, Property Rights, and Anonymity in Bargaining Games*, 7 GAMES & ECON. BEHAV. 346 (1994) [hereinafter *Preferences*].

337. See *id.*

338. See Hoffman et al., *Social Distance*, *supra* note 325, at 653-54.

339. See *id.*

340. See *id.*

341. See *id.* at 654 tbl.1, 658.

342. See Iris Bohnet & Bruno S. Frey, *Social Distance and Other-Regarding Behavior in Dictator Games: Comment*, 89 AM. ECON. REV. 335, 338-39 (1999) [hereinafter *Social Distance and Other-Regarding Behavior*].

343. See Catherine C. Eckel & Philip J. Grossman, *Altruism in Anonymous Dictator Games*, 16 GAMES & ECON. BEHAV. 181 (1996). In that experiment, which duplicated the

d) Summary

Research indicates that reciprocity is a powerful, but not inevitable, influence on human behavior. Preferences for cooperation appear to be common, but there are also people who will prefer to behave in a “selfish” manner. If the institutions—or “rules of the game”—tend to allow reciprocity to induce and foster pro-social behavior, then cooperative outcomes are more likely.

2. *How Reciprocity Explains the Behavior of the Jamband Community*

Reciprocity appears to explain the most important characteristics of the social norms of the jamband community. The following Sections describe the most salient features of reciprocity, how they can foster cooperative behavior under the right conditions, and how the jamband community taps into reciprocity to foster such behavior.

a) (Some) People Are Pre-Disposed to Play by the Rules

Some people are pre-disposed to cooperate and treat others kindly. The theoretical models that explain reciprocity posit the presence of three different types of people: conditional cooperators, willing punishers, and rational egoists.³⁴⁴ Conditional cooperators will start out cooperating if they anticipate that others will do so, and will continue to cooperate if others do so and if the outcomes remain fairly distributed.³⁴⁵ If others do not cooperate, however, they will begin to reduce their cooperation. “Without communication or institutional mechanisms to stop the downward cascade, eventually only the most determined conditional cooperators continue to make positive contributions.”³⁴⁶ The rational egoists or “selfish types”³⁴⁷

double-blind procedure of Hoffman et al. in *Social Distance*, see *supra* note 325 and accompanying text, the Red Cross received an average of around 30% (with several Proposers donating all of the money), in contrast to the standard double blind version in which Recipients received about 10%. See Eckel & Grossman, *supra* at 187. In a prisoner’s dilemma game, experimenters similarly manipulated social distance and found that participants were less likely to defect when other participants were fraternity brothers, as opposed to police officers or students at other universities. See Peter Kollock, *Transforming Social Dilemmas: Group Identity and Cooperation*, in MODELING RATIONAL AND MORAL AGENTS 186 (Peter Danielson ed., 1997).

344. These terms come from Ostrom, *supra* note 248, at 142. Bowles and Gintis use terms with very similar meanings: “Cooperators,” “Reciprocators,” and “Selfish Agents.” See Bowles & Gintis, *supra* note 300, at 18. Fehr and Gächter divide the world into “reciprocal or selfish types.” Fehr & Gächter, *supra* note 216, at 160; see also Falk et al., *supra* note 217, at 179.

345. See Ostrom, *supra* note 248, at 142; Falk et al., *supra* note 217, at 179.

346. Ostrom, *supra* note 248, at 142.

will act opportunistically for their own benefit, unless something constrains them.³⁴⁸ The willing punishers may supply such a constraint. Their preferences for reciprocity and equitable outcomes are so strong that they are willing to punish those who they perceive as unkind or uncooperative, even at a cost to themselves.³⁴⁹

Too many have viewed the file-sharing problem with something akin to pure pessimism.³⁵⁰ The existence of these three behavioral types indicates that we ought to view people—including music fans—more realistically. “[I]nstead of pure pessimism or pure optimism,”³⁵¹ one must recognize that people have both the potential to behave well and the potential to behave badly. Neither the rule-breaking of mainstream file-sharers nor the compliance of jamband fans should surprise us, since conditional cooperators and selfish types are present in both populations. Although this point may seem utterly prosaic (some people are cooperative, others are not), it is worth making. The outcomes in both the mainstream music community and the jamband community are both plausible; neither one is inevitable.

The challenge is setting up conditions that encourage compliance. Cooperation is more likely to prevail when conditions allow conditional cooperators and willing punishers to get the upper hand.³⁵² If conditional cooperators perceive that others are cooperating, they will continue to do so. The jamband community fosters a perception of cooperation, as examples of highly visible compliance abound. Compliance is even more likely if willing punishers are able to exercise their preference to punish opportunistic behavior.

b) Under the Right Conditions, Conditional Cooperators Will Play by the Rules

People are conditional cooperators. In situations that call for cooperating and playing by the rules, people’s cooperation depends on whether

347. Falk et al., *supra* note 217, at 179.

348. See Ostrom, *supra* note 248, at 139-42; Fehr & Gächter, *supra* note 216, at 160.

349. See Ostrom, *supra* note 248, at 142; Fehr & Gächter, *supra* note 216, at 160.

350. See *supra* notes 4-5 and accompanying text.

351. Ostrom, *supra* note 248, at 154.

352. See Ostrom, *supra* note 248, at 142-43. As Fehr and Gächter state: “[d]etails of the institutional environment, like the presence of incomplete contracts or of costly individual punishment opportunities, determine whether the reciprocal or selfish types are pivotal.” Fehr & Gächter, *supra* note 216, at 160; see also Bowles & Gintis, *supra* note 300 (setting forth a model simulating how a predisposition to reciprocity may have evolved based on the presence of some reciprocators or willing punishers in the population); Falk et al., *supra* note 217, at 179 (noting importance of “institutional set-up”).

they perceive a situation as fair.³⁵³ Such perceptions of fairness are based on whether or not others are receiving a windfall from behaving opportunistically. Even if an individual receives some benefit from cooperation, she will judge an outcome to be unfair if others are free-riding or receiving more than their “fair” share. Thus, she will withhold cooperation in a public goods game if others are free-riding³⁵⁴ and will punish a proposer in an ultimatum game if she believes the proposer is keeping more than a fair share.³⁵⁵ On the other hand, if she perceives outcomes to be fair, she will cooperate.³⁵⁶ Unlike the mainstream music industry, jambands create conditions that encourage cooperation. They benefit from conditional cooperation, as fans perceive their behavior as fair and because they perceive that other fans are playing by the rules.

Significantly for copyright owners, preferences for fairness appear to influence market behavior. Daniel Kahneman and others have studied how consumers’ perceptions of fairness with respect to factors like pricing, profit margins, wage setting, and rent influence their economic behavior and, in turn, constrain the behavior of other market actors.³⁵⁷ What is “fair” is a matter of subjective perception: people have some subjectively fair reference transaction in mind against which they measure the fairness of a transaction.³⁵⁸ Such perceptions of unfairness matter because they

353. See Falk et al., *supra* note 217, at 179.

354. See *supra* Section III.B.1.

355. See *id.*

356. See *id.*

357. See, e.g., Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 738-40 (using results of consumer survey on fairness in various transactions to explain apparent anomalies in market behavior); see also ARTHUR OKUN, *PRICES AND QUANTITIES: A MACROECONOMIC ANALYSIS*, 139-55 (1981) (discussing fairness as a constraint on price setting for concert tickets, popular new cars, and other scarce consumer products); Bruno S. Frey & Werner W. Pommerehne, *On the Fairness of Pricing - An Empirical Survey Among the General Population*, 20 J. ECON. BEHAV. & ORG. 295 (1993) (providing survey research on perceptions of fairness in pricing); Daniel Kahneman et al., *Assumptions of Economics*, *supra* note 324, at 285 (discussing how perceptions of fairness fit into standard economic markets); Robert M. Solow, *On Theories of Unemployment*, 70 AM. ECON. REV. 1 (1980) (discussing fairness as a constraint on wage reduction during times of unemployment); Lan Xia et al., *The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions*, 68 J. MKTG. 1 (2004) (discussing effect of marketing and framing on perceptions of price fairness).

358. See Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 729 (describing the reference transaction, a relevant price or wage to which people compare other transactions, as a “central concept in analyzing the fairness of actions in which a firm sets the terms of future exchanges”). As Fehr and Schmidt note, that reference point cannot be predicted theoretically, but rather must be determined empirically. Fehr & Schmidt, *supra* note 214, at 818.

strongly influence behavior. People are willing to pay “fair” prices and allow companies “fair” profits.³⁵⁹ However, if they believe a company is exploiting market power or acting opportunistically,³⁶⁰ they are willing to punish the company even at a cost to themselves.³⁶¹ In a real life example of ultimatum game-type retaliation, Kahneman’s research indicated that people would be willing to drive an extra five minutes to avoid patronizing a more convenient store that mistreated its workers or raised its prices to take advantage of the closing of a competitor.³⁶²

Retaliatory behavior in the marketplace is quite relevant to the problem of file-sharing. Consumers are infamous for their antipathy for the music industry.³⁶³ They assert that the prices for CDs are “too high”; that the industry rips off artists; and that CDs contain only a minority of worthwhile songs.³⁶⁴ These complaints are all offered as reasons or excuses for file-sharing. Although one may dismiss these assertions as mere rationalizations, the research on reciprocity suggests there may be greater significance to these complaints. Regardless of their validity, perceptions of unfairness are important because people are willing to punish companies for them. When people can choose whether or not to pay for a product, being despised as unfair can have serious economic consequences.

359. As Kahneman notes, “[n]ormative status is not claimed for” the label of fairness; rather it is shorthand description for the subjective perception of people about what is fair. Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 729. Perceptions of fairness can result from a previous transaction setting the standard or from framing effects. *See id.* at 729-32.

360. *Id.* at 734-36.

361. *Id.* at 736.

362. *Id.* Kahneman also ran an ultimatum game variant experiment where people were given a choice of splitting \$10 evenly with somebody who treated others fairly or \$12 with somebody who had treated others unfairly. *Id.* Three-quarters chose to get half of \$10 rather than half of \$12 to avoid benefiting an unfair actor. *Id.*

363. *See supra* notes 173, 175, and accompanying text.

364. *See, e.g.*, MusicIndustryLaw.com, Nine Things the Record Industry Should Note about the Future of Music, <http://www.musicwars.net/ninethings.html> (last visited Mar. 28, 2006) (explaining that in order to play fair, the music industry should rid itself of “7-album deals, bogus royalty reductions, excessive recoupables, controlled composition clauses, [and] domain name hi-jacking”); Paul, *supra* note 175 (“music lovers – don’t call us consumers; music can’t be consumed – see the record companies as greedy, clueless profiteers quick to jack up prices while placing limits on what music gets released and how you can listen to it”); Jonathon Dee, *The Summer of Screamo*, N.Y. TIMES, June 29, 2003, § 6 (Magazine), at 26 (describing views of musician Beck, who asserts that the music industry is the most poorly run, most unfair industry in the world, since major-labels saturate the music scene with bands, only to drop them when they don’t succeed, leaving them “with nothing”).

Conversely, being viewed as fair has some economic benefits. People come to the jamband community pre-disposed to cooperate. When they find the bands to be generous—allowing trading and copying and treating fans well in other respects—they reciprocate by treating the band fairly in return. A telling moment occurred recently when the Mermen, a band that tours modestly sized clubs nationally, had its equipment stolen. Fans rallied to raise money for new equipment. As one fan on a message board said in urging others to donate money: “While I have never seen the band, I have heard them many times through this site. . . . These types of bands are small and not wealthy but let us listen to their music for free.”³⁶⁵ Note the willingness to reciprocate with a band with which the fan had no other connection than free music. Although this example is one of charity for a smaller band,³⁶⁶ other examples abound.³⁶⁷ The perception of fair treatment of fans inspires fair treatment in return. Jamband community members often urge one another to play by the rules and buy the bands’ commercial releases to show appreciation for all the free music. The perception that jambands behave fairly appears to inspire at least part of the remarkable cooperativeness of the jamband community.

As noted above, conditional cooperators care not only about “fairness” but also about whether other people are playing by the same rules they are. As the results of public goods games show, people will withhold cooperation if they perceive that others are reaping a windfall from free-riding.³⁶⁸ “Individuals dislike being a so-called ‘sucker,’ i.e., being the only one who contributes to a public good while the others free ride.”³⁶⁹ On the other hand, “[t]hose who believe that others will cooperate in social dilemmas are more likely to cooperate themselves.”³⁷⁰ This is the behavior that charities try to evoke with challenge grants or depictions of busily ringing phones in public television pledge drives.³⁷¹ As discussed earlier,

365. Mermen Equipment Stolen, Internet Archive Forums, <http://www.archive.org/iathreads/post-view.php?id=37225> (last visited Feb. 27, 2006).

366. Small, but not penniless—the stolen equipment was valued at \$60,000. *See* Mermen’s Gear Stolen in Las Vegas, <http://www.mermen.net/equip.shtml> (last visited Mar. 13, 2006).

367. Besides the example of fans following, advocating, and helping to enforce bands’ rules regarding copying, which is the most important example for this paper’s purposes, jamband fans show an almost fanatical dedication, promoting bands on a volunteer basis and pouring labor into community related projects like open source software and online archives. *See supra* notes 176-182 and accompanying text.

368. *See* Ostrom, *supra* note 248, at 140.

369. Frey & Meier, *supra* note 306, at 17.

370. Ostrom, *supra* note 248, at 140.

371. *See* Strahilevitz, *Charismatic Code*, *supra* note 244, at 572 n.3.

people react well to cooperation by others: they will indirectly reciprocate by also cooperating. They are also averse to inequity, however, and in the presence of free-riding will withhold cooperation or punish others if the opportunity is available.³⁷²

Reciprocity may explain compliance or non-compliance with certain laws. As conditional cooperators, people tend to do what they see others doing. Dan Kahan has thus proposed that reciprocity explains why people voluntarily comply with tax laws.³⁷³ Citing a study sponsored by the Minnesota Department of Revenue, Kahan contends that people are more or less willing to obey tax laws depending on their perceptions as to what other people are doing.³⁷⁴ If they perceive that others are complying, they are likely to comply; if they perceive that others are not complying, they are less likely to comply.³⁷⁵

This phenomenon appears to be at work in both the mainstream music industry and the jamband community. People take cues from the behavior of others.³⁷⁶ When they are exposed to wide-spread file-sharing, their “propensity to file-share [is] reinforced” notwithstanding legal condemnation.³⁷⁷ The perception and reality are mutually reinforcing, as ever-increasing amounts of file-sharing trigger increasing awareness of rule-breaking, thus engendering “reciprocity cascades.”³⁷⁸ By contrast, the jamband community has created conditions that encourage compliance with copyright restrictions. Through the etree.org website, on discussion forums and e-mail lists, and on fans’ personal websites the message is pounded home: the jamband community is not a place where unauthorized

372. See Ostrom, *supra* note 248, at 140; see also *supra* notes 298-308, 318-323, and accompanying text.

373. See Kahan, *Trust*, *supra* note 10, at 340-41.

374. See *id.* (citing COLEMAN, *supra* note 308).

375. See *id.*

376. See *id.*

377. Strahilevitz, *Charismatic Code*, *supra* note 244, at 567-68.

378. See *id.* at 567-71. This is a secondary point made by Strahilevitz, who was primarily interested in why people upload or “donate” files on file-sharing networks. He concluded that uploading is a cooperative behavior promoted by reciprocity. See *id.* at 560-71. Among mainstream file-sharing networks like the old Napster and Gnutella, “charismatic code” deceived people into believing that many people were sharing files, thus encouraging greater voluntary compliance with the norm of “sharing” (i.e., uploading copyrighted works). See *id.* at 550-51. Strahilevitz earlier described a similar phenomenon with respect to carpool lanes in San Diego. The government began to allow solo drivers to pay to use carpool lanes. Once the program was implemented, it was impossible for other drivers to tell whether solo drivers in the carpool lane were breaking the rules or simply paying the fee. Compliance with carpooling laws rose. See Strahilevitz, *Commodifying California’s Carpool Lanes*, *supra* note 10, at 1249-55.

copying is tolerated or common. In the jamband community, reciprocity thus causes compliance to beget compliance.

c) Reduced Social Distance Encourages Cooperation

Decreasing social distance makes reciprocity more likely to influence people's behavior. People are more likely to cooperate and treat others well if they are not isolated and alienated from those who are affected by their actions.³⁷⁹ For example, in the dictator game, people are more likely to act kindly when their acts are known to others or when recipients are made more sympathetic.³⁸⁰ Similarly, when players were allowed to communicate or even to simply observe one another in the public goods game, they were far more likely to cooperate.³⁸¹ Reciprocity is thus related to sociality. The more one is isolated from others, the less likely it is that reciprocity will engender benevolent, cooperative behavior.

Mainstream music fans are not likely to feel much closeness or sympathy for music bands. One fan expressed a common attitude: "I've watched enough MTV to know that most of the rock stars whose songs are being stolen the most live so comfortably that I can't possibly feel sorry for them."³⁸² Rock stars are distant figures, separated by the many layers of distribution and promotion that comprise the mainstream music industry.

In the jamband community, bands have a closer connection to fans. The fans are more tied to one another and to the bands they follow. Fans communicate using a wide array of online tools and meet up at shows.³⁸³ They collaborate on projects together, working together to distribute shows and build a community.³⁸⁴ The bands are also less distant from fans: band members and their representatives communicate directly with fans.³⁸⁵ Business models create both the perception and reality that the band is in business for itself, rather than working for distant, abstract enti-

379. See *supra* notes 334-343 and accompanying text.

380. When people had a description of the recipient, felt some social connection, or the recipient was a charity, they were more likely to behave generously. See *supra* notes 336-343 and accompanying text (citing and describing studies by Hoffman, et al., *Preferences*, *supra* note 336; Bohnet & Frey, *Social Distance and Other-Regarding Behavior*, *supra* note 342; and Eckel & Grossman, *supra* note 343).

381. See Bohnet & Frey, *Souce of Silence*, *supra* note 277 (noting that cooperation increased with observation); Ostrom & Walker, *supra* note 278 (varying the conditions of public goods game to allow for communication).

382. David McGuire, *Downloading: The Next Generation*, WASH. POST, Feb. 28, 2005, at 1, available at <http://www.washingtonpost.com/wp-dyn/articles/A59632-2005Feb28.html>.

383. See *supra* Part III.

384. See *id.*

385. See *id.*

ties like a record label, concert promoters, and Ticketmaster, who take money from fans and give the band a small percentage.³⁸⁶ While the jamband community is not a close-knit group, many mechanisms draw members closer together and help to reinforce norms based on reciprocity.

d) Punishing Non-Compliance Reinforces Cooperation

Models of reciprocity also account for the existence of free-riders.³⁸⁷ Like any other community, the jamband community has free-riders. Partial anonymity makes it easy to free ride by breaking the rules—perhaps by selling concert recordings, or by engaging in illegal trading activity, such as the duplication of commercial releases. Such behavior could quickly destroy the community, as bands might be inclined to withdraw permission to tape and trade. One way to counter the harmful effect of free-riding is by setting conditions so that people can punish non-cooperators.³⁸⁸

The jamband community enables its members to enforce the rules.³⁸⁹ There are many individuals who are willing to enforce the rules. They serve as moderators on e-mail lists and discussion boards, etree administrators, and self-appointed guardians of the group norms. On e-mail lists and discussion forums, they appear swiftly to educate naïve rule breakers or vehemently scold those who flout the rules willfully. There is also the threat of being banished as a “bad trader” or of having one’s internet protocol (IP) address blocked. Such punishment helps to sustain the norms of the community.³⁹⁰

e) Conclusion

The jamband community demonstrates that it is possible to encourage norms that support compliance with copyright by tapping into reciprocity. It is necessary, however, to establish the right conditions. In the context of experimental games, this means changing the rules of the game quite literally. The rules need to be set up so that conditional cooperators are not

386. *See id.*

387. *See id.*

388. Bowles & Gintis have argued convincingly that the presence of even a few strong reciprocators in a group helps to stabilize the behavior of the group at an equilibrium of pro-social behavior. *See Gintis & Bowles, supra* note 300. Strong reciprocators thus help to establish and sustain norms that benefit the group.

389. Mike Wren, who played a key role in creating Furthurnet and etree.org, notes that he endeavored to make it easy for community members to detect and report rule breaking. Wren Interview, *supra* note 130.

390. It is interesting to note, however, that severe punishment does not appear to be a frequent occurrence in the jamband community. Social rebukes seem to be sufficient. In addition, order is also fostered by the strong conforming effect of widespread compliance. *See supra* notes 373-378 and accompanying text.

discouraged from behaving pro-socially. The conditions of the game need to be set up so that conditional cooperators do not perceive selfish types as gaining the upper hand. Allowing communication, reducing isolation, and evoking sympathy for the other party are also important. Opportunities to punish also improve outcomes.

The jamband community offers a real life example of how important institutions are to tapping into reciprocity to support compliance with copyright laws. Many of the conditions are the same as those of the mainstream music industry: the laws are the same, the subject matter is the same, and the fans are drawn from the same wide spectrum of American culture, including both selfish and cooperative individuals.³⁹¹ What make the difference are the business practices and rules set by the bands, and the social networks they support and encourage.³⁹² These institutions foster the formation of social norms that support copyright. The next Part discusses how the mainstream music industry might learn some lessons from the jamband community in order to write new rules of the game that allow reciprocity to encourage cooperation.

V. LESSONS LEARNED

Since the voluntary compliance of jamband fans with copyright law ultimately flows from the deeply rooted, universal behavioral trait of reciprocity, it may be possible to export the success of the jamband community. This Part discusses the lessons to be drawn from the jamband experience and how they might be applied to the mainstream music industry.

A. Don't Assume the Worst About Music Fans

In light of the millions of people engaged in illegal file-sharing, this statement might be hard to swallow for both the music industry and those who see themselves as realists. Nevertheless, consider that although the

391. Some self selection is likely at work in the jamband community. People may join the jamband community because it appeals to their cooperative nature. It is unlikely, however, that every member of the jamband community is a conditional cooperator and thus naturally inclined to cooperate. Rather, those who are less naturally cooperative become inclined to cooperate because conditions allow the conditional cooperators in the community to set the tone and direction. Conversely, there is no reason to believe that conditional cooperators are absent from the mainstream music community, and thus unable to lead others to compliance under the proper circumstances. *See supra* notes 353-374 and accompanying text.

392. *See* Falk et al., *supra* note 217, at 179-80. "In the presence of reciprocal and selfish subjects, institutions determine which type of preference is pivotal for the equilibrium outcome. In a sense, institutions select the type of player that shapes the final result." *Id.* at 179.

music industry appears to have lost sales to file-sharing, it has not lost the majority of its sales. Most people are still buying music legally. It seems likely that at least some of those people could download music illegally if they chose to do so.

Although the focus on massive non-compliance with copyright law is understandable, the phenomenon of massive *compliance* with copyright law deserves some consideration. Illegal file-sharing is a large problem, but still marginal. The challenge of reducing file-sharing is second in importance to ensuring that most people continue to comply with copyright law most of the time. Most people obey the law because of social norms. Therefore, the music industry should focus on developing and maintaining social norms that encourage widespread voluntary compliance. If most people are persuaded by social norms to comply with copyright law, the music industry and authorities could focus their efforts more efficiently on a handful of people who are not.

The example of the jamband community thus offers reason for copyright owners to consider how they might win people over to their side. If copyright owners pour most of their efforts into enforcement, they will miss the opportunity to encourage voluntary compliance by fostering pro-copyright social norms. In the long term, business practices and rhetoric that encourage voluntary compliance appear to be the most viable solutions to the file-sharing problem.

B. Build Communities Based on Sustained Relationships Between Fans and Bands

As the example of the jamband community shows, people are more likely to cooperate with others when they are in a social context³⁹³ and have reason to find the other party sympathetic.³⁹⁴ As copyright compliance becomes largely a matter of choice, people need to be treated as more than anonymous consumers. People participating in a loyal fan community are far more likely to perceive themselves as having a reciprocal relationship with the artist.

Quality music, consistently delivered over time, is most likely to generate the sort of loyal following that is found in the jamband community. Fans need a reason to be loyal, and loyalty needs time to develop. Jambands pride themselves on their improvisational prowess, long shows, endless tours, and ever-changing setlists. While this style of music may

393. See *supra* notes 379-386 and accompanying text. As the dictator game experiments of Hoffman et al., show, the less isolated people are, the more likely they are to treat others benevolently. See Hoffman et al., *Social Distance*, *supra* note 325.

394. See *supra* notes 379-386 and accompanying text.

not be to everyone's taste, a general lesson can be drawn: put the music first and keep giving fans plenty of what they like. One-hit wonders are unlikely to prosper in such a world.

Just as important, jambands build communities by engaging their fans directly. Smaller bands communicate directly on message boards and through e-mail. Bands with larger followings do not engage in as much personal communication, but members of their organizations are active participants in online discussions, providing news and soliciting fan opinions. Perhaps more compellingly to some fans, bands also give fan communities preferred access to free recordings and videos, special limited commercial releases, early ticket sales, and fan appreciation shows. When artists connect so directly and positively with fans, fans are more likely to heed artists' calls to forego illegal downloads.

Increasingly, bands who desire a tighter relationship with fans are using social sites favored by young people, like myspace.com.³⁹⁵ Myspace.com allows individuals to build webpages containing personal photographs, blogs, and message boards where friends leave messages.³⁹⁶ Users then designate others as being in their network of friends. Myspace creates a vast online social scene. Bands have stepped into this social scene, building pages that look a lot like those of individual users.³⁹⁷ They communicate with fans directly through these pages in the apparent hope of being perceived as peers by their fans.³⁹⁸ Interestingly, fans seem to respond, leaving messages that are personal in nature.³⁹⁹

395. See Myspace Music, <http://music.myspace.com/index.cfm?fuseaction=music> (last visited Mar. 10, 2006).

396. See Myspace.com: A Place for Friends, <http://www.myspace.com/> (last visited Mar. 10, 2006).

397. See, e.g., Matisyahu's Page, <http://www.myspace.com/matisyahu> (last visited Mar. 13, 2006). Matisyahu is, perhaps, the perfect example of a non-mainstream musician who is using unconventional tactics to build a loyal community of fans. Matisyahu is a reggae-hip hop artist, who also happens to be a dedicated Hasidic Jew who sings and raps about his faith and refuses to perform on the Sabbath. Teresa Wiltz, *Funny, He Doesn't Look Jamaican*, WASH. POST, Feb. 19, 2006, at N04. Despite this unlikely profile for a pop music star, his albums currently (spring, 2006) sit at the top of the reggae and college music charts. He has built his following through an array of now familiar jamband tactics: relentless touring, allowing people to tape and trade his shows, and availing himself of community building forums like myspace.com.

398. See, e.g., Drummer Jonah Checks in From the Road Between Bonnaroo and Wakarusa, Posting of Matisyahu's drummer to blog.myspace.com, (June 20, 2005, 5:10 pm), <http://blog.myspace.com/index.cfm?fuseaction=blog.view&friendID=14225079&blogID=32345252&Mytoken=ECF2496D-1268-13FB-7F34156B49B4212B27259216>.

399. See *id.*

Other bands stay connected by releasing weekly or monthly podcasts.⁴⁰⁰ These podcasts typically contain news, updates, and about forty-five to sixty minutes of music, usually taken from a band's live performances. These podcasts keep bands in touch with their fans and provide fans with another legal way to spread the news about their favorite bands.

Fans also may feel more connected with jambands because the artists are often directly involved in all aspects of the music fan's experience. Jambands are often quite entrepreneurial, owning their own record labels and production companies and selling concert tickets directly to fans when possible.

Some of these lessons are among the most difficult to translate to the mainstream music industry. Its current business model centers on discovering a band or musician and turning it into a mass marketed star. Grass roots communication takes much more detail work, and the economies of scale that currently benefit the mainstream music industry are not present. Of course, the music industry can adapt and change its business model. In the end, organizations rewrite the rules of the game to suit new circumstances.⁴⁰¹ Often, new organizations rather than existing ones produce the change necessary to adapt to changed circumstances.⁴⁰² If the music industry does not adapt, then it may be organizations like the jamband community that step into the breach.

C. Improve Perceptions of Fairness

The music industry would benefit greatly from being perceived as fair. One might be tempted to rephrase that statement as "the music industry must behave more fairly," but objective fairness is not what matters. As research by Daniel Kahneman and others shows, people will alter economic behavior when they perceive that the other party is being unfair.⁴⁰³

400. See, e.g., Umphrey's McGee Podcasts, <http://www.umphreys.com/music/#podcasts>; Tealeaf Green Podcasts, <http://www.tealeafgreen.com/music.php#podcasts> (last visited Mar. 10, 2006).

401. See Douglass North, INSTITUTIONS, INSTITUTIONAL CHANGE, AND ECONOMIC PERFORMANCE 73-82 (1990) (describing organizations as the principal agents of institutional change).

402. Paul Ingram, *Changing the Rules: Interests, Organizations, and Institutional Change in the U.S. Hospitality Industry*, in THE NEW INSTITUTIONALISM IN SOCIOLOGY 258, 258-59 (1998).

403. Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 729; see also *supra* notes 357-362 and accompanying text.

“Fairness” may be a soft concept,⁴⁰⁴ but it has real economic consequences.

The music industry already has some familiarity with the problem of perceptions of fairness from its experience with pricing concert tickets. The existence of scalpers shows that ticket prices are set “artificially” low.⁴⁰⁵ Concert promoters could charge much more for tickets than they do.⁴⁰⁶ Kahneman and others who have examined this seemingly puzzling phenomenon have proposed that the music industry is constrained by consumers’ notions of fairness.⁴⁰⁷ People might resentfully pay a “scalper” what they consider an unfair price to see their favorite band. But if that favorite band acted with similar unfairness, it probably will not stay a favorite for long. Mistreating fans has long term costs.

The music industry needs to extend this fairness to other aspects of its business model. It cannot afford to dismiss complaints about CD prices, product quality, and poor treatment as mere rationalizations for file-

404. Perceptions of fairness are subjective—people feel entitled to some particular price or particular type of treatment and are willing to incur a cost to punish firms that deviate from these norms of fairness. See Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 729 (stating that if notions of fairness restrict actions of profit-seeking firms, more detailed economic analysis might be useful). What these reference points are is a matter for empirical inquiry. That task should not be too daunting for the entertainment industry, concerned as it is with market research and catering to and influencing tastes.

405. Not all concerts sell out—it is often hard to set the “right” price for a one-time event. Nevertheless, many bands consistently sell out, but never raise ticket prices to a level that precludes scalping. “Persistent pricing of tickets at a level that permits scalping is a puzzle for neoclassical economic models of concerts. Why don’t performers or promoters raise the price of tickets and capture some of the revenue from the secondary market for themselves?” Marie Connolly & Alan B. Krueger, *Rockonomics: The Economics of Popular Music* 25-26 (Nat’l Bureau of Econ. Research, Working Paper No. 11282, 2005), available at <http://www.irs.princeton.edu/pubs/pdfs/499.pdf>.

406. Connolly and Krueger surveyed 858 fans at a 2002 Bruce Springsteen concert. *Id.* at 27. They found that 20-25% of tickets had been purchased from scalpers at an average price of \$280. The face value of the tickets was \$75. *Id.* at 27-29. If Springsteen and his band could have sold all tickets for the show at the market price of \$280, they would have made \$4 million more (($\$280 - \75) x 19,738 tickets) on that single concert! *Id.* Even if they could not have sold all tickets at the \$280 price, it appears that scalpers took between \$1.1 to \$1.4 million that the band could have obtained instead. *Id.* In any event, the foregone revenue opportunities are sizable, considering the actual face value must have grossed about \$1.5 million. These opportunities would seem to be present frequently, considering that one-third of concerts sell out and ticket brokers are widespread. *Id.* at 25.

407. Kahneman et al., *Entitlements in the Market*, *supra* note 248, at 729; OKUN, *supra* note 357, at 139-55. Connolly and Krueger discuss a few other possible explanations, including Gary Becker’s theory that demand for concerts increases as the number of people attending grows. Connolly & Krueger, *supra* note 405, at 25-26.

sharing. These perceptions make a difference in how people behave. Now that people essentially have a choice as to whether to pay for music, it is best to avoid provoking the retaliatory spirit of punishing those who are unfair.

To achieve a perception of fairness, the music industry ought to consider both a public relations makeover and a change in attitude. Jambands treat fans with the hyper-sensitive care of the service industry. While the mainstream music industry also cares what fans think, it seems more oriented toward marketing products than ensuring that fans have a good overall experience. This difference in orientation appears to make a difference in how the fans perceive the bands, which in turn appears to make a difference in their willingness to follow rules.

Jamband fans view jambands as motivated, in part, by the interests of fans. The bands work hard to provide fans with a positive experience.⁴⁰⁸ String Cheese Incident is perhaps the paradigmatic example.⁴⁰⁹ It ensures that fans have a high quality experience through its extensive business organization, which includes a record label, a ticketing agency, a travel agency, and a charitable foundation.⁴¹⁰ Its concerts are described as “an effort to transform the traditional concert environment,” with festivals held in beautiful locations, high quality sound, lower ticket prices, and artistic events in which the fans participate.⁴¹¹ The band has even set itself up as an advocate for fans by making “a commitment to take on the Empire when it filed a lawsuit against Ticketmaster.”⁴¹²

A prime example of fairness on the part of jambands is allowing fans to tape and distribute concert music. These recordings serve as the basis of a community, they provide free advertising, they feed the obsession of the most intense fans, and they make fans more favorably inclined to bands overall. Allowing trading of live recordings and older, less profitable material could go a long way toward increasing perceptions of fairness.

408. As discussed in Part III, jambands provide their fans with generous benefits. Most obviously, they allow fans to record and distribute concert tapes. They also try to make the concert experience as pleasant as possible. For one thing, concert ticket prices are, on average, lower than the mainstream prices. Where possible, jambands circumvent the Ticketmaster monopoly and its resulting high fees. They pay attention to the quality of venues, concert sound, and lighting. They hold festivals in pleasant vacation-type settings and bill them as celebrations of their fans.

409. See BUDNICK, *supra* note 95, at 209.

410. See *id.*

411. *Id.* at 207.

412. *Id.* at 209.

The little things also count. Recently, the band Government Mule bundled a year-old CD with a new EP. Fans generally resent bands bundling a small amount of new material with old songs, forcing them to pay full price for a release that contains only a few new songs. Jambands do things differently. As the online magazine Jambands.com put it: “Before you get mad and think that the Mule has done an (Elvis) Costello and is forcing diehards to repurchase their original purchase, the band has taken care of matters. Those who don’t have a copy of the group’s last album, *Deja Voodoo*, should find the EP bundled with that release. Those who already bought that 2004 disc can place it in their computer in order to access a ‘secret website’ via Sony Connected technology.”⁴¹³ Note that Government Mule is on a major label—Sony—but this behavior is not typical of major labels. Jambands who sign with major record labels often have to fight to get the record labels to treat their fans well.⁴¹⁴

Understanding the relationship that bands have with their fans may be an urgent business priority for the music industry. As the industry already understands from the experience of concert ticket pricing, they may have to forego some revenue opportunities to keep fans coming back in the long run. Treating customers right is always important, as they almost always have a choice as to whether to buy one’s product. But treating customers well is especially essential when they can choose not to pay and obtain the product for free. To make fans happier, the music industry can start by addressing common complaints about CD pricing, quality, and opportunistic business practices like bundling small amounts of new material with old.

D. Give People a Chance to Comply and More Will Follow

Our position, from the beginning, was that 80% of the people stealing music online don’t really want to be thieves. . . .

[I]t’s just wrong to steal. Or, let’s put it another way: it is corrosive to one’s character to steal. We want to provide a legal alternative. And we want to make it so compelling that all those people out there who really want to be honest, and really don’t want to steal, but haven’t had a choice if they wanted to get their music online, will now have a choice. And we think over time, most people stealing music

413. John Patrick Gatta, Review of Mo’ Voodoo EP, http://www.jambands.com/CDReviews/content_2005_07_07.15.phtml (last visited Mar. 13, 2006).

414. The most well-known example was Phish’s negotiation to continue to allow taping when it signed with Elektra. *See supra* note 99 and accompanying text.

will choose not to if a fair and reasonable alternative is presented to them. We are optimists. We always have been.

Steve Jobs

Founder and CEO of Apple, Inc.

December 3, 2003 Interview, *Rolling Stone*⁴¹⁵

Is Steve Jobs right? Do people really just need to be given a chance to comply with copyright law? One might predict that very few people would use Apple's iTunes music service if they are at all guided by rational self-interest.⁴¹⁶ If one has the means and knowledge to install and use iTunes software, then one could just as easily do the same with file-sharing software. Given the choice between free music and paying, with an extremely small chance of being sued for infringement, one might predict that potential iTunes customers would opt for free music instead. This prediction is contradicted by a billion paid downloads from iTunes as of February 23, 2006.⁴¹⁷ The success of iTunes shows that mainstream music fans can be persuaded to restrain themselves from infringing behavior. It also represents the music industry's most successful contribution so far to fostering pro-copyright norms.

To create the right conditions for cooperative behavior, people first need a chance to comply. Many people are inclined to cooperate, as shown by the results of experimental games and other instances where people choose not to act opportunistically.⁴¹⁸ For this reason, iTunes and other services are more viable than they might have first appeared. Although it is difficult to compete with a free product, a reasonably priced alternative will dissuade many from breaking the law.

It is also important to give people a prominent example that others are complying. To some extent, people take their cues from the behavior of others.⁴¹⁹ Others will follow the good example of cooperators, if that example exists. People also prefer that outcomes are fair. Not only do they need to feel they are getting a fair deal, but they do not want to be disad-

415. Jeff Goodell, *Steve Jobs: The Rolling Stone Interview*, ROLLING STONE, Dec. 25, 2003, at 31, available at http://www.rollingstone.com/news/story/59396001/steve-jobs_the_rolling_stone_interview.

416. If self-interest is narrowly equated with pecuniary interests—here getting music for free—the actions of iTunes users do not make sense. However, if one considers that people have preferences for reciprocal behavior, then use of iTunes makes sense as a rational way to fulfill those reciprocal preferences.

417. See Apple Website, Apple iTunes: 1 Billion Songs, <http://www.apple.com/itunes/1billion/> (last visited Feb. 26, 2006).

418. See *supra* notes 368-378 and accompanying text.

419. See *id.*

vantaged compared to others.⁴²⁰ People are pre-disposed to obey the law, but nobody wants to be the last sucker who is actually paying for music.

Because people need to know they are not alone in complying, the recording industry needs to reconsider its message to the public. The rhetoric about file-sharing often veers into hyperbole, portraying millions of people breaking the law and the industry's fate hanging in the balance.⁴²¹ That rhetoric may be appropriate for litigation and lobbying purposes, but it does not give people the impression that compliance is common. Portraying the music industry as a victim fighting an uphill battle against massive infringement is more likely to encourage non-compliance than engender sympathy. People need to know *both* that they are not alone in complying and that the music industry is vigorously pursuing infringers. This more confident message would communicate that compliance is the norm, but that those who infringe do not have an unfair advantage over those who comply.

The iTunes example shows that the recording industry can win by serving its customers well. Give people a chance to comply, and some will do so. They will set a good example for others, provided that this example is highlighted rather than undermined by discussions of massive infringement that make one seem foolish for complying with copyright law.

420. *See id.*

421. *See, e.g.*, Resolution of Music United, <http://www.publicknowledge.org/doc/20050909-music-united-resolution.doc>, Sept. 15, 2005 (asking Congress to grant FCC authority to regulate digital radio). The music industry resolution uses typically apocalyptic rhetoric, asserting that:

[D]igital theft of music has caused extreme harm to the American music industry over the past five years. . . [It] stifles the careers of new artists, betrays the songwriters and recording artists who create it and threatens the livelihood of . . . thousands of working people—from recording engineers to record-store clerks—who are employed in the music industry.

Id.; *see also* *Hollywood takes on Web Pirates*, CNN.COM, Dec. 15, 2004, <http://www.cnn.com/2004/BUSINESS/12/15/film.piracy/index.html> (regarding BitTorrent, Edonkey, and DirectConnect, Malcolm, head of worldwide anti-piracy at the Motion Picture Association of America, stated: "This is another category of pirate. . . . These people are parasites leeching off the creativity of others."); Rachel Ross, *How Copy Protection Works and Doesn't*, TORONTO STAR, Mar. 1, 2004, at D02 ("This is a war says Rob Brooks, vice president at EMI Music Canada . . . thousands and thousands of people in the music industry are losing their jobs . . .").

E. Let the Fans Do Some of the Work

Many have heralded the possibilities of “peer production”;⁴²² the jamband community demonstrates the potential of “peer consumption.” Peer production harnesses networked communications and new forms of social organization to enable groups of volunteers to produce remarkable products, like the Linux operating system.⁴²³ As powerful as peer production can be, it likely is not the best model for the music industry. Amateur production has its limits, and not everyone wants to or can collaborate voluntarily to create music and entertainment.⁴²⁴ Some, however, are willing to cooperate to help the professionals who create music by distributing music, promoting musicians, paying for their commercial releases, and helping to ensure that others play by the rules by paying for commercial releases. As the jamband community shows, consumer collaboration—or “peer consumption”—can be a powerful addition to strategies employed to persuade people to comply with copyright voluntarily.

Artists should thus find ways to get fans involved in distribution and promotion as much as possible. Ceding control to fans makes them active participants in enforcing copyright restrictions. Some people have such a strong preference for reciprocity that they are willing to incur costs to monitor the behavior of others and punish them. If they are placed in a context where they can monitor and sanction others, they will do so.⁴²⁵ Such a role for fans helps to push the community equilibrium toward compliance far more deftly than the slow, heavy machinery of legal department review, subpoenas, cease-and-desist demands, and lawsuits. Some ways to accomplish this goal include encouraging fans to start groups that run e-mail lists, fan websites, and online forums. If those

422. See Yochai Benkler, *Coase's Penguin, or, Linux and The Nature of the Firm*, 112 YALE L. J. 369, 376-77 (2002) (describing how peer production enables individuals to overcome collective action problems to collaborate voluntarily on open source software and other information projects).

423. *Id.* at 380.

424. As Professor Jane Ginsburg describes, “sustained works of authorship” like books, movies, and music, which require a substantial investment of time by one or a few individuals, are often best produced by professionals who use their control of copyright to ensure remuneration. Jane C. Ginsburg, *Putting Cars on the “Information Superhighway”*: Authors, Exploiters, and Copyright in Cyberspace, 95 COLUM. L. REV. 1466, 1499 (1995).

425. Costs cannot be too high. Mike Wren reported that in the jamband communities he helped create—including etree.org and Furthurnet—he made sure that reporting and sanctioning mechanisms were easy to access and use. This ease of reporting and use has helped ensure that people actually take advantage of the opportunity to monitor and sanction others. Wren Interview, *supra* note 130.

groups are then given concert recordings or podcasts to distribute, they might take responsibility for encouraging enforcement.

In sum, focusing on the highest intensity fans is likely a winning strategy. Even if it does not result in widespread copyright compliance, an artist is likely to cement his or her relationship with fans by involving them in distribution and compliance efforts. Such intense fans may be more willing to spend money to support an artist by buying limited run CDs, t-shirts, and other additional items.

VI. CONCLUSION

So far, the music industry's strategy of instilling fear in potential file-sharers has had limited success. Deterrence has its place, but laws that try to alter the behavior of millions of people require widespread normative support. Support will only come if people are convinced that complying with copyright law is the right thing to do. The music industry would thus do well to look to the example of the jamband community. The social norms of the jamband, rooted as they are in the common behavioral trait of reciprocity, offer a model to which to aspire. The task for the mainstream music industry is to consider how to make reciprocity work in its favor too. The experience of the jamband community indicates that changing people's behavior will require the music industry to build sustained communities around artists and to foster and maintain a better, closer relationship with its fans.

ON THE FEASIBILITY OF IMPROVING PATENT QUALITY ONE TECHNOLOGY AT A TIME: THE CASE OF BUSINESS METHODS

By John R. Allison[†] and Starling D. Hunter[‡]

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I. INTRODUCTION

In its 1998 *State Street Bank* decision, the U.S. Court of Appeals for the Federal Circuit held that business methods are eligible for patent protection.¹ The decision was quickly followed by a dramatic increase in the

1. *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1375-77 (Fed. Cir. 1998) (holding that there is no patentable subject matter exception for methods of doing business). The Federal Circuit actually concluded that there never had been a patentable subject matter exception for business methods despite much contrary conventional wisdom supported by dicta in several older cases. In *State Street*, the court explained that earlier decisions referring to such an exception were decided on other grounds. *Id.* at 1375-76. For a discussion of the widespread pre-*State Street* assumption among practicing patent attorneys that there was a patentable subject matter exception for business methods, and the absence of a basis for this assumption, see Rinaldo Del Gallo,

number of applications for and grants of business method patents.² During the ensuing two years, these patents received an unprecedented amount of criticism from academics, journalists, and politicians. The criticisms focused on both the policy of allowing patents on such subject matter and the perception that the business method patents issued were of uniquely inferior quality in comparison with patents in other fields.³ Two of the business method patents frequently cited by critics as being of questionable legitimacy were Amazon.com's patent on its "one-click" technique

III, *Are "Methods of Doing Business" Finally Out of Business as a Statutory Rejection?*, 38 IDEA 403 (1998).

No generally accepted definition of a "business method" exists and, indeed, the term is probably indefinable. Broadly speaking, a business method patent covers a business practice or technique. The circularity of this definition highlights the problem. The most obvious kinds of practices that fall within the common understanding of the term "business method" include those relating to advertising, shopping, sales, purchasing, financing, insurance, human resources activities, and specialized forms of communication within and between firms. As we will see, there are very plausible arguments for extending the definition of business method to include other business practices. As discussed throughout the remainder of the article, the definition problem is the primary reason why singling out a particular field for different treatment in the process of patent application examination is so problematic.

The patent at issue in *State Street* covered software described (and "claimed," using patent law terminology for the structure of the claims that follow the written description) as a data processing system for implementing an investment structure whereby mutual funds pooled their assets in an investment portfolio organized as a partnership in a way that assertedly achieved economies of scale in administration coupled with tax advantages. *See* U.S. Patent No. 5,193,056 (filed Mar. 11, 1991).

The *State Street* holding, that business methods are patentable subject matter, was not limited to those implemented by software, but when people speak of business method patents they ordinarily refer only to software-embodied ones. Patents on software-implemented business practices constitute the vast majority of such patents and clearly have been the most important and controversial. Thus viewed, business method patents are a subset of software patents.

2. *See* John R. Allison & Emerson H. Tiller, *The Business Method Patent Myth*, 18 BERKELEY TECH. L.J. 987, 991 & n.10 (2003) (finding that in U.S. PTO classification 705, in which the largest single concentration of business method patents is found, there were 469 patents in 1998, 833 in 1999, and 1,006 in 2000).

3. *See id.* at 1082 (comparing 1,093 internet-related business method patents issued through Dec. 31, 1999 with a randomly selected sample of 1,000 contemporaneously issued patents from the general population of patents); Starling D. Hunter III, *Have Business Method Patents Gotten A Bum Rap? Some Empirical Evidence*, 6 J. INFO. TECH. THEORY & APPLICATION 1, 4 (2004) (taking a 10% sample of 35,184 data processing patents in classifications 700 to 707 and 715 to 717 issued between 1975 and 1999 and comparing those patents in main classification 705 patents with those in the other "data processing" classifications).

for more efficiently ordering merchandise on-line⁴ and Priceline.com's patent on the reverse auction technique for buying airline tickets on the internet.⁵ Although patents in other areas of technology have brought forth complaints from various quarters,⁶ the magnitude of adverse commentary and reportage on business method patents was unprecedented.⁷

Complaints focused on business method patents' perceived lack of quality and were based primarily on the contention that these patents lacked adequate references to prior art. Patent quality, an inherently elusive concept, essentially consists of the likelihood that a patented inven-

4. U.S. Patent No. 5,960,411 (filed Sept. 12, 1997). Amazon sued Barnesandnoble.com for patent infringement and won a preliminary injunction. *Amazon.com v. Barnesandnoble.com, Inc.*, 73 F. Supp. 2d 1228, 1231-32 (W.D. Wash. 1999). On appeal, however, the Federal Circuit reversed, noting that there were sufficient obviousness-based doubts about the patent's validity to preclude a finding of substantial likelihood of success on the merits. *Amazon.com v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1366 (Fed. Cir. 2001).

5. U.S. Patent No. 5,797,127 (filed Dec. 31, 1996). The reverse auction is sometimes referred to as a Dutch auction. *See, e.g.*, Eugene R. Quinn, Jr., *The Proliferation of Electronic Commerce Patents: Don't Blame the PTO*, 28 RUTGERS COMPUTER & TECH. L.J. 121, 122 n.5 (2002).

6. Gene patents appear to be the only type that may have garnered more publicity than business method patents. A survey of articles in the Lexis "News Group File, All" using the simple "patent w/10 gene" search request reveals that comparable or even greater publicity has been given to patents on isolated, purified genes. This publicity in the popular press has been mixed, and most negative comments reveal the perception that such patents reward mere discovery rather than invention. This is not the case, however, because in their natural state, genes cannot exist in isolation. It is only through human intervention that genes can be isolated, purified, and put to use in medical and pharmaceutical research. Thus, genes are not eligible for patent protection in their natural state, but only after isolation, purification, and demonstration of specific utility. *See, e.g.*, Ned Hettinger, *Patenting Life: Biotechnology, Intellectual Property, and Environmental Ethics*, 22 B.C. ENVTL. AFF. L. REV. 267, 288 (1995); John M. Golden, *Biotechnology, Technology Policy, and Patentability: Natural Products and Invention in the American System*, 50 EMORY L.J. 101, 122-28 (2001); Jonathan Kahn, *What's the Use? Law and Authority In Patenting Human Genetic Material*, 14 STAN. L. & POL'Y REV. 417, 426-30 (2003).

Regardless of the reasons stated in objections to gene patentability, the magnitude of reported comment, criticism, and opinion on the subject likely resulted not so much from the expressed concerns or even from the relative newness of the technology as from underlying fears about privacy, the morality of private ownership of the basic building blocks of life, the uncertain consequences of genetic alterations that may pass to progeny, and other similarly unsettling ideas. *See generally* Leon R. Kass, *Triumph or Tragedy? The Moral Meaning of Genetic Technology*, 45 AM. J. JURIS. 1 (2000). These are quite different concerns than those regarding business method patents, but certainly help explain the vast amount of public discourse on biotechnology patents.

7. Allison & Tiller, *supra* note 2, at 1007-17.

tion really represents a novel⁸ and non-obvious⁹ advance over the prior state of the art and, thus, will be found valid if challenged in litigation. Patents that fail to meet these requirements should not have been granted in the first place. The number and type of prior art references in patents provide empirical bases for roughly measuring patent quality. Intuitively, these measures suggest a more thorough prior art search by the applicant and examiner to differentiate the invention from what has previously been done. Furthermore, the most common basis for judicial invalidation of patents is prior art found by the challenger that was not cited in the patent.¹⁰

Prior art comprises evidence of what has been done before in a given field of technology. It consists of prior U.S. and foreign patents, prior printed publications, and evidence that the same or a similar invention has previously been either put on sale or publicly used. Printed publications include those from a vast array of hard copy and electronic sources, including academic and trade journals, company and industry-sponsored publications, university publications such as theses and dissertations, government reports, software and its documentation, the popular press, published patent applications and search reports, various websites, and others. Here, we refer to printed publications as “nonpatent prior art” (NPPA). Critics of business method patents were primarily concerned about what they believed to be a lack of attention to relevant NPPA by both applicants and examiners.¹¹ Some observers expressed alarm that many business

8. 35 U.S.C. § 102(a) (2006). The requirement that an invention be novel demands that the invention be different from any invention previously revealed in a single piece of prior art.

9. 35 U.S.C. § 103 (2006). The requirement that an invention be non-obvious demands that the invention be more than a trivial, or obvious, improvement over the cumulative prior art viewed from the perspective of a hypothetical “person having ordinary skill in the art” (PHOSITA). In other words, novelty is “different,” and non-obvious is “different enough.”

10. See John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 231-34, 251 (1998) (examining litigated patents leading to final written decisions on validity or invalidity during 1989 to 1996). The “challenger” to a patent’s validity is usually the defendant in a patent infringement suit, but may be a plaintiff in a declaratory judgment action.

11. Allison & Tiller, *supra* note 2, at 991-92, 1015-18. Probably because of an assumption that there were relatively few relevant patents to serve as prior art during the early years after business method patents began to be issued in large numbers, commentators said little about whether business method patents adequately took account of prior U.S. patents. Surprisingly, however, Allison & Tiller found not only that internet-related business method patents cited far more NPPA than most other types of patents during their early years (through the end of 1999), but also that they cited significantly more patent prior art. *Id.* at 1040.

methods for which patents were being applied had been in practice without the creation of any relevant printed documents.¹²

Responding to the chorus of quality-related criticisms, in March 2000, the PTO began a patent quality improvement initiative for business method patent applications.¹³ The initiative comprised a number of features, including the hiring of more and better trained examiners for business method patent applications, a requirement that examiners consult certain identified sources for NPPA, and a second-level examination of applications after initial allowance. The program, referred to as the Second Pair of Eyes Review (SPER) because of the second-level examination, applies only to allowed applications with a main classification of 705.¹⁴ The greatest single concentration of business method patents is indeed found in class 705 ("Data processing: financial, business practice, management, or cost/price determination").¹⁵ The authors' own previous research has found, however, that many business method patents are also found in a number of other classifications, examples of which are presented later.¹⁶ Moreover, patent examiners usually place patents in multiple classifications, including a primary (main) classification and one or more secondary

12. See Allison & Tiller, *supra* note 2, at 1012-15.

13. UNITED STATES PATENT AND TRADEMARK OFFICE (USPTO), A USPTO WHITE PAPER: AUTOMATED FINANCIAL OR MANAGEMENT DATA PROCESSING METHODS (BUSINESS METHODS), available at <http://www.uspto.gov/web/menu/busmethp/> (section-by-section), and at <http://www.uspto.gov/web/menu/busmethp/whitepaper.pdf> (single document). The action plan, discussed in detail at these sites, is summarized at <http://www.uspto.gov/web/offices/com/sol/actionplan.html>. The sets of specifically identified prior art sources for particular subclasses of business method patents that examiners are now required to search are necessarily very incomplete, but do represent a good faith effort by the PTO to meet criticisms aimed at perceived deficiencies in the amount of nonpatent prior art cited in business method patents. See USPTO, Figures for Non-Patent Literature Databases, <http://www.uspto.gov/web/menu/busmethp/figurenpl.htm> (last visited Apr. 20, 2006). For a general summary of post-*State Street* developments, see Peter R. Lando, *Business Method Patents: Update Post State Street*, 9 TEX. INTELL. PROP. L.J. 403 (2001).

14. E-mail from Wynn Coggins, Outreach Coordinator, USPTO, to John R. Allison, Professor, University of Texas at Austin (Feb. 20, 2003, 04:34:00 CST) (on file with authors).

15. See USPTO, Class Definition for Class 705, <http://www.uspto.gov/web/patents/classification/uspc705/defs705.htm> (last visited Feb. 27, 2005).

16. After the PTO's SPER initiative, we found substantial concentrations of business method patents in main classifications 235, 340, 700, 707, 709, and 713, and lighter concentrations of business method patents in a number of other classes. See *infra* Part VIII.

classifications.¹⁷ The PTO's business method initiative ignores those allowed applications with 705 as a secondary classification. Thus, the initiative is underinclusive in two ways: it ignores applications in other classifications in which business method patents are known to exist, and it ignores applications on functionally similar inventions with secondary 705 classifications.¹⁸

Each of the authors previously conducted empirical business method patent research independent of one another, and each found that business method patents were not inferior to other kinds of patents in the quantity and quality of prior art they cited.¹⁹ We separately concluded, in other words, that the conventional wisdom was not empirically supportable and that business method patents in their early years were no more problematic than patents in other fields.²⁰ In comparison with the average patent in the general population of patents and with patents in most other individual

17. Patent applications are received and first dealt with substantively by the PTO's Office of Initial Patent Examination (OIPE). *See* USPTO, Office of Initial Patent Examination, <http://www.uspto.gov/web/offices/pac/oipe/index.htm> (last visited Feb. 27, 2006); *see also* USPTO, MANUAL OF PATENT EXAMINATION PROCEDURES § 501-07 (8th ed., rev. 2005), available at <http://www.uspto.gov/web/offices/pac/mpep/documents/0500.htm> [hereinafter MPEP]. OIPE suggests an appropriate classification for the application. *Id.* It then forwards the application to the examining group (also referred to as "Technology Center" or "art unit."). MPEP, *supra*, § 504. When the application arrives in the particular Technology Center, a supervisory patent examiner or other designated patent examiner within that group makes the final assignments to one or more classifications. *Id.* § 903.08(b), available at http://www.uspto.gov/web/offices/pac/mpep/documents/0900_903_08_b.htm#sect903.08b. These internal PTO procedures were explained by an official, Alan (who was not allowed to give last name) in the PTO's Inventor Assistance Center in a telephone conversation with John Allison on Feb. 3, 2006.

18. Moreover, it is easy to find patents clearly covering business methods that have *neither a primary nor a secondary 705 classification*. As part of an ongoing study of patents in the software industry, one of the authors (Allison) developed a data set of all 2,044 patents issued to Microsoft Corp. during the period 1998-2002. A quick examination of the patents issued to Microsoft in the latter half of 2002 yielded two patents on business methods having neither a main nor a secondary 705 classification. *See* U.S. Patent No. 6,397,208 (filed May 28, 2002). Its main classification is 707/003 (i.e., class 707, subclass 003), and its secondary classifications are three other 707 subclasses and one 701 main class. *See also* U.S. Patent No. 6,392,664 (filed May 21, 2002) (originally issued to Web TV Networks, Inc., which was later acquired by Microsoft). Its main classification is 715/717 (i.e., class 715, subclass 717), and its secondary classifications are 348, three other subclasses of 715, and 725. Note that these are the current classes shown for this patent in the Delphion patent research software, which have been modified somewhat from the classifications assigned to the patent when first issued, which were a main class of 345 and secondary classes of 348 and 725.

19. Allison & Tiller, *supra* note 2, at 1003-04; Hunter, *supra* note 2, at 15-16.

20. Allison & Tiller, *supra* note 2, at 1003-04.

technology areas, business method patents cited significantly more patent prior art and very significantly more NPPA. Furthermore, the NPPA referenced was not qualitatively inferior to NPPA referenced in most other types of patents.²¹ Neither author claimed that business method patents are necessarily of high quality, but we did conclude that they were not singularly inferior to most other patents. Problems with patent quality exist in all fields of technology.

Carving out business method patent applications for harsher treatment would ultimately prove largely futile and possibly even counterproductive—futile because skilled patent attorneys can often draft applications so as to opt out of a predefined category, and counterproductive because of the increased transaction costs associated with tortuous drafting.²² Ample evidence of this futility is found in the patent system's earlier experience with the broader category of software patents (of which software-implemented business method patents are a subset). While courts struggled during the 1980s and early 1990s with the question of whether software inventions were eligible for patent protection, attorneys had little difficulty drafting patent applications on software as though they claimed machines and devices of a more traditional physical nature.²³ We believe that strategic patent drafting to avoid the additional scrutiny of SPER occurs, but it will be several more years before sufficient data are available to empirically test this hypothesis because one can only use issued patents with post-SPER application filing dates to find evidence suggestive of diversionary drafting.²⁴

The under-inclusiveness of the PTO's initiative notwithstanding, it is important to ascertain whether it is achieving its intended objectives. If available evidence reveals little or no improvement in the apparent quality of these patents, then the merits of continuing the SPER program, much less expanding it, are lacking. If, on the other hand, the SPER initiative has produced significant improvements in the quality of patents within its

21. *Id.* at 1045-52.

22. This argument was made by John Allison. *See id.* at 1082.

23. *Id.*

24. If nothing else, avoiding the additional time required for the second-level review probably provides sufficient motivation to keep patents out of main class 705. Although strategic drafting will not always be successful, it can be done, and undoubtedly will be done when the decision whether to classify a patent application as covering a business method carries legal significance. *See, e.g.,* Jeffrey R. Kuester & Lawrence E. Thompson, *Risks Associated with Restricting Business Method and E-Commerce Patents*, 17 GA. ST. U. L. REV. 657, 678-79 (2001) (noting that practitioners are adept at drafting patent claims so as to avoid penalties based on categorization).

coverage, we need to ask whether a technology-targeted approach to patent reform is a model that should be considered for expansion.

Using a single narrow metric, the PTO has declared the SPER program a success.²⁵ Within the PTO, the Office of Patent Quality Review (OPQR) selects a small random sample of allowed patent applications in all technology groups for additional scrutiny.²⁶ The OPQR reviews the sample for evidence suggesting that the covered invention is nonpatentable and, in a smaller subsample, conducts an independent prior art search.²⁷ When the OPQR determines that one or more items of prior art cause the allowed application to be of questionable validity, “prosecution” (examination) of the application is reopened.²⁸ This quality review existed before the SPER program and applies across technology fields. One feature of SPER required that the OPQR select a substantially larger sample of allowed applications in main class 705 than in other classes for additional quality review.²⁹ In other words, all allowed applications in main class 705 receive the second-level review under SPER, and the OPQR then subjects a larger than normal sample of those to further quality review.³⁰

During the first several months after the SPER’s implementation, the OPQR ordered the reopening of a substantial number of main class 705 applications. In 2001 and 2002, however, the number of reopenings ordered by the OPQR declined dramatically.³¹ Based on the substantial reduction in OPQR-ordered reopenings, the PTO proclaimed the SPER initiative “a proven success” and announced plans to implement the program in other technology areas that have experienced a relatively large number of OPQR reopenings, such as semiconductors, telecommunications, and biotechnology.³²

A substantial decline in the number of OPQR reopenings in main class 705 is not a sufficient reason by itself for calling SPER a success. The OPQR review is a subjective, in-house process metric guided by no appar-

25. USPTO, PATENT QUALITY IMPROVEMENT: EXPANSION OF THE SECOND-PAIR-OF-EYES REVIEW [hereinafter SPER EXPANSION], <http://www.uspto.gov/web/offices/com/strat21/action/q3p17a.htm> (last visited Feb. 27, 2006).

26. MPEP, *supra* note 17, § 1308.03, available at http://www.uspto.gov/web/offices/pac/mpep/documents/1300_1308_03.htm#sect1308.03.

27. *Id.*

28. *Id.*

29. See BUSINESS METHOD WHITE PAPER, *supra* note 13.

30. *Id.*

31. See SPER EXPANSION, *supra* note 25.

32. See *id.* There is no evidence that the expansion of SPER has actually taken place, but this fact does not lessen the importance of evaluating whether such a narrowly focused approach to patent reform is ever a good idea.

ent standards and thus may fall victim to unconscious bias or external influences. Our confidence in the PTO's conclusion that SPER has improved patent quality would be bolstered by an objective test. The present study empirically analyzes the quality of business method patents before and after the SPER initiative. The existence of one set of patents to which the SPER initiative applies—those in main class 705—and another set of similar patents to which the SPER initiative does not apply—those with some other main class and a secondary class of 705—creates conditions that are amenable to a natural policy experiment focusing directly on the substantive question of patent quality. As explained below, we use several objective proxies for patent quality improvement.

Part II of this article discusses our research methods and the data we collected, Part III explains the statistical regression techniques we employed to assess the effects of the SPER initiative on the quantity and types of prior art cited in main 705 patents compared to secondary 705 patents before and after the initiative, and Part IV presents the results of this analysis. Overall, we find that SPER has had a positive effect on the number and types of prior art in main 705 patents. Part V assesses the effects of SPER from a different perspective, namely, whether it affected not only the quantity and types of prior art cited, but also whether it altered the likelihood that these patents would include *at least some prior art*. Here, too, we find that SPER appears to have had a positive effect. Because both patent applicants and examiners include prior art references in patent applications, Part VI analyzes yet another possible consequence of SPER—the possibility that it led examiners themselves to add more prior art references. SPER has also produced a positive result in this regard. On the negative side, Part VII examines the practically inevitable under-inclusiveness in a program like SPER. Moreover, there is empirical evidence showing dramatic migrations of patents after SPER into secondary 705 that arguably should have been in main 705 and thus subject to SPER. These changes appear to be more than just an artifact of the overall reduction in the number of main 705 patents, thus raising the question whether there has been a diversion of applications to avoid SPER. Part VIII provides numerous examples taken from a random sample of post-SPER patents with secondary 705 classifications and demonstrates how many of them can be characterized as covering software-implemented business methods that probably should have been included in the SPER initiative. Part IX presents our conclusions that, although the SPER initiative positively influenced patent quality within the domain in which it operates, we do not believe that attempting patent reform one technology at a time is the best approach. As we will explain, the patent classification system is

not well suited to the identification of a technology field for the purpose of treating the field differently in the examination process. Moreover, problems of definition are likely to be intractable in most cases, leading both to the serious under-inclusiveness of a technology-targeted reform effort and to the probable gaming of such an effort by patent applicants and even by those responsible for deciding which patents should be subject to the program calling for extra application scrutiny.

II. RESEARCH METHODS AND DATA

A. Our Data Set

Our analysis directly assesses the question whether the SPER initiative has positively affected the quality of business method patents, or at least those business method patents with either a main or a secondary class of 705, by comparing the quantity and type of prior art cited in main class 705 patents before and after the SPER program, as well as the quantity and type of prior art cited in secondary-class 705 patents. We compared prior art cited in the 1,227 main and secondary 705 patents issued during the year before the SPER initiative (Year 0) with prior art cited in the 3,669 main and secondary 705 patents issued during the four years after the initiative (Years 1-4).³³ For our pre-SPER data set of main and secondary 705 patents, we chose to use patents issued only during the final year before the SPER because: (1) this set would be less likely to include any artifacts from earlier times when the PTO had less overall experience with business method patents, and (2) this set would be much closer in time to the post-SPER data set and any possible longitudinal changes unrelated to SPER would thus be less likely to affect our comparisons. Although the SPER initiative was implemented in March 2000, we received information from the PTO that June 2000 was a conservative estimate of when all issued main 705 patents had been subjected to SPER.³⁴ Thus, we used June 1999 through May 2000 as our pre-SPER year.

The primary data for this study were obtained through a search of the Delphion commercial patent database. We searched the database for all patents meeting the following two criteria: (1) membership in main or secondary class 705, and (2) a publication date between June 1, 1999 and May 31, 2004. A total of 4,896 patents met the two criteria. Of this num-

33. We compared the quantity and quality of prior art from the pre-SPER year to the combined post-SPER years and to each post-SPER year individually.

34. E-mail from Wynn Coggins, Outreach Coordinator, USPTO, to John Allison, Professor, University of Texas at Austin, (Feb. 20, 2003, 04:34:00 CST) (on file with authors).

ber, 2,702 were “main 705” patents, i.e., the first listed class was 705. The remaining 2,194 patents were “secondary 705” patents, having a main class other than 705, and a secondary class of 705. These data are presented by years in the following table, with Year 0 representing the year prior to SPER and Years 1, 2, 3, and 4 representing each of the four years following SPER.

Table 1
Total Main and Secondary 705 Patents Pre-SPER Through Year 4 Post-SPER

Year	Total 705	Main 705	Secondary 705
0	1227	896	331
1	897	510	387
2	876	494	382
3	875	402	473
4	1021	400	621
Total	4896	2702	2194

We gathered the following bibliographic information for each of the 4,896 patents: (1) the issue date; (2) the country of residence of the first inventor; (3) the name of the primary examiner; (4) the number of references in each patent to U.S. patents (“US references”); (5) the number of references in each patent to foreign patents (“foreign references”); and (6) the list of nonpatent prior art (NPPA) references (references to other printed publications such as articles, books, etc.). Although the Delphion™ database provides complete lists of all NPPA references, it does not provide the number of such references, which itself is a very important piece of information because of what it suggests about (a) the thoroughness of both the applicant’s prior art search and the examination process³⁵

35. Regarding the thoroughness of both the applicant’s prior art search and the examination process, patent and nonpatent prior art references may be cited by both the applicant and the examiner. Several intuitive arguments support the idea that patent applicants are responsible for far more prior art references than examiners. See Allison & Tiller, *supra* note 2, at 1037-38 n.167. On January 1, 2001, the PTO began identifying which prior art references in patents were added by the examiner, which enabled far easier empirical analysis of the issue. See 1241 Off. Gaz. Pat. Office 104 (Nov. 29, 2000), available at <http://www.uspto.gov/web/offices/com/sol/og/2000/week52/patrefr.htm>. Prior to that time, one had to search the prosecution history in the PTO—the documentary record of the patent’s examination—to determine which prior art had been cited by the applicant and which by the examiner. Empirically confirming intuitive arguments that

and (b) the likelihood that a patent will be upheld if its validity is challenged in court.³⁶ The number of NPPA references can be very large in some patents, and because Delphion's™ lists of NPPA references in each patent are run together in text format, we used the Diction 5.0™ textual analysis software program to automate the counting of these references.³⁷

B. Categorization of Patent and Nonpatent Prior Art References

Our study centers on an assessment of the effect that SPER had on the number and type of prior art references in main and secondary 705 patents. Patent prior art is comprised of two groups: references to US patents and references to foreign patents. For a large set of patents, there is no practicable way to make quality distinctions among the patents referred to therein as prior art; that is, there are no feasible means of assessing the informational value of such references in a large data set.³⁸ NPPA references are, however, susceptible to such quality distinctions because they can be classified in various ways to roughly reflect the probable accuracy, reliability, and objectivity of information contained in them. Any typology of the many kinds of printed publications (NPPA) is necessarily subject to some subjectivity and uncertainty, but one can formulate NPPA categories in such a way as to aid in the assessment of their relative informational value. Our typology of NPPA was adapted with one modification from

applicants cite more prior art than examiners, Bhaven Sampat found that, between January 1, 2001 and December 31, 2003, applicants cited 59% of references to prior patents and 90% of references to NPPA, with examiners adding 41% and 10%, respectively. Bhaven N. Sampat, *Determinants of Patent Quality: An Empirical Analysis* 26 tbl. 1 (Working paper, Sept. 2005, on file with authors).

Of course, one cannot know how thoroughly an examiner studied an item of prior art, whether cited by the applicant or added by the examiner, but it stands to reason that examiners are more likely to have closely studied prior art that they themselves added.

We were unable to compare the incidence of examiner-added prior art reference before and after SPER, because the PTO did not begin identifying examiner-added references in patents until after the SPER initiative began. We do, however, provide some interesting statistics comparing examiner-added references in main 705 with those in secondary 705 from the time the PTO began identifying them, January 1, 2001, to the end of our data set, May 31, 2004. *See infra* Part VI.

36. Regarding the association between prior art citations in patents and the likelihood of patents being found valid if challenged, see *supra* text accompanying note 10.

37. Although the references are run together, they are separated by a unique symbol that a computer program can count.

38. To do so for a single patent, one would have to be a person having ordinary skill in the art—the specific field in which the patent purports to be a novel and non-obvious advance—and would have to conduct a thorough study of each prior patent that was referenced.

that used in a previous study by one of the authors.³⁹ When we refer to the “quality” of a type of NPPA, we mean the probable degree of reliability and objectivity. Examples of the different types of NPPA references are found in the Appendix.⁴⁰

(1) **Academic Publications:** This category represents publications of a type for which there is an *independent intermediating influence* such as one or more editors or referees to increase the probability of accuracy, reliability, and objectivity, and which are targeted primarily at an *academic, scholarly* audience. Academic books, book chapters, journal articles, and academic proceedings papers, which have been independently screened for accuracy and objectivity, are the primary components of this category. Academic publications are likely to be the most objective and reliable nonpatent prior art references because of the rigorous peer-review process to which such publications are typically subjected.

(2) **Trade Publications:** This category includes trade books and chapters, trade journal articles, and similar items. Trade publications are targeted primarily at a *practitioner* audience rather than an academic one and *report on* developments in a field rather than create new knowledge in that field as academic works are more likely to do. Like academic publications, trade publications are a type of nonpatent prior art for which there is an *independent intermediating influence* such as one or more editors or referees to increase the probability of accuracy and objectivity. Although these publications are quite unlikely to be subject to the same degree of rigorous peer review as academic publications, they nevertheless constitute prior art of relatively high quality and are a good reflection of the state of the art at the time of publication.

(3) **University Publications:** This category includes publications from universities or consortia of universities, such as those from university re-

39. Allison & Tiller, *supra* note 2, at 1046-47. This typology was developed by means of a trial run in which Allison and Tiller studied the NPPA references in over 100 randomly selected internet-related business method patents and over 100 randomly selected patents-in-general, and developed categories based on the nature of the reference sources found in those patents. *Id.* at 1046.

The only difference is that the previously used typology combined academic and trade publications. Because of experience gained since then, we are more confident in our ability to distinguish academic and practitioner-oriented trade journals and have separated them into two categories for the current study. One non-substantive change was also made—the NPPA category for published patent applications and search reports was renamed “Patent-Related.” The category retains the same content.

40. All NPPA references were manually examined in a random sample of 1,000 of the 4,896 main and secondary 705 patents in our data set. These examples are drawn from that sample.

search labs, departments (such as computer science, electrical engineering, information systems, business, etc.), individual faculty, and graduate student theses/dissertations. Because these types of publications are developed in an environment of objective academic inquiry, they typically will be prior art of good quality although this quality is probably quite variable.

(4) **Software:** This category includes software programs and software documentation. These are separated from other company- or industry-sponsored publications because of their functional nature and obvious need for a high degree of accuracy and objectivity compared with less functionally motivated company-sponsored prior art. Software and software documentation therefore represent prior art of comparatively high quality.

(5) **Patent-Related:** This category includes published patent applications and patent office search reports, such as PCT (Patent Cooperation Treaty) and EPO (European Patent Office) search reports. Such publications are likely to be of highly variable quality as prior art. Published patent applications are of uncertain quality as prior art because they have not yet been examined or otherwise tested. Published search reports are likely to be more objective and reliable than published applications because of the involvement of independent search authorities.

(6) **Government Documents:** This category includes documents published by U.S. and foreign governments and by international government organizations such as the World Intellectual Property Organization (WIPO), as well as websites sponsored by such entities. The category does not include U.S. and foreign patent-related documents such as published patent applications and search reports, which are treated separately because of their special nature. The quality of government documents as prior art is likely to be extremely variable.

(7) **Company/Industry Publications:** This category includes press releases, websites, advertisements, technical disclosure bulletins, and various other publications that were produced by individual companies or industry groups and published with *no independent intermediating influence* to increase the probability of accuracy and objectivity. It does not include software and software documentation, however, because these are sufficiently distinct from and inherently more reliable than other types of publications from companies or industry groups. After removing software and software documentation from the category, company- and industry-sponsored publications overall cannot be treated as high quality prior art.

(8) **Popular Press:** This category includes not only newspapers, magazines, and other publications of general interest, but also news publi-

cations aimed at general business and legal audiences. The relative quality of such publications varies greatly, but overall is relatively low.

(9) **Other:** Includes sundry items such as individual webpages, but most references placed in this category are those in which insufficient information was provided for determining what the item really was, even after we conducted a web search of key names and terms in the incomplete reference. One example is a reference to a partial title of an item, followed by “found on the web on x date.”

III. ANALYTICAL METHODS

A. Control Variables

1. Examiner experience effects

Differences among examiners undoubtedly account for some proportion of the variation in several patent statistics.⁴¹ Although many of these differences are unobservable, one that can be observed is the relative degree of experience that different examiners have with main and secondary 705 patents. As a result, we incorporated a measure to control for examiner experience effects by simply counting the number of patents in the sample for which a given examiner was responsible. The amount of experience they have with such patents can be due to the total amount of time they have worked as PTO examiners or the length of their tenure in an art unit responsible for examination of class 705 patents. As one might expect, this measure varied markedly, with some examiners being responsible for nearly 400 main and secondary 705 patents granted in the five-year pre- and post-SPER period, and many others accounting for fewer than five.

After finding that fifty examiners accounted for 71% of the total number of 4,896 main and secondary 705 patents in the data set, we decided to run our regression analyses in alternative ways, one including all of the patents and another including only those 71% of the patents having been

41. See Douglas Lichtman, *Rethinking Prosecution History Estoppel*, 71 U. CHI. L. REV. 151, 154-55 (2004) (finding substantial differences among patent examiners in changes in claim language between published applications and patents issuing from them); Iain M. Cockburn et al., *Are All Patent Examiners Equal? Examiners, Patent Characteristics, and Litigation Outcomes*, in PATENTS IN THE KNOWLEDGE BASED ECONOMY 19 (Wesley M. Cohen & Stephen A. Merrill eds., Nat'l Acads. 2003) (arguing, among other things, that some examiners are more likely than others to have their patents invalidated by the Federal Circuit).

examined by the top fifty examiners.⁴² The significance of our results for main 705 patents was the same whether all examiners were included or only the top fifty, revealing that the experience of the examiner had no meaningful effect on the significance of changes in the number of prior art references cited in main 705 patents after SPER was initiated. There were some experience-based differences in the significance of results for secondary 705 that appeared only in Years 3 and 4 after SPER, indicating that there probably was more homogeneity among examiners of main 705 patent applications than among examiners of secondary 705 patent applications—those in other main classes with a secondary class of 705.⁴³

2. *Foreign Inventor Effects*

It is intuitive that meaningful differences in the kinds of prior art cited by inventors residing in the U.S. and inventors residing in other countries may exist, and we did in fact observe different prior art citation patterns in patents attributable to foreign inventors.⁴⁴ In particular, we find that patents attributable to foreign inventors cited significantly fewer U.S. patent prior art, NPPA, and total prior art references, but significantly more foreign patent references. All of the results we subsequently report have been controlled for these effects by holding the inventor-domicile variable constant.⁴⁵ The effect of having foreign-domiciled inventors was consistent

42. Approximately 360 examiners accounted for the other 29%.

43. The actual results of our comparison of the number and type of prior art reference before and after SPER, alternatively for only patents examined by all examiners and those examined by the top 50 examiners, are discussed *infra* Part IV.

44. Out of a set of 4,896 patents, 1,142 were attributable to foreign inventors.

45. Our dummy variable only accounts for whether the first listed inventor in the patent has a U.S. or foreign domicile, even though many patents have multiple inventors. This control method is adequate because the U.S. or foreign domicile of the first listed inventor is very highly correlated with the U.S. or foreign domicile of inventors listed after the first one. This proposition is so obvious as to not require empirical demonstration. In patents with two or more inventors, if the first named inventor is domiciled in the U.S., the probability that all or most of the other inventors are also domiciled in the U.S. rather than in another country is high. Likewise, if the first named inventor is domiciled in some country other than the U.S., the probability that all or most of the other inventors are also domiciled outside the U.S. rather than within the U.S. is high.

Foreign inventors from various countries receive U.S. patents, but there is no reason to believe that any variances in patterns of prior art citation between U.S.-domiciled and foreign-domiciled inventors are affected by the particular foreign country of domicile. This assumption is probably even more true for business method patents than for many other kinds of patents because fewer countries allow the patenting of software-implemented business methods than allow the patenting of other types of inventions. Almost all of the foreign-domiciled inventors in our data set were from either Japan or one of the twenty countries in the European Patent Organization.

across both main and secondary 705 patents, as well as both before and after SPER, and was also consistent among those patents having been examined by the least and the most experienced main 705 examiners. After controlling for this effect, we found that the consequences of having patents in our data set with foreign inventors who exhibit different prior art reference citation propensities was completely independent of SPER, and that the existence of these foreign inventor patents does not affect the significance of the changes in prior art citations we observe from pre- to post-SPER.

B. Statistical Techniques

In comparing the mean number of various types of references per patent between main and secondary 705 pre- and post-SPER, we employed negative binomial regression (NBR). When an array of data points is not characterized by a normal distribution, the type of multiple regression model that best fits the data depends on the nature of the distribution.⁴⁶ Moreover, it is often the case that there is more than one appropriate way to adjust for particular types of skews in a distribution. In other words, a degree of judgment must be exercised when deciding which type of regression model is the best fit for a given distribution of data points. Moreover, more than one model may be workable with the same type of distribution.⁴⁷ In our data set of prior art references, we concluded that the negative binomial regression model is the best fit because (1) the variables with which we were dealing were “count variables,”⁴⁸ (2) the distribution

46. For example, when a distribution is skewed by upper outliers, a logarithmic transformation of means can bring the distribution closer to a normal one for subsequent testing. And, in such a distribution, the additional existence of some lower outliers may call for nonparametric median tests such as a Wilcoxon test as an additional check on the results obtained from comparing log-transformed means. Yet other non-parametric tests such as a Savage test can sometimes be used as an additional check on the results. *See, e.g.,* John R. Allison, Mark Lemley, Kimberly Moore, & Derek Trunkey, *Valuable Patents*, 92 GEO. L.J. 435, 447 n.45 (2004); Allison & Tiller, *supra* note 2, at 1040 n.175, 1061 n.219. If we had chosen the methods employed in the two cited articles, our results would have been the same, particularly because of the very high levels of significance we found. Using negative binomial regression, however, removes the need to use those secondary tests as a check.

47. Allison & Tiller, *supra* note 2, at 1040 n.175, 1061 n.219

48. Count variables are simply discrete number values, i.e., 0, 1, 2, 3 . . . N, such as the number of flights that arrive daily at an airport. They must be whole numbers: 6.72 flights cannot land at an airport in a day. The numbers of references in a patent are count variables. Count variables are contrasted with continuous variables, i.e., numbers that can have any value within a given range, such as the height or weight of each person in a flight that arrives at an airport. The heights or weights do not have to be whole numbers. People can be 5 feet 11.245 inches tall and weigh 175.678 pounds. Whether the data con-

of values was greatly overdispersed⁴⁹ due to some extreme upper outliers (some patents having very large numbers of certain types of references) and a very large range between the minimum and maximum values, and (3) there were a high proportion of zero values (large numbers of patents having no references of a particular type).⁵⁰

The way in which prior art references are distributed within a set of patents, with many patents citing either zero or very few references, and many patents citing a large number of references (i.e., bimodal) is true of all kinds of references but is especially observable in the case of NPPA references because it is more time-consuming and thus more costly to search for nonpatent prior art than it is to search for patents. Overall, this phenomenon is partly explained by the fact that, although patent law does not require applicants to conduct a prior art search at all, PTO Rule 56 does require applicants to cite all material prior art *of which they are aware*.⁵¹ A violation of this duty of candor regarding known prior art can result in a judicial finding that the patentee engaged in “inequitable conduct.”⁵² An inequitable conduct finding results in the unenforceability of the patent, even if the patent is otherwise valid and infringed. Indeed, such a finding can produce consequences substantially more severe than an invalidity finding. Both infringement and validity are determined on a

stitute count or continuous variables is one factor, in addition to the nature of the distribution, that determines which multiple regression model is the best fit.

These two types of number values are contrasted with categorical, or dummy, variables. Categorical or dummy variables do not reflect values, but instead reflect whether or not a particular state exists. In other words, categorical or dummy variables represent qualitative rather than quantitative values. When there are only two possibilities, we refer to them as “binary” or “dichotomous.” They represent “yes” or “no,” which are coded as 1 or 0, with the numbers 1 or 0 not representing values but states of being or not being. Logistic regression is used when the dependent variable is binary, a “yes” or “no.” See, e.g., JOSEPH F. HAIR, JR. ET AL., *MULTIVARIATE DATA ANALYSIS WITH READINGS* 129-31 (4th ed. 1995).

49. Overdispersion exists when the variance (standard deviation squared) exceeds the mean.

50. See, for example, David M. Drukker, STATA FAQ (Oct. 2005), available at <http://www.stata.com/support/faqs/stat/nbreg.html>, and references cited therein for an explanation of the nature of a data distribution that calls for use of negative binomial regression.

Regarding the high proportion of patents with none of particular types of references, two striking examples are that, in our total data set of 4,896 patents, 45% contained zero references to foreign patents and 33% contained zero references to nonpatent prior art.

51. 37 C.F.R. § 1.56 (2000).

52. See, e.g., *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 874-5 (Fed. Cir. 1988) (en banc) (discussing inequitable conduct defense).

claim-by-claim basis, leading to situations in which certain claims in a patent may be invalid while others remain valid. A patentee's inequitable conduct, however, renders the entire patent unenforceable,⁵³ as well as potentially entitling the accused infringer successfully raising the defense to attorney fees.⁵⁴ Even other, related patents springing from the same original application may be unenforceable.⁵⁵ Thus, the absence of a duty to search the prior art and the cost of doing so, coupled with potentially severe penalties for not citing what has been found, tends to cause many applicants to conduct either very minimal searches or very thorough ones.⁵⁶

IV. RESULTS

A. Number of U.S., Foreign, and Total Nonpatent Prior Art References

After implementation of SPER, we observed highly significant increases in the (1) average number of U.S. patent references, (2) foreign patent references, and (3) total nonpatent prior art references (NPPA) in main 705 patents, both year-by-year and in the combined four post-SPER years.⁵⁷ These results hold for both the full population of main 705 patents and the subset of the population attributable to the top 50 examiners.

53. See, e.g., *J.P. Stevens & Co. v. Lex Tex, Ltd.*, 747 F.2d 1553, 1561 (Fed. Cir. 1984).

54. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1480 (Fed. Cir. 1998).

55. *Consol. Aluminum Corp. v. Foseco Int'l, Ltd.*, 910 F.2d 804, 809-10 (Fed. Cir. 1990) (finding six related patents unenforceable on grounds of "unclean hands" because of inequitable conduct in intentionally failing to adequately disclose the best mode for one of them). See generally Scott D. Anderson, Comment, *Inequitable Conduct: Persistent Problems and Recommended Resolutions*, 82 MARQ. L. REV. 845 (1999) (discussing the various consequences of inequitable conduct).

56. Although both applicants and examiners cite prior art references in patents, applicants are responsible for most of them. In the general population of patents, applicants are responsible for almost 60% of references to prior patents and 90% of references to nonpatent prior art. See Sampat, *supra* note 35, at 26 tbl. 1.

57. We use the traditional level of 0.05 for significance of results. That is, if the hypothesis of "no change" or "no difference" can be rejected at a significance level of 0.05 or lower, we view the change or difference as not being attributable solely to random chance. Levels of significance are often reported as p-values. Thus, a result with a p-value of less than 0.05 is significant and indicates that the hypothesis of no change or no difference can be rejected at a 95% confidence level. Many of our results have p-values much smaller than 0.05, revealing very high levels of significance. Also, all of our p-values are two-tailed.

The significance of the increase in post-SPER prior art references within main class 705 patents would be diminished, however, by similar increases in non-705 main classifications and secondary 705 classifications because such a finding would raise the question whether causes other than SPER are responsible for the increase in prior art references within main 705 patents. Secondary 705 patents attributable to all examiners and not only to the most experienced ones did, in fact, experience some significant increases in average number of references to U.S. patents and foreign patents in the third and fourth years after SPER, which significantly raised the average for the combined four years compared to the year prior to SPER. Secondary 705 patents attributable to all examiners also experienced significant increases in the number of NPPA references in the third, fourth, and combined four post-SPER years, but the significance levels were substantially lower than for main 705 patents. These increases were almost completely absent, however, in secondary 705 patents attributable to the fifty most experienced examiners of 705 patents. Among these examiners, there was a barely significant increase only in the number of references to U.S. patents and only in the third year after SPER.⁵⁸ This slightly significant increase then disappeared in the fourth post-SPER year.

Thus, the SPER initiative appears to have produced a significant improvement in the quantity of all types of prior art cited in main class 705 patents in each of the four years after its implementation. The finding that reflects most favorably on the SPER initiative's effects is that there is a sharp difference in the way that the *top fifty examiners* treat the two groups of similar patents. The results show that secondary 705 patents evaluated by these examiners display none of the increases in any kind of prior art that the main 705 patents do. The following table summarizes these data. "Yr 0" is the one year before SPER, "Yr 1, 2, 3, and 4" are each of the post-SPER years, and "Yrs 1-4" represents the average of the four post-SPER years combined.⁵⁹ Each comparison is with "Pre-SPER"; we make no comparisons among the post-SPER years.

58. There also was an increase at the 0.05 level for total prior art references, but this was completely accounted for by the increase in references to U.S. patents.

59. It is important to note that, when comparing averages for the combined four post-SPER years with the pre-SPER year, the combined four years have a larger number of observations, and smaller changes can be significant.

Table 2
Summary of SPER's Effects on the Number and Type of Prior Art References⁶⁰;
Averages Per Patent for Each Year and for Combined Four Post-SPER Years

Type of Reference	Main 705 All Examiners	Main 705 Top 50 Examiners	Secondary 705 All Examiners	Secondary 705 Top 50 Examiners
Total Prior Art Yr 0	24.1	23.2	21.2	24.2
Total Prior Art Yr 1	29.1 ^a	29.7 ^a	22.9	21.2
Total Prior Art Yr 2	34.4 ^a	35.6 ^a	22.8	24.1
Total Prior Art Yr 3	34.2 ^a	35.9 ^a	25.9 ^a	28.2 ^d
Total Prior Art Yr 4	38.7 ^a	39.0 ^a	31.7 ^a	24.4
Total Prior Art Yrs 1-4	33.8 ^a	35.2 ^a	26.6 ^a	27.6
US Patents Yr 0	15.5	15	15.5	17.2
US Patents Yr 1	17.9 ^c	18.1 ^a	15.8	14.8
US Patents Yr 2	21.1 ^a	21.8 ^a	16.5	16.8
US Patents Yr 3	20.0 ^a	20.9 ^a	18.7 ^a	20.3 ^d
US Patents Yr 4	25.4 ^a	25.3 ^a	23.1 ^a	18
US Patents Yrs 1-4	20.9 ^a	21.4 ^a	19.1 ^a	19.8
Foreign Patents Yr 0	1.8	1.6	1.6	1.8
Foreign Patents Yr 1	1.9	1.9	2.4	1.9
Foreign Patents Yr 2	3.0 ^a	3.1 ^a	2	2.1
Foreign Patents Yr 3	2.9 ^a	2.9 ^a	2.3	2
Foreign Patents Yr 4	3.7 ^a	3.6 ^a	2.8 ^a	2.1
Foreign Patents Yrs 1-4	2.8 ^a	2.9 ^a	2.4 ^c	2.6
Total NPPA Yr 0	6.8	6.6	4.1	5.2
Total NPPA Yr 1	9.4 ^c	9.7 ^b	4.7	4.5
Total NPPA Yr 2	10.2 ^a	10.7 ^a	4.2	5.2
Total NPPA Yr 3	11.2 ^a	12.2 ^a	4.8 ^d	5.8
Total NPPA Yr 4	9.6 ^c	10.0 ^c	5.8 ^c	4.4
Total NPPA Yrs 1-4	10.1 ^a	10.9 ^a	5.0 ^d	5.3

Legend (Significance Levels): ^a p < 0.0001; ^b p < 0.001; ^c p < 0.01; ^d p < 0.05

60. These and all other p-values we report are two-tailed.

B. Number of Different Types of Nonpatent Prior Art References

Increases in the total number of U.S. and foreign patent references and in the total number NPPA references do not tell us all we need to know. It also is important to assess the effect that SPER may have had on the *informational quality* of NPPA references in main 705 patents relative to their kindred secondary 705 patents. We downloaded all NPPA references from a random sample of 1,000 pre- and post-SPER patents out of the 4,896 total patents and manually assigned each reference to one of the nine subcategories in our NPPA typology. After excluding the “Other” subcategory because it had such a low population, we then performed a negative binomial regression to assess the effect of SPER on the number of the eight different types of NPPA references.⁶¹ Such analysis provides us with a means to evaluate the relative informational quality of the larger number of NPPA references.

In main 705 patents attributable to all examiners, we found significant increases from the pre-SPER year to the four combined post-SPER years in three of the eight NPPA sub-categories. By far the most significant increase was in Trade Publications ($p < 0.0001$), followed by Company/Industry Publications ($p < 0.01$), and Patent-Related Publications ($p < 0.05$). There were no significant changes in the other five NPPA sub-categories. Thus, a substantial portion of the overall increase in NPPA references was attributable to one category, Trade Publications, which we view as a relatively high informational quality type for the patents under study. Except for some types of sophisticated financial patents, one would not expect to find many Academic Publications being cited as prior art for business method patents.⁶² As previously noted, our Trade subcategory

61. When a particular sub-category of NPPA was the dependent variable, such as the number of references to Trade Publications in a patent, we used the total number of NPPA references in that patent as a control variable. The reason is the obvious correlation between the total number of NPPA references in a patent and the number of references in a NPPA sub-category. By using the total number of NPPA references in a patent as a control, we were able to distinguish between a patent with one Trade Publication reference and ten overall NPPA references from a patent with one Trade Publication reference and no other NPPA references.

62. Although this type of business method patent deals with subject matter about which there is a substantial published body of sophisticated academic work, Josh Lerner found that financial patents actually do not cite much of this type of work. Josh Lerner, *Where Does State Street Lead? A First Look at Finance Patents, 1971-2000*, 57 J. FIN. 901, 927-28 (2002). His study ended before the SPER initiative, and we do not know whether this subset of business method patents has witnessed an increased in references to academic publications after SPER.

includes practitioner-oriented publications of a type that have had to clear one or more independent intermediaries such as an editor or referee.

The subcategory showing the second most significant increase, Company/Industry Publications, undoubtedly may contain some information relevant to the novelty or non-obviousness of a given patent, but on the average, this information will not be as reliable as that found in the Trade subcategory, because it has not been screened or tested by an independent intermediary such as a referee or editor. The other subcategory showing a significant increase, Patent-Related Publications (published patent applications and search reports), is likely to be characterized by higher average informational quality than Company/Industry Publications, and the post-SPER increase in this category should be viewed positively.⁶³

When we looked only at the main 705 patents that had been examined by the fifty most experienced examiners, the results were similar. The Trade subcategory experienced an increase at the same extremely high level of significance ($p < 0.0001$), the Company/Industry subcategory experienced an increase but at a lower level of significance ($p < 0.05$), but there was no increase in the Patent-Related subcategory.

In marked contrast to our findings with respect to main 705 patents, secondary 705's displayed no significant increases or decreases in any subcategory of NPPA references. While there was an overall increase in NPPA references in secondary 705 patents attributable to all examiners, no single subcategory showed a significant increase. This finding is explained by the barely significant ($p < 0.05$) overall increase in NPPA references in secondary 705 patents and the fact that the increase was widely dispersed across many types of NPPA references. When we looked only at the secondary 705 patents that had been examined by the fifty most experienced examiners, we found no significant increase in either the total number of NPPA references or in any individual subcategory.

Thus, the SPER initiative seems to have exerted a generally positive impact on the number of all kinds of prior art references, and its positive impact on the number of NPPA references has resulted in significant increases in references to U.S. and foreign patents and to a high information

63. One must take this result with some caution, however, because the only available published patent applications prior to SPER were foreign ones. U.S. patent applications were not published until March 15, 2001. As in other countries, U.S. applications are published eighteen months after filing, but in this country applications are published only if the applicant declares that she will not file in another country for a patent on the same invention. Thus, the significance of the increase in the Patent-Related Publication category may not have been attributable to SPER, but to the availability of more published patent applications in English after March 15, 2001.

value type of NPPA. On the other hand, the SPER program is subject to criticism for what appears to be a systematic overlooking of some other types of NPPA that are likely to contain high quality information relevant to many business method patents, such as university-sponsored publications and software/software documentation.

In addition to summarizing our findings from the comparison of the average numbers of different types of NPPA references per patent in the pre-SPER year to the averages per patent in the *combined four post-SPER years*, the following two tables also present such averages for each of the post-SPER years individually. As in the previous table, superscripts indicate whether changes were statistically significant, and if so, at what level.⁶⁴

In the following two tables, we have omitted University Publications, Government Publications, Software, and Other, either because these categories showed no significant changes at any point or involved numbers too small for statistical analysis. Table 3 presents summary findings for main 705 patents, and Table 4 for secondary 705 patents.

64. In a few instances, reported significance levels may appear a bit anomalous when looking at averages for individual years because each year will have fewer total observations than the averages for the combined four post-SPER years. Averages are averages, but when the total number of patents, and thus the total numbers of references are smaller, it takes a greater absolute change to be statistically significant. For example, in the table reporting results for those main 705 patents attributable to all examiners, the average number of references to Trade Publications in Yr 3 (3.1) is slightly higher than that for Yr 2 (3.0), yet the significance level of the change over Yr 0 is smaller in Yr 3 than in Yr 2.

In a couple of instances, the post-SPER averages for the top examiners appear as though they should represent significant increases because these averages are about the same as for all examiners, but are not quite significant because the top fifty examiners examined a smaller number of total patents than all examiners and, thus, the total number of observations is smaller. Again, absolute differences must be greater in order to be significant when the number of observations is smaller.

Table 3
Summary of SPER's Effects on the Number and Types of NPPA References
Averages Per Patent for Each Year and for Combined Four Post-SPER Years

Main 705						
Type of NPPA		Academic	Trade	Company/ Industry	Popular Press	Patent- Related
Avg # Refs	Yr 0	1.7	1.1	2.2	0.6	0.1
All Examiners	Yr 1	1.3	2.1 ^d	1.2	0.8	0.2
	Yr 2	1.3	3.0 ^a	3.4 ^c	0.7	0.2
	Yr 3	2.0	3.1 ^c	2.6	1.4	0.1
	Yr 4	1.8	1.8 [*]	3.0 ^c	0.9	0.4 ^c
	Yrs 1-4	1.54	2.50 ^a	2.53 ^c	0.93	0.21 ^d
Avg # Refs	Yr 0	1.2	1.0	2.1	0.5	0.1
Top Examiners	Yr 1	1.3	2.1 [*]	1.3	0.9	0.2
	Yr 2	1.3	3.3 ^b	3.6 [*]	0.7	0.1
	Yr 3	2.4	3.2 ^d	2.3	1.3	0.1
	Yr 4	1.2	1.7	3.1 [*]	0.9	0.5 ^c
	Yrs 1-4	1.49	2.64 ^a	2.53	0.91	0.21 ^{**}

Legend: (Significance Levels): ^a p < 0.0001; ^b p < 0.001; ^c p < 0.01; ^d p < 0.05

*Significant at 0.10 level, but not quite at the 0.05 level.

**Although this average number of references to Patent-Related publications for top examiners was the same as for all examiners both in Yr 0 and in the four post-SPER years combined, the change was significant at the 0.05 level for all examiners, but not quite significant (0.055) for top examiners. The reason is that the total number of observations (total number of patents and, thus, total number of this type of reference) was smaller for the top examiners than for all examiners, and changes must be greater to be statistically significant when the number of observations is smaller.

Table 4
Summary of SPER's Effects on the Number and Types of NPPA References
Averages Per Patent for Each Year and for Combined Four Post-SPER Years

Secondary 705						
Type of NPPA		Academic	Trade	Company/ Industry	Popular Press	Patent- Related
Avg # Refs	Yr 0	2.4	0.6	1.3	0.0	0.2
All Examiners	Yr 1	1.7	0.7	2.7	0.2	0.1
	Yr 2	0.7	0.4	1.1	0.1	0.1
	Yr 3	1.4	0.5	2.7	0.2	0.2
	Yr 4	1.2	0.5	1.6	0.1	0.3
	Yrs 1-4	1.21	0.55	1.95	0.16	0.18
	Avg # Refs	Yr 0	3.5	0.7	1.7	0.1
Top Examiners	Yr 1	1.8	0.7	3.4	0	0.1
	Yr 2	0.9	0.6	1.0	0.2	0.1
	Yr 3	1.2	0.6	2.9	0.1	0.2
	Yr 4	2.0	1.0	1.4	0.3	0.2
	Yrs 1-4	1.51	0.74	2.17	0.17	0.15

Legend: (Significance Levels): None of the changes was statistically significant.

V. AN ALTERNATE APPROACH

All of the results discussed above concern the estimation, by means of negative binomial regressions, of the *average number* of various types or combinations of prior art references per patent. However, an analysis focused only on averages may fail to capture some types of important changes. For example, the SPER initiative may have made examiners more careful to see that patents contained *some* prior art, but not necessarily more of it. Thus, we also examined whether SPER has increased the number of patents containing at least one foreign or NPPA reference. This analysis employed *logistic*, rather than negative binomial, regressions. Logistic regression is used when there is one binary dependent variable—in this case whether a patent has at least one reference of a particular type.⁶⁵

65. See HAIR, *supra* note 48.

While the dependent variable in our first analysis was the *number* of references of a particular kind, the dependent variable in our logistic regressions is simply a “yes” or “no” (1, 0): did a patent have at least one prior art reference or did it not?

The results of logistic modeling, particularly when combined with results of the negative binomial regressions, provide information about the locus of the changes, or lack thereof, in the average number of references. For example, if there is an increase in the average number of references per patent, the results of the logistic regression indicate whether the increase was due to relatively few patents having many more references after SPER or a larger number of patents having at least one reference.

Because the purpose of our logistic regressions is primarily to verify the results obtained from our negative binomial regressions, we report results only for the combined four post-SPER years and not for each year separately. We found that, for both the entire population of main 705 patents and the subset of main 705 patents attributable to the top fifty examiners, there were highly significant post-SPER increases in the number of patents having at least one of the following types of prior art references: (1) foreign patents, (2) all NPPA (that is, at least one of the subcategories of NPPA); and, among the subcategories of NPPA, (3) academic publications, (4) trade publications, (5) company/industry publications, and (6) patent-related publications. We could not perform a logistic regression on the number of patents having at least one reference to a U.S. patent, because prior to the SPER initiative almost all patents in our data set had at least one such reference. Thus, there was an improvement in the citation of academic and patent-related publications that was not revealed when we looked only at the average number of such references per patent. In addition, the *significance levels* were greater when we focused on the number of patents having at least one of various kinds of references than when we looked at the average number of various kinds of references per patent.

In contrast, secondary 705 patents failed to show a similar increase in all but one prior art category: foreign patent references. However, even this increase was lost when we considered only those patents reviewed by the fifty most experienced examiners. Thus, logistic modeling reveals an even greater disparity in the effect of SPER between main and secondary 705 when compared with the binomial modeling we employed earlier.

Overall, our findings indicate that increases in both the average number of references per patent, and the number of patents having at least one reference, contribute to the positive changes we observed. The results of our logistic regressions are summarized in the following table.

Table 5
Summary of SPER's Effects on the Number of Patents Having at Least One Prior Art Reference in Various Categories

Type of Reference	Main 705 All Examiners	Main 705 Top Examiners	Secondary 705 All Examiners	Secondary 705 Top Examiners
Foreign Patents	Increased ^a	Increased ^a	Increased ^d	No Change
All NPPA	Increased ^a	Increased ^a	No Change	No Change
Academic	Increased ^a	Increased ^a	No Change	No Change
Trade	Increased ^a	Increased ^a	No Change	No Change
Company/Ind	Increased ^a	Increased ^b	No Change	No Change
University	No Change	No Change	No Change	No Change
Govt Docs	No Change	No Change	No Change	No Change
Software	No Change	No Change	No Change	No Change
Popular Press	No Change	No Change	No Change	No Change
Patent-Related	Increased ^c	Increased ^c	No Change	No Change

Legend: ^a $p < 0.0001$ ^b $p < 0.001$ ^c $p < 0.01$ ^d $p < 0.05$

VI. EXAMINER-ADDED PRIOR ART

It would be interesting to compare the quantity and type of prior art added to patents by examiners in main and secondary 705 before SPER with prior art added to such patents after SPER. Such a comparison would reveal much about the effect of SPER on examiner behavior. As noted earlier, it was not feasible for us to do so because the PTO did not begin identifying examiner-added prior art in published patents until January 1, 2001.

However, we were able to compare examiner-added prior art after SPER in main 705 patents with that in secondary 705 patents. Because the SPER initiative was more concerned with nonpatent than patent prior art, we made the comparison only with respect to NPPA references.

By examining main and secondary 705 patents issued between January 1, 2001 and May 31, 2004, we found that the SPER initiative apparently exerted a positive impact on the amount of NPPA added by examiners.

During this period, there were 1,651 patents issued in main 705. Of these, examiners added at least *some* NPPA references in 744 patents, representing 45% of the total. During the same period, 1,481 patents issued with secondary 705 classifications. Of these, examiners added at least *some* NPPA references in 492 patents, representing 33% of the total. The difference between the 45% of main 705 patents and the 33% of secondary 705 patents in which examiners added some NPPA references is highly significant ($p < 0.0001$).

When we focus on patents in which *all* of the NPPA references were added by examiners, we also find a highly significant difference between main and secondary 705. Of the 1,651 main 705 patents issued during this period, all of the NPPA references were attributable to examiners rather than applicants in 136 patents, representing 8.2% of the total. Of the 1,481 secondary 705 patents issued during this period, all of the NPPA references were attributable to examiners in 56 patents, representing 3.8% of the total. The difference between the 8.2% of patents in main 705 and the 3.8% of patents in secondary 705 in which examiners added *all* of the NPPA was significant at the same high level as the difference in the percentage of patents in which examiners just added *some* of the NPPA ($p < 0.0001$).

Thus, the SPER initiative clearly improved the degree of attention paid by examiners to NPPA and, inferentially, on the quality of the examination process for patent applications that were assigned to main class 705. This evidence, combined with other evidence already discussed, reveals that the SPER initiative has almost certainly succeeded in improving the quality of patents in the domain in which it operates.

VII. UNDERINCLUSIVENESS, POST-SPER SHIFTS FROM MAIN 705, AND SOME UNANSWERED QUESTIONS

Although there is welcome news in our analyses of the effects of the SPER initiative, evidence of the serious underinclusiveness of the SPER initiative suggests that celebration should be subdued. For various reasons, substantial numbers of business method patents escape the additional scrutiny. Much of the underinclusiveness is attributable to the innate difficulty associated with defining any technology area, including business methods. Moreover, the PTO's system of classification was never intended for use as a means to identify technology areas conceptually. The system is designed to aid in searching for previously issued patents as prior art⁶⁶ and

66. See Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CALIF. L. REV. 2187, 2216 (2000) (tracing the evolution of the PTO

operates at a functional, not conceptual level. In addition, the functional level at which it operates is quite low on a scale of abstraction, further rendering it ill-suited for singling out a technology field. PTO classes and subclasses also are frequently entwined in rather cryptic ways.⁶⁷

Among the post-SPER patents having secondary 705 classifications and various main classifications other than 705, we found substantial numbers that would fall within any reasonable definition of a software-implemented business method patent. These patents were not, of course, subjected to the heightened scrutiny of SPER. Although these patents can be found in a variety of main classifications, the greatest concentrations were in main classes 235 (Registers),⁶⁸ 700 (Data processing: generic control systems or specific applications),⁶⁹ 707 (Data processing: database and file management or data structures),⁷⁰ 709 (Electrical computers and

and stating: "And with the increase in the volume of patents came the need to more quickly and accurately search the 'prior art,' and hence the development of modern patent classification." [footnote omitted]).

67. The following example should reveal why PTO classifications are not well suited for defining a technology field at a conceptual level. Class 345 is defined as "Computer Graphics Processing, Operator Interface Processing, and Selective Visual Display Systems." USPTO, Class Definition for Class 345, <http://www.uspto.gov/web/patents/classification/uspc345/defs345.htm> (last visited Feb. 27, 2006). The class definition states: "This class provides for processes and apparatus for selective electrical control of two or more light-generating or light-controlling display elements in accordance with a received or stored image data signal. The image data includes character, graphical information or display attribute data. The image data may include, for example, information data from a peripheral input device, from the reception of a television signal, from the recognition of image data, or from the generation or creation of image data by a computer. This class also provides for digital data processing systems or methods for data processing for visual presentation, wherein the processing of data includes the creation or manipulation of graphic objects (*e.g.*, artificial images), text or use of an operator interface by a digital data processing system prior to use by or within a specific display system." *Id.*

Not only does the class combine different technology areas, such as computer hardware, software, and optics, but it also does so in a very function-oriented way rather than a concept-oriented way. To further illustrate, subclass 74 within class 345 is "Machine Element or Mechanism, particularly subclass 471 for control elements which move in two planes," showing the system's focus on low-abstraction functionality. *Id.*

68. See USPTO, Class Definition for Class 235, <http://www.uspto.gov/web/patents/classification/uspc235/defs235.htm> (last visited Feb. 27, 2006).

69. See USPTO, Class Definition for Class 700, <http://www.uspto.gov/web/patents/classification/uspc700/defs700.htm> (last visited Feb. 27, 2006).

70. See USPTO, Class Definition for Class 707, <http://www.uspto.gov/web/patents/classification/uspc707/defs707.htm> (last visited Feb 27, 2006).

digital processing systems: multicomputer data transferring),⁷¹ and 713 (Electrical computers and digital processing systems: support).⁷² Although it is easy to see how business method patents with a secondary 705 classification might fit within main classes such as 700, 707, 709, and 713, classification 235 (Registers) may appear at first blush to be a strange place for business method patents. Class 235 is an old classification that once contained only patents on inventions such as mechanical cash registers and calculators. In modern times, however, there are many sub-classifications within 235 that cover inventions involving highly sophisticated computing and recording technology. Later, we provide examples of post-SPER business method patents in these classifications.

In our study of secondary 705 patents, we not only found ample evidence of SPER's underinclusiveness, but we also encountered some rather dramatic shifts among classifications for which it is difficult to account. First, we examined changes in the proportions of main and secondary 705 patents before and after SPER. We found that, in the post-SPER period, the proportion of main class 705 patents relative to the total of all class 705 patents (main plus secondary) has decreased. The proportion of main 705 patents relative to the combined total of main and secondary 705 patents decreased sharply after SPER was initiated, from 73% in the year prior to June 2000, to 56.9% in the first year of SPER, 56.4% in the second year of SPER, 45.9% in the third year of SPER, and just 39% in the fourth year of SPER. Correspondingly, the proportion of secondary-class 705 patents relative to the total of main and secondary 705 patents increased from 27% in the year before SPER to 43.1%, 43.6%, 54.1%, and 60.8%, respectively, in the four years after SPER.

This dramatic change in the *proportion* of main and secondary-class 705 patents could be attributable solely to the fact that the second-level review has substantially decreased the absolute number of main 705 applications being allowed, which necessarily results in those patents accounting for a smaller portion of total-705 patents.

The absolute number of granted main 705 patents did indeed decrease steadily in the years after SPER. However, something else appears to contribute to this finding. Not only did the *proportion* of secondary 705 to total 705 patents increase markedly, but the *total number* of secondary 705 patents increased substantially after SPER. Moreover, with the exception

71. See USPTO, Class Definition for Class 709, <http://www.uspto.gov/web/patents/classification/uspc709/defs709.htm> (last visited Feb 27, 2006).

72. See USPTO, Class Definition for Class 713, <http://www.uspto.gov/web/patents/classification/uspc713/defs713.htm> (last visited Feb 27, 2006).

of Year 2 after SPER, the *rate* of increase in the number of post-SPER secondary 705 patents grew each year. The *rate of increase* was particularly dramatic in post-SPER Years 3 and 4. Overall, the *rate of increase* in secondary 705 patents was much greater than the *rate of decrease* in both main 705 patents and total 705 patents. Necessarily, the ratio of main to secondary 705 patents also declined dramatically in each year after SPER. In the following table, Panel A shows the absolute numbers of patents in main 705, secondary 705, and total 705, as well as the proportions of main and secondary 705s to total 705s and the ratios of main to secondary 705 patents. Panel B in the table shows the percentage declines in main 705 patents and the percentage increases in secondary 705 patents from the year before SPER to each of the four years after SPER.

Table 6
**Changes in Numbers of Patents Plus Rates of Change in Main,
 Secondary, and Total 705**

A	Total # Main 705	% of Total	Total # Secondary 705	% of Total	Total # All 705	Ratio of Main to Secondary
Year 0	896	73%	331	27%	1227	2.71
Year 1	510	57%	387	43%	897	1.32
Year 2	494	56%	382	44%	876	1.29
Year 3	402	46%	473	54%	875	0.85
Year 4	400	39%	621	61%	1021	0.64
B	Total # Main 705	% Change over Yr 0	Total # Secondary 705	% Change over Yr 0	Total # All 705	% Change in Total 705 from Yr 0
Year 0	896		331		1227	
Year 1	510	-43%	387	+17%	897	-27%
Year 2	494	-45%	382	+15%	876	-29%
Year 3	402	-55%	473	+43%	875	-29%
Year 4	400	-55%	621	+88%	1021	-17%

If we were looking solely at patents for which applications have been *filed* after SPER, this evidence is strongly suggestive of strategic drafting by patent attorneys to avoid SPER. Even though we believe that such diversionary drafting has almost certainly occurred, this evidence cannot support the argument because we are looking only at patents *issued* after SPER. Why have we witnessed such dramatic increases, and rates of increase, in patents in non-main classifications that were given secondary 705 classifications, especially in light of the fact that, as we will see later, substantial numbers of these patents fall within any reasonable definition of a business method patent? Although unprovable, one possibility is a greater reluctance by the PTO to assign patents to main 705. The SPER initiative requires examiner time and substantial other resources on the part of the PTO. Because those assigning applications to classifications know that an assignment to main 705 is now “something special,” an unconscious bias against placing patents in main 705 could have developed. If there is any reasonable argument for assigning a different main classification and then using a secondary 705 classification to aid in future prior art searching, perhaps such a bias could influence decision making. On the other hand, substantial numbers of the secondary 705 patents in non-705 main classifications are so obviously business method patents that it suggests a more conscious bias.⁷³ But to reiterate, our evidence only suggests that patents have been diverted, and we can only speculate as to whether the diversion results from conscious or unconscious bias.

As previously noted, we found business method patents with secondary 705 designations in various main classifications, but the greatest concentrations were in main classifications 235, 700, 707, 709, and 713, which are populated by many inventions that are similar to those covered by patents with main 705 classifications. Notably, we also discovered that the number of secondary 705 patents appearing in main classifications 235, 700, 707, 709, and 713 increased dramatically during the four years after SPER from the pre-SPER year. The proportion of Total (main plus secondary) 705 patents accounted for by secondary 705 patents with main classifications of 235 increased from 2.8% in the pre-SPER year to 7.1% in the fourth year after SPER. The percentages for the other main classes were 0.3% to 6.8% in class 700, 3.2% to 7.6% in class 707, 2.0% to 5.8% in class 709, and 1.9% to 6.0% in class 713. Secondary 705 patents with main classifications other than 235, 700, 707, 709, and 713 (“other main”) were more widely dispersed and as a group increased from 16.9% of all

73. Assignments to classifications are made by supervisory examiners. See MPEP, *supra* note 17, § 903.08(b), available at http://www.uspto.gov/web/offices/pac/mpep/documents/0900_903_08_b.htm.

705 patents in the year before SPER to 27.5% in the fourth year after SPER. These findings are summarized in the following table. Panel A shows the absolute numbers of patents in each year in main 705 and in other main classifications having a secondary 705 classification, Panel B shows percentage change in each of the four post-SPER years over the pre-SPER year, and Panel C shows p-values for the significance of changes in each post-SPER year over the pre-SPER year.

This evidence also would suggest diversionary drafting by patent attorneys if the filing dates were mostly after SPER, but they are not. The number of patents in our post-SPER database for which applications had also been filed after SPER was relatively small, and it will be several years before the highly intuitive diversionary drafting hypothesis can be tested. Again, however, something is at work here, and it could be unconscious or conscious bias that leads PTO examiners to assign applications to particular classifications. The data revealing shifts of secondary 705 patents into particular main classifications other than 705 are summarized in the following table.⁷⁴

74. We also found a large concentration of secondary 705 patents in main class 340 ("Communications: Electrical") ("This is the residual home for subject matter, not elsewhere classified, relating to communication by means which are in part or in whole electrical."). See USPTO, Class Definition for Class 340, <http://www.uspto.gov/web/patents/classification/uspc340/defs340.htm> (last visited Feb. 27, 2006). However, there were no significant shifts of main 340, secondary 705 patents from before to after SPER. In Part VIII, we provide a few examples of patents in main 340 that could easily be characterized as business method patents.

Table 7
Shifts in the Main Classifications of Patents With Secondary 705 Classifications

A	Main 705	Main 235	Main 700	Main 707	Main 709	Main 713	Other Main
Year 0	896	34	4	39	24	23	207
Year 1	510	43	25	68	30	53	168
Year 2	494	20	27	97	31	52	155
Year 3	402	65	34	80	49	53	192
Year 4	400	73	69	78	59	61	281
B							
Year 0	73.0%	2.8%	0.3%	3.2%	2.0%	1.9%	16.9%
Year 1	56.9%	4.8%	2.8%	7.6%	3.3%	5.9%	18.7%
Year 2	56.4%	2.3%	3.1%	11.1%	3.5%	5.9%	17.7%
Year 3	45.9%	7.4%	3.9%	9.1%	5.6%	6.1%	21.9%
Year 4	39.2%	7.1%	6.8%	7.6%	5.8%	6.0%	27.5%
C							
Year 1	p < 0.0001	p < 0.01	p < 0.0001	p < 0.0001	p < 0.05	p < 0.0001	X
Year 2	p < 0.0001	X	P < 0.0001	p < 0.0001	p < 0.05	p < 0.0001	X
Year 3	p < 0.0001	X					
Year 4	p < 0.0001	P < 0.001					

VIII. EXAMPLES OF BUSINESS METHOD PATENTS WITH SECONDARY 705 CLASSIFICATIONS AND NON-705 MAIN CLASSIFICATIONS

To provide evidence of the substantial underinclusiveness of SPER and of the possibility of a greater reluctance to assign applications to main 705, we provide examples of patents issued with secondary 705 classifications and main classes 235, 700, 707, 709, 713, and a few other main classes in which there are smaller concentrations of business method patents. We counted the number of post-SPER secondary 705 patents in each

of these main classes and, using a random number generator, selected a random sample of approximately 10% for study. Based on an examination of every randomly selected patent, we attempt to identify which ones could reasonably be called business method patents, and then provide a few examples in each main class. Naturally, we are hampered by the same problem that causes the SPER initiative to possess a meaningful degree of futility in the first place: the impossibility of defining exactly what a business method patent is.

All attempts by courts and Congress to arrive at a workable definition for business method patents have encountered intractable difficulties. As far back as 1994, in *In re Shrader*,⁷⁵ Judge Newman of the Federal Circuit observed that the concept of “business methods” is probably indefinable. In a dissenting opinion in which she responded to a request by the Board of Patent Appeals and Interferences for guidance from the Federal Circuit on whether business methods should be excluded from patentability, a request the majority declined to take up, Judge Newman stated:

The Board also relied on the “method of doing business” ground for finding Schrader’s subject matter non-statutory under section 101. In so doing the Board remarked that the “method of doing business” [sic] is a “fuzzy” concept, observed the inconclusiveness of precedent, and sought guidance from this court. Indeed it is fuzzy; and since it is also an unwarranted encumbrance to the definition of statutory subject matter in section 101 . . . , my guidance is that it be discarded as error-prone, redundant, and obsolete. It merits retirement from the glossary of section 101.⁷⁶

In its 1996 revised guidelines to assist examiners with software inventions, the PTO itself observed that its personnel had experienced “difficulty in properly treating claims directed to methods of doing business,” and further stated that patent “[c]laims should not be categorized as methods of doing business,” but “should be treated like any other process claims.”⁷⁷

Congress passed the First Inventor Defense Act in 1999 to create a new patent infringement defense for a prior inventor of a business method that is later patented by another.⁷⁸ The prior inventor would be vulnerable to an infringement claim if she kept her earlier invention secret and thus

75. 22 F.3d 290, 297-98 (Fed. Cir. 1994) (Newman, J., dissenting).

76. *Id.*

77. USPTO, Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7479 (1996).

78. First Inventor Defense Act of 1999, Pub. L. No. 106-113, 113 Stat. 1536 (codified as amended at 35 U.S.C. § 273 (2000)).

did not create prior art to prevent a later inventor from patenting the same method. In creating this defense, Congress made no attempt to define a business method, leaving the task to the courts. To date, there has been no reported case in which the First Inventor Defense Act was at issue, and we, thus, have not yet had a chance to sympathize with the plight of a court seeking to ascertain what a business method actually is.

When bills were introduced in Congress in 2000 and 2001 that would have made it more difficult for applicants to obtain business method patents, the bills' sponsors did attempt to define the term "business method." On October 3, 2000, Representatives Howard Berman and Rick Boucher introduced H.R. 5364, The Business Method Patent Improvement Act of 2000.⁷⁹ H.R. 5364 proposed to increase the difficulty of moving business methods from application to issuance, and to make them easier to challenge once issued.⁸⁰

In the first known attempt to define a business method, H.R. 5364 stated that it is:

- (1) a method of--(A) administering, managing, or otherwise operating an enterprise or organization, including a technique used in doing or conducting business; or (B) processing financial data;
- (2) any technique used in athletics, instruction, or personal skills;
- and (3) any computer-assisted implementation of a method described in paragraph (1) or a technique described in paragraph (2).⁸¹

This definition has been criticized on several grounds, including the likelihood that it also could apply to patents on computer hardware⁸² and, more importantly, that its cloud-like character could logically encompass process inventions in many fields. The heart of the definition in section (1)(A) is circular. Greg Aharonian, a longstanding and well-known commentator on the patent system, observed, for instance, that "part of the definition is '... a technique used in doing or conducting business'—well isn't using toluene instead of benzene in a chemical reaction a technique used in doing or conducting chemical engineering business?"⁸³ He also provided an

79. Business Method Patent Improvement Act of 2000, H.R. 5364, 106th Cong. (2000).

80. *Id.*

81. *Id.* § 2.

82. Kuester & Thompson, *supra* note 24, at 678.

83. Gregory Aharonian, *Problems in Defining Business Method Patents*, INTERNET PATENT NEWSLETTER, Oct. 10, 2000, available at <http://www.bustpatents.com/articles/bizmet.htm> [hereinafter *Business Method Law Proposed*]. In his comments about H.R. 5364, Aharonian used his characteristically subtle style to state: "In short, IT IS UT-

example of how the Amazon.com one-click patent could be redrafted so that it would be placed into one of the PTO's software engineering subclasses and escape special treatment as a business method patent.⁸⁴

After no action was taken on H.R. 5364, the same sponsors introduced H.R. 1332, The Business Method Patent Improvement Act of 2001 on April 3, 2001.⁸⁵ The bill, which also received no action by Congress, defined a business method similarly to the previous year's bill. The definition in the second bill, however, emphasized the inclusion of only software-implemented business methods.⁸⁶ H.R. 1332 defined a business method as:

(1) a method- (A) of- (i) processing data; or (ii) performing calculation operations; and (B) which is uniquely designed for or utilized in the practice, administration, or management of an enterprise; (2) any technique used in athletics, instruction, or personal skills; and (3) any computer-assisted implementation of a method described in paragraph (1) or a technique described in paragraph (2).⁸⁷

Although almost everyone thinks only of software-embodied business methods, the previous definition could have been interpreted more expansively. Two observers criticized H.R. 1332's definition as similarly inexact.⁸⁸ Hearings on H.R. 1332 revealed significant concerns that the question whether an invention can be characterized as a business method would impose unnecessary burdens on the federal judiciary.⁸⁹

We are thus left to our own devices in identifying what constitutes a patent on a business method. Very generally speaking, a business method patent covers a business practice or technique. The circularity of this definition highlights the problem. The most obvious kinds of practices that fall within the common understanding of the term "business method" include those relating to advertising, shopping, sales, purchasing, financing, insur-

TERLY IDIOTIC TO TRY TO DEFINE 'BUSINESS METHODS' AS A CLASS OF PATENT APPLICATIONS TO BE TREATED DIFFERENTLY."

84. *Id.*

85. H.R. 1332, 107th Cong. (2001).

86. *Id.* § 2 (2001).

87. *Id.*

88. Kuester & Thompson, *supra* note 24, at 679 n.125.

89. See *Oversight Hearing on Business Method Patents: Hearings on H.R. 1332 Before the Subcomm. on Courts, the Internet and Intellectual Prop. of the House Comm. on the Judiciary*, 107th Cong. (2001) (statement of Ronald E. Myrick, president of the Intellectual Property Owners Association), available at http://commdocs.house.gov/committees/judiciary/hju72299.000/hju72299_of.htm.

ance, human resources activities, and specialized forms of communication within and between firms. As we will see, there are very plausible arguments for extending the definition of business method to include other business practices that are often further upstream than those just mentioned.

We looked initially at the title and abstract of each patent, but when there was any doubt about whether the patent could reasonably be characterized as covering a business method, we examined the claims and written description.

A. Main Class 235 (“Registers”)⁹⁰

There were 201 post-SPER secondary 705 patents within main 235, from which we drew a random sample of twenty. Conservatively, two-thirds of these twenty patents can be characterized as covering business methods. The other one-third of the twenty consists of a couple of patents that clearly do not fit within any reasonable definition of business method and a couple that are on the borderline.

Following are three examples of those that can be clearly characterized as business methods:

U.S. Patent No. 6,651,884: System for ranking card reissue transactions⁹¹

A system and method for selectively processing information to reissue cards to cardholders. The method includes assigning scores to cardholder accounts. Thereafter, the cardholder accounts are evaluated to determine eligibility for reissue. The method further includes the step of classifying into one or more groups, those cardholder accounts found eligible for reissue, wherein a first one of the groups contain cardholder accounts with a first set of scores, and a second one of the groups contain cardholder accounts with a second set of scores. Thereafter, the first group with the first set of scores is processed before the second group with the second set of scores.

U.S. Patent No. 6,223,983: Interactive point access financial and information system⁹²

The invention relates to a remote interactive point access banking and information system. Particularly, the invention discloses

90. See USPTO, Class Definition for Class 235, <http://www.uspto.gov/web/patents/classification/uspc235/defs235.htm> (last visited Feb. 27, 2006).

91. U.S. Patent No. 6,651,884 (filed Mar. 26, 2002).

92. U.S. Patent No. 6,223,983 (filed Feb. 19, 1999).

an integrated set of platforms presenting various service and transaction options to a customer. The invention enables a customer to access personal account information, apply for a loan, make commercial deposits and videoconference, in real-time, with a bank representative at the main office. A software implemented in preferably a mainframe computer provides direct access to the bank's database to which a customer is able to connect to execute transactions

U.S. Patent No. 6,196,458: Method and apparatus for printing a billing statement to provide supplementary product sales⁹³

A central controller such as one operating for a credit card account issuer receives one or more billing items which are to be printed on an account holder's billing statement. The central controller determines if the billing items, which typically specify purchases, satisfy any merchant-specified upsell offer conditions. Some upsell offer conditions include the purchase of a predetermined product, or a purchase which exceeds a predefined price. Such upsell offer conditions, when satisfied, direct the central controller to offer an upsell on the billing statement. If any of the upsell offer conditions are satisfied, the central controller determines one or more upsells that correspond to the upsell offer condition.

Following is an example of a patent in main 235 that is on the borderline, in that reasonable people might disagree about whether it should be characterized as covering a software-implemented business method because it also includes a physical shopping cart. It would not be unreasonable, though, to place this patent into a business method category.

U.S. Patent No. 6,659,346: Semi-automated shopping system⁹⁴

A semi-automated shopping system includes a main cart assembly that has a frame portion. The frame portion provides both horizontal and vertical support for the main cart assembly. The frame portion has a bottom section. A plurality of wheels is operationally coupled to the bottom section. The plurality of wheels facilitates transport of the main cart assembly. The main cart assembly has a storage portion designed for receiving multiple items to be purchased. A scanner assembly is designed for recognizing universal product codes applied to a surface of an item to be purchased. The scanner assembly is operationally coupled

93. U.S. Patent No. 6,196,458 (filed Dec. 1, 1997).

94. U.S. Patent No. 6,659,346 (filed June 14, 2002).

to the main cart assembly. A processor assembly is operationally coupled to the scanner assembly. The processor assembly provides a plurality of data items associated with the universal product code.

Following is a patent in the sample of twenty that one could not reasonably call a business method patent, even after an examination of all of the claims and the written description.

U.S. Patent No. 6,666,383: Selective access to multiple registers having a common name⁹⁵

Among the embodiments of the present invention is a processor having a number of registers in a register bank. The registers include a general purpose register and a stack pointer register having a common register name. Processor includes logic responsive to programming to perform a program instruction that references the common register name. This instruction is performed with general purpose register under a first condition and with stack pointer register under a second condition. Accordingly, multiple registers identified by the same name can be selectively accessed based on the establishment of certain conditions.

B. Main Class 700 (“Generic control systems or specific applications”)⁹⁶

There were 155 post-SPER secondary 705 patents within main class 700, from which we drew a random sample of eighteen. These patents generally deal with controlling, scheduling, monitoring, and maintaining various types of systems. Assuming a definition of business method patents that includes systems or methods operating at earlier stages in the supply chain, fourteen or fifteen of these eighteen Main 700 patents cover business methods. Not everyone would define business method so broadly, however. Although there is no compelling argument for excluding from the business method definition software-implemented processes at earlier steps in the supply chain, we understand that not everyone would agree.

Following are four main class 700 patents that many knowledgeable observers would characterize as business methods patents.

95. U.S. Patent No. 6,666,383 (filed May 31, 2001). Number references to drawings in this patent are deleted from the abstract.

96. See USPTO, Class Definition for Class 700, <http://www.uspto.gov/web/patents/classification/uspc700/defs700.htm> (last visited Feb. 27, 2006).

U.S. Patent No. 6,711,463: Method and apparatus for managing delivery destination of baggage⁹⁷

An object of this invention is to securely deliver a [sic] baggage of a traveler a [sic] delivery destination designated by the traveler even in a case where the traveler cancels the travel or changes the destination. First, identification information, information of a contact address, boarding information, and information concerning the delivery destination of the baggage are received from a delivery receipt terminal and registered in a contract database. Then, information concerning boarding status of the traveler is acquired from a passenger carrier server, which manages the boarding status of the baggage. If there is inconsistency between the acquired information concerning the boarding status and the boarding information registered in the contract database, the delivery destination of the baggage is inquired to the traveler's contact address, and the information concerning the delivery destination, which is notified from the traveler in response to the inquiry, is registered in the contract database.

U.S. Patent No. 6,671,563: System and method for collecting data and managing patient care⁹⁸

A care management system in which the management of the administration of care for patients is automated. Hospital information systems are monitored and the information from those systems is used in verifying the administrations of care to patients. The care management system monitors ongoing administrations for progress and automatically updates records and provides alarms when necessary. The care management system is modular in nature but is fully integrated among its modules. Particular lists of data, such as the termination times of all ongoing infusions, provide hospital staff current information for increased accuracy and efficiency in planning. Features include the automatic provision of infusion parameters to pumps for accurate and efficient configuration of the pump, and providing an alarm when an unscheduled suspension of an infusion exceeds a predetermined length of time. A passive recognition system for identifying patients and care givers is provided.

97. U.S. Patent No. 6,711,463 (filed Oct. 15, 2002).

98. U.S. Patent No. 6,671,563 (filed July 13, 1998).

U.S. Patent No. 6,516,240: Apparatus and method for the remote production of customized clothing⁹⁹

An apparatus and method is provided for creating custom-fitted garments wherein the customer provides critical information which is known to or easily ascertainable by the customer without assistance. Using this critical information, a controller applies rules contained in a model to estimate other critical dimensions necessary for the production of a selected garment, and which are not easily ascertainable directly by the customer without assistance. Using the actual and estimated critical dimensions, the controller determines the pattern data which is used to produce custom-made clothing which provides a superior fit to that which a customer would typically experience from the retail purchase of a similar mass-produced garment.

U.S. Patent No. 6,181,979: Medication processing system¹⁰⁰

A drug preparation system which can indicate which drug processing or inspection station or stations are busy so that drugs can be prepared in an optimum way. Patient data recorded on prescriptions received at a pharmacy reception is entered into a host computer through an input device. On command of the host computer, patient data are transferred to respective drug processing units. Each processing unit enters time data including drug preparation completion time into trays with a memory function for collecting drugs prepared. The drugs collected in each tray are inspected and sent to a drug pickup window, where the time data are transferred to a data processing unit. Based on the transferred data, a total processing time in each station is displayed on a display.

Following are two of several examples from the sample of secondary 705 patents in main 700 that not everyone would view as business method patents because they involve processes farther upstream than retail marketing, sales, or finance. After closer inspection, however, a convincing argument can be made that both belong within any reasonable definition of a business method patent. The first covers a system for remote maintenance of a manufacturing facility *and billing* for that maintenance, and the second covers the online transmission of configuration data to hearing aid manufacturers. In the first of these, one should not be misled by the use of

99. U.S. Patent No. 6,516,240 (filed Mar. 4, 2002).

100. U.S. Patent No. 6,181,979 (filed Jan. 12, 1998).

the term “device” because a reading of the claims reveals that the device is a computer.

U.S. Patent No. 6,708,072: Remote maintenance method, industrial device, and semiconductor device¹⁰¹

The present invention provides a remote maintenance method, a remote maintenance system, and an industrial device for enabling control and thorough services and billing according to the contents of the remote maintenance operation and the request destination of maintenance and enabling access limit according to the attribute of a service person, access limit according to the device state, and output limit according to the output mode. The industrial device installed at the factory and the operation device installed in the maintenance center are connected via the network. The operation device transmits command information indicating a command concerning maintenance to the industrial device and the industrial device executes a process according to the received command information, generates charge information indicating a charge concerning maintenance according to the contents of the executed process, and outputs the whole or a part of the generated charge information to the output device of the industrial device.

U.S. Patent No. 6,658,307: Method for configuring the functional properties of an audiological device¹⁰²

The method for configuring the functional properties of an audiological device in the form of a hearing aid initially provides a hearing aid with an IC that can be differently configured in view of its properties, permitting configuration upgrade information to be employed that is either distributed to middlemen via a separate data carrier or transmitted on-line from a data store of the manufacturer to a programming station of the middleman. The middleman has the possibility of himself upgrading hearing aids initially present as basic hearing aids in customized fashion, the configuration information being used for this purpose and the hearing manufacturer being paid for this.

In this sample of eighteen patents from main 700, there were only three or four that would not be characterized as business method patents even by those accepting a somewhat broader definition including control,

101. U.S. Patent No. 6,708,072 (filed Feb. 25, 2002). Number references to drawings in this patent are deleted from the abstract.

102. U.S. Patent No. 6,658,307 (filed Oct. 12, 2002).

monitoring, maintenance, and similar systems farther upstream than retail marketing, sales, and finance.

C. Main Class 707 (“Data processing: database and file management or data structures”)¹⁰³

There were 323 post-SPER secondary 705 patents within main 707, from which we drew a random sample of 33. All of the database creation and management systems and data retrieval systems that populate this sample clearly possess business applications, and at least 80% of them are explicit about their business applications. Following are three of the many examples of those that are easily identifiable as business method patents.

U.S. Patent No. 6,721,763: Automated convention processing system and method¹⁰⁴

A convention processing system is provided that includes software operable to store show information identifying at least one show in which a plurality of exhibitors will exhibit their wares, service information identifying a plurality of services available to the exhibitors at the show, supplier information identifying at least one supplier for each of a plurality of service items and a plurality of different suppliers. The software is further operable to access the information, display the services for the show, receive a selection of a service item, and store the selection of the service item as an order.

U.S. Patent No. 6,658,427: Method and system for providing multi-user electronic calendaring and scheduling functions for online instruction in an extended enterprise environment¹⁰⁵

An exemplary embodiment of the invention relates to a computer-based method and system for providing multi-user electronic calendaring and scheduling functions in an extended enterprise environment. The method includes scheduling trainees for online classes conducted by a training system, presenting a template pertaining to an open class time, associating scheduled class data to the scheduler for tracking and confirmation purposes, e-mailing notifications to trainees, updating class registration and related databases in real time via replication functions, aggregating and transmitting class registration data to the training system, and transmitting results of classes to trainees and the

103. See USPTO, Class Definition for Class 707, <http://www.uspto.gov/web/patents/classification/uspc707/defs707.htm> (Feb. 27, 2006).

104. U.S. Patent No. 6,721,763 (filed Feb. 12, 2003).

105. U.S. Patent No. 6,658,427 (filed June 12, 2001).

scheduler all via a multi-user electronic calendaring and scheduling application.

U.S. Patent No. 6,477,533: Systems and methods of maintaining client relationships¹⁰⁶

In one embodiment, systems and methods are used to maintain client relationships by tracking and managing customers and agents involved in booking a cruise. Furthermore, various activities which take place between an agent and active customers are monitored, whereby the type and quantity of activities performed by the agent is evaluated to assign a period of time of ownership of the customer. During the period of time while the customer is owned, other agents are prevented from acquiring the customer and subsequent booking commission. A series of rules which determine the duration of ownership of the customer are maintained and applied to enable the ownership to be changed as needed.

Although the great majority of patents we found in our sample from main 707 are clearly business method patents, following is an example of a database management system patent in this group that not everyone would identify as a business method patent, especially if given only a cursory look.

U.S. Patent No. 6,154,750: Method and system for navigation and data entry in hierarchically-organized database views¹⁰⁷

A method and system for navigating hierarchical database views that supports the efficient entry, review, and updating of data using a navigation display that is clear and efficient—yet compact in terms of the screen area used. At any point in the navigation process, the navigation display consists of buttons corresponding to the nodes that lie along the path to the last node visited (the set of previously made choices) and the children of this node (the set of current choices). Unselected and unselectable choices are culled and do not clutter the display. The user navigates up and down the hierarchy and enters data by selecting these buttons.

However, upon closer examination of the claims and the written description, one finds that the inventors' objective was to provide an easily navigable software interface for a hand-held device providing a physician with access to medical data in the course of his or her medical practice. A

106. U.S. Patent No. 6,477,533 (filed Dec. 1, 2000).

107. U.S. Patent No. 6,154,750 (filed Apr. 1, 1998).

physician's medical practice is a business, and this patent covers software that enhances the efficiency of engaging in that business. A final example from main 707 that, at first blush, many observers likely would not characterize as a business method patent, but that reasonably could be so identified after closer study, is the following:

U.S. Patent No. 6,108,647: Method, apparatus and programmed medium for approximating the data cube and obtaining approximate answers to queries in relational databases¹⁰⁸

A novel and unique method of approximating the data cube and summarizing database data in order to provide quick and approximate answers to aggregate queries by precomputing a summary of the data cube using histograms and answering queries using the substantially smaller summary. A unique method according to the present invention provides for identifying accurate histogram classes and distributing the space among the histograms on various sub-cubes such that the errors are minimized, while at the same time computer resources are maximized.

The written description of the invention reveals that the inventors were seeking to develop a method for querying a database that would allow for "approximate" answers, i.e., that would tolerate "small errors" in responses to queries. Two of the main examples they provide make it clear that it would not be a great stretch to call this a business method patent: (1) "One example of 'small' error tolerance may be given in the context of market analysis performed by a large multi-national corporation to analyze sales data over the past several years to find a nation with a potential market for the company's products. . . ."¹⁰⁹ (2) "A second example may be given in the telecommunications area, where telecommunication switches are used to route calls based on current traffic load on various available channels. . . . Due to the approximate nature of the data, the switch may sometimes select a sub-optimal route, but this is not a critical hazard to the switch's operation, as long as it is not too frequent."¹¹⁰

D. Main Class 709 ("Electrical computers and digital processing systems: multicomputer data transferring")¹¹¹

There were 169 post-SPER secondary 705 patents within main 709, from which we drew a random sample of seventeen. The general theme of

108. U.S. Patent No. 6,108,647 (filed May 21, 1998).

109. *Id.* at 6.

110. *Id.*

111. See USPTO, Class Definition for Class 709, <http://www.uspto.gov/web/patents/classification/uspc709/defs709.htm> (last visited Feb. 27, 2006).

main 709 is computer network communications, many of the patents therein covering processes in the communications industry or business communications in various other business contexts. Starting at the beginning of the sample, the first patent obviously covers a business method.

U.S. Patent No. 6,721,783: E-mailer controller for privately and securely delivering bank notices, advices and monthly statements¹¹²

An e-mailer controller which privately and securely delivers bank notices, advices and monthly statements via the Internet, other e-mail networks or the like. The e-mailer controller allows existing banking systems to deliver either printed bank statements or e-mailed bank statements. Thus, the banking system with the e-mailer controller is capable of multi-mode delivery of bank statements. The e-mailed mandated periodic statements include pictorial images of hardcopy banking instruments in accordance with customer preferences for presentation of such hardcopy banking instruments.

The title and abstract of the second patent in the list do not immediately inform one of its status as a business method:

U.S. Patent No. 6,708,226: Multithreaded batch processing system¹¹³

A system for processing a batch which is distributed into a plurality of independent segments. A preferred embodiment of this invention calls for implementation on a symmetrical multiprocessing platform, however, the invention is also applicable to massively parallel architectures as well as uniprocessor environments. Each segment comprises a plurality of discrete events, each discrete event comprising a plurality of sub-events to be processed.

However, the owner of the patent is AT&T Wireless Services, Inc. and the second sentence of the written description states: "This invention has particular application to the batch processing of customer account information in order to perform periodic customer billing." The written description also makes it clear that the invention consists of a software system for processing information about cellular phone customers who have different types of accounts so that billing is more efficient and more informative to those customers. This is a business method patent under any definition.

112. U.S. Patent No. 6,721,783 (filed Nov. 24, 1999).

113. U.S. Patent No. 6,708,226 (filed Sept. 4, 2001).

Like the second patent in the sample, the title and abstract of the third do not unquestionably announce that it is a business method patent.

U.S. Patent No. 6,704,771: Electronic message payload for interfacing with text contained in the message¹¹⁴

The present invention includes a system, method, and article of manufacture for communicating via an application program included as a payload of an electronic message. At least one application program is initialized after an electronic message is selected by a user. After initialization, the application program is executed. The execution of the application program includes displaying text included with the electronic message, and running a code segment including as a parameter at least a portion of the text included with the electronic message.

One does not have to look far to find, however, that the invention is intended to facilitate the delivery of advertisements by e-mail, and is a business method patent.

Examples of three other patents in our sample that, on their face, cover business methods are the following.

U.S. Patent No. 6,567,854: Internet service delivery via server pushed personalized advertising dashboard¹¹⁵

A communication service with a computer application is presented. The application provides an advertising dashboard to a subscriber engaged in a session of a service. The advertising dashboard includes an advertisement. The advertising dashboard may also include personalized information such as hotlinks to customized web pages.

U.S. Patent No. 6,460,072: Method and system for tracking the purchase of a product and services over the internet¹¹⁶

A method for establishing and maintaining a virtual outlet ("VO") relationship on the Internet between an entity that controls and manages a Web site constituting a VO and a merchant that controls and manages a different Web site. The VO presents a series of VO Web pages to customers that contain descriptive information about products from one or more merchants. Customers can link through the VO Web pages directly to a merchant Web page provided to the customer computer by the mer-

114. U.S. Patent No. 6,704,771 (filed Sept. 21, 1999).

115. U.S. Patent No. 6,567,854 (filed Oct. 21, 1999).

116. U.S. Patent No. 6,460,072 (filed Nov. 23, 1999).

chant computer for the purpose of obtaining more detailed information about the product and for ordering the product. When the customer has finished ordering a product, the customer computer returns to a VO Web page. To the customer, it appears that the entire ordering process is conducted entirely within the VO Web pages. The merchant then credits the VO for the sale of the product to the customer, charges the purchase to the customer, and sends the ordered product to the customer.

U.S. Patent No. 6,411,992: Method and apparatus for broadcasting information over a network¹¹⁷

An apparatus and method provides for the scheduling and broadcast of commercials and other information during transmission of multimedia information over a data network. Demographic information is gathered with regards to potential viewers of the broadcast. Through use of this demographic information, during designated commercial breaks during broadcasts of the audio or video information, advertising information can be broadcast to individuals based on the demographic information. The system includes a number of databases which correlate the broadcast schedule with the available commercials for transmission over the data network.

The other eleven patents in our sample from main 709 all are either business method patents on their face, or are found to be so after a closer look at the claims and written descriptions.¹¹⁸

E. Main Class 713 (“Electrical computers and digital processing systems: support”)¹¹⁹

There were 219 post-SPER secondary 705 patents within main 713, from which we drew a random sample of twenty-two. Main 713 is a very broad class covering software that provides support for other software systems and products. Many of those with a secondary 705 classification

117. U.S. Patent No. 6,411,992 (filed May 28, 1999).

118. This statement even includes one patent in our sample that was originally in main 709 (and thus ended up in our data base) but was later reclassified into main 718, retaining its secondary 705 classification. U.S. Patent No. 6,356,928, “Method for partitioning tasks into stateless elements,” filed Oct. 9, 1997). Classification 718 is defined as “Electrical computers and digital processing systems: virtual machine task or process management or task management/control.” See USPTO, Class Definition for Class 718, <http://www.uspto.gov/web/patents/classification/uspc718/defs718.htm> (last visited Feb. 27, 2006).

119. See USPTO, Class Definition for Class 713, <http://www.uspto.gov/web/patents/classification/uspc713/defs713.htm> (last visited Feb. 27, 2006).

claim inventions on security mechanisms for these software systems and products. In our sample of twenty-two, almost one-third (six or seven) cannot be called business method patents under any reasonable definition. Even the patents in this group, however, have clear business applications. One example is U.S. Patent No. 6,742,123, "Apparatus and methods for preventing denial of service attacks,"¹²⁰ a software security system to prevent business and government organizations' servers from being overwhelmed by malicious, mass e-mail messages.

Over half (twelve) of the patents in our sample claim secure means for facilitating business transactions. Three examples follow.

U.S. Patent No. 6,272,636: Digital product execution control and security¹²¹

Digital product execution control as disclosed contemplates production of a final version of a digital product and subsequently imposing execution control on that digital product. The manufacturer of the original digital product need not incorporate execution control features into the final version of the product. Execution control programming attaches to an executable file of the digital product to create a controlled executable file.

The claims and written description in this patent reveal that it covers a secure system, with copy protection, for a "try before you buy" model for selling copyrighted digital products such as applications software programs and is thus a business method.

U.S. Patent No. 6,314,519: Secure messaging system overlay for a selective call signaling system¹²²

A secure messaging system generates a secure financial transaction message. A wireless selective call signaling system controller receives the secure financial transaction message as a selective call message request including a destination identifier. A selective call message processor encapsulates the secure financial transaction message in a selective call message that includes a selective call address corresponding with the destination identifier. A selective call transmission service conveys the selective call message to a financial messaging unit that receives the selective call message, and in response to correlating the selective call address with a selective call address corresponding with the fi-

120. U.S. Patent No. 6,742,123 (filed Sept. 10, 1999).

121. U.S. Patent No. 6,272,636 (filed Apr. 11, 1997).

122. U.S. Patent No. 6,314,519 (filed Dec. 22, 1997). Number references to the drawings in this patent have been deleted from the abstract.

financial messaging unit, recovers the secure financial transaction message to effect a financial transaction.

As indicated by the abstract, this patent covers software that implements an encrypted wireless messaging system for financial information and the execution of financial transactions.

U.S. Patent No. 6,516,416: Subscription access system for use with an untrusted network¹²³

A system and method is disclosed for controlling access to computer resources using an untrusted network. The system preferably uses a hardware key connected to each subscriber client computer and adds software to the subscriber client computer and to the existing server computer. A clearinghouse is provided to store client and server identification data, including demographic data, including URL data, usage data and billing information. The clearinghouse authenticates the subscriber and server computers before an operating session occurs.

The invention claimed in this patent covers software and firmware (software code embedded in a chip) that provide a secure means for subscribing to an information source over the internet (the “untrusted” network). The “information sources” are commercial websites on which the customer can buy music, magazines, subscriptions to various commercial databases, and so on.

Another of the patents covers a secure system for renting software, the preferred embodiment of which is a system for renting postage metering software.¹²⁴ Two of the patents cover “smart cards.” The first of these covers a card (or “electronic wallet” or similar devices) including a tiny integrated circuit configured with software code allowing the storage, manipulation, and retrieval of personal authenticating data for a person making a retail purchase with a check or credit card.¹²⁵ The second of the

123. U.S. Patent No. 6,516,416 (filed June 11, 1997).

124. Secure On-line PC Postage Metering Sys., U.S. Patent No. 6,385,731 (filed Jan. 5, 2001).

125. Integrated Circuit Card with Identity Authentication Table and Authorization Tables Defining Access Rights Based on Boolean Expressions of Authenticated Identities, U.S. Patent No. 6,567,915 (filed Oct. 23, 1998). The patent has “method” claims making it clear that the patent covers software embedded in a chip, i.e., the actual processing of data: independent claims 28, 33, 35, 36, and 48. A patent covers a “software invention” regardless of whether the code carrying out the algorithms for processing data is on a magnetic storage medium (like a hard drive) or embedded in chips (“firmware”). The patent also includes a number of “device” claims on the same invention—these claims cover an integrated circuit chip configured to store and execute software code:

“smart card” patents in the sample covers both a physical card encoded with encrypted personal data or a “virtual card” (software executed from a computer providing encrypted personal data over the internet) to be used in transacting business with entities such as trade show exhibitors, medical care providers, and insurance companies.¹²⁶

Of the remaining main 713 patents that could be classified as covering business methods, several cover software that provides copy protection, access control, or rights management in connection with the purchase of copyright digital products.¹²⁷

Three patents in the sample do not emphasize security but instead provide other types of facilitating support for business transactions. Two of them, both owned by Compaq Computer Corp., cover software used on the internet that enables a customer to input various desired features and requirements for a computer system. On the vendor’s end, the software system recommends configurations of software and hardware components and provides price estimates.¹²⁸ The third patent not emphasizing security covers software that calculates the electric power needs of a utility customer which also produces some of its own electricity,¹²⁹ informs the electric utility of its needs, and generates data for billing purposes.¹³⁰

F. Some Other Main Classifications

The main classes on which we have focused in this section are those that not only have large concentrations of secondary 705 patents but also

independent claims 1, 8, 14, 21, 41. Like the method claims, the device claims include the processing of data by the chip. Finally, the patent includes claims drafted as though they cover a “storage medium”: independent claims 38, 39, 40, and 53. These, too, cover data processing actions. In addition to providing an example of a business method patent in secondary 705, this patent also illustrates how a software invention can be claimed in a number of different ways.

126. Secure Pers. Info. Card Database Sys., U.S. Patent No. 6,523,116 (filed Mar. 5, 1999).

127. *See, e.g.*, Sys. and Method for Regulating the Transmission of Media Data, U.S. Patent No. 6,487,663 (filed Oct. 19, 1998); Copy Prot. Sys. and Method, U.S. Patent No. 6,397,333 (filed Oct. 7, 1998).

128. Configuration Sizer for Determining a Plurality of Price Values and Performance Values for a Plurality of Candidate Sys. Configurations and Displaying Them for User Selection, U.S. Patent No. 6,578,141 (filed Jan. 19, 2001); Configuration Sizer for Selecting Sys. of Computer Components Based on Price/Performance Normalization, U.S. Patent No. 6,192,470 (filed Apr. 27, 2000).

129. Such a utility customer normally will be a manufacturer that produces heat or motion energy as a byproduct of its manufacturing process, such energy being used to power a generator for supplying part of its demand for electricity.

130. Distributed Elec. Power Mgmt. Sys. for Selecting Remote or Local Power Generators, U.S. Patent No. 6,697,951 (filed Apr. 26, 2000).

have experienced large incoming shifts from pre- to post-SPER. However, we encountered little difficulty in locating business method patents in a wide variety of other main classifications. For example, main class 52 is defined as covering “Static Structures (E.G., Buildings).”¹³¹ One is immediately struck by the incongruity of finding a secondary 705 patent in this class at all. In U.S. Patent No. 6,415,555, “System and method for accepting customer orders,”¹³² the first part of the abstract states: “A kiosk system and method is provided for accepting and processing customer orders and payments in a retail environment. The kiosk system and method is particularly applicable to the restaurant business” The claims and written description show that the inventor’s envisioned embodiment is a computer placed in the lobby of a restaurant for customers to select items from a food menu and transmit the order to the kitchen when the restaurant is very busy and the customer would otherwise have a long wait. Apparently, the term “kiosk” led to the assignment of a main 52 classification although this patent covers a software patent for carrying out a business transaction.¹³³

Main class 186 is defined as covering “Merchandising.”¹³⁴ Among our secondary 705 patents, four were in main 186. One of these covered what one would be hard-pressed to call anything other than a software-implemented business method patent. U.S. Patent No. 6,722,473, “Cash dispensing system for merchandise delivery facility,”¹³⁵ covers an integrated cash request, merchandise order, and cash/merchandise pickup sys-

131. See USPTO, Class Definition for Class 52, <http://www.uspto.gov/web/patents/classification/uspc052/defs052.htm> (last visited Mar. 21, 2006).

132. U.S. Patent No. 6,415,555 (filed Apr. 27, 2000).

133. *Id.* The patent also has other data processing secondary classifications in addition to 705, namely, 700, 707, and 715, as well as 235.

134. See USPTO, Class Definition for Class 186, <http://www.uspto.gov/web/patents/classification/uspc186/defs186.htm> (last visited Feb. 27, 2006).

135. U.S. Patent No. 6,722,473 (filed Apr. 17, 2002). Of the other three main 186 patents in our data set, one was a slight variation of the patent cited in the text, having derived from the same original application: Cash Dispensing Method and Sys. for Merchandise Delivery Facility, U.S. Patent No. 6,386,323 (filed Nov. 12, 1999). The other two patents also cover subject matter that could reasonably be characterized as business methods, although they include more non-software elements than the example cited in the text: Elec. Ordering of Goods with Delivery by Automatic Drive-up Storage Device, U.S. Patent No. 6,688,435 (filed Oct. 31, 2001) (covering internet and other software means for facilitating the ordering of retail merchandise, delivery to localized storage containers [because people are so often not at home to take delivery], and pickup by the customer); and Item Pick-up Sys., U.S. Patent No. 6,439,345 (filed May 22, 1996) (covering internet and other software means for facilitating the ordering and pickup or delivery of merchandise at a retailer’s on-site stock room).

tem. The merchandise could be fast-food, gasoline, or anything else amenable to such a system.

Although we could cite examples in many other main classifications, we end with main class 340, defined as “Communications: Electrical” (“This is the residual home for subject matter, not elsewhere classified, relating to communication by means which are in part or in whole electrical.”).¹³⁶ Our data set of secondary 705 patents included ninety-eight in main 340. Although this main class obviously includes a large concentration of secondary 705 patents, a significant number comport with most observers’ notions of the term business method. We did not include it as one of our primary areas of focus because it did not experience dramatic incoming shifts from pre- to post-SPER. One example of a main 340, secondary 705 patent covering a business method is U.S. Patent No. 6,198,391, “Self service sales and security system.”¹³⁷ The system claimed in the patent consists of customer contact and credit information stored on a computer at a retail establishment such as a clothing store. At a location on a rack of merchandise, the customer swipes a smart card identifying the customer and chooses merchandise from a rack. The act of removing the item from the rack triggers the sending of inventory data about the item to the store’s computer, such information being correlated with the customer information. The customer is automatically charged and billed, and the item is automatically removed from the store’s inventory. If the customer’s credit limit has been exceeded, or if the customer tampers with the rack, an alarm sounds.

G. Summary of Findings from Examining Other Main Classifications with Substantial Concentrations of Secondary 705 Patents

By examining a random sample of patents in other main classifications having substantial concentrations of secondary 705 patents, we find many examples of patents that clearly belonged in any knowledgeable observer’s definition of a software-implemented business method patent. We found many others that could easily fall within a more expansive definition that includes business activities further upstream than those such as advertising and selling. Our sample study clearly shows the underinclusiveness of the SPER initiative. Furthermore, many of the examples so obviously belong in main 705 that one is led to wonder whether there may

136. See USPTO, Class Definition for Class 340, <http://www.uspto.gov/web/patents/classification/uspc340/defs340.htm> (last visited Feb. 27, 2006).

137. U.S. Patent No. 6,198,391 (filed Oct. 12, 1998).

be a conscious or unconscious diversion of some applications away from the class subject to SPER.

IX. CONCLUSIONS

A. The SPER Initiative and Our Empirical Findings on its Effects

In response to a large volume of criticism of software-implemented business method patents, the PTO invested substantial resources in the SPER initiative, which, among other things, requires a second-level review of patent applications assigned to main class 705. Based on an internal process metric, the PTO declared the program to be a success and announced plans to expand it to other fields, such as semiconductors, biotechnology, and communications. Because the PTO is supported by user fees, any wasted resources represent a tax on innovation. Thus, it is important to examine the effects of SPER using external objective metrics that serve as a good proxy for patent quality improvement. If available evidence reveals little if any improvement in the apparent quality of these patents, SPER should not be continued, much less expanded. If on the other hand, the SPER initiative has produced significant improvements in the quality of patents within its coverage, further thought must be given to the question of whether expansion is a good idea. This conclusion is true regardless of whether the PTO actually expands the initiative in the near term, because it is important to know whether targeting patent reforms at particular technology fields is a sound approach.

In fact, the SPER initiative produced significant positive effects on the number and type of prior art references cited in main 705 patents, as well as significant positive effects on the number of main 705 patents having at least one of the various types of prior art references. Moreover, the SPER initiative also apparently led to significantly greater incidences of patent examiners themselves adding prior art to applications in main 705, thus probably enhancing the rigor of the examination process.

We are convinced, however, that this success is heavily tempered by several factors. The program is limited, first of all, by the fact that it is devilishly hard to define a business method and to cabin it within a particular patent classification. In previous research, we found that business method patents were located within several classifications other than 705. Thus, by focusing only on patents within class 705, the program is underinclusive. The initiative is also underinclusive by applying only to main 705 patents and not to secondary 705 patents. Moreover, the PTO's classification system itself is inadequate for the purpose because it makes distinctions based on very specific functions at low levels of abstraction. It

was designed as an aid to prior-art searching and not for the purpose of singling out an entire field of technology for different treatment.¹³⁸

Furthermore, an effort to define or classify patent applications for the purpose of treating them in a substantially different way invites gamesmanship. Previously, attorneys strategically drafted software patents to make them appear to be something else (such as hardware) when there was still doubt about the patentability of software; consequently, it was highly likely that the SPER initiative would likewise lead to strategic drafting to avoid SPER.¹³⁹ Although we remain convinced that diversionary drafting to avoid the second-level review of main 705 has been occurring, it is too early for us to establish the proposition empirically because there are not yet large enough numbers of post-SPER 705 patents the applications for which were also filed after the advent of SPER. Something unusual has been going on, however. We have empirically shown striking shifts of patents from main 705 to other main classifications having secondary 705 classifications. We believe that these shifts reveal much more than just a diminution in the total number of patents in main 705. The SPER initiative consumes substantial PTO resources. Additional examiners have been hired, but examiner time is nonetheless zero-sum. For every hour spent reviewing an application a second time, less time is available to review other applications either a first or a second time. Examiners have production quotas, which necessarily makes them time-conscious and, in general, they simply do not have ample time to adequately examine all of the applications that come across their desks.¹⁴⁰ We believe that the evidence suggests, at a minimum, an unconscious bias in the PTO against placing an application in Main 705.¹⁴¹

138. Although the International Patent Classification (IPC) system is generally viewed as better designed than the PTO classification system, IPC's are designed for the same purpose as PTO classes, operate in the same basic way, and are likewise unsuitable for carving out particular technology areas for different treatment.

139. Even if there were no other reason to avoid SPER, getting the applicant's patent issued faster is probably enough reason to avoid it.

140. See, e.g., Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. Rev. 1495, 1496 n.3, 1500 n.19 (2001) (discussing both the limited time that examiners have to examine applications and the incentives they have to favor quantity over quality in allowing applications).

141. The Office of Initial Patent Examination first suggests a classification for a patent application and sends it to the Technology Center (also referred to as the "examining group" or "art unit") to which it thinks it may belong, and supervisory examiners or other designated examiners within that group then make the final assignment of classifications and decide whether the application belongs in their group or a different one. See *supra* note 17.

We identified patents in those main classifications that experienced dramatic post-SPER increases in the presence of secondary 705 patents. A random sample of approximately 10% of these patents revealed that large percentages of them can reasonably be characterized as covering software-implemented business methods. We presented examples of these, as well as several examples of business method patents from three of the many other main classifications having patents with secondary 705 classifications. Meaningful numbers of these patents cover business methods. Thus, the SPER initiative possesses deeply embedded deficiencies despite its success in the limited domain in which it operates.

B. The Soundness of Targeting Patent Quality Reform at Specific Technology Areas

What we view as underinclusiveness and probable gaming in the business method SPER program naturally raises the question whether such problems would necessarily attend such a program applied to other areas of technology. The PTO announced a plan to expand SPER to other areas where there have been relatively large numbers of examination reopenings ordered by the Office of Patent Quality Review, such as semiconductors, communications, and biotechnology.¹⁴² There was no indication of how these areas were to be defined.

Problems with definitions and patent classifications will be confronted in each of the above-mentioned areas in which the PTO has announced expansion plans. One attempting to define “semiconductors” or to use patent classifications for the purpose of identifying them will face a daunting task. Would a SPER-like program be applied only to patent applications that include the term semiconductor in the patent claims? If so, it would overlook applications in which the term “integrated circuit” is used instead of the term “semiconductor.” Indeed, such a program applied to patent applications using either of these terms in the claims would also capture many applications covering inventions in which a semiconductor device is not part of the invention itself, but that is used in connection with such a device. Would a SPER-like program be applied to machines and methods used in the fabrication of semiconductor devices? The fabrication of semiconductors involves a variety of technologies, including optics, chemistry, software, and mechanics. Thus, the term “semiconductors” applies more to an industry than it does to any particular technology field. Just as it would be practically impossible to define the subject matter of such a program, it

142. See SPER EXPANSION, *supra* note 25.

also would be very difficult to identify subject matter by using PTO classifications.

The term “biotechnology” likewise describes an industry more than it does a particular technology. It may be somewhat more feasible to single out some kinds of patents in the biotechnology industry for differential treatment than those in most other fields because patents on genetic engineering processes and products are likely to be more difficult to disguise than most others. To avoid underinclusiveness, strategic claim drafting, and possible bias in the PTO’s assignment of patents to a category that would be subjected to greater scrutiny, however, a SPER-like program in biotechnology would have to be very narrowly drawn. For example, if the primary quality problems lie in gene patents, as is likely to be the case, then a program applicable only to patents with DNA in the claims might work relatively well because it would be much more difficult to disguise the subject matter by strategic drafting, and there would be less subjectivity in identifying the subject matter for assignment to a SPER-like program.

With respect to “communications” patents, the category is so broad that any SPER-like program simply could not work unless very specific technologies were identified within the communications industry. A great many different technologies are used in communications, including traditional electronic circuitry, software, optics (light waves carrying data), many different types of mechanical hardware, and so on. Unlike biotechnology patents, it is hard to envision a particular field that might be singled out with the specificity necessary to avoid the problems encountered by the business method SPER initiative.

One trying to identify other “fields” for more rigid treatment in the examination process will encounter the same problems. To have any chance of avoiding these problems, any other category would have to be very narrowly circumscribed and would need to focus on the claims. The business method SPER program did not focus on the claims, and we are unsure how effective the PTO would be in singling out applications based on claim language. And, needless to say, we are persuaded that the classification system is not amenable to use for such a purpose.

An additional problem is that many inventions can be claimed in several different ways. When there was doubt about the patentability of software, many patent claims on software were drafted as though the subject matter was a machine or apparatus.¹⁴³ In various areas of technology, one

143. See *supra* note 125 (illustrating a software patent with claims on methods, devices, and storage media, all covering the same invention).

can claim the same invention as a machine, device, method, or a means for accomplishing particular functions. The type of claim format used can affect the language used in the claims. In the end, the real problem with singling out any particular subject matter for differential treatment in examination may result from the fact that patents are really about language more than they are about technology. Language often is not just slippery, but frustratingly elusive.

In summary, problems with patent quality are systemic rather than localized. Not only does the PTO issue substantial numbers of low quality patents in practically all fields, but it issues many patents across all technology fields that are subsequently invalidated in litigation.¹⁴⁴ Our study of the SPER program for business method patents demonstrates the existence of virtually inevitable deficiencies that will characterize any similar technology-targeted approach. Problems with patent quality result from more fundamental problems that require reforms aimed at increasing overall patent quality.¹⁴⁵

144. See, e.g., Allison & Lemley, *supra* note 10, at 194, 205-06 (finding that, of all litigated patents leading to final written decisions on validity or invalidity during 1989-96, 46% were found by a court to be invalid).

145. See generally ADAM B. JAFFE & JOSH LERNER, A BALANCED PROPOSAL INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT (2004); Joseph Farrell & Robert P. Merges, *Implementing Reform of The Patent System: Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943 (2004); Bronwyn H. Hall & Dietmar Harhoff, *Implementing Reform of The Patent System: Post-Grant Reviews in the U.S. Patent System - Design Choices and Expected Impact*, 19 BERKELEY TECH. L.J. 989 (2004).

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THE FUTURE OF MUSIC AND FILM PIRACY IN CHINA

By *Eric Priest*[†]

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[†] Research Fellow, Berkman Center for Internet & Society, Harvard Law School. LL.M., Harvard Law School, 2005; J.D., Chicago-Kent College of Law, 2002. I would like to thank Professor William Fisher III for his guidance and for inspiring this article through his vision of an alternative compensation system that enables the internet to bring us closer to copyright's original promise. I would also like to thank Professor William Alford for his support, encouragement, and advice throughout this project. I am especially grateful for the generous financial support I received from the Berkman Center for Internet & Society at Harvard Law School, which enabled me to conduct field research in China that formed the foundation of this study. I also wish to thank the following people (in no particular order), without whose help this article simply would not have been possible: John Palfrey, Chao Yanhua, Sun Yuning, Yun Xuan, He Wen, Wei Guihong, Tian Xiao An, Wang Jun, Dai Ping, He Miao, Amy Xu, my parents, Jim and Ilka Priest, and my parents-in-law, Lu Hong and Chen Zhenhan. This article is dedicated to my wife, Wei Chen, whose love, support, assistance, and sense of humor made this process easy.

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I. INTRODUCTION

Piracy, whether physical or in cyberspace, is the single greatest threat to the world's entertainment industries. And no country contributes more to the piracy problem, or will play a more critical role in shaping the future of international piracy, for better or worse, than China. Any realistic

solution to the international piracy problem must include a solution to the problem in China.

Anyone who doubts the importance of intellectual property protection in China to U.S. industries need look no further than a February 2005 issue of *Business Week*, where China was mentioned twice on the cover alone in connection with a feature on the growing international piracy and counterfeiting epidemic.¹ That article identifies China as the world's major intellectual property infringement culprit, stating that "China accounts for nearly two-thirds of counterfeit goods"—goods including movie DVDs and music CDs, prescription drugs, Budweiser beer, designer handbags, motorcycles, and elevators—on the estimated \$512 billion worldwide counterfeit market.² Exasperated over what it perceives as the Chinese government's lack of adequate intellectual property enforcement, the International Intellectual Property Alliance ("IIPA"), which represents the interests of U.S. copyright owners, wrote to the U.S. Trade Representative in October 2004, complaining that "China can no longer excuse its failure to lower piracy rates to below 90%, among the highest rates in the world."³

The reported copyright piracy levels in China are alarming. According to copyright industry estimates, more than 90% of all music CDs, movie DVDs, and software sold in China are pirated.⁴ Recent estimates of U.S. losses due to piracy in China range from about \$1.85 to \$2.54 billion annually in displaced sales of CDs, DVDs, VCDs (video compact discs), and software.⁵ Many pirated and counterfeit products make their way back into

1. Frederik Balfour, *Counterfeiting's Rise*, *BUS. WK.*, Feb. 7, 2005, at 54. The cover of the issue reads: "Fakes! The global counterfeit business is out of control, targeting everything from computer chips to life-saving medicines. It's so bad that even China may need to crack down." Beneath a pair of nearly identical motorcycles pictured on the cover are the words: "One of these Honda CG125 motorcycles is a Chinese knockoff."

2. *Id.* at 56.

3. INT'L INTELLECTUAL PROP. ALLIANCE, 2004 SPECIAL 301 REPORT: PEOPLE'S REPUBLIC OF CHINA 31-32 (2004) [hereinafter IIPA, 2004 REPORT].

4. Letter from Thomas M.T. Niles, President, U.S. Council for Int'l Bus., and Clarence T. Kwan, Chairman, China Subcomm., U.S. Council for Int'l Bus., to Gloria Blue, Executive Sec'y, Trade Policy Staff Comm., Office of the U.S. Trade Representative (Sept. 10, 2003) ("Pirated optical media products, CD, VCD and DVD, and counterfeit goods continue to be a major problem [in China], and the piracy rate for optical media products and business software is well in excess of 90%."); see also IIPA, 2004 REPORT, *supra* note 3, at 33.

5. See *A Growing Problem with Links to Organized Crime and Terrorism: Hearing on Int'l Copyright Piracy Before the Subcomm. on Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary*, 108th Cong. 12 (2003) (statement of Rep. Howard L. Berman, member, Subcomm. on Courts, the Internet, and Intellectual Prop.) (plac-

Western markets. About 75% of counterfeit goods seized at U.S. borders originate in China⁶—a significant number considering the U.S. counterfeit market in 2003 was estimated at \$286.8 billion.⁷

Although the loudest complaints about the state of copyright enforcement in China historically come from foreign copyright owners, China's own entertainment industries have arguably suffered the most from rampant piracy. For example, the IIPA reports that in 2003, domestic Chinese music companies lost \$286 million due to piracy.⁸ Since 1998, total estimated losses to copyright piracy in China (including software and books) have generally hovered around \$2 billion or higher annually.⁹ Piracy is certainly a factor in the Chinese music and film industries' comparatively low sales revenue. Although China's population is the world's largest, China only accounted for 0.6% of the world market for music sold on a physical format (CDs, cassettes, etc.) in 2003, while the United States and England combined accounted for nearly 50% of the world's sales.¹⁰ By Chinese movie industry standards, 2005 was a strong year with total box office revenue of \$248 million, but that total equaled less than 3% of total U.S. box office receipts in 2005.¹¹ Many factors other than piracy contribute to the Chinese movie and music industries' low revenue figures,¹² and

ing the "aggregate hard-good piracy losses suffered by U.S. copyright industries" in China at \$1.85 billion); *see also* IIPA, 2004 REPORT, *supra* note 3, at 33 (placing the "trade losses due to piracy" of motion pictures, records and music, and business and entertainment software applications at approximately \$2.54 billion).

6. Jonathan Ansfield, *Lessons of Pirate Row: Beijing's Aggressive Defense of Its Cherished Olympic Logo Shows It Can Stop Counterfeiters, if It Wants to*, NEWSWEEK INT'L, Jan. 10, 2005, at 45.

7. CITY OF NEW YORK OFFICE OF THE COMPTROLLER, *BOOTLEG BILLIONS: THE IMPACT OF THE COUNTERFEIT GOODS TRADE ON NEW YORK CITY* 4 (2004).

8. IIPA, 2004 REPORT, *supra* note 3, at 35.

9. *See id.* at 33 (finding that estimated losses dipped to slightly over \$1 billion in 2000, but jumped to slightly under \$2 billion in 2001, and have remained in that range or higher since).

10. Press Release, IFPI, *Global Music Sales Fall by 7.6% in 2003—Some Positive Signs in 2004* (Apr. 7, 2004), <http://www.ifpi.org/site-content/statistics/worldsales.html> (placing 2003 world retail music sales total at \$32 billion and stating that the U.S. and U.K. music markets combined represented 47% of the total world market); *see also* IFPI, *THE RECORDING INDUSTRY COMMERCIAL PIRACY REPORT 2004*, at 8 (2005) [hereinafter IFPI, *COMMERCIAL PIRACY REPORT 2004*] (reporting that, in 2003, China's legitimate music market was valued at \$198 million—0.6% of the total world sales value).

11. Box Office Mojo, *Yearly Box Office*, <http://www.boxofficemojo.com/yearly/> (last visited Apr. 12, 2006) (listing total U.S. box office revenue for 2005 at nearly \$9 billion).

12. *See* Jeroen De Kloet, *Rock in a Hard Place*, in *MEDIA IN CHINA: CONSUMPTION, CONTENT AND CRISIS* 96-97 (Stephanie Hemelryk Donald et al. eds., 2002) (discussing

losses to piracy reported by both U.S. and Chinese copyright industries are probably, if not certainly, exaggerated.¹³ Nevertheless, Chinese piracy is a serious problem for copyright owners in China and throughout the world.¹⁴

As disheartening as the numbers are for the Chinese music and motion picture industries, the situation is about to become even worse. The estimated losses above contemplate only piracy of physical copies; they do not include losses from the thousands of websites and numerous peer-to-peer file-sharing networks that make copyrighted works available for free to internet users in China.¹⁵ With the Chinese economy thriving and a national emphasis on technological development,¹⁶ China now boasts the second-highest number of internet users in the world.¹⁷ This number is increasing by 27% annually, and by January 2006 had reached approxi-

how the overall low rate of music consumption in China and the structure of the music industry, which is still largely controlled by the state, contribute to the music industry's problems); *see also* Yingchi Chu, *The Consumption of Cinema in Contemporary China*, in *MEDIA IN CHINA: CONSUMPTION, CONTENT AND CRISIS* 48-50 (Stephanie Hemelryk Donald et al. eds., 2002) (arguing that the structure of the film industry in China has contributed significantly to its problems).

13. IIPA member associations base estimates of losses to piracy on a "displaced sales methodology." IIPA, 2004 REPORT, *supra* note 3, at 33 n.2. For pirated music and movie CDs and DVDs in China, IIPA member organizations essentially consider all pirated copies sold as "displaced sales," that is, each copy sold by pirates would have been a legitimate copy sold but for the availability of pirated copies. *See id.* app. B (discussing methodology of IIPA estimates). The IIPA claims that because it is "impossible to gauge losses for every form of piracy, we believe that our reported estimates for 2003 actually underestimate the losses due to piracy . . ." *Id.* app. B, at 1. It is, of course, doubtful that every CD, cassette, DVD, or VCD sold by pirates in China would have been a legitimate sale at list price—typically several times higher than the price of the pirated product. Thus, actual displaced sales probably are far lower than industry estimates. In any event, as Lawrence Lessig points out, even if there is little or no actual economic harm to these industries at all, that is nevertheless a poor justification for piracy. LAWRENCE LESSIG, *FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY* 64 (2004).

14. *See generally* Peter K. Yu, *From Pirates to Partners: Protecting Intellectual Property in China in the Twenty-First Century*, 50 AM. U. L. REV. 131 (2000) (describing long-standing tensions between the U.S. and China over intellectual property protection).

15. *See* IIPA, 2004 REPORT, *supra* note 3, app. B, at 1 (describing the methodology used for estimating losses due to piracy, with no indication that internet downloading or file sharing figures factor into the methodology).

16. *See infra* note 246.

17. *Netizens Number over 90 million in China*, PEOPLE'S DAILY ONLINE, Dec. 23, 2004, http://english.people.com.cn/200502/27/eng20050227_174879.html (last visited Apr. 12, 2006).

mately 110 million users.¹⁸ In 2004, “MP3” and “BT” (short for “BitTorrent”) were the first and fifth most popular search terms, respectively, on Baidu.com, China’s largest internet search engine,¹⁹ with searches for downloadable music accounting for 20% of Baidu’s total traffic.²⁰ The IIPA believes that millions of Chinese users already trade copyrighted material online, either through peer-to-peer networks or FTP servers.²¹ This behavior appears particularly concentrated on college campuses, with a potent combination of poor students and readily accessible high-speed internet access. Anecdotally, according to one recent graduate of a Beijing law school, students at her school use university-hosted servers to store and share their music and movie collections with classmates. During her senior year, she claimed, it seemed as if no one was studying because they spent so much time watching movies they downloaded from the server to their PCs.²²

18. See Jiang Yaping, *Investing in China’s Internet Industry: Opportunities and Competition*, PEOPLE’S DAILY ONLINE, Feb. 27, 2005, http://english.people.com.cn/200502/27/eng20050227_174879.html (last visited Apr. 12, 2006) (noting an annual 27% internet-user growth rate); see also CHINA INTERNET NETWORK INFORMATION CTR. (CNNIC), 17TH STATISTICAL SURVEY REPORT ON THE INTERNET DEVELOPMENT IN CHINA 4 (Jan. 2006).

19. *2004 Top Chinese Search Results*, SINOSPLICE, Jan. 5, 2005, <http://www.sinosplice.com/weblog/archives/2005/01/05/2004s-top-chinese-search-results> (last visited Apr. 12, 2006) (original results published in Chinese at <http://www.baidu.com/2004/index.html#is>). BitTorrent is a peer-to-peer and file distribution tool. BitTorrent technology, which is available for free under an open-source software license, allows for easier and more efficient downloading of large files on the internet, thus it has become the method of choice for sharing movies and television shows online. See BitTorrent, WIKIPEDIA: THE FREE ENCYCLOPEDIA, <http://en.wikipedia.org/w/index.php?title=BitTorrent&oldid=44973529> (last visited Mar. 22, 2006).

20. Sherman So, *More IP Suits Await Baidu after NASDAQ*, THE STANDARD, Aug. 3, 2005, <http://www.thestandard.com.hk/stdn/std/Business/GH03Ae08.html> (last visited Apr. 14, 2006).

21. See IIPA, 2004 REPORT, *supra* note 3, at 37.

22. Some of the information used in this Article was obtained from numerous interviews I conducted in Shanghai and Beijing between December 2004 and January 2005. All of those interviewed are connected with the entertainment industry or copyright protection in China. Interviewees included government officials, intellectual property lawyers, an appellate court judge specializing in intellectual property cases, law professors, music producers, a television producer, a publicist, an agent, professional songwriters, and music industry executives. Because of the political sensitivity of some information discussed, some interviewees asked that their names not be used. To ensure anonymity of all the interviewees, therefore, I have decided not to include any names when quoting or paraphrasing the interviewees’ responses. All of these interviews are on file with the author, although the names of the participants have been redacted.

China is caught between two eras in the development of copyright protection: while it struggles to defeat what one might call “twentieth-century piracy” (that is, the unauthorized copying and selling of DVDs, VCDs, and CDs, also referred to herein as “traditional piracy”), it finds itself careening toward the growing threat of “twenty-first century piracy,”²³ (that is, internet file-sharing, or “internet piracy,” which threatens to overtake physical piracy in value of goods “stolen”). The Chinese government has myriad social and economic worries with which to contend²⁴ and therefore—much to the chagrin and sometimes denial of Western intellectual property owners—has limited resources with which to fight piracy. The Chinese government faces critical questions at this crossroads: Should it allocate the bulk of its enforcement resources to traditional piracy, where the problem is currently at its worst, and address internet piracy enforcement as that problem increases in the future? Or should Chinese authorities attempt to pursue internet piracy now, recognizing that in the future it is sure to become the bigger problem? To what extent should China fear the internet as a new medium for the distribution of pirated works and to what extent does the internet present new opportunities for combating piracy? Is China obliged to strive for levels of copyright protection found in developed Western nations or is China in fact already at the cutting edge of the twenty-first century entertainment business model?²⁵

23. The term “piracy” is used here merely as shorthand for unauthorized copying, recognizing that the term has negative implications that may not be applicable in all cases. *See, e.g.*, LESSIG, *supra* note 13, at 62-79. Lessig, for example, observes that only some of the massive quantity of internet file sharing involves infringement and that “even among the part that is technically copyright infringement, calculating the actual harm to copyright owners is more complicated than one might think.” *Id.* at 67. He cautions: “So consider—a bit more carefully than the polarized voices around this debate usually do—the kinds of sharing that file sharing enables, and the kinds of harm that it entails.” *Id.*

24. As important an issue as intellectual property protection has become, it pales in comparison to other grave challenges facing the Chinese government. These include a potentially devastating AIDS epidemic, an unemployment rate that some experts estimate is as high as 23%, a rapidly widening rural-urban income and education gulf, and excessive pollution resulting in serious environmental damage and public health problems. *See, e.g.*, MINISTRY OF HEALTH, PEOPLE’S REPUBLIC OF CHINA, JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS, AND WORLD HEALTH ORGANIZATION, 2005 UPDATE ON THE HIV/AIDS EPIDEMIC AND RESPONSE IN CHINA (2005); Joseph Kahn, *China’s Elite Learn to Flaunt It While the New Landless Weep*, N.Y. TIMES, Dec. 25, 2004, at A1; Charles Wolf, Jr., *China’s Rising Unemployment Challenge*, ASIAN WALL ST. J., July 7, 2004, available at <http://www.rand.org/commentary/070704AWSJ.html>; Jim Yardley, *Rivers Run Black, and Chinese Die of Cancer*, N.Y. TIMES, Sept. 12, 2004, at 1.

25. A USA Today technology columnist argues that circumstances in China have begun to light the path for the future of the music industry worldwide. Kevin Maney, *If Pirating Grows, It May Not Be the End of Music World*, USA TODAY, May 3, 2005, at

This Article contemplates what the future holds for the protection of audiovisual works in China. It is meant to provide cultural and historical context to the copyright piracy problem in China and, with that context in mind, realistically assess three policy options the Chinese government might employ to defeat piracy in the internet age while promoting vibrant domestic music and film industries. To that end, Part II gives a brief historical and cultural account of the rise of piracy in China, then reviews early developments in Chinese copyright law from the beginning of the twentieth century through the late 1970s. Part III discusses the present legal framework in China for protecting copyright and considers the goals of Chinese copyright law. Part IV considers the road ahead for China in its fight against piracy, examining three major legal and policy directions for addressing the piracy problem in the future: (1) cracking down hard on piracy; (2) staying the present course; and (3) adopting a tax-funded, internet-based alternative compensation system for sharing music and movies online as an innovative solution to China's piracy problem in the internet age. This third option could provide the optimal balance between the objectives of Chinese consumers (more entertainment at a lower price), copyright owners (fair compensation), and the Chinese government (cultural enrichment and reduction of internet and physical piracy).

II. CHINESE PIRACY IN HISTORICAL PERSPECTIVE

No notion of intellectual property, or the corollary notion of copyright piracy, ever developed indigenously in China. These concepts were not introduced until the late nineteenth century, when, in the words of William Alford, Western powers did so "at gunpoint."²⁶ China's historical lack of an intellectual property culture can be attributed in part to an economic system that stressed agriculture and deemphasized commerce. Imperial China was a mostly illiterate, rural agrarian society²⁷ in which the "de-

B3, available at http://www.usatoday.com/tech/columnist/kevinmaney/2005-05-03-music-piracy-china_x.htm. Chinese artists "have to regard CDs as essentially promotional tools, not as end products." *Id.* He cites an example of a popular rock band that relies primarily on concert revenue, endorsement deals, and appearances in television commercials for income. *Id.* Their theory is, "if people hear and like [the band's] songs on pirated CDs, at least they'll be more likely to come to the concerts and buy what the duo endorses. It's possible that this is the future of the global music industry." *Id.* The author concludes: "And even though that sounds dire for music and musicians, surprisingly it might not be." *Id.*

26. WILLIAM P. ALFORD, TO STEAL A BOOK IS AN ELEGANT OFFENSE: INTELLECTUAL PROPERTY LAW IN CHINESE CIVILIZATION 12-13, 30 (1995).

27. SANQIANG QU, COPYRIGHT IN CHINA 4, 9 (2002) (arguing that since approximately 500 B.C., nearly every dynasty espoused the policy of stressing agriculture and

mand . . . for cultural consumption and intellectual creation was relatively low.”²⁸ That is not to say China lacked a rich literary and technologically advanced culture. On the contrary, historically, China was among the world’s most culturally and technologically advanced civilizations, at least through the twelfth century.²⁹ But the creation and consumption of literary works was limited to a relatively small class of educated elites,³⁰ so there was little need to develop inexpensive mass production technologies and distribution systems for creative works.³¹ Accordingly, unauthorized copying did not occur on the kind of broad scale one would expect to precipitate the development of a home-grown intellectual property regime. Perhaps more importantly, Confucianism, the elaborate moral code that permeated social and political life in imperial China for two millennia, was in many ways antithetical to the values of economic and moral rights that underlie copyright.³²

As there was no indigenous Chinese notion of copyright, unauthorized copying was not recognized as a legal wrong in China until Western pow-

deemphasizing commerce); *see also* SUSAN NAQUIN & EVELYN S. RAWSKI, CHINESE SOCIETY IN THE EIGHTEENTH CENTURY 97-98 (1987).

28. QU, *supra* note 27, at 5.

29. *See* ALFORD, *supra* note 26, at 19.

30. QU, *supra* note 27, at 9.

31. *See* ALFORD, *supra* note 26, at 19.

32. In the Confucian conception, law was an instrument for maintaining social order and protecting state interests, and did not involve Western-style individual rights that one could enforce against others or the state. *See* DANIEL C.K. CHOW, THE LEGAL SYSTEM OF THE PEOPLE’S REPUBLIC OF CHINA 46-47 (2003). The notion of a right in intellectual property would have been all the more inconceivable since artistic works were considered a part of the common heritage of all Chinese. *See id.* at 46, 411. Confucianism placed tremendous emphasis on looking to the past for moral guidance and cultural constancy; thus art in imperial China stressed allusion and continuity over inventiveness. *See* ALFORD, *supra* note 26, at 25-26. A Western notion of copyright would have seemed utterly unnecessary and obtrusive in a society that prized mastery of the past over novelty. Indeed, as several scholars wrote, the “notion that creative and inventive accomplishments could be the subject of individual property rights was not simply foreign to their mode of thinking, but was essentially beyond the scope of their mental picture of the world.” John R. Allison & Lianlian Lin, *The Evolution of Chinese Attitudes toward Property Rights in Invention and Discovery*, 20 U. PA. J. INT’L ECON. L. 735, 744 (1999). Further, employing financial incentives to stimulate creative expression—a central tenet in most Western conceptions of intellectual property—would have met with disdain in imperial China. There was reason to downplay economic interests in creative works: engaging in creative expression was to be an exercise in moral refinement and edification, and was ideally not to be sullied by commerce, which Confucianism disparaged for causing people to eschew their moral development in favor of immediate financial gain. *See* ALFORD, *supra* note 26, at 27-29.

ers introduced the concept in the late nineteenth century.³³ Before the Opium War (1839-1842), foreign powers in China were not concerned with the lack of intellectual property protection because there was little foreign investment there and the chief early Western exports to China were unbranded, bulk commodities, not technological innovations or creative works.³⁴ In the late nineteenth century, however, some Chinese producers began to imitate foreign brands, largely to avoid paying a tax levied only on domestic goods and to capitalize on the increasing popularity of foreign imports as well as the more lenient treatment local officials often gave to foreign merchants.³⁵ By the first quarter of the twentieth century, piracy of written works became a serious problem for foreign and Chinese authors as printing technologies improved and literacy rates increased.³⁶ Thus began a century of endeavoring to curb widespread piracy in China by establishing copyright through formal laws or state policies, despite the absence of historical, cultural, and legal conditions conducive to effective copyright enforcement.³⁷

When the People's Republic of China (PRC) was established by the Communist Party in 1949, it inherited a war-ravaged nation desperately in need of technology and intellectual output and, therefore, rapidly issued a series of pronouncements concerning publication and author remuneration policies intended to stimulate creation and reassure intellectuals that their rights would be safeguarded.³⁸ The pronouncements articulated general

33. ALFORD, *supra* note 26, at 34.

34. *Id.* at 33-34.

35. *Id.* at 33.

36. *Id.* at 42-43.

37. *Id.* at 30-55. The first official documents in China concerning intellectual property protection appeared in the early twentieth century, when the Qing government concluded a series of bilateral agreements on the subject with Japan, England, and the United States. *See id.* at 36-38; QU, *supra* note 27, at 21. In 1910, two centuries after copyright began developing in the West, China promulgated its first copyright law. Bryan Bachner, *Intellectual Property Law*, in INTRODUCTION TO CHINESE LAW 439, 440 (Chenguang Wang & Xianchu Zhang eds., 1997). The nearly four decades between the fall of the Qing dynasty in 1911 and the founding of the People's Republic of China (PRC) in 1949 saw the rapid growth of piracy and, consequently, further efforts to stem the tide through the establishment of modern copyright laws. Most notably, in 1928 the Nationalist Guomindang government of Dr. Sun Yatsen promulgated its "Authors' Rights" law, which drew heavily from German and Japanese law. The 1910 and 1928 laws ultimately proved ineffective because China was continually fraught with political and social upheaval, and because "these laws . . . presumed a legal structure, and indeed, a legal consciousness, that did not then exist in China and, most likely, could not have flourished there at that time." ALFORD, *supra* note 26, at 53.

38. *See* ALFORD, *supra* note 26, at 59-60; *see also* Bachner, *supra* note 37, at 441-42.

principles concerning the need to respect the rights of authors and publishers, and focused on safeguarding the author's right to remuneration.³⁹ Nevertheless, book piracy remained commonplace, even perpetrated by official state-owned publishers or bookstores.⁴⁰ Authors typically had few options for redress when others copied their works without permission. Then, during the political and social upheaval of the Cultural Revolution (1966-1976), the intellectual environment and production of creative works severely atrophied as a result of oppressive policies that fostered anti-intellectualism and all but decimated the entire legal system, including all previous policies and regulations concerning authors' rights.⁴¹ Piracy effectively became the official state policy. New and existing works deemed appropriate for publication were published freely and without restriction as all copyrighted works were considered property of the state; authors lost all economic and moral rights in their works, save the right to earn a base salary.⁴² The total disregard for intellectual property rights during that period is apparent in an oft-cited popular maxim of the day: "Is it necessary for a steel worker to put his name on a steel ingot that he produces in the course of his duty? If not, why should a member of the intelligentsia enjoy the privileges of putting his name on his intellectual product?"⁴³

When China emerged from the Cultural Revolution, the new President Deng Xiaoping and a new generation of leaders realized that it needed to modernize and open itself both economically and culturally to the world.⁴⁴ They realized that intellectual property law would be essential to attract foreign investment and rebuild a technological and cultural base that had lost ten crucial years.⁴⁵ However, the nation lacked any semblance of a functioning legal system, not to mention an intellectual property regime.⁴⁶ Thus, faced with rampant piracy, no intellectual property laws, and a cultural history that was at best inhospitable to the development of intellectual property norms, the Chinese leadership set about the colossal undertaking of attempting to reshape China once again. These attempts are still very much a work in progress. China has enjoyed unprecedented economic growth, yet it still struggles with massive social, institutional, and

39. See QU, *supra* note 27, at 64.

40. See Bachner, *supra* note 37, at 442; see also ALFORD, *supra* note 26, at 61.

41. See Bachner, *supra* note 37, at 443.

42. See *id.*

43. *Id.* (quoting a popular saying from the Cultural Revolution).

44. ALFORD, *supra* note 26, at 65-66.

45. *Id.*

46. *Id.*

economic challenges.⁴⁷ On the intellectual property front, as discussed in Part III, China has made significant strides in developing its laws, but most of the progress has been formal rather than substantive and is often instigated by pressure from the international community rather than from within. Indeed, with improved economic and technological conditions, the Chinese appetite for pirated products has never been stronger. Consequently, nearly thirty years after its initial steps to modernize its intellectual property laws, China is now home to the largest piracy problem in human history⁴⁸ while teetering on the precipice of an internet piracy epidemic.

III. CONFRONTING PIRACY THROUGH LAW

Before examining why these difficulties in establishing an effective anti-piracy regime persist and analyzing China's options for addressing music and film piracy in the internet age, it is useful to understand China's modern anti-piracy legal framework, including recent efforts to regulate internet file sharing. This Part, therefore, introduces the major elements of copyright and criminal laws at the heart of China's efforts to confront piracy. First, I discuss the development and major provisions of the copyright law since 1978. Second, I explain the criminal law provisions and penalties related to copyright infringement. Third, I introduce the bifurcated enforcement system of pursuing copyright claims through administrative proceedings and/or the courts. And lastly, in order to provide some criteria for evaluating the normative desirability of the policy directions explored in Part IV, I briefly consider the policies that Chinese copyright law seeks to advance.

A. The Development of Copyright Law in China after 1978

In the late 1970s, China began formulating an intellectual property strategy to help facilitate its newly adopted open-door economic policy. Hoping to stimulate imports of foreign technology and international investment in the wake of the legal and cultural abyss of the Cultural Revolution, China in 1979 signed the Agreement on Trade Relations Between the United States of America and the PRC.⁴⁹ China agreed to "seek to en-

47. See *supra* note 24.

48. See *60 Minutes II: The World's Greatest Fakes* (CBS television broadcast Jan. 28, 2004) (transcript available at <http://www.cbsnews.com/stories/2004/01/26/60II/main595875.shtml>) (quoting Professor Daniel C.K. Chow, "We have never seen a problem of this size and magnitude in world history. There's more counterfeiting going on in China now than we've ever seen anywhere.").

49. Agreement on Trade Relations, U.S.- P.R.C., Jul. 7, 1979, 31 U.S.T. 4651.

sure” the protection of U.S. citizens’ intellectual property, including copyrights.⁵⁰ China joined the World Intellectual Property Organization (WIPO) the following year.⁵¹ The PRC’s Constitution, first promulgated in 1982 and most recently amended in 2004, does not expressly mention intellectual property rights. It does, however, recognize citizens’ “inviolable” right to own private property⁵² and their “freedom to engage in scientific research, literary and artistic creation and other cultural pursuits.” Further, it provides that the state “encourages and assists creative endeavors conducive to the interests of the people that are made by citizens engaged in education, science, technology, literature, art, and other cultural work.”⁵³

When China signed the 1979 trade agreement with the U.S., copyright piracy in China was commonplace.⁵⁴ In the absence of copyright laws, publishers openly sold duplicates of original works without fear of repercussion.⁵⁵ Aware that there was no legal recourse against copyists, some authors simply chose not to publish their works at all.⁵⁶ Driven by concern for the development of Chinese industry as well as by pressure from foreign governments to protect their nationals’ works, the Chinese govern-

50. See QU, *supra* note 27, at 42-43.

51. WIPO, Treaties Database Contracting Parties, http://www.wipo.int/treaties/en/ShowResults.jsp?search_what=C&country_id=38C (last visited Mar. 10, 2006) (showing that China joined WIPO convention on June 3, 1980).

52. XIAN FA art.13 (1982) (P.R.C.), *translated at* http://www.oefre.unibe.ch/law/icl/ch00000_.html (last visited Apr. 13, 2006).

53. *Id.* art. 47. I mention these Constitutional “rights” to point out that, although intellectual property rights are not expressly recognized as fundamental rights under the PRC Constitution, there has been an apparent intellectual property rights consciousness reflected in the Constitution’s provisions since its inception. Nevertheless, it is doubtful these Constitutional “rights” could be vindicated in a court of law, at least for the time being, as the PRC Constitution is generally viewed as aspirational and not a source of rules of decision that courts can apply. See Chenguang Wang, *Introduction: An Emerging Legal System*, in INTRODUCTION TO CHINESE LAW 1, 18 (Chenguang Wang & Xianchu Zhang eds., 1997); see also ALBERT CHEN, AN INTRODUCTION TO THE LEGAL SYSTEM OF THE PEOPLE’S REPUBLIC OF CHINA 40-41 (1998). That said, there are indications that a more proactive view of Constitutional rights is developing in China. See, e.g., *First Case Involving Right to Equality*, BEIJING REV., Feb. 28, 2002, at 21-22.

54. Peter K. Yu, *The Copyright Divide*, 25 CARDOZO L. REV. 331, 357-58 (2003) (describing widespread unauthorized copying of computer software in the late 1970s in China). Although Professor Yu’s article primarily describes the effect a lack of copyright law had on software developers, the complete absence of a copyright regime at the time would have affected producers of all kinds of creative works in the same ways.

55. See *id.* at 357 (noting that during this period in China, software programmers often feared instant piracy).

56. See *id.* (observing that some software developers opted to keep their works unpublished rather than subject them to certain piracy in the marketplace).

ment drafted a series of regulations in the mid-1980s that laid the groundwork for copyright protection.⁵⁷ These included interim regulations related to copyright, which marked the PRC's first attempt at formulating its new rights-based approach to copyright law⁵⁸ and the General Principles of the Civil Law,⁵⁹ in which the mention of copyright as a new form of property placed it squarely within the bounds of civil law.⁶⁰ Then, in 1990, after a decade of intense internal debate over the appropriateness of intellectual property in a socialist system, the National People's Congress (NPC) promulgated the PRC's first copyright law.⁶¹

1. *The 1990 Copyright Law*

The text of the 1990 Copyright Law reflected the irreconcilable tensions that shaped the drafting process, which one high ranking official called the "most complicated" in the PRC's history.⁶² While it recognized the economic and moral rights of the individual,⁶³ it also undeniably reaffirmed the central role of the state in a socialist copyright scheme.⁶⁴ The 1990 Copyright Law lagged notably behind international standards, particularly in its broad exceptions for use by government actors, including radio and television stations.⁶⁵ In addition, it refused protection to works that the state considers heterodox.⁶⁶ Nonetheless, the 1990 Copyright Law

57. See ALFORD, *supra* note 26, at 76-79.

58. Bachner, *supra* note 37, at 444.

59. Min fa tong ze [General Principles of the Civil Law] (promulgated by the Nat'l People's Cong., Apr. 12, 1986, effective Jan. 1, 1987) (P.R.C.).

60. The General Principles of Civil Law provide that citizens should enjoy the right of authorship and that such authors should have the right to sign, publish, and receive remuneration for their works. They also stipulate that injunctions and damages may be sought where plagiarism, passing off, or distortion of one's work occurs. See Bachner, *supra* note 37, at 444 (referring to Articles 94 and 118 of the General Principles of Civil Law).

61. Zhu zuo quan fa [Copyright Law] (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 7, 1990, effective Jun. 1, 1991) (P.R.C.) [hereinafter 1990 Copyright Law]; see also ALFORD, *supra* note 26, at 77-78.

62. See ALFORD, *supra* note 26, at 77.

63. See, e.g., 1990 Copyright Law arts. 10-11 (promulgated by the Standing Comm. Nat'l People's Cong., Sept. 7, 1990, effective Jun. 1, 1991) (P.R.C.).

64. See, e.g., *id.* art. 22(7) ("A work may be used without permission from, and without payment of remuneration to, the copyright owner . . . in a published work by a state organ for the purpose of performing its official duties."); *id.* art. 43 ("A radio station or television station may broadcast, for non-commercial purposes, a published sound recording without seeking permission from, or paying remuneration to, the copyright owner, performer and producer of the sound recording.").

65. See *id.* art. 43.

66. *Id.* art. 4 ("Copyright owners in exercising their copyright shall not violate the constitution or laws or prejudice the public interests.").

laid the formal groundwork for legal recognition of authors' rights in their creations and made copyright infringement an actionable offense for which civil remedies were available. The law also signaled China's desire to show the international community that it took copyright protection seriously.

Despite these improvements to the formal law, the ability and perhaps willingness of Chinese authorities to enforce the law was sorely lacking, and fierce piracy persisted. The United States, whose creative industries were already claiming substantial losses at the hands of Chinese pirates, continued to pressure the Chinese government to improve copyright protection.⁶⁷ U.S. threats to initiate a trade war and economic sanctions, followed by Chinese threats of retaliation, ultimately led the two nations in 1992 to sign a Memorandum of Understanding ("MOU") regarding the protection of intellectual property in China.⁶⁸ In accordance with the MOU, China signed the Berne Convention,⁶⁹ ratified the Geneva Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms,⁷⁰ and amended the 1990 Copyright Law.⁷¹

Despite these steps, U.S. businesses continued to complain about losses due to Chinese pirates. Again the United States and China traded threats until 1995, when the issue was resolved by another agreement on intellectual property protection, in which China established a detailed "Ac-

67. See Yu, *supra* note 14, at 132-34.

68. See *id.* at 142.

69. Memorandum of Understanding on the Protection of Intellectual Property, U.S.-P.R.C., Jan. 17, 1992, 34 I.L.M. 676, art. 3(1) [hereinafter MOU]. Article 3 of the MOU states, "The Chinese Government will accede to the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention) (Paris 1971)." *Id.* The Berne Convention, which came into force in 1886, requires that member states recognize the copyrights of works created by authors of or first published in other member states. Berne Convention for the Protection of Literary and Artistic Works, art. 3, Sept. 6, 1886, S. Treaty Doc. No. 99-27, 1161 U.N.T.S. 3 [hereinafter Berne Convention].

70. MOU, *supra* note 69, art. 3(4). The convention requires member states to protect:

producers of phonograms who are nationals of other Contracting States against the making of duplicates without the consent of the producer and against the importation of such duplicates, provided that any such making or importation is for the purpose of distribution to the public, and against the distribution of such duplicates to the public.

Geneva Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms, art. 2, Oct. 29, 1971, 25 U.S.T. 309 [hereinafter Geneva Phonograms Convention].

71. See MOU, *supra* note 69, art. 3(4); see also Yu, *supra* note 14, at 142-43.

tion Plan” focused on improving the enforcement infrastructure.⁷² Just a year later, though, the same cycle played itself out yet again when American frustration over inadequate enforcement neared the boiling point, and threats and counter-threats of trade sanctions were cooled only by another eleventh-hour agreement in which China reaffirmed its obligations and commitment to intellectual property protection.⁷³ All the posturing and promises on both sides failed to dent the piracy problem. In 1997, estimates of losses due to copyright piracy in China reached record levels, and though the loss estimates have tapered somewhat, copyright owners consistently claim that pirated products vastly outsell legitimate copyrighted goods.⁷⁴

2. *The 2001 Copyright Law Amendment*

By the late 1990s, given China’s rapid economic development, the 1990 Copyright Law’s high level of generality rendered it increasingly incapable of providing guidance on issues arising from new technologies.⁷⁵ In addition, in the late 1990s China sought to join the World Trade Organization (WTO). Because WTO membership would require China to sign the Agreement on Trade-Related Aspects of Intellectual Property (TRIPS),⁷⁶ which sets minimum standards for member nations’ intellectual property laws,⁷⁷ considerable amendments to the 1990 Copyright Law were necessary to conform to international standards. Thus, in 2001, the NPC passed the most significant amendments ever to the Copyright Law.⁷⁸

72. See Yu, *supra* note 14, at 144-46.

73. *Id.* at 148-50.

74. See IIPA, 2000 SPECIAL 301 REPORT: PEOPLE’S REPUBLIC OF CHINA 27 (2000) [hereinafter IIPA, 2000 REPORT]; IIPA, 2004 REPORT, *supra* note 3, at 33.

75. See Xiaoqing Feng & Frank Xianfeng Huang, *International Standards and Local Elements: New Developments of Copyright Law in China*, 49 J. COPYRIGHT SOC’Y U.S. 917, 920 (2002).

76. Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments, Results of the Uruguay Round, 1869 U.N.T.S. 299, 33 I.L.M. 1197 (1994) [hereinafter TRIPS], available at <http://www.uspto.gov/web/offices/com/doc/uruguay/finalact.html>.

77. See World Trade Organization, Overview: the TRIPS Agreement, http://www.wto.org/english/tratop_e/trips_e/intel2_e.htm (last visited Mar. 2, 2006).

78. Zhu zuo quan fa [Copyright Law] (amended by the Standing Comm. Nat’l People’s Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.) [hereinafter 2001 Copyright Law].

The 2001 Copyright Law aimed to bring China into compliance with TRIPS and account for challenges posed by new technologies.⁷⁹ Commentators generally believe the law succeeded in meeting international standards in most of its provisions.⁸⁰ Many of the primary changes and enhancements signaled a shift away from the socialist, state-centered philosophy of the 1990 Copyright Law and toward privatization of rights.⁸¹ Thus, the 2001 Copyright Law considerably expanded the enumerated economic rights vested in the author. While the 1990 version only granted the generic economic rights of exploitation and remuneration,⁸² the new law created thirteen categories of economic rights, including the rights of reproduction, distribution, rental, exhibition, performance, screening, broadcasting, making cinematographic works, and communication through an information network.⁸³ Further, the new law cut back on the controversially broad fair use privileges afforded state organs and broadcasters under the 1990 law.⁸⁴

Inclusion of the right of “communication through an information network, that is, the right to make a work available to the public by wire or by wireless means,” was among the most important changes to the 2001 law.⁸⁵ By specifically creating this right, the law arguably exceeded inter-

79. See Feng & Huang, *supra* note 75, at 920.

80. See, e.g., *id.* at 946 (“[T]he revision of the Copyright Law brought the Chinese copyright regime in substantial compliance with WTO/TRIPs Agreement”); CHOW, *supra* note 32, at 417-18 (“[China’s] current intellectual legal regime . . . complies in all substantial respects with the requirements of TRIPS and other major international agreements.”).

81. See QU, *supra* note 27, at 359.

82. See 2001 Copyright Law art. 10 cl. 5 (amended by the Standing Comm. Nat’l People’s Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.).

83. See *id.* art. 10. In total, the law enumerates sixteen categories of rights.

84. *Id.* art. 22(3) (providing that the media may now make free use of copyrighted materials only in the case of “unavoidable reappearance or use of a published work in newspapers, periodicals, radio programs, television programs, and other media for the purpose of reporting current events”); see also *id.* art. 22(7) (providing that governmental actors may only use published works without having to seek permission or pay remuneration “to a justifiable extent for the purpose of fulfilling [the state organ’s] official duties”). Yet another important example of the law’s shift toward favoring authors’ economic rights over state and collective interests is the new requirement that radio and television stations (most if not all of which are state-owned) pay copyright owners statutory compulsory license fees to use their works, replacing the “statutory free use” of copyrighted works allowed under the 1990 law. *Cf.* 1990 Copyright Law art. 43 (promulgated by the Standing Comm. Nat’l People’s Cong., Sept. 7, 1990, effective Jun. 1, 1991) (P.R.C.).

85. See 2001 Copyright Law art. 10 cl. 12 (amended by the Standing Comm. Nat’l People’s Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.).

national standards, as the TRIPS Agreement does not expressly cover internet transmission of copyrighted works.⁸⁶ The provision in the 2001 Copyright Law does mirror the language of the WIPO Copyright Treaty (WCT),⁸⁷ designed to enhance copyright protection in the era of digital technologies.⁸⁸ Although at the time of this writing China has not signed the WCT, the WCT greatly influenced this provision and other internet-related copyright legislation.⁸⁹ Prior to promulgation of the 2001 Copyright Law, some argued that the law should encourage development of new information technologies and uphold the “public interest” policies underlying Chinese copyright law by allowing free dissemination of information over the internet.⁹⁰ However, the mounting number of internet-related copyright cases demonstrated a need for clarity in the law. Further, a general desire to harmonize domestic copyright law with the WCT convinced the legislature that the new copyright law should expressly identify a right in the transmission of creative works over an information network.⁹¹

B. Criminal Sanctions

Criminal sanctions for copyright infringement are a critical aspect of the copyright enforcement regime in China even though they are generally viewed as woefully insufficient to deter piracy in a meaningful way.⁹² The lack of criminal sanctions contributed to the impotence of China’s copyright law during the early 1990s.⁹³ China’s assurances to the international

86. See Feng & Huang, *supra* note 75, at 936.

87. WIPO Copyright Treaty, Dec. 20, 1996, 36 I.L.M. 65, available at <http://www.wipo.int/documents/en/diplconf/distrib/94dc.htm> (last visited Mar. 24, 2006).

88. The WCT provides that “authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means” WIPO Copyright Treaty, *supra* note 87, art. 8.

89. XUE HONG & ZHENG CHENGSI, CHINESE INTELLECTUAL PROPERTY LAW IN THE TWENTY-FIRST CENTURY 15 (2002) (discussing the strong influence the WCT had on provisions of the 2001 Copyright Law).

90. See PETER FENG, INTELLECTUAL PROPERTY IN CHINA 157 (2003).

91. See XUE & ZHENG, *supra* note 89, at 14-15. In May 2005, the NCA and Ministry of Information Industry took further steps to protect copyright online by promulgating the Measures on Administrative Protection of Internet Copyright, which subjects ISPs to administrative fines for failing to remove infringing content once notified of the infringement by the copyright owner. Hu lian wang zhu zuo quan xing zheng bao hu ban fa [Measures on Administrative Protection of Internet Copyright] (promulgated by National Copyright Administration & Ministry of Information Industry, Apr. 29, 2005, effective May 29, 2005) (P.R.C.), translation available at <http://www.chinaitlaw.org/?p1=print&p2=051006180113>.

92. See *infra* Section IV.A.

93. QU, *supra* note 27, at 305-06.

community that it would make criminal sanctions genuine deterrents to intellectual property infringement led to the inclusion of a section on intellectual property crimes in the 1997 general amendment of the Criminal Code.⁹⁴ The criminal provisions distinguish between the acts of *copying* protected works and *selling* the illegal copies, with the punitive emphasis on copying. Those who commit for-profit, unauthorized copying that results in a “relatively large” amount of “illegal gains” are subject to a fine and a maximum of three years in prison, while those who copy and earn a “huge” amount of illegal gains are subject to a fine and/or three to seven years in prison.⁹⁵ On the other hand, those who knowingly sell unauthorized copies of works must obtain a huge amount of illegal gains to be subject to criminal penalties, which include fines and a maximum of three years in prison.⁹⁶ Definitions for the vague terms “relatively large” and “huge” are to be supplied periodically through Supreme Court–issued “interpretations” of the law.⁹⁷

94. See FENG, *supra* note 90, at 55.

95. Xing fa [Criminal Code] art. 217 (promulgated by the Nat'l People's Cong., Mar. 14, 1997, effective Oct. 1, 1997) (P.R.C.), translation available at http://www.chinalaw.gov.cn/jsp/jalor_en/disptext.jsp?recno=2&&ttlrec=2.

Any of the following categories of persons who infringes upon copyright for the purpose of reaping profits shall, if the amount of illegal gains is relatively large or other serious circumstances exist, be sentenced to fixed-term imprisonment of not more than three years or criminal detention, and concurrently or independently be sentenced to a fine. If the amount of illegal gains is huge or other especially serious circumstances exist, the offender shall be sentenced to fixed-term imprisonment of not less than three years and not more than seven years, and concurrently be sentenced to a fine: (1) reproducing and distributing, without the permission of the copyright owner, his written works, musical works, cinematic works, television works, video works, computer software and other works; (2) publishing a book of which another person has the exclusive publishing right; (3) reproducing and distributing, without the permission of the phonogram or videogram producer, the phonogram or videogram produced by him; or (4) producing and selling a work of art bearing the forged signature of another person.

Id.

96. *Id.* art. 218 (“Whoever sells, for the purpose of reaping profits, those which he well knows are infringing reproductions specified in Article 217 of this Law shall, if the amount of his illegal gains is large, be sentenced to fixed-term imprisonment of not more than three years or criminal detention, and concurrently or independently be sentenced to a fine.”).

97. The Supreme People's Court and Supreme People's Procuratorate have the power to issue official “interpretations” of laws, which can have the force of sub-statutes or supplemental legislation. Guan yu jia qiang fa lü jie shi gong zuo jue yi [Resolution on Strengthening the Work of Interpretation of Laws] (promulgated by the Standing Comm.

In December 2004, China's Supreme People's Court issued a judicial interpretation of the Criminal Law lowering the criminal liability threshold for copyright infringement (hereinafter "2004 Judicial Interpretation").⁹⁸ The previous criminality threshold was 100,000 yuan (\$12,000) in profits or doing 200,000 yuan (about \$24,000) in gross sales.⁹⁹ Under the 2004 Interpretation, earning illegal profits of 30,000 yuan (about \$3,600) or more, or doing 50,000 yuan (\$6,000) in gross illegal sales, constitutes a "relatively large" amount of illicit gains, punishable by a fine and/or a maximum of three years in prison.¹⁰⁰ Earning 150,000 yuan (about \$18,000) in illegal profits, or doing 250,000 yuan (about \$30,000) in total illegal sales, constitutes a "huge" amount of illegal gains, punishable by a fine and/or three to seven years in prison.¹⁰¹

Perhaps the most significant change, however, was the introduction of strict penalties that clearly target internet piracy. Under the 2004 Judicial Interpretation, individuals are subject to fines and/or a maximum of three years in prison for "reproducing and distributing more than one thousand illegal copies of a written work, musical work, motion picture, television program or other visual works, computer software or other works without permission of the copyright owner."¹⁰² "Reproducing and distributing" a copyrighted work also includes reproduction and distribution via an "information network,"¹⁰³ and the government has stated explicitly that the

Nat'l People's Cong., June 10, 1981, effective June 10, 1981) (P.R.C.) (vesting the Supreme People's Court and the Supreme People's Procuratorate with the general power to interpret specific questions of law that arise out of adjudicative practice); *see also* CHOW, *supra* note 32, at 174-77 (discussing the de facto legislative character of many Supreme People's Court-issued interpretations).

98. *See* Guan yu ban li qin yue zhi shi chan quan xing shi an jian ju ti ying yong fa lü ruo gan wen ti de jie shi [Interpretation on Several Issues of Concrete Application of Laws in Handling Criminal Cases of Infringing Intellectual Property] (promulgated by the by the Supreme People's Court & Supreme People's Procuratorate, Dec. 8, 2004, effective Dec. 22, 2004) (P.R.C.), *translation available at* <http://www.chinaiprlaw.com/english/laws/laws20.htm> [hereinafter 2004 Judicial Interpretation].

99. *See* *China Lowers Conviction Criteria of IPR Violations*, PEOPLE'S DAILY ONLINE, Dec. 22, 2004, http://english.people.com.cn/200412/22/eng20041222_168201.html.

100. 2004 Judicial Interpretation (promulgated by the by the Supreme People's Court & Supreme People's Procuratorate, Dec. 8, 2004, effective Dec. 22, 2004) (P.R.C.), art. 5, *translation available at* <http://www.chinaiprlaw.com/english/laws/laws20.htm>.

101. *Id.*

102. *Id.*

103. *Id.* art. 11.

2004 Judicial Interpretation covers internet file sharing.¹⁰⁴ The level of punishment jumps to three to seven years' imprisonment and/or fines for reproducing and distributing more than 5,000 copies.¹⁰⁵ While the language of the 1997 Criminal Law stresses that criminal liability only applies where the copying and distribution is for profit, it appears open to interpretation whether the 2004 Judicial Interpretation requires a profit motive in the case of internet file sharing.¹⁰⁶

C. Enforcement Options: Administrative Actions versus Judicial Proceedings

Aggrieved copyright owners in China may initiate administrative enforcement actions, judicial proceedings, or both. This bifurcated enforcement system developed in the 1980s when a heavy caseload overwhelmed Chinese courts as the legal system underwent massive reforms and entirely new categories of legal rights came into existence.¹⁰⁷ It is also a remnant of the pre-reform socialist governmental organization, which was structured to protect public interests through state agencies rather than protect individual rights through courts.¹⁰⁸ The bifurcated approach has been criticized for confusing administrative and judicial functions, undermining judicial independence, and causing overlap and conflict among administrative authorities.¹⁰⁹ Regardless, the system appears well entrenched, and administrative powers are even expanding.¹¹⁰

104. See *IPR Violators Now Major Criminals*, CHINA DAILY, Dec. 22, 2004, <http://www.china.org.cn/english/2004/Dec/115570.htm> (“[T]he interpretation will also apply to online piracy”).

105. 2004 Judicial Interpretation art. 5 (promulgated by the by the Supreme People's Court & Supreme People's Procuratorate, Dec. 8, 2004, effective Dec. 22, 2004) (P.R.C.), translation available at <http://www.chinaiprlaw.com/english/laws/laws20.htm>.

106. See *id.* It is plausible to interpret Article 5 of the 2004 Interpretation as requiring a profit motive for committing any of the enumerated offenses under Article 217 of the Criminal Code but not for causing “other serious circumstances” or “other particularly serious consequences,” which respectively include “distributing” at least one thousand or five thousand unauthorized copies.

107. See FENG, *supra* note 90, at 17.

108. See Daniel C.K. Chow, *Counterfeiting in the People's Republic of China*, 78 WASH. U. L.Q. 1, 25 (2000).

109. FENG, *supra* note 90, at 16; see also QU, *supra* note 27, at 400-02 (describing the historical background for this bifurcation of administrative and judicial functions, at least in part because of undue emphasis on criminal liability rather than tortious liability for copyright infringement, and noting that administrative liability falls somewhere in between criminal and tortious liability).

110. See FENG, *supra* note 90, at 16.

The National Copyright Administration (“NCA”) is the primary (but not sole) administrative body with jurisdiction over copyright disputes.¹¹¹ Thus, copyright owners seeking to enforce their rights through administrative action typically submit a complaint and evidence of infringement to the NCA, which has the power to investigate copyright claims either at the request of copyright owners or on its own initiative.¹¹² Complainants may take their case instead to other agencies with jurisdiction over the matter, such as the Public Security Bureau (“PSB”), the principal police agency, which has authority to conduct raids if criminal levels of infringement are suspected.¹¹³ The PSB possesses powers that the other enforcement agencies do not, including the power to force entry and to detain and arrest suspects.¹¹⁴ Typically, the agency involved will raid the infringer’s premises and confiscate infringing items and other evidence.¹¹⁵ Once the enforcement action is complete, the agency involved will issue a judgment concerning the infringement of the substantive law at issue.¹¹⁶

Complainants can appeal a dissatisfactory administrative decision in court or can skip the administrative action altogether and file a civil action directly. If during the course of an administrative action the agency obtains evidence that the infringing activity has exceeded the criminality threshold, the agency can refer the case to the PSB, which can, if criminal liability is established, forward the case to the People’s Procuratorate for criminal prosecution.¹¹⁷ Because litigation proceeds slowly, thus allowing defendants time to continue infringing activities or, more likely, disappear altogether, the 2001 Copyright Law added a provision specifically authorizing courts to grant preliminary injunctions.¹¹⁸ This provision helped alleviate one of the major past disadvantages of the civil route, because previously only administrative agencies possessed the ability to strike immediately with flash raids before infringers had time to react.

111. *Id.* at 18.

112. *Id.* at 19.

113. *See* Chow, *supra* note 108, at 23. While Chow’s article focuses on the enforcement mechanisms for trademark counterfeiting, the same issues arise in relation to copyright enforcement.

114. *Id.* at 23 n.80.

115. *Id.* at 23.

116. *See id.* at 24.

117. *Id.* The People’s Procuratorate is “modeled on the institution of the procuracy in the former Soviet Union” and “performs the task of approving arrests by the public security organs and prosecuting criminals.” CHOW, *supra* note 32, at 215.

118. *See* 2001 Copyright Law art. 49 (amended by the Standing Comm. Nat’l People’s Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.). This provision satisfies the requirement under TRIPS that member countries’ domestic law provide for preliminary injunctions under certain circumstances. *See* TRIPS Agreement, *supra* note 76, art. 50(6).

Whether a copyright owner chooses to pursue an administrative action or a civil lawsuit very much depends on the copyright owner's goals at that stage of the procedure. For example, a company that simply seeks to stop the infringement may choose the administrative route because agencies can act with speed and efficiency unattainable in court, and it is often the less expensive alternative.¹¹⁹ However, administrative agencies generally will not order civil damages, so companies seeking that remedy must take their cases to court.¹²⁰ Nevertheless, when first entering the Chinese market, some international companies are not especially concerned with extracting monetary damages and prefer to work through administrative agencies because the enforcement action is likely to be reported in the newspaper, providing the company with free promotion.¹²¹

D. A Working Theory of Chinese Copyright

Before considering various policy directions Chinese authorities might take to enforce copyright in the internet age, it is worth briefly inquiring into the goals of Chinese copyright law. Enunciating a core theory of Chinese copyright¹²² is challenging because modern Chinese copyright law simultaneously combines at least four very different influences: (1) Western copyright laws that emphasize private economic rights; (2) Western copyright laws that emphasize natural "moral" rights;

119. Interview on Jan. 14, 2005 (on file with author).

120. FENG, *supra* note 90, at 23.

121. Interview on Jan. 14, 2005 (on file with author).

122. Admittedly, identifying a core theory of intellectual property is impossible even in the West, as several justifications for intellectual property rights have emerged in judicial opinions and scholarly literature. William Fisher has identified four major theories: (1) Utilitarianism, the proponents of which argue that intellectual property should "strike an optimal balance between, on one hand, the power of exclusive rights to stimulate the creation of inventions and works of art and, on the other, the partially offsetting tendency of such rights to curtail widespread public enjoyment of those creations"; (2) Labor Theory, derived from the Lockean notion that natural property rights accrue from mixing labor with raw materials "held in common"; (3) Personality Theory, which holds that creations are inexorably linked to their creators and law should shield creative works from policies or actions that threaten to corrupt that link (this concept informs moral rights theory, prominent in the copyright codes of many civil law countries); and (4) Social Planning Theory, which maintains that "property rights in general—and intellectual-property rights in particular—can and should be shaped so as to help foster the achievement of a just and attractive culture." William Fisher, *Theories of Intellectual Property*, in *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 36, 36-75 (Stephen Munzer ed., 2001). While none of these theories are universally accepted, an ongoing debate about the source of intellectual property rights helps lead to a working consensus in different circumstances that can be used to shape and guide policy and further debates about the purposes and functions of an intellectual property system.

(3) socialist copyright law, which holds that copyright is not a natural right but one created and granted by the state, thus deemphasizing private rights and stressing innovation for the betterment of society;¹²³ and (4) the historical tendency in China to consider state censorship power a central feature of publishing regulations. Echoes of these diverse influences are found in Article 1 of the 2001 Copyright Law, which states the law was enacted

for the purpose of protecting the copyright of authors in their literary, artistic and scientific works and the rights and interests related to copyright, of encouraging the creation and dissemination of works conducive to the building of a socialist society that is advanced ethically and materially, and of promoting the progress and flourishing of socialist culture and sciences.¹²⁴

While more practical, instrumentalist concerns often form the true motivations behind Chinese copyright law developments,¹²⁵ Article 1 of the 2001 Copyright Law and the historical context outlined in this study can help us enunciate a Chinese theory of copyright for present purposes. Due in part to socialist influences, Chinese copyright theory strongly echoes

123. See QU, *supra* note 27, at 53-54.

124. 2001 Copyright Law art. 1 (amended by the Standing Comm. Nat'l People's Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.).

125. For example, a strong motivation for establishing copyright law in China has been to attract investments from, or to appease, copyright-rich foreigners. See FENG, *supra* note 90, at 4-5. China's desire to join the WTO spurred sweeping revisions of Chinese copyright law, expanding private rights well beyond what the government was willing to grant in the previous iteration of the law in order to comply with the international standards embodied in TRIPS. See QU, *supra* note 27, at 343. Chinese officials frequently cite international opinion and attracting foreign investment, in addition to the encouragement of domestic economic growth, as primary justifications for improving intellectual property protection. See, e.g., *IPR Infringers Face Lengthy Jail Terms and Hefty Fines*, CHINA DAILY, Jan. 14, 2005, <http://www.china.org.cn/english/international/117896.htm> ("From China's perspective, protecting IPR effectively is not only part of its obligation as a World Trade Organization member or to court more foreign capital, but also a prerequisite to the country's pursuit of constant technological progress and long-term economic prosperity."); *Nation Enhancing IPR Protection: FM*, Jan. 12, 2005, <http://www.china.org.cn/english/2005/Jan/117541.htm> ("China is increasing intellectual property right protection to meet international demands and benefit China's economic development, said Foreign Ministry spokesman Kong Quan . . ."); *2,505 Suspects Arrested for Producing, Selling Fake Products*, XINHUA NEWS AGENCY, Mar. 9, 2005, http://service.china.org.cn/link/wcm/Show_Text?info_id=122245 ("Turning a blind eye to IPR infringement is a short-sighted act," [Vice Premier Wu Yi] said at a meeting last year. "Such acts will not only seriously undermine market economic order and hamper China's economic growth, but also ruin the prestige and image of the country and influence China's future opening-up.").

the utilitarian theory of copyright,¹²⁶ which seems to be the predominant theory in the United States, and holds that authors' rights should be protected enough to provide an economic incentive to create, but that the law should limit those rights to enhance access to the creations for the benefit of society. Thus, the public's right to access creative works plays an important role in Chinese copyright theory and limits creators' property rights in their works. With the general utilitarian goals of Chinese copyright in mind, the next Part evaluates three possible policy directions for China going forward as it attempts to confront the piracy problem while moving full-bore into the internet age.

IV. THE ROAD AHEAD

Although the past three decades have seen steady development in China's copyright laws and enforcement infrastructure, China's piracy problem remains among the world's most severe. With the formal legal structure for copyright largely in place, how can China proceed toward an acceptable policy for meeting and balancing the needs of creators, content industries, and society in the age of internet file sharing? The remainder of this Article first examines the two most obvious paths Chinese authorities might take: (1) committing to a long-term strategy of cracking down hard on copyright infringement in real space and cyberspace; and (2) staying the present course, that is, developing an intellectual property enforcement regime gradually and organically while a marked disparity continues to exist between the formal legal standards and reality. Finally, Section IV.C proposes an alternative compensation system for works of music and film shared on the internet in China. I conclude that this solution is the best of the three policy directions.

A. Cracking Down Hard on Piracy

Many believe that widespread piracy in China is the result of a lack of will on the central government's part to confront and eliminate the problem. As one commentator put it,

It is laughable to hear excuses from Beijing that they can't control the 50 pirate CD factories. If they were turning out thousands of copies of the BBC documentary on the Tiananmen Square protest—rather than bootleg copies of “The Lion

126. See Fisher, *supra* note 122, at 169.

King”—the factory managers would be sharing a cell with other dissidents in a heartbeat.¹²⁷

In the same vein, another commentator more recently wrote,

[T]here is, however, one knockoff that shoppers [in Beijing] can no longer find: T shirts, caps and bags bearing the insignia of Beijing's 2008 Summer Olympic Games. One 25-year old vendor says she used to sell boxloads of Beijing Olympic shirts. But early last year city officials raided her stand, seized the merchandise and fined her several hundred dollars. If they caught her selling Olympic counterfeits again, they warned, they would shut her down for good. . . . The pressure for China to get serious [about protecting intellectual property rights] is rising. . . . the question remains however: will Beijing choose to enforce the new rules?¹²⁸

Such views abound in the West: if the Chinese government would only start taking its role as enforcer of intellectual property rights seriously—if it would just *choose* to enforce the rules—it could effectively knock out the piracy problem.

The authors of the above quotes take the naive position that the Chinese government is obligated or inclined to protect the interests of private parties (many of whom, in the case of copyright owners, are foreigners) with the same urgency with which it protects its own interests. Thus, the Chinese government should, for example, be as apt to shut down CD factories copying “The Lion King” as it is to shut down those manufacturing highly politically sensitive censored products. This view also understates the vastness of the piracy problem by positing one example in isolation and suggesting that if the government could crack down on that, it should be able to crack down on everything else. Views such as these fail to consider the size of the problem, the fact that piracy networks operate internationally and many pirated goods are imported into China, and other complexities that present obstacles to enforcement.¹²⁹ Hard-liners in the West call these excuses, and in many cases they probably are correct, as the Chinese government can benefit from inaction and use explanations about the problem's size and complexity to excuse poor copyright enforcement unjustifiably. But oversimplifications and caricatures of the problem, such as the views expressed in the above quotes, deny the existence of very real

127. James Shinn, *The China Crunch; Three Crises Loom in the Next 30 Days*, WASH. POST, Feb. 18, 1996, at C1.

128. Ansfield, *supra* note 6, at 45.

129. *See infra* Section IV.A.1.

barriers to enforcement and overlook many Chinese officials' sincere desire to combat piracy. Such views also create unrealistic expectations about what the Chinese government should be expected to do or is capable of doing.

Nevertheless, Beijing receives tremendous pressure internationally (much but certainly not all from the United States) and domestically to enforce more seriously the comprehensive laws that it has now adopted and to crack down on piracy. Publicly, Chinese officials embrace the notion that a reliable intellectual property regime is required to attract foreign investment and develop a sound economy.¹³⁰ Given that China has verbalized aspirations to move in this direction,¹³¹ how realistic is an effective crackdown on piracy in the foreseeable future? The following Sections consider the numerous formidable barriers to a successful crackdown strategy for both physical and internet piracy in China and how these challenges make the pursuit of such a strategy extremely unlikely in the near future.

1. Cracking Down on Physical Piracy

A successful long-term crackdown on physical piracy in China requires that various government institutions and private actors coordinate effective and efficient enforcement of the copyright law and related criminal laws. Several major barriers to effective copyright enforcement must be overcome, however, before a meaningful, long-term crackdown on physical piracy can be realized. The barriers are varied and complex, and include cultural, economic, and political factors. The following discussion highlights seven areas in which reform is needed before consistent and effective copyright enforcement can be realized in China: (1) local protectionism, economic conflicts of interest, and official corruption; (2) bureaucratic rivalries and overlapping jurisdiction; (3) the insufficient deterrent effect of criminal penalties and prosecutions; (4) lack of judicial compe-

130. See, e.g., *2,505 Suspects Arrested for Producing, Selling Fake Products*, *supra* note 125.

131. See, e.g., *Chinese Courts Concludes 8,832 IPR Violation Cases in 2004*, XINHUA NEWS AGENCY, Feb. 4, 2005, http://english.people.com.cn/200502/04/eng20050204_172916.html ("In December 2004, the Supreme People's Court and the Supreme People's Procuratorate jointly promulgated a judicial interpretation of the Criminal Law application on IPR violations, aiming to intensify efforts to crack down on IPR violations."); Mathew Forney, *Faking It; Beijing's Inability to Curb Rampant Intellectual-Property Theft Is Infuriating Its Trading Partners*, TIME ASIA, June 6, 2005, <http://www.time.com/time/asia/magazine/printout/0,13675,501050613-1069142,00.html> (discussing Chinese Vice Premier Wu Yi's 2004 promise to crack down on intellectual property abuse, and subsequent governmental crackdown efforts).

tence in intellectual property matters; (5) state centralism; (6) underdeveloped economic conditions; and (7) the absence of a culture of respect for intellectual property rights. This Section only briefly outlines the kinds of institutional and legal obstacles that exist, several of which have been discussed more thoroughly elsewhere.¹³²

a) Local Protectionism, Conflicts of Interest, and Official Corruption

Local protectionism probably constitutes the largest obstacle to cracking down on piracy in China. Rural communities, towns, and cities of all sizes across China play an enormous role in the piracy trade in China as manufacturers, distributors, and consumers of illegitimate products.¹³³ Central authorities promulgate laws and regulations, but local authorities implement those laws and regulations. To date, serious questions about many local officials' commitment to stopping piracy exist.¹³⁴ The interests of local officials do not always align with those of central authorities; local leaders often loathe dismantling trade—even illegal trade—that significantly boosts their respective regions' economic activities, and in some cases local leaders have a direct interest in the illegal trade.¹³⁵ In a number of areas, piracy accounts for a substantial portion of local commerce, providing jobs and income to local residents, and taxes and other forms of revenue to local officials. Indeed, in a few areas piracy drives the entire local economy.¹³⁶ China's socialist tradition exacerbates the problem be-

132. See generally ANDREW MERTHA, *THE POLITICS OF PIRACY: INTELLECTUAL PROPERTY IN CONTEMPORARY CHINA* (2005); Chow, *supra* note 108. Professor Chow discusses the effect of local protectionism, bureaucratic rivalries, and insufficient criminal sanctions and prosecutions in his article on counterfeiting in China. Much of the information in the article derives from his personal experience in China during the late 1990s as in-house counsel for a multinational company looking to expand its business in China. His responsibilities included protecting the company's intellectual property, which "led [him] on investigations and raids of underground factories, markets, and warehouses dealing in pirated, counterfeit and smuggled products" giving him "a sense of the many enforcement challenges that lie ahead for China's earnest law reformers who seek to enact effective laws protecting the interests of legitimate business and property owners." See CHOW, *supra* note 32, at v-vi. While the article primarily deals with the problem of trademark infringement, in general, the obstacles impeding effective enforcement of trademark laws are the same as those blocking enforcement of copyright. See *id.* at 439.

133. See CHOW, *supra* note 32, at 441.

134. *Id.* at 439.

135. *Id.* at 439-40.

136. See Balfour, *supra* note 1, at 62; see also CHOW, *supra* note 32, at 440 (describing a town called Yiwu in Zhejiang province on China's east coast, where "it is no exaggeration to say that the entire local economy . . . is built on the trade in counterfeit and

cause of the government's dual roles as entrepreneur—in the form of state-owned enterprise—and regulator.¹³⁷ For example, local governments earn significant rental income from stalls and booths at state-owned markets and wholesale distribution centers, where large quantities of pirated and counterfeit products typically are sold.¹³⁸

Although U.S. officials generally direct their intellectual property complaints to Beijing, central Chinese authorities' influence over local officials is limited.¹³⁹ Local officials report to higher-level units within the same administration regarding their professional duties, but local politicians control the officials' appointments, dismissals, salaries, housing, and other benefits.¹⁴⁰ "Faced with the choice of disobeying a directive from a higher level unit that is powerless to sanction disobedience and a directive from the local mayor who can terminate employment or arrange an undesirable job transfer or salary cut, many local enforcement officials opt to protect local interests."¹⁴¹

Local enforcement officials sometimes seek bribes in order to perform their duties. Such requests might be for "fees" or items, such as mobile phones or money, ranging in value from one hundred dollars to tens of thousands of dollars. In addition to increasing enforcement costs for copyright owners, such requests pose an obstacle to enforcement where companies have internal policies against paying such fees or fear violating laws in their home countries prohibiting bribery of government officials.¹⁴²

Many Chinese central authorities understand the long-term benefits of strong copyright enforcement for China's economic development,¹⁴³ but their political will alone cannot erase the systemic problems and impedi-

pirated goods and that shutting down this illegal trade would be tantamount to shutting down the local economy").

137. See Chow, *supra* note 108, at 27.

138. *Id.* at 27-28 (estimating that some local agencies could earn as much as \$1.5 million annually from such enterprises).

139. See CHOW, *supra* note 32, at 439.

140. Chow, *supra* note 108, at 29.

141. *Id.* at 29-30.

142. *Id.* at 30-31.

143. CHOW, *supra* note 32, at 439; see also Bruce Odessey, *Swiftly Expanding U.S.-China Economic Relations Stir Debate*, WASH. FILE, Mar. 2, 2005, <http://usinfo.state.gov/eap/Archive/2005/Mar/03-588739.html>. Odessey reports an anonymous U.S. trade official's statement that China's central government leadership appreciates and understands the importance of protecting intellectual property rights, "Not because they're trying to protect the U.S. film industry or U.S. companies They realize that for China to become a modern, mature economy they have to have robust protection of intellectual property rights. So they get it—for purely selfish Chinese reasons." *Id.*

ments to effective enforcement outlined here. Political relationships between central and local authorities can be sensitive and complex. If Beijing wishes to make unequivocal demands of local governments in a matter of local economic importance, Beijing must spend significant political capital to do so. "Any decision by central authorities to suppress local protectionism will involve significant political and social costs at a time when the PRC faces many difficult problems competing for the resources of the central government."¹⁴⁴ A significant reduction in piracy is not possible until central authorities are willing and able to spend the political capital needed to ensure that local officials are similarly committed to defeating piracy.

b) Bureaucratic Rivalries and Overlapping Jurisdiction

The complex and often conflicting web of laws, regulations, and rules relating to intellectual property enforcement can result in overlapping jurisdiction among agencies in a given case.¹⁴⁵ Sometimes, therefore, one runs into a problem quite the opposite of local protectionism: two or more bureaucracies, each of which has a claim to jurisdiction over a case, compete over the rights to enforcement. For example, the NCA has authority to handle and investigate all copyright infringement cases "having a national impact."¹⁴⁶ However, the Culture Marketing Administration, under the Ministry of Culture, also claims jurisdiction over products of popular culture, such as magazines, CDs, and DVDs, on the grounds that such items must conform to moral standards.¹⁴⁷ Compounding this problem, illicit items may infringe more than one intellectual property right. Thus, a pirated DVD bearing a film studio's logo would infringe both copyright and trademark laws, potentially multiplying the number of interested agencies.

Rivalries exist because bureaucratic agencies can reap significant benefits from handling an intellectual property infringement case in the form of increased staffing and budgets and income generated through fines and confiscations.¹⁴⁸ The primary difficulty resulting from bureaucratic rivalries is a lack of cooperation among agencies.¹⁴⁹

144. CHOW, *supra* note 32, at 442.

145. See MERTHA, *supra* note 132, at 145-52; see also Mark A. Groombridge, *The Political Economy of Intellectual Property Rights in the People's Republic of China*, in INTELLECTUAL PROPERTY RIGHTS IN EMERGING MARKETS 27 (Clarissa Long, ed. 2000).

146. FENG, *supra* note 90, at 18.

147. Chow, *supra* note 108, at 32.

148. *Id.* at 31.

149. See Groombridge, *supra* note 145, at 27.

c) Criminal Prosecutions and Civil Damages Provide Minimal Deterrence

In practice, criminal penalties are often too small to deter pirates,¹⁵⁰ and it is difficult to collect sufficient evidence to prosecute them in the first place.¹⁵¹ The insufficiency of the penalties notwithstanding, without an adequate enforcement structure, criminal sanctions have not altered pirates' behavior significantly. In 1998, the year after the Criminal Code was updated to include penalties for copyright infringement, estimated losses to copyright piracy decreased slightly, from \$2.8 billion to \$2.6 billion.¹⁵² The decrease might be attributable in part to the new criminal law, but without consistent enforcement a lasting downward trend has never materialized.

In addition to insufficient criminal penalties, copyright owners blame China's high piracy levels on the low number of criminal prosecutions for copyright violations. Bureaucratic agencies' reluctance to transfer cases for criminal investigation has contributed to the lack of criminal prosecutions. Furthermore, the difficulty of collecting satisfactory evidence of infringement from defendants' premises makes it hard to satisfy criminal evidentiary standards requiring direct physical evidence of past sales—for example, account books or sales receipts—proving that the defendant knowingly sold enough infringing product to meet the criminality threshold.¹⁵³ Anecdotally, distributors and sellers of pirated goods typically carry on their person less than enough evidence to meet the threshold. Therefore, when investigated or arrested, although they might be subject to administrative fines and confiscation of their goods, they will never be criminally prosecuted.

Lately, central authorities claim China has increased the number of criminal prosecutions for intellectual property rights violations.¹⁵⁴ The government reports that between 2000 and 2004, enforcement officials made 2,462 arrests and courts heard 1,710 criminal prosecutions for intellectual property infringement, meting out penalties to 1,948 offenders.¹⁵⁵

150. See, e.g., QU, *supra* note 27, at 308 (arguing that the changes made in the 1997 Criminal Code are actually a step backward from the 1994 Decisions on Penalties for Infringement of Copyright).

151. See FENG, *supra* note 90, at 55; see also CHOW, *supra* note 108, at 33-34.

152. See IIPA, 2000 REPORT, *supra* note 74, at 27.

153. CHOW, *supra* note 108, at 33-35.

154. See, e.g., Alexa Olesen, *419 Held in New Fakes Crackdown*, THE STANDARD, Apr. 8, 2005, <http://www.thestandard.com.hk/stdn/std/China/GD08Ad02.html>.

155. See *IPR Violators Now Major Criminals*, *supra* note 104. These numbers include infringers of all forms of intellectual property in addition to copyright, including

These numbers seem anemic when compared with the magnitude of the piracy problem. It is too soon to determine whether the latest lowered criminality threshold established by the 2004 Judicial Interpretation will significantly reduce copyright infringement.¹⁵⁶

U.S. copyright owners remain skeptical, complaining that they have “consistently had difficulty in gathering information on the use of the criminal law against acts of piracy,” and that they often discover convictions attributed to piracy are in fact “usually under other laws, like pornography or ‘illegal business,’ not piracy.”¹⁵⁷ When it was able to “unearth” statistics regarding prosecutions under the piracy provisions of the criminal law, the IIPA claimed that in 2002 “19 criminal cases were brought and concluded (with reported sentences of six months to 6 years)” in Beijing, and that in 2003, “30 cases were filed in Beijing and Shanghai,” of which “[o]nly 3 . . . were brought under the criminal ‘piracy’ provisions”¹⁵⁸

The threat of litigation in Chinese courts fails to effectively deter pirates. Damages awarded in successful copyright infringement lawsuits often range from 80,000 to 200,000 yuan (about \$10,000 to \$24,000) and are too light to intimidate many commercial pirates.¹⁵⁹ Says one Chinese attorney, “The cost of violating copyright laws in China is small in comparison with the business opportunities it brings.”¹⁶⁰

d) Lack of Judicial Competence in Intellectual Property Matters

One commentator notes that what looks like local protectionism in some cases might in fact be nothing more than poorly trained judges.¹⁶¹ In larger Chinese cities, where specialized intellectual property courts exist, lawyers, prosecutors, and judges have significantly increased their understanding of intellectual property matters.¹⁶² However, poor legal training

patent, trademark, and trade secrets. Among those prosecuted and convicted for copyright infringement, many are likely to have been small-time street vendors or to have received minimal penalties.

156. See *supra* text accompanying notes 100-101.

157. IIPA, 2004 REPORT, *supra* note 3, at 41-42.

158. *Id.*

159. See So, *supra* note 20.

160. *Id.* (quoting Hangzhou-based attorney Ye Zhijian who represents a film studio suing Baidu.com for allegedly infringing the copyright of the film *House of Flying Daggers* by making the film available for viewing through Baidu.com’s movie download service).

161. Groombridge, *supra* note 145, at 26.

162. See Allison & Lin, *supra* note 32, at 788; see also Peter Yu, *From Pirates to Partners (Episode Two): Protecting Intellectual Property in Post-WTO China*, 55 AM. U. L. REV. (forthcoming 2006).

has traditionally plagued the Chinese judiciary, particularly in the countryside.¹⁶³ While evidence suggests that even rural judges' qualifications and training are improving generally,¹⁶⁴ improved competency in more common forms of adjudication, such as family or contract law, does not necessarily translate into competency in more complex intellectual property jurisprudence. This problem particularly matters in criminal piracy cases, where the court of first instance is the local county-level court of the infringer's domicile. Since many pirates base their operations in rural locales, criminal copyright cases often begin in front of local judges lacking experience in or understanding of intellectual property law. Efforts to train Chinese judges in intellectual property matters will take time given the size of the country, the large number of judges requiring comprehensive training in this area, and the fact that intellectual property training is competing with other pressing judicial reform needs.

Judicial reform in the intellectual property context represents only a small subset of the broader judicial reforms needed and underway. Indeed, since the mid-1970s, when China emerged from the Cultural Revolution that "totally shattered" its court system, its judiciary has been in a perpetual state of reform.¹⁶⁵ The broader reforms focus on increasing judicial independence, modernizing and improving the efficiency of the court system,¹⁶⁶ reducing corruption,¹⁶⁷ and improving the overall quality and training of judges. The current judicial reforms also have far-reaching implications for the development of the rule of law in China, which many believe is a prerequisite to the culture of individual rights and respect for law necessary for a successful intellectual property regime.¹⁶⁸

163. See generally Stanley B. Lubman, *Dispute Resolution in China after Deng Xiaoping: "Mao and Mediation" Revisited*, 11 COLUM. J. ASIAN L. 229, 311-12 (1997); Yu, *supra* note 14, at 214 ("[M]ost Chinese judges lack experience and expertise in intellectual property cases."); QU, *supra* note 27, at 390-91.

164. See Randall Peerenboom, *The X-Files: Past and Present Portrayals of China's Alien "Legal System"*, 2 WASH. U. GLOBAL STUD. L. REV. 37, 78 (2003) (arguing that critiques of the Chinese judiciary, which often focus on the fact that many judges are former military officers with little formal legal training, typically fail to consider recent improvements in judicial training and standards).

165. See Keyuan Zou, *Judicial Reform in China: Recent Developments and Future Prospects*, 36 INT'L LAW. 1039, 1045 (2002); see also Chunying Xin, *What Kind of Judicial Power Does China Need?*, 1 INT'L J. CONST. L. 58, 59 (2003) ("Judicial reforms in China are of a depth and breadth that cannot be compared to any other country.").

166. See Zou, *supra* note 165, at 1045-46.

167. *Id.* at 1042.

168. See, e.g., Yahong Li, *The Wolf Has Come: Are China's Intellectual Property Industries Prepared for the WTO?*, 20 UCLA PAC. BASIN L.J. 77, 111 (2002) ("[T]he overall condition of the rule of law will affect the development of the IPRs system. For

e) State Centralism

Censorship and continued stringent state control over film production provide a boon to movie pirates in particular. By limiting the number of foreign films that can be legitimately imported each year, and ensuring that only approved “clean” films are available for viewing in official film outlets, the state has driven demand skyward for unapproved and uncensored—but more entertaining—pirated films.¹⁶⁹ “It seems like a more vigorous and healthy [legitimate] market will not be developed unless censorship is extensively relaxed.”¹⁷⁰

f) Economic Conditions

Copyright enforcement in China cannot improve until overall economic conditions improve. As one young intellectual property attorney in Beijing put it, “Most foreigners think copyright infringement has to do with Chinese culture or philosophy, but it’s really an economic problem. People want to buy the *daoban* [pirated] VCDs or DVDs because they are cheap. But now that I am making more money, I like to buy *zhenban* [legitimate copies].”¹⁷¹ While it is an oversimplification to say the piracy problem only comes down to price, the high cost of legitimate product is undoubtedly an important factor. An average worker earning \$100 per month¹⁷² will choose to pay one dollar for a pirated DVD rather than the ten to fifteen dollars a legitimate DVD has typically cost. Likewise, legitimate music CDs usually cost about 20 yuan (about \$2.40), four to five times more than their pirated counterparts.

As reflected in the young lawyer’s comment, the growing middle and upper class in China can afford legitimate products and might be willing to buy them if they represent a significant upgrade in features and quality and if producers continue to reduce the price gap between legitimate and pirated product. Nevertheless, even though the market for legitimate music CDs increased by 40% in 2004—an increase probably due in large part to the demographic trend just discussed—the piracy rate still has failed to

example, poor enforcement of IPRs is often associated with the ineffective judicial system and local protectionism which are deeply rooted in the problem of the lack of judicial independence in China.”).

169. Laikwan Pang, *The Global-National Position of Hong Kong Cinema in China*, in *MEDIA IN CHINA: CONSUMPTION, CONTENT AND CRISIS* 55, 59 (Stephanie Hemelryk Donald et al. eds., 2002).

170. *Id.* at 59.

171. Interview on Jan. 24, 2005 (on file with author).

172. See WORLD BANK, *CHINA AT A GLANCE* (2005), available at http://www.worldbank.org.cn/English/Content/chn_aag02.pdf (estimating China’s 2004 annual gross national income per capita at \$1,290).

drop appreciably.¹⁷³ Until the economy reaches a point where the prices of legitimate product fit well within the average budget, the piracy rate is unlikely to change.

Unfortunately for the entertainment industry, improved economic conditions alone will not suffice to wean even well-to-do Chinese consumers off cheap pirated goods. Film studios and record companies have begun to drop prices dramatically in an effort to compete with pirates, as evidenced by Warner Brothers' decision in March 2005 to reduce the price of legitimate DVDs in China to between 22 and 28 yuan (about \$2.70–\$3.40).¹⁷⁴ Because legitimate music and film companies must recoup the costs of product development, however, pirated products will always be manufactured and sold more cheaply than their legitimate counterparts. In recent years, music and film companies have lost more competitive ground as the quality of pirated goods has improved considerably, often making them indistinguishable from the real thing.¹⁷⁵ Thus, "Chinese queried by the [Agence France Presse] threw doubt on the likelihood that [Warner Brother's price-dropping] initiative would be successful. 'The quality of pirated DVDs is already good enough,' said Wu Hao, a Beijing resident. 'How many people will pay twice the money for negligible improvement?'"¹⁷⁶

g) Creating a Culture of Respect for Intellectual Property Rights

China must find ways to educate officials, judges, lawyers, businesses, and average citizens about the meaning and importance of intellectual property rights to culture, society, and the economy. Doing so will help foster a culture of intellectual property in China, in which businesses understand the value of innovating and protecting their innovations while respecting others' rights in innovations, and judges and officials will become more familiar with intellectual property issues and the value of intel-

173. See IFPI, COMMERCIAL PIRACY REPORT 2004, *supra* note 10, at 8; IIPA, 2004 REPORT, *supra* note 3, at 33.

174. See *Warner Bros. to Sell Bargain DVDs in China*, AGENCE FRANCE PRESSE, Mar. 11, 2005, http://www.channelnewsasia.com/stories/afp_asiapacific_business/view/136851/1/.html.

175. See Maney, *supra* note 25. Maney writes:

I bought [a] CD in a legitimate music store on one of the busiest corners in Beijing, a few blocks from Tiananmen Square. The CD came shrink-wrapped, complete with a slick insert of photos and lyrics, and cost the equivalent of \$4. Yet despite the retail setting and packaging, the CD is most likely a pirated copy. The pirates are so good, hardly anyone can tell the difference.

Id.

176. See *Warner Bros. to Sell Bargain DVDs in China*, *supra* note 174.

lectual property to society. Within the general population, the goal is to inculcate an innate sense of ownership regarding one's own creations, and to teach people that there is value in purchasing legitimate rather than pirated goods.

China has already made great strides in intellectual property education. News items stressing the importance of intellectual property to society and the economy are ubiquitous in the Chinese media. Many judges and officials attend intellectual property training programs,¹⁷⁷ and many domestic corporations now make such training available to employees.¹⁷⁸ The question is not whether the Chinese government is willing to educate the public on copyright, nor is it whether Chinese businesses will come to appreciate the value of intellectual property. It is instead how much real-world effect these educational efforts will have, and it remains to be seen whether the general population will come to appreciate the value of intellectual property rights.

2. *Cracking Down on Internet Piracy*

Even if Chinese authorities accomplish the myriad reforms discussed above, they are still essentially at square one regarding internet file sharing. Indeed, it might not be an exaggeration to speculate that, by the time China implements the breadth and depth of reforms needed to effectively prevent physical piracy, internet downloading and associated technologies will render physical piracy largely obsolete. The internet threatens to turn anyone with a broadband connection and file sharing software into a pirate. These potential pirates include the sixty-five million (and growing) broadband subscribers in China.¹⁷⁹ In the words of one Chinese copyright law expert, "If [internet copyright] violations are not curbed in a timely way, our efforts in the past few years to fight against piracy in the market will be in vain."¹⁸⁰

As with physical piracy, a crackdown on internet file sharing must come on two fronts: administrative and civil actions and criminal prosecutions.¹⁸¹ Civil actions against file sharers have enjoyed little success in other countries. Despite several years of legal threats and lawsuits against

177. See, e.g., *Beijing's IPR Workload Soars*, CHINA DAILY, Apr. 18, 2003, <http://www.china.org.cn/english/government/62632.htm>.

178. See, e.g., *IPR Strategy to Define Government's Role*, CHINA DAILY, June 14, 2004, <http://www.china.org.cn/english/government/98148.htm>.

179. CNNIC, *supra* note 18, at 4.

180. *Halting Online Copyright Violations*, CHINA DAILY, Apr. 4, 2005, http://www.chinadaily.com.cn/english/doc/2005-04/04/content_430627.htm (quoting Zheng Chengsi).

181. See *supra* Section III.C.

file sharing services and individual file swappers,¹⁸² file sharing has remained robust around the world.¹⁸³ Copyright owners' legal efforts received an unprecedented boost in June 2005, when the U.S. Supreme Court held in *MGM Studios, Inc. v. Grokster, Ltd.* that those who distribute technologies "with the object of promoting [their] use to infringe copyright" are themselves liable for the infringing acts of third parties.¹⁸⁴ However, the international character of peer-to-peer networks will likely mute any chilling effect the *Grokster* decision has in the United States. Legal efforts in the West to combat file sharing are unlikely to impact the rapid growth of online piracy in China significantly. Millions of Chinese already share digital media over the internet, with huge catalogs of unauthorized movie and song files from China, Hong Kong, and Taiwan available online and often easily located via major search engines.¹⁸⁵ The Chinese online piracy community is likely to adapt and persist even if major global peer-to-peer networks such as KaZaa or Grokster are shut down.

Copyright owners are not waiting idly for the effects of the *Grokster* decision to trickle down to China; instead, they have gone on the offensive there as well. For example, Universal Music recently announced a partnership with Chinese internet startup R2G that portends a new generation of anti-piracy strategies in the internet age.¹⁸⁶ R2G will monitor thousands of Chinese websites for unauthorized copies of songs in Universal's catalog

182. See Yu, *supra* note 54, at 374-402 (chronicling efforts by the U.S. music and movie industries to halt music and movie file sharing on peer-to-peer networks by suing the peer-to-peer service providers and individual file swappers).

183. During the first half of 2004, about eight million people were online worldwide at any given time sharing files on major peer-to-peer services such as BitTorrent, Kazaa, and eDonkey. John Borland, *Survey: Movie-Swapping Up; Kazaa Usage Down*, CNET ASIA NEWS, July 14, 2004, <http://www.zdnetasia.com/news/internet/0,39044246,39186711,00.htm>.

184. 125 S. Ct. 2764, 2780 (2005).

185. See IIPA, 2004 REPORT, *supra* note 3, at 37 ("Not counting music files . . . being exchanged through FTP servers set up by university students, and other peer-to-peer servers [such as the Taiwan-based Kuro], RIAA/IFPI estimates that there millions [sic] of music files being offered for download and listening [through audio streaming] from over a thousand active pirate music websites in China."); Allen T. Cheng, *China NetEase Suspends Music Search to Fight Pirates*, BLOOMBERG.COM, Aug. 17, 2005, <http://www.bloomberg.com/apps/news?pid=10000080&sid=am30KlpeHZp4&refer=asia> ("There are more than 7,000 music sites in China, and almost all of them offer free music down loads without having obtained legal rights from music publishers . . ."); see also *infra* text accompanying note 19.

186. See *Interview: R2G*, PACIFIC EPOCH, May 19, 2005, http://www.pacificepoch.com/pecontent/29438_0_3_0_M/ (interview with Scarlett Li, Chief Operating Officer, R2G).

and has the authority to sue infringers on Universal's behalf.¹⁸⁷ Ultimately, however, R2G aspires to encourage a legitimate online music marketplace by compelling providers of illegitimate content to "turn legit" and offer content licensed through R2G.¹⁸⁸

Displaying increasing sophistication in their private efforts to crack down on internet piracy, Chinese copyright owners have begun targeting internet search engines—the easily identified, cash-rich backbones of the Chinese online piracy culture—as contributory infringers.¹⁸⁹ While internet search giants might find the threat of being hauled into a Chinese court less than intimidating, such companies are increasingly responsible to foreign investors and have international reputations to maintain.¹⁹⁰ The liability associated with infringement lawsuits can affect the value of such companies in the eyes of foreign investors.¹⁹¹ Thus, shortly after announcing in July 2005 that it would seek an initial public offering in the U.S., Chinese internet search giant Baidu.com bowed to music industry pressure and agreed to remove links to more than 3,000 unauthorized, infringing files, and claimed to be investigating 50,000 other links to allegedly infringing content.¹⁹² Public listing in the U.S. also creates the potential for jurisdiction in U.S. courts and application of U.S. law, even when the plaintiff and locus of infringement are in China, supplying further impetus for companies like Baidu to police their sites and purge any suspect links.¹⁹³

187. *Id.*

188. *Id.*

189. *See Sony, Warner, EMI Sue Baidu Over Free Music Downloads*, BLOOMBERG.COM, Sept. 16, 2005, http://www.bloomberg.com/apps/news?pid=10000080&refer=asia&sid=a2DlpMuvP_6M (noting that Baidu and other top Chinese search engines are publicly listed in the United States and discussing the deleterious effect allegations of contributory copyright infringement had on Baidu's U.S. stock price).

190. *See id.*

191. *See So, supra* note 20.

192. Mure Dickie, *Baidu Deletes Links to Pirated Music*, FT.COM, July 18, 2005, available at 2005 WLNR 11244409. As of this writing, however, Baidu still provides links to infringing content and is loathe to remove them altogether since searches for music files account for 22% of Baidu's traffic. *See also* Faye Wong & Rachael Chen, *Top Five Winners in China's IT Industry This Year*, INTERFAX CHINA, Dec. 23, 2005, <http://www.interfax.cn/showfeature.asp?aid=8658&slug=RANK>. Shortly after the Baidu suit was filed, popular Chinese search engine NetEase—also publicly traded in the U.S.—announced the discontinuation of its dedicated music search service “out of concern and respect for copyrights.” Cheng, *supra* note 185 (quoting NetEase co-founder William Ding).

193. *See So, supra* note 20; *see also* Graeme B. Dinwoodie, *Conflicts and International Copyright Litigation: The Role of International Legal Norms*, in INTELLECTUAL PROPERTY IN THE CONFLICT OF LAWS 195 (Jurgen Basedow et al. eds., 2005) (canvassing

Although these developments evidence incremental progress for copyright owners, such private enforcement efforts will be insufficient to stem the tide of internet piracy in China.¹⁹⁴ In the West, file-sharing networks and technologies have adapted to thwart legal and technological hurdles with relative ease.¹⁹⁵ Furthermore, solutions such as R2G do not address major contributors to the digital piracy problem, such as “sneakernets” (i.e., networks in which files are transported and shared among acquaintances by way of a physical medium such as a CD-R or MP3 player) and FTP file sharing on closed-access university servers.¹⁹⁶ It also remains to be seen whether R2G can provide an effective answer to peer-to-peer networks.¹⁹⁷

R2G and similar companies and technologies represent private approaches to reducing piracy. It seems impossible, however, for private actors to significantly dent online piracy alone without more proactive and effectual government involvement. Ultimately, if Chinese authorities are to decisively crack down on internet piracy, they must find a way to do what no other government has been able or willing to do: crack down authoritatively and effectively on a large number of average citizens trading movies, music, and other files online. The success of such an approach in China is even more in doubt because resources spent on attempts to control physical piracy dilute efforts to quash internet piracy.

In addition to the unauthorized dissemination of copyrighted works through file sharing, the internet can be used to promote and sell pirated physical goods. In a high-profile example, a Shanghai court sentenced American citizen Randolph Guthrie III in April 2005 to two-and-a-half years in prison for selling illegal DVDs to American consumers through

the devices increasingly used by U.S. courts in intellectual property cases to extrude U.S. law globally and stating: “If I may paraphrase Paul Torremans, the U.S. courts have moved not so much from dodging the bullets to biting them, but onward still to actively seeking them.”).

194. See *China Attempts to Sink MP3 Pirates*, NEWSFACTOR.NET, July 20, 2005, http://www.newsfactor.com/story.xhtml?story_id=11000002G5J8 (“[M]ost analysts have suggested that [Baidu’s decision to delete links to Internet sites offering pirated music] is a sticking plaster treatment for a growing problem rather than a cure.”).

195. See *supra* notes 182-183.

196. See Xiao Wei Chen, *Exclusive Interview with Jun Wu, R2G’s President and CEO*, DIGITAL MEDIA IN ASIA BLOG, Dec. 19, 2005, <http://blogs.law.harvard.edu/dmablog/2005/12/19#a31> (“[College students are] not on the top of our to-do list. Once the overall piracy rate in the public network is reduced to a certain level we will start addressing these niche market too.”).

197. R2G plans to introduce a peer-to-peer filtering technology in early 2006, though at the time of this writing details are scant. See *id.*

his personal website.¹⁹⁸ Nine months earlier, during a televised raid, Chinese officials arrested Guthrie for selling nearly 200,000 pirated DVDs over a two-year period from his Shanghai apartment-turned-warehouse.¹⁹⁹ Using the internet to sell pirated physical goods does not present new legal issues, as the internet simply provides an alternative medium through which to engage in the classically infringing act of selling an unauthorized copy. However, it amplifies China's enforcement problem, particularly with regard to the exporting of pirated goods, as the Guthrie case illustrates. The internet increases pirates' ability to reach customers overseas, creating further opportunities and incentives for pirates and even more complex enforcement challenges for authorities.

3. *Chinese Copyright Theory and Cracking Down on Piracy*

For instrumentalist reasons, a policy of cracking down effectively on film and music piracy is attractive to China. It could strengthen China's international credibility as a major economic player and help domestic cultural and entertainment industries flourish to a degree never before seen in modern China. In addition, it would dispose of a wealth of illegal activities that involve and encourage organized crime and official corruption and potentially improve the overall respect for the rule of law.

Cracking down effectively on film and music piracy would also be attractive from the standpoint of the Chinese theory of copyright suggested above.²⁰⁰ Rampant commercial physical piracy clearly harms the Chinese music and movie industries. Not only have the industries themselves suffered, but the quality and variety of domestic music and movies suffer.²⁰¹ The relative lack of quality cultural products harms society and undermines the goal of promoting a "materially advanced society." International copyright owners crave an effective crackdown as well. It would lead to increased revenues from sales in China, even though the increases from China sales would for years likely be far lower than the loss estimates

198. See David Litterick, *U.S. Internet Pirates are Jailed in China*, TELEGRAPH, Apr. 21, 2005, <http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2005/04/21/cnchina21.xml&menuId=242&sSheet=/money/2005/04/21/ixcity.html>; *American Nationals Given Jail Terms for Selling Pirated DVDs*, PEOPLE'S DAILY ONLINE, Apr. 20, 2005, http://english.people.com.cn/200504/20/eng20050420_181820.html; see also Peter Wonacott & Sarah McBride, *To Catch Film Pirate, U.S., China Follow Spy Flick to Shanghai*, WALL ST. J., Mar. 7, 2005, at A1.

199. Wonacott & McBride, *supra* note 198.

200. See *supra* Section III.D.

201. As mentioned above, piracy is not the sole cause of China's music and film industry woes, but the enormous amounts of piracy cannot but greatly reduce the ability of the Chinese music and film industries to invest in and cultivate talent. See *supra* note 12.

proffered by the IIPA, since many Chinese consumers will continue to balk at paying the higher price of legitimate product.

An effective crackdown on piracy also carries risks, however. Chinese copyright law incorporates a utilitarian theory of copyright, which presumes striking a healthy balance between the need to provide incentives for creators and the public's interest in widespread enjoyment of those creations.²⁰² A policy of cracking down hard on physical piracy, internet piracy, or both is not an optimal solution if it ends up putting greater power in the hands of copyright owners than is required to stimulate new creations.

It is also unclear whether cracking down on internet piracy would produce net benefits for Chinese society and the entertainment industries. Lawrence Lessig has posited that much file sharing does not involve a violation of copyright, and much file sharing that does violate copyright is not economically harmful.²⁰³ In fact, there is some evidence to suggest that file sharing actually helps, rather than hurts, music sales, at least in the West.²⁰⁴ File sharing and the internet undoubtedly offer unprecedented promise for promotion and enabling widespread access to creative content. The Chinese record industry, which because of piracy has developed more flexible business models and is less reliant on retail sales revenues, is naturally positioned at the cutting edge of an internet-driven shift from the old, product-oriented music business model to a service-oriented business model.²⁰⁵ It is worth simply noting that China might maximize its position as a leader in developing next-generation, internet-centered entertainment business models if new companies such as R2G²⁰⁶ and online/mobile content retailers focus on business model innovations that take advantage of,

202. See *supra* Section III.D.

203. See LESSIG, *supra* note 13, at 66-79; see also FELIX OBERHOLZER & KOLEMAN STRUMPF, THE EFFECT OF FILE SHARING ON RECORD SALES: AN EMPIRICAL ANALYSIS 3-4 (2004) ("While downloads occur on a vast scale, most users are likely individuals who would not have bought the album even in the absence of file sharing.").

204. See OBERHOLZER & STRUMPF, *supra* note 203, at 3 (2004) (finding that "file sharing has only had a limited effect on record sales. . ."). But see STAN J. LIEBOWITZ, FILE-SHARING: CREATIVE DESTRUCTION OR JUST PLAIN DESTRUCTION? 3 (2004) ("[This study] concludes that the industry is not crying wolf. The evidence seems compelling that the recent decline in sales can be properly attributed to file-sharing.").

205. See DAVID KUSEK & GERD LEONHARD, THE FUTURE OF MUSIC: MANIFESTO FOR THE DIGITAL MUSIC REVOLUTION 13 (2005) ("The digital distribution of music will gradually minimize the pay-for-product mentality that has dominated the music business for over a century, and technology may finally create some deeper empowerment for more of the involved parties.").

206. See *supra* text accompanying notes 186-193.

rather than combat, present circumstances in China.²⁰⁷ Unfortunately, much energy seems to be spent reinforcing the twentieth-century entertainment industry business model by transporting it to the internet context.

4. *Prospects for Cracking Down on Music and Film Piracy*

Prospects for a sustained, effective nationwide crackdown on music and movie piracy in the foreseeable future are slim. In the best-case scenario, the prerequisite changes to fundamental attitudes and institutions discussed in Section IV.A.1 will take years, if not decades. For example, since the enactment of the 1990 Copyright Law, only incremental increases in the market share for legitimate works have been achieved. Likewise, an effective, widespread crackdown on internet file sharing does not appear to be on the horizon. Such a crackdown would be a massive and technologically challenging undertaking, and it does not appear to be a government priority now. Even if attempted, significant doubts about its effectiveness exist. For example, the government's concerted efforts to block internet pornography sites have met with only partial success,²⁰⁸ and effectively blocking file sharing on peer-to-peer and other distribution networks is arguably more demanding and technologically complex than blocking access to pornographic websites.

Chinese officials and lawyers argue, reasonably enough, that it is unrealistic to expect China to reach a level of copyright enforcement in less than two decades akin to that enjoyed by Western countries that have had centuries to develop intellectual property laws and norms.²⁰⁹ Although the

207. In Section IV.C, *infra*, I will outline a solution that I believe comports with and complements China's present legal, social, and entertainment market realities.

208. *See generally* OPENNET INITIATIVE, INTERNET FILTERING IN CHINA IN 2004-2005: A COUNTRY STUDY (2005), available at http://www.opennetinitiative.net/studies/china/ONI_China_Country_Study.pdf.

209. *See, e.g., IPR Infringers Face Lengthy Jail Terms and Hefty Fines*, *supra* note 125 ("Law enforcement officers in China's government and judicial departments have not done a bad job, considering it is only two decades or so since the country introduced legislation on trademark, patent and copyright."); *Nation Places IPR as Key Priority*, CHINA DAILY, Mar. 21, 2005, <http://www.china.org.cn/english/BAT/123345.htm> ("IPR violations exist in many countries, including developed nations with hundreds of years of IPR history. China still needs a long period to improve its IPR system, since it only has 20 years of history working with IPR."); *see also* INFORMATION OFFICE OF THE STATE COUNCIL (P.R.C.), NEW PROGRESS IN CHINA'S PROTECTION OF INTELLECTUAL PROPERTY RIGHTS (2005) [hereinafter STATE COUNCIL REPORT], available at http://english.gov.cn/official/2005-07/28/content_18131.htm ("[I]n a large developing country with a population of 1.3 billion, relatively backward economy and low level of science and technology, a complete IPR protection system cannot be established overnight. China has a long way to go in this regard, and faces a tough task when it comes to IPR protection.").

issue of copyright protection has become important to the Chinese government, its importance pales in comparison to myriad other issues more directly related to social stability, including unemployed workers potentially numbering in the hundreds of millions, an alarming wealth disparity between classes, and a growing AIDS crisis.²¹⁰ Recently, Yan Xiaohong, vice director of the NCA, admitted publicly that effectively preventing piracy through government crackdowns is not realistic: “China cannot win the anti-piracy battle if it relies only on government crackdowns and judicial punishment. . . . Despite the government’s pledge and enhanced efforts to stamp out piracy, intellectual property infringement is rampant.”²¹¹

As more time passes without significant progress in copyright enforcement, it is conceivable that the Chinese government will actually receive increasingly *less* pressure from domestic and foreign industry groups to crack down on piracy. As we will see in Section IV.B.2, some content producers who believe that investments in copyright enforcement are not yielding results already seek alternative business models that reflect the reality of the Chinese market and are not reliant on legal enforcement of copyright. Others have built the “cost” of piracy into their current business model in China²¹² or are simply doing enough private enforcement to keep the problem from worsening.²¹³ Still others are withdrawing from the Chinese market altogether.

5. *Seeking a Middle Ground*

Effective nationwide copyright enforcement is not in China’s foreseeable future. But if copyright owners and the Chinese government believe that a sustained crackdown on piracy is the best course of action, it makes sense to pursue a geographically targeted enforcement strategy rather than a nationwide strategy. It is easy for foreigners to view China as a social, economic, and political monolith. But there is a significant (and growing) economic, cultural, and educational divide between China’s metropolises and its smaller cities and villages and between China’s richer eastern re-

210. *See supra* note 24.

211. *China Expresses Doubts about Ability to Curb IPR Violations*, AGENCE FRANCE PRESSE, Feb. 24, 2005, http://www.channelnewsasia.com/stories/afp_asiapacific/view/134156/1/.html.

212. In the late 1990s, the president of a U.S.-based independent record label, whose primary markets are in Asia, indicated to me that in markets such as Hong Kong it has built losses to piracy into its normal cost of doing business.

213. *See* Balfour, *supra* note 1, at 60 (“[Some] companies simply try to make life as difficult as possible for [pirates and counterfeiters] by raiding factories and warehouses or by slightly altering the look of products, making it tough for counterfeiters to keep up with changes.”).

gion and its underdeveloped western region. These differences impact piracy. Anecdotal evidence from a number of copyright industry professionals in Beijing and Shanghai suggests that the piracy problem is improving in some large eastern cities—not vastly, but tangibly. When asked what “improving” means, one entertainment industry veteran said five years ago there were *no* legitimate music CDs in stores, while today one can find *some* legitimate CDs. This, according to these copyright industry professionals, contrasts the near 100% piracy rate present in many smaller cities and rural areas.²¹⁴ International music industry figures support this anecdotal evidence: the market for legitimate music in China rose sharply in 2003 and 2004, although, because of vast problem regions, overall piracy rates still remained at 90% or higher.²¹⁵

Foreign and Chinese copyright owners would likely see tangible gains if they were to surrender, for the time being, the goal of nationwide enforcement, and instead persuade the central government to concentrate on creating “piracy-free zones” around some of the largest, most developed cities. One Western media professional close to the Chinese copyright industries privately opined, “If Hollywood would just concentrate on Shanghai and Beijing, they would recover their money.”²¹⁶ While it is difficult to know whether this is true, such a strategy makes sense. First, central authorities could focus their limited resources intensely and relentlessly in smaller, well-defined areas. Second, the preponderance of enforcement efforts would be located closer to central authorities, giving them more direct control and reducing the influence of local protectionism and corruption. Third, the demand for legitimate products would flourish in the biggest potential markets. While such a plan would take some of the pressure off pirates outside the designated enforcement zones, the average income level is lower in more rural areas, thus sales that actually displace legitimate products would be correspondingly fewer since the potential market for legitimate products is smaller. Fourth, such a plan would increase the number of infringement cases, particularly criminal cases, heard by experienced intellectual property judges in major cities.

The major drawback to such a plan would be that, given somewhat freer reign to operate in rural areas, pirates might have more opportunity to concentrate on exporting their wares, ultimately moving the problem overseas. Although a concern, this drawback should not cause this idea to be discounted. First, while reliable piracy sales figures are impossible to

214. Interview on Jan. 20, 2005 (on file with author).

215. See IFPI, COMMERCIAL PIRACY REPORT 2004, *supra* note 10, at 9.

216. Interview on Jan. 4, 2005 (on file with author).

ascertain, decreasing the supply and demand for pirated goods in the markets of Shanghai and Beijing would undoubtedly constitute a significant blow to the pirates' business, helping to keep their numbers in check. Second, some of the resources saved by deemphasizing nationwide enforcement could be refocused on import and export channels for pirated goods. Third, in many parts of China the enforcement is currently so weak that it is not clear such a program would leave those areas significantly worse-off than they are presently.

The point here is not to elucidate the details of such a program or even strongly advocate it. Rather, it is to highlight that the goal of effectively cracking down on piracy nationwide is impractical under the present circumstances. Any attempt to strictly enforce copyright laws should be measured and strategic, and should keep in mind China's reality as a large and extremely diverse nation both economically and demographically. As the Chinese saying goes, it is best not to try to get fat all in one bite.

B. Staying the Present Course

Given that an effective crackdown on piracy is unlikely in the near future, what prospects for the movie and music industries in China exist should China simply stay on its present course? In other words, what can we expect if China continues to pursue a course of measured, long-term legal and institutional reforms relating to intellectual property protection, while increasingly encouraging copyright owners to take private action against infringers and while a significant chasm persists for years or decades between the formal law and reality? This Section explores China's present trajectory in its development of an effective copyright enforcement regime, and the impact that the present slow-paced reform is likely to have on copyright owners and entertainment business models. I then consider whether China's present strategy comports with the policies underlying Chinese copyright and consider the prospects for China staying on its present course.

1. The Long March to Reduced Piracy Levels

Many in China and throughout the world hoped that China's accession to the WTO, and its agreement to amend its intellectual property laws as required by TRIPS, would immediately help to lower piracy levels. However, the effects on piracy have been mixed. On one hand, China's entrance into the WTO led to significant changes in the copyright law that most international observers laud.²¹⁷ As economic conditions improve, the number of buyers willing and able to purchase legitimate products in-

217. See *supra* text accompanying note 80.

creases. In 2004, the market for legitimate music CDs grew considerably faster than the market for pirated CDs.²¹⁸ During that time, the estimated piracy rate for music CDs dropped slightly.²¹⁹ The number of copyright-related arrests by Chinese authorities has increased steadily, as have criminal prosecutions of pirates.²²⁰ Furthermore, the Supreme People's Court has substantially lowered the thresholds for criminal liability in copyright infringement cases.²²¹

On the other hand, some experts predicted that China's entry into the WTO could worsen piracy, at least in the short term, and some indicators support those predictions.²²² Improvements in economic conditions increase the demand not only for legitimate goods but also pirated audiovisual products.²²³ Experts also predict a sharp rise in exported pirated goods as China gradually relaxes its export restrictions in compliance with the WTO agreement.²²⁴ In the motion picture industry, the rate of piracy and the estimated losses due to piracy have both increased since 2001.²²⁵

Nevertheless, it appears the overall trend is one of very gradual improvement as government officials begin taking to heart the importance of intellectual property to the nation's development, and, most importantly, as domestic enterprises begin to appreciate the value of their own intellectual property. Traditional media companies with the deepest pockets, both foreign and domestic, are likely to continue to wage war against piracy as long as legal and technological strategies for defeating piracy hold promise.²²⁶ Nevertheless, despite ongoing advances in copyright protection, de-

218. IFPI, COMMERCIAL PIRACY REPORT 2004, *supra* note 10, at 8 (reporting that legitimate sales increased by 40% while pirated sales increased by 20%).

219. IFPI estimates indicate the overall piracy rate in China dropped by 1% in China in 2004. *See id.* (listing the 2004 piracy rate for music sales in China at 90%); IFPI, COMMERCIAL PIRACY REPORT 2003, *available at* <http://www.ifpi.org/site-content/antipiracy/piracy2003-priority-territories.html> (listing the 2003 piracy rate for music sales in China at 91%).

220. *See, e.g., Beijing's IPR Workload Soars, supra* note 177 ("Courts in Beijing at various levels dealt with 978 IPR cases last year, a rise of 28 per cent over 2001 and 2.5 times the number in 1998.").

221. *See supra* Section III.B.

222. *See* CHOW, *supra* note 32, at 450.

223. *See* IFPI, COMMERCIAL PIRACY REPORT 2004, *supra* note 10, at 8 (estimating 20% growth in 2004 for the Chinese pirated-music market).

224. *See* CHOW, *supra* note 32, at 450.

225. *See* IIPA, 2004 REPORT, *supra* note 3, at 33.

226. A prime example of this is the advent of solutions such as R2G, which essentially attempts to combat online piracy by grafting the "old media" business model onto the internet. *See infra* text accompanying notes 186-193.

veloping an effective and reliable copyright regime in China will take many years, if not decades, for the reasons outlined above in Section IV.A.

2. *The Trend toward Decreased Reliance on Copyright Protection*

In the meantime, many foreign and domestic entertainment companies doing business in China will see little return on their investment in combating piracy and their business strategies will continually outpace the law as they adjust to the realities on the ground. For example, after diligently pursuing myriad deterrents—legal and otherwise—to the heavy piracy of their popular retail video games in China, game developer Electronic Arts, Inc. has publicly all but conceded the Chinese retail market to pirates and is instead concentrating its efforts on developing subscription-based online gaming, which is less susceptible to piracy.²²⁷ Warner Bros.'s aggressive DVD pricing and value-added features indicate a business strategy designed to help the company compete directly with pirates.²²⁸ In addition, Warner Bros. is exploring other avenues to generate revenue, including partnering with Chinese movie theaters to improve the theater-going experience to attract more Chinese to spend their money in theaters rather than on pirated DVDs.²²⁹ Likewise, some Chinese entertainment companies now view piracy as inevitable and anticipate losses to it in their business plans. Rather than attempt to control piracy, they harness its potential as free promotion and generate revenue through other means such as licensing songs or characters for use in advertising or on product packaging.²³⁰ Some argue that, in China, and perhaps in the future everywhere, artists will leverage the exposure piracy (or legitimately distributed free music) provides and will exploit their fame gained through such exposure

227. Comments by Lars U. Buttler, Vice President Global Online, Electronic Arts, Inc., at the Asia Business Conference, Panel on New Opportunities and Challenges for Interactive Media Businesses in Asia, Harvard Business School, Feb. 19, 2005.

228. *See supra* text accompanying note 174.

229. Comments by Darcy Antonellis, Senior Vice President Worldwide Anti-piracy Operations, EVP, Technical Operations, Warner Bros. Entm't, Inc., at the Asia Business Conference, Panel on New Opportunities and Challenges for Interactive Media Businesses in Asia, Harvard Business School, Feb. 19, 2005.

230. *See* Maney, *supra* note 25. I am told the Taiwanese animation company behind a popular cartoon character in China named "Bluecat" does not actively prevent pirated compilations of its cartoons from flooding the market. Instead, it considers piracy to be free promotion and seeks revenue through licensing deals and broadcast royalties. Of course, this approach to revenue generation still might rely on trademark law some other manner of enforcing intellectual property rights. Licensing deals by their nature presume the intellectual property owner's ability to prevent unauthorized uses of a song, character, or persona by others.

to earn revenue from alternative sources such as commercial sponsorships, live performances, and licensing.²³¹

Similarly, copyright owners will likely approach internet file sharing as they have approached physical piracy. If copyright owners in China become convinced that fighting internet piracy is hopeless, they are likely to develop internet business models that are less vulnerable to piracy or to harness file sharing for its promotional potential.

3. *The Present Course and Chinese Copyright Theory*

The difficulty surrounding the enforcement of Chinese copyright law undermines incentives to create, vitiating a central principle of the copyright law.²³² Most notably, unreliable copyright protection contributes, at least in part, to the relatively small number of albums and films released in China each year.²³³ This undercuts opportunities for new artists and films to emerge, and diminishes the quantity and variety of domestically produced works available to Chinese consumers.

Nevertheless, private-sector solutions to the piracy problem, developing to fill the vacuum left by lax copyright protection, possess the potential to undermine the goals underlying copyright and harm consumer interests. Emerging Chinese entertainment business strategies—online music and video stores selling or renting encrypted internet or mobile phone downloads,²³⁴ corporate sponsorships/endorsements for artists and filmmakers,²³⁵ and private policing of internet file sharing²³⁶—threaten to enable a new generation of gatekeepers with significant control over how, when, and by whom entertainment can be enjoyed. Many of these solutions rely on technological restrictions that empower copyright owners to create barriers to public access in ways that can far exceed what copyright law provides. Likewise, business models that rely on corporate endorsements to compensate for losses to piracy can stifle diversity and expression by favoring highly commercial, uncontroversial artists and films.

231. *Id.* (“Eventually, recorded music will no longer make money. . . . Chinese pop artists . . . find ways to make money other than through selling CDs. A lot of it comes from sponsorship.”).

232. *See* 2001 Copyright Law art. 1 (amended by the Standing Comm. Nat’l People’s Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.).

233. While the dearth of new music and film releases in China each year is also due to other factors, including government overregulation and structural inefficiencies in the music and film industries, there is little doubt that piracy plays a significant role. *See generally* De Kloet, *supra* note 12; Chu, *supra* note 12.

234. *See, e.g.*, Aigo Music, <http://www.aigomusic.com/> (last visited Feb. 28, 2006).

235. *See supra* text accompanying note 231.

236. *See supra* text accompanying notes 186-193.

However, the current environment in China also increases public access to creative works, helping to realize an important goal underlying copyright law despite lax enforcement of the law. For example, the great variety of works available through piracy is a fortunate byproduct of the present situation in China. Because pirated goods are priced within the average consumer's budget and are beyond the reach of government censors, more Chinese are exposed to more music and movies than would likely ever be possible with an effective copyright regime. Tight government quotas on foreign films would greatly limit Chinese consumers' ability to view Hollywood movies but for the cornucopia of foreign films available through piracy.

The environment in China drives innovative music and film business models and methods.²³⁷ As technology blogger Joi Ito wrote, "[I]n [the Chinese] market where the record industry basically doesn't function, artists and agents are going to be pushing the cutting edge of music business models and might in fact discover the post DRM/RIAA [Digital Rights Management / Recording Industry Association of America] business model before Hollywood does."²³⁸ The lax copyright environment in China no doubt shifts the balance of power to pirates and consumers. But efforts by copyright owners to advance new technologies and business models that swing the pendulum to the opposite extreme, strongly favoring owners' rights, should be resisted. The next-generation entertainment business model should ideally keep copyright law's underlying principles in mind and strike a fair balance between consumer and copyright owner interests.

4. *Prospects for Staying the Present Course*

Despite occasional pledges to crack down on piracy of audiovisual products,²³⁹ the strongest indications from the Chinese government suggest it will stay the present course with regard to policies for combating music and film piracy.²⁴⁰ That is, China will likely proceed with gradual

237. See, e.g., *supra* text accompanying note 231.

238. Michael Song on Chinese Music Industry, Joi Ito's Web (Sept. 10, 2004, 13:43 JST), http://joi.ito.com/archives/2004/09/10/michael_song_on_chinese_music_industry.html.

239. See Forney, *supra* note 131.

240. See, e.g., Craig Simons, *Faking It: The World's Number One Producer of Counterfeit Goods Shows Little Sign of Change—Except When it Comes to Protecting Olympic Symbols*, S. CHINA MORNING POST, Jan. 10, 2005, FF Features, available at 2005 WL 55978653 ("Some low-level officials enforce the law when necessary, but do not treat it as a high priority' And after occasional crackdowns, to show commitment to protocol, 'they loosen up again.'") (quoting Douglas Clark, partner at Lovells' law firm in

and measured institutional reforms, while performing occasional strike-hard campaigns against infringers in response to pressure from foreign and, increasingly, domestic copyright owners. In practice, copyright enforcement will continue for some time to fall far short of the standards formalized in the law.²⁴¹

Assuming China stays on its present course, how long will it take to reach an acceptable level of copyright enforcement? Taiwan's experience can provide some insight. High piracy levels existed for decades in Taiwan, which has extremely close cultural and historical ties to China. Like China today, Taiwan of the late 1950s through the early 1990s was rife with piracy, prompting complaints and lobbying efforts from Western copyright owners that resulted in diplomatic threats against the Taiwanese.²⁴² The 1990s saw a significant reduction in piracy as Taiwan's rapid economic growth, legal reforms, and increasingly sophisticated electronics industry led to increased domestic support for effective copyright laws and norms.²⁴³ A decade later, Taiwan's piracy rate for music is still slightly above 40%.²⁴⁴ This level is markedly better than the piracy rate in China, to be sure. But if it took Taiwan, which has had closer political and economic ties to the West for much longer than China, decades to reduce the piracy rate, it is difficult to imagine that China could do the same in less time. Although during the last decade China has made gains of its own regarding intellectual property protection, it has a far greater territory to control and nearly sixty times Taiwan's population, with all the attendant difficulties of reforming the political, economic, and social institutions of a country so large.

Many observers are convinced that intellectual property protection in China will begin to develop in earnest when Chinese companies them-

Shanghai); STATE COUNCIL REPORT, *supra* note 209 (“[A] complete IPR protection system cannot be established overnight. China has a long way to go in this regard, and is faced with heavy tasks in IPR protection.”); *IPR Infringers Face Lengthy Jail Terms and Hefty Fines*, *supra* note 125 (expressing “little hope” for a short-term solution to widespread intellectual property infringement but cautious optimism that gradual improvement in the legal system and enforcement efforts will result in long-term reductions in infringement).

241. See STATE COUNCIL REPORT, *supra* note 209 (concluding that “the Chinese government is clearly aware that, in a large developing country with a population of 1.3 billion, relatively backward economy and low level of science and technology, a complete IPR protection system cannot be established overnight”).

242. See ALFORD, *supra* note 26, at 96-104.

243. See *id.* at 108.

244. IFPI, THE RECORDING INDUSTRY COMMERCIAL PIRACY REPORT 2004, *supra* note 10, at 11.

selves increasingly fall victim to infringement. That is, once Chinese companies' interests are at stake, those companies and the Chinese government will be compelled to improve the overall level of intellectual property protection.²⁴⁵ There can be little doubt that domestic interest in intellectual property protection is central to the maturation of the Chinese intellectual property system as a whole. Still, it is unclear how much this wisdom applies to the Chinese music and film industries, which have long been victims of piracy and sought improved protection, but have had little success reducing piracy levels. Moreover, going forward, there is no guarantee that Chinese authorities will work to enforce all intellectual property laws with equal intensity, nor is it likely that enforcement resources will be allocated equally for protection of patent, trademark, and copyright.²⁴⁶

245. See, e.g., Odessey, *supra* note 143 (noting that while central government authorities see the danger piracy poses to domestic industries, local governments are not yet convinced of the interests at stake).

246. The government apparently considers patents to be more essential to China's overall economic growth and stability than copyright. The emphasis on patent and trademark is apparent in the 2005 Draft Plan for National Economic and Social Development. REPORT ON THE IMPLEMENTATION OF THE 2004 PLAN FOR NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT AND ON THE 2005 DRAFT PLAN FOR NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT, 10th Nat'l People's Cong., 3rd sess., Mar. 5, 2005 [hereinafter 2005 Draft Economic Plan]. The Plan expressly identifies the need to develop intellectual property to protect "key technologies" and to continue to develop "[h]i-tech industries that can greatly stimulate economic development," including biology, integrated circuits, and software, to be owned by state and private companies, as well as the need to develop proprietary high-tech equipment under Chinese brands. *Id.* Regarding cultural works, the plan indicates an aspiration to "continue to develop . . . social undertakings to satisfy the spiritual and cultural needs of the people" and "energetically develop culture, radio and TV, film, the press, publishing and sports." *Id.* The cultural industries, however, are not identified in the plan as key economic contributors. See *id.* Likewise, news reports on national and regional intellectual property strategies indicate a strong emphasis on developing intellectual property rights to spur high-tech innovation, and typically make little or no mention of copyright. See, e.g., *Nation Plans IPR Protection Strategy*, CHINA DAILY, June 3, 2004, <http://www.china.org.cn/english/BAT/971173.htm> (mentioning "patent," "research," or "technological innovation" numerous times in relation to the forthcoming national strategy on intellectual property rights, but failing to mention copyright protection or the music or movie industries); *Jiangsu Works Out IPR Scheme*, CHINA DAILY, Aug. 6, 2004, <http://www.china.cn/english/BAT/103159.htm> (reporting an intellectual property strategy developed for Jiangsu, a wealthy industrial province on China's east coast; the report suggests Jiangsu's strategy focuses on developing intellectual property rights in enterprise and industry, mentioning patent and "brands protection," but not copyright). There is historical precedent in China for the strategy of favoring patent over copyright in order to spur technological development, as the Communist party in the early years of the PRC, sorely in need of new technologies and attempting to rebuild a nation ravaged by decades of war, made patent law the "cornerstone of [its] early efforts at regulating intellectual property." ALFORD, *supra* note 26, at 57.

Despite the prognosis that piracy will remain a fact of life in China for many years to come, the present copyright law provides tangible effects. With pirates in larger cities having increasingly less freedom to operate in the open, there is some reason to believe that certain larger cities will eventually resemble the “piracy-free zones” envisioned above in Section IV.A.4, as the laws and regulations improve and general reforms gradually alter the Chinese political, administrative, judicial, and economic landscape. Furthermore, copyright owners have more effective options than ever before for legal recourse.

C. An Alternative Compensation System for Sharing Music and Movies Online

As we examined the first two options for solving China’s piracy problem, we have generally considered the internet as a threat to the development of an effective copyright/anti-piracy regime in China. A third option takes the view that the internet presents an opportunity to combat piracy and advance the goals of Chinese copyright law more effectively than could be achieved through either strict enforcement of copyright law alone or alternative private business models that do not rely on copyright.²⁴⁷ This option is an alternative compensation system (“ACS”) akin to those proposed by Professors William Fisher and Neil Netanel,²⁴⁸ in which a governmentally sponsored award system encourages efficient, legal distribution of creative works over the internet and ensures that copyright owners are fairly compensated for the distributed works.²⁴⁹ Most importantly, as a governmentally sponsored system, the ACS provides for the needs of consumers and creators alike, thus realizing copyright law’s underlying

In the realm of copyright, software will likely receive priority from the Chinese government with regard to enforcement resources, having been identified as among the industries that “can greatly stimulate economic development.” 2005 Draft Economic Plan, *supra*. An emphasis on using copyright to stimulate the development of useful and scientific works also has some historical precedent, as the first pronouncements the PRC passed in 1950 concerning author remuneration stipulated that writings related to science were to be more highly valued than those in the humanities. ALFORD, *supra* note 26, at 60. The movie and music industries in China are too small, and are too irrelevant to China’s overall economic prosperity, for one to imagine the government expending significant resources stamping out piracy of music and films.

247. See, e.g., Maney, *supra* note 25; see also *supra* text accompanying notes 227-231.

248. WILLIAM W. FISHER III, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 199-258 (2004); Neil W. Netanel, *Impose a Non-commercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1 (2003).

249. See FISHER, *supra* note 248, at 202; Netanel, *supra* note 248, at 4.

goals by ensuring both fair compensation for creators and liberal access to creative content for consumers.²⁵⁰

This Section begins with an overview of the ACS concept, followed by a discussion of how an ACS could be developed specifically for the Chinese market. I explore the merits and drawbacks of a Chinese ACS and discuss how an ACS would advance the goals of Chinese copyright law. Lastly, I consider the prospects for a Chinese ACS as a solution to the piracy problem in China.

1. *An Overview of the Alternative Compensation System (ACS) Concept*

In an ACS, copyright owners would register digital copies of their works with a government agency, such as the NCA in China, which would maintain the system and track usage of the registered works.²⁵¹ Those copies would be fingerprinted or watermarked with a digital code containing information about the work and the author, which would enable the system to track the work for accounting purposes.²⁵² End users could engage in non-commercial downloading and copying of those works from the internet, free of cost, copyright restrictions, advertisements, and encryption.²⁵³ Files could be distributed via a peer-to-peer network or could be made available for downloading and streaming from a centralized location on the Web. The system could also be structured to streamline the licensing of creative works within the system for use in new derivative works.²⁵⁴

In return for this legal access to registered works, users would pay a sales tax on products and services that enable file sharing, such as computer equipment with multimedia functions, internet access fees, MP3 players, CD and DVD writable media, and CD and DVD burners.²⁵⁵ The agency would track, or estimate based on sampling data, how many times a given work is downloaded or “enjoyed” in a given period, and distribute a proportionate amount of the tax receipts to the copyright owner of that work.²⁵⁶ The ACS would only apply to works copied from the internet; it would not affect works sold on physical media such as DVDs, VCDs, or CDs.²⁵⁷

250. See generally FISHER, *supra* note 248; Netanel, *supra* note 248.

251. See *id.* at 203-04.

252. See *id.* at 223-34.

253. *Id.* at 202-03, 236-37, 247; Netanel, *supra* note 248, at 37.

254. See FISHER, *supra* note 248, at 234; Netanel, *supra* note 248, at 38-40.

255. See FISHER, *supra* note 248, at 216-23; Netanel, *supra* note 248, at 43-44.

256. FISHER, *supra* note 248, at 224; see also Netanel, *supra* note 248, at 53-54.

257. See FISHER, *supra* note 248; Netanel, *supra* note 248.

An ACS would offer several advantages over other alternatives discussed above.²⁵⁸ An ACS would provide consumers with the most variety in entertainment at the lowest cost. It would save society and copyright owners the costs of policing the internet and litigating file sharing cases and would allow authorities and copyright owners to devote more resources to reducing physical piracy. It would provide much-needed, guaranteed revenue to copyright owners in place of what is now entirely lost revenue through file sharing. It would give musicians and filmmakers more direct control over the distribution of their works and would offer them at least the same level of exposure as they currently receive through the mass distribution of pirated works, with the added advantage that they would be compensated for the consumption of their works. It would avoid technological restrictions to access (and the potential for overreaching with these) typical in DRM encryption schemes. And it almost certainly would spur the further development of domestic computer and home electronics industries, which China considers key to national economic growth.

2. *Developing an ACS with Chinese Characteristics*

Providing a detailed blueprint of a Chinese ACS is beyond the scope of this Article and unnecessary, as variations of the ACS model have received thorough treatment elsewhere and should be adaptable to circumstances in China.²⁵⁹ Following, however, are a few considerations regarding the development of an ACS for the Chinese market. These include deciding whether works by artists from other countries would be included in the Chinese ACS repertoire, revenue generation and taxation issues, and possible conflicts with China's copyright treaty obligations.

a) *Repertoire*

What kinds of works are likely to constitute the system's repertoire? Assuming the system would only be accessible in China, at least to begin with, would the ACS offer songs and movies by Chinese artists only? Considering that a large percentage of popular music and movies in China comes from Hong Kong and Taiwan, would they be included as well? What about popular Western movies and artists, like Hollywood movies or American hip-hop artists?

Since the state is deeply involved in music and film distribution in China,²⁶⁰ amassing a large catalog of Mainland recordings and movies

258. See *supra* Sections IV.A. & IV.B.

259. See FISHER, *supra* note 248; Netanel, *supra* note 248.

260. See MERTHA, *supra* note 132, at 145-52.

should not be difficult. Many Chinese entertainment companies maintain close relationships with companies in Taiwan and Hong Kong. Since piracy also affects those companies, they likely would be willing to participate in the ACS. Chinese authorities would likely welcome their participation, since their works comprise a substantial portion of music and movies consumed in China. It probably would not be advisable for Chinese authorities to make participation mandatory, however, due to China's international treaty obligations, as discussed below.²⁶¹

Whether China would welcome or even permit other foreign works in the ACS presents a more complicated issue. If an ACS aims to prop up the Chinese music and film industries, Chinese authorities might be reluctant to permit a flood of Hollywood movies and Western music that would send a substantial percentage of the system's revenues to overseas copyright owners. Further, the Chinese government currently maintains a strict quota over the number of foreign films admitted for theatrical release in China each year.²⁶² While the quota may exist partly for economic protectionist reasons, it also functions for ideological and cultural reasons, and the government might be reluctant to allow the ACS to become a vehicle for even wider exposure to Western values through movies and music.²⁶³

Whether major Western film and music companies would want to participate in the ACS is unclear. Should China not permit them to participate, Western copyright owners might complain about a perceived barrier to free trade. They might be reluctant to complain publicly, however. Major movie studios and record companies are notoriously protective of their control over content distribution and disfavor any system, such as an ACS, which threatens that control.²⁶⁴ As one major Hollywood studio executive admitted privately, should China ever implement an ACS, his company would refuse any official involvement for fear of the precedent it might set for development of an ACS in the United States and elsewhere. The company would carefully evaluate the Chinese system, however, and might reconsider its position should the ACS prove after some time to be the best way to make money in China.

261. See *infra* text accompanying notes 278-284.

262. IIPA, 2004 REPORT, *supra* note 3, at 47 (observing that China currently has a policy of permitting the importation of only twenty revenue-sharing films for theatrical release each year).

263. See MERTHA, *supra* note 132, at 151 (discussing Chinese culture officials' efforts to ensure that foreign content (motion pictures, music, and television) accounts for only a small percentage of content distributed to Chinese consumers).

264. See KUSEK & GERD, *supra* note 205, at 36-41, 107-37.

b) Revenue & Taxation

The thorniest problem facing a Chinese ACS concerns the generation of revenue. The tax system in China is complex, inefficient, and seemingly perpetually in need of reform.²⁶⁵ It suffers from problems similar to those plaguing copyright enforcement, including official corruption, underfunding of and inefficiencies in the tax administration system, and diverging goals and practices among local and central government officials.²⁶⁶ Furthermore, the tax system is overly complex and lags behind the country's economic development.²⁶⁷ Individuals and enterprises evade taxes; this problem is exacerbated by the fact that a large percentage of transactions are cash-based and, therefore, difficult to trace.²⁶⁸

A technical discussion of the tax law and policy invoked by the institution of an ACS is beyond the scope of this Article. Nevertheless, I will note that, although in China no sales tax is levied directly on consumers, businesses selling goods or providing services are required to pay a value-added tax (VAT) that functions like a sales tax, as businesses ultimately pass it along to consumers.²⁶⁹ However, the VAT is currently only levied at one of four fixed rates.²⁷⁰ What rate a taxpayer owes is determined by the category of goods or services sold, and whether the seller is considered a "small-scale" taxpayer (in which case a lower rate applies regardless of the goods or services sold).²⁷¹ The current fixed-rate VAT tax scheme does not appear conducive to the addition of an ACS tax, particularly given the legal and administrative changes that would have to be introduced to effect such a tax. Additionally, it is also probably politically unfeasible simply to divert a portion of the current VAT revenue to fund an ACS. Therefore, it seems likely that any tax-funded ACS will have to await fresh tax reforms. Perhaps proponents of tax reform in China might point to the ACS as an example of the potential benefits of a more efficient and flexible tax regime.

265. See generally Trish Fulton et al., *Tax System and Policy Options, in CHINA'S TAX REFORM OPTIONS* (Trish Fulton et al. eds., 1998).

266. *Id.* at 25-26.

267. *Id.* at 14.

268. See generally Ping Chen, *Chinese Tax Reform: Unsolved Problems, in CHINA'S TAX REFORM OPTIONS* 57, 57 (Trish Fulton et al. eds., 1998).

269. Peter Kung & Koohn-Ming Ho, *The New Turnover Taxes in Practice, in CHINA'S NEW TAX REGIME* 12, 12-15 (Chris Hunter ed., 1994).

270. See Zeng zhi shui zan xing tiao li [Provisional Regulations on Value-Added Tax] art. 2 (promulgated by the State Council, Dec. 13, 1993, effective Jan. 1, 1994) (P.R.C.), available at http://www.law-lib.com/law/law_view.asp?id=10027.

271. See *id.* arts. 11-13.

Assuming the central government could now or in the future levy a sales tax on goods and services, what goods or services should be taxed? An ACS tax is most sensibly levied on products and services likely to enable use and enjoyment of the ACS. Such a tax would of course be both over- and under-inclusive, but this problem is not unique to an ACS. The kinds of goods on which the tax might be levied, then, are broadband internet access services (perhaps dial-up services as well, at a lower tax rate), computers with multimedia functions, MP3 players, portable MPEG video players, stereos, and other portable or home consumer electronics that play digitized movies or music, and blank CD-R and DVD-ROM media. Given the burgeoning popularity of directly downloading music, ring tones, and other content to mobile phones, enabling mobile phone access to the ACS seems an inevitable feature, thus making mobile phone service fees—and even the purchase of the phones themselves—legitimate targets of the ACS tax.

In reality, present economic conditions in China might make tax collection for many of these goods difficult. Many consumers buy their computers and electronic goods at kiosks in massive electronics marketplaces. Tax evasion by such small entrepreneurs is probably rampant, and many such retailers would surely bridle at the added burden of collecting and accounting for a minute tax on high-volume commodities such as blank CD-ROMs. It seems the most reliable source of revenue would come from a tax on internet services or mobile phone services, which employ transparent, reliable, and automated billing procedures.

How much should the ACS tax be? In other words, what is the value to Chinese society of the abundant supply of music and movies available through the ACS? Fisher notes this is a complicated theoretical question, but ultimately, both Fisher and Netanel suggest that for a U.S.-based ACS, the most appropriate formula for determining the value of the system is to ascertain what amount would make copyright owners “whole” for their losses suffered through their inability to enforce their copyrights on the internet in the peer-to-peer context.²⁷² In China, for practical reasons, such a formula is probably neither necessary nor desirable. The perceived value of the system will be low at the outset, given the low average income in China, the high availability of inexpensive pirated goods, the historical lack of a significant legitimate market on which to base valuations, and the fact that Chinese consumers have grown accustomed to paying extremely low prices for movies and music. Moreover, beleaguered Chinese copyright owners will not expect the system to make them whole for all their

272. See FISHER, *supra* note 248, at 208-10; Netanel, *supra* note 248, at 47.

losses to piracy and thus will not have the same concerns about losing revenue streams through the ACS that their U.S. counterparts would have.²⁷³ In reality, the present piracy problem already endangers all revenue streams. Many Chinese copyright owners are likely to embrace whatever income the ACS can generate as a veritable windfall and will prefer the ACS to the status quo so long as ACS revenues are substantial.

Therefore, the question for China is not how it should make copyright owners whole; the question, at least initially, seems to be what amount of tax would seem fair to most broadband subscribers while still providing substantial compensation to the movie and music industries after paying the costs of administering the system. This is an arbitrary formula for determining aggregate compensation levels, to be sure, and after some years it should be replaced by criteria more directly related to a determination of the value of the works in the system.

Of course, only the Chinese government, people, and music and film industries can determine an initial figure that is both fair to taxpayers and reasonably compensates copyright owners, but the following are some figures that hint at the possibilities. According to Chinese telecom industry figures, there are more than sixty-four million broadband lines in China at the time of this writing.²⁷⁴ Most likely, not all of these are taxable individual accounts; some are likely government or similarly non-taxable accounts. The following calculation, however, assumes very conservatively that by the time China is ready to adopt an ACS, sixty-five million discrete taxable broadband accounts will exist. If the government was to levy on each of those accounts a small tax of, say, 6 yuan (72¢) per month, or 72 yuan per year, that would generate 4.6 billion yuan per year (\$564 million). Considering the value an ACS provides, an increase of 6 yuan should not be unpalatable to most broadband subscribers, as it amounts to about a 5% to 7% tax on typical monthly broadband fees in China of \$10 to \$13. Adopting Professor Fisher's conservative estimate of a 20% fee deducted for administrative costs, that still leaves nearly 3.75 billion yuan (\$451 million) to distribute among music and film companies. Putting that number in perspective, it is more than the total 2004 combined value of the legitimate Chinese music market (\$212 million) and movie market (\$180 million).²⁷⁵ Most importantly, these potential revenue figures only

273. See FISHER, *supra* note 248, at 209-14 (explaining how the potential loss of certain revenue streams in the United States through an ACS would concern U.S. copyright owners).

274. See *supra* note 179.

275. IFPI, THE RECORDING INDUSTRY 2005 COMMERCIAL PIRACY REPORT 10 (2005); *China Becomes World's Third Largest Film Maker*, PEOPLE'S DAILY ONLINE, Apr. 24,

account for one revenue source—broadband internet access. Revenue derived from multiple sources could push the number significantly higher. The government could also bring universities—undoubtedly among the biggest online piracy offenders—into the fold by charging a bulk rate for campus-wide access to the ACS, which universities might pass on to students as slight increases in their term fees.²⁷⁶

Cybercafes could also be an important source of revenue. Millions of computers connected to the internet through cybercafes provide the primary internet access points for nearly 30% of China's internet users.²⁷⁷ A very small ACS tax could be levied on all cybercafe computers, which could be distributed among patrons as a slight increase in the hourly usage fee. The fee could be divided among so many patrons that it would be almost negligible to the individual user. In return, they would be free to use all that the ACS has to offer from any cybercafe computer. Cybercafes might instead consider providing ACS access to its patrons at no additional charge in order to gain an advantage over competing establishments. Alternatively, cybercafes might offer ACS subscriptions and software only on select computers, and charge slightly higher rates for the value-added service on those computers.

2005, http://english.people.com.cn/200504/24/eng20050424_182511.html (reporting 2004 total box office revenue in China was \$180 million).

276. Increasing university student term fees is a controversial proposal since millions of Chinese students come from poor families who cannot afford even a slight fee increase. This problem might be addressed in a few ways. First, on-campus pilot ACS programs might be offered in larger cities with wealthier student populations, then offered in other areas as economic development in those areas increases. This solution, of course, would only exacerbate the rich/poor divide problem discussed later in Section IV.C.4. Alternatively, universities might pick up the costs of the ACS themselves. Universities would have numerous reasons for doing so, not the least of which is the potential threat of liability for students' illegal file sharing. *See, e.g.,* Zhipei Jiang, *Legal Liability of Internet Service Providers for Copyright Infringement*, <http://www.chinaiprlaw.com/english/forum/forum7.htm> (last visited Apr. 14, 2006) (discussing secondary liability of internet service providers under Chinese copyright law); *see also* Hu lian wang zhu zuo quan xing zheng bao hu ban fa [Measures on Administrative Protection of Internet Copyright] (promulgated by National Copyright Administration & Ministry of Information Industry, Apr. 29, 2005, effective May 29, 2005) (P.R.C.), *translation available at* <http://www.chinaitlaw.org/?p1=print&p2=051006180113>. Regardless of whether such a claim would succeed, it is no doubt a fight copyright owners will contemplate, and one that universities would rather avoid. Lastly, China could adopt a combination of these approaches.

277. CNNIC, *supra* note 18, at 15.

c) International Obligations

China has acceded to three international intellectual property treaties that a Chinese government-sponsored ACS might implicate, including the Berne Convention (acceded in 1992), the Geneva Phonograms Convention (acceded in 1993), and TRIPS (acceded in 2001).²⁷⁸ Reports indicate that China also intends to accede to the WCT and the WIPO Performance and Phonograms Treaty.²⁷⁹ Article 2 of the Berne Convention requires copyright protection for “literary and artistic works,” expressly including musical compositions and cinematographic works, and subsequent articles grant authors the exclusive right to control the reproduction, public performance, and alteration of their works.²⁸⁰ TRIPS incorporates these Berne Convention provisions by reference.²⁸¹ Furthermore, the Geneva Phonograms Convention only permits compulsory licensing of audio recordings “for the purpose of teaching or scientific research.”²⁸² An ACS, however, is a compulsory licensing scheme that contemplates a much broader scope of uses than those allowed under the Geneva Phonograms Convention.

Could China implement an ACS and not run afoul of these provisions? Professor Fisher believes that an ACS likely violates TRIPS and the Berne Convention and recommends modifying the Berne Convention to permit such a system.²⁸³ His book, however, contemplates implementing an ACS in the United States, which few would disagree holds more sway in international intellectual property matters than China. Modifying the Berne Convention to enable adoption of such a controversial system is not likely an option for China. However, China probably could avoid breaching its obligations under the Berne Convention, the Geneva Phonograms Convention, and any other intellectual property treaties by making ACS registration optional for copyright owners. Those copyright owners who wish to receive a proportion of the distributed revenue must register their work with the ACS-administering agency and agree to license the works for distribution and copying according to the rules of the system. Those owners unwilling to grant such a license could choose not to include their works in the ACS. Certainly, no treaty prohibits voluntary licensing of copy-

278. Berne Convention, *supra* note 69; Geneva Phonograms Convention, *supra* note 70; TRIPS, *supra* note 76.

279. See *Halting Online Copyright Violations*, *supra* note 180; WIPO Copyright Treaty, *supra* note 87; WIPO Performances and Phonograms Treaty, Dec. 20, 1996, 36 I.L.M. 76, available at <http://www.wipo.int/documents/en/diplconf/distrib/95dc.htm>.

280. See Berne Convention, *supra* note 69.

281. See TRIPS, *supra* note 76, art. 9.

282. Geneva Phonograms Convention, *supra* note 70, art. 6.

283. FISHER, *supra* note 248, at 248-49.

righted works. In practice, however, it stands to reason that few Chinese copyright owners would not opt to include their works in the ACS, as inclusion in the ACS would promise potentially significant income.²⁸⁴

d) Technology

An ACS could be centralized, like Apple's iTunes²⁸⁵ music store. In that case, all authorized users would access a central website to download files stored on servers maintained and controlled by the ACS-administering agency. Alternatively, the ACS could employ a decentralized, peer-to-peer system. Would a Chinese ACS be "open," that is, accessible by anyone from any computer anywhere, or "closed," that is, accessible only by authorized users? A closed system seems the best choice in China for at least the following three reasons. First, the global character and open architecture of the internet makes international leakage one of the great challenges facing any ACS.²⁸⁶ Chinese taxpayers would be funding the ACS; in return, only Chinese taxpayers should enjoy the benefits of the system. People in other countries, including millions of overseas Chinese living around the globe, should not be able to access the system and enjoy unlimited music and movies at the expense of Chinese taxpayers.²⁸⁷ Making the system closed would help stem the leakage, and, perhaps more importantly, help defeat any popular perception by taxpayers that they fund the world's entertainment portal.

Second, world tastes in movies and music are not going to precisely track Chinese tastes. For example, Jackie Chan movies might only account for a relatively small percentage of all downloads by taxpayers in China, but because he is an international star, downloads of his films will be disproportionately higher in the rest of the world than downloads of most other Chinese films. While one could argue that he deserves a higher percentage of the distributed revenue because his works were enjoyed more frequently than those of others, it seems substantively unfair to skew distribution proportions based on the preferences of people who are not contributing funds.

Third, an internationally accessible Chinese ACS, which would give users in other countries unlimited access to free content, would threaten to

284. As noted above, even if foreign copyright owners are permitted to include their works in the ACS, there is reason to believe many would refrain from doing so, at least for a time, despite the potential income. *See supra* Section IV.C.2.

285. *See* iTunes, <http://www.itunes.com> (last visited Feb. 28, 2006).

286. *See* FISHER, *supra* note 248, at 245.

287. To supplement revenue and make Chinese media available globally, the government could offer paid memberships to customers in other countries.

usurp any legitimate overseas markets for Chinese movies and music. This problem would not only undermine one of the goals of establishing the ACS in the first place, that is, to help fund the struggling Chinese music and movie industries, but it would also be a tremendous disincentive for entertainment companies with films and artists popular outside of China to include their works in the ACS.

There are a number of ways to make the ACS a closed system. It could be designed to permit access only to users connecting from IP addresses verifiably located within China. Alternatively, the government could require that users apply for a user name and password that would be automatically requested for verification upon connection. The application process would be designed to ensure that the user is a resident of China. A combination of these techniques might also be used. There are sure to be other ways to design the system to keep leakage to a minimum. Naturally, there also would be ways to fool the system. Sophisticated users in foreign countries might trick the system into thinking they are signing on from a Chinese IP address. Or valid user names and passwords might be shared privately or posted online. But the apparent ability of for-pay services like iTunes and Napster 2.0 to avoid violating their licensing agreements by limiting transactions to specific territories suggests that even existing technology could reasonably ensure the system's integrity.

3. *Merits of an ACS in China*

The following subsections detail reasons why an ACS might be an attractive option for Chinese consumers, the Chinese recording and film industries, and the Chinese government. Regarding most or all of the following benefits, an ACS is likely to provide more significant and immediate gains than the other policy alternatives discussed in this Article, namely, cracking down hard on piracy and staying the present course.

- a) An ACS would help China make significant strides toward solving the problem of internet piracy by legalizing file sharing, and could help reduce physical piracy.

As dire as the current piracy problem is, the internet threatens to make it much worse. In a single stroke, an ACS would legalize a high volume of activity that is currently illegal. Authorities could avoid diverting attention and resources to a huge number of transactions on the internet, and could instead devote those resources to the fight against physical piracy.

Certainly, an ACS would not end all copyright infringement online, as some kinds of file sharing would continue to be illegal. For example, an ACS is not very appropriate for software, because software pricing varies

significantly.²⁸⁸ As cultural works with subjective value, most songs are valued equally on the market, as are most films.²⁸⁹ As tools with practical application and, therefore, more objectively discernable value, software varies dramatically in price from a few dollars to thousands of dollars depending on numerous factors including research and development costs and the software's level of technological sophistication. An ACS that apportions royalties based on download popularity would not adequately reflect the value of most software. Thus, unauthorized sharing of software would continue to be illegal, as would unauthorized sharing of songs and movies outside of the ACS, posting of copyrighted text online without the author's permission, or any other form of copyright violation online. Nevertheless, an ACS would enormously reduce the amount of copyright policing on the internet.

One of the most important advantages of an ACS is the effect it would have on physical piracy. As broadband internet penetration increases and the ACS begins to overtake prerecorded media as the primary source of music and movies for personal use, the ACS promises to "shrink out" the pirates who rule the market for physical media. It would be impossible for pirates to provide consumers with anything close to the value available through the ACS, and the pirates' market would diminish. Slowly choking off the pirates' market in this way would be superior to other strategies for defeating piracy. Unlike strategies that call for increased copyright enforcement efforts, shrinking the market for pirated goods would reduce rather than increase the burden on the state's administrative and judicial organs. It would allow copyright owners to reinvest or pocket profits that would otherwise have to be spent tracking down and suing pirates. It would circumvent present barriers to enforcement, such as local protectionism, official and judicial corruption, and administrative inefficiency. And it would avoid the social and economic disruption that would result if copyright laws were suddenly strictly enforced and thousands who earn their living through manufacturing, distributing, and selling pirated goods were abruptly jailed or left unemployed.

288. See Netanel, *supra* note 248, at 41-42 (observing that software, as distinguished from works of artistic expression, has an objective, instrumental, and hence measurable, value).

289. For example, a Britney Spears song and a nineteen-minute Beethoven symphony are both 99¢ on iTunes, and most films on DVD are in roughly the same price range as other films on DVD regardless of genre or film production costs.

- b) An ACS would help the domestic Chinese music and movie industries thrive.

With an ACS in place, Chinese artists, filmmakers, record companies, and movie studios would be guaranteed fair compensation for their works through a system relatively free from the threat of piracy. Competition with other music and movies for a share of the distributed proceeds would create incentives for individual artists, record companies, and film companies to continually create new content of increasingly superior quality. The government should enact regular tax increases to reflect the growing value of the ACS. These increases, in turn, would encourage new independent artists and allow record companies and film studios to invest in new projects and diversify their stable of artists or films, enabling them to take more creative risks. The cycle would continue as the ever-increasing richness of works available draws still more consumers and contributors into the flourishing online marketplace of creative expression.

Moreover, the ACS might be structured to encourage the development of even more new content by enabling streamlined creation of derivative works. Professors Fisher and Netanel envision an ACS that recognizes a reality of creative expression in the twenty-first century: the use of preexisting works as building blocks in new works is central to the creative process.²⁹⁰ Digital sampling and mash-ups are but a few examples. The ACS could be structured to permit easy, automated licensing of existing works for use in new derivative works.²⁹¹ This would enhance the overall cultural wealth of society, as well as provide a further boost to the ACS in terms of the volume of works available and provide even more incentive for people to use the system. It might be at odds, however, with some of the moral rights provisions in Chinese copyright law, such as the rights of revision, integrity, and attribution of authorship, which empower authors to control how their published works may be altered.²⁹² Assuming the development of adequate digital watermarking technology, the system could preserve attribution of authorship by ensuring that the digital information encoded in the stamp or watermark for each work contains proper attribution to any authors of the original work (and intervening derivative works). Whether permitting such derivative uses would contravene the rights of revision or integrity is a more complicated question about

290. See FISHER, *supra* note 248, at 234-36. Cf. Netanel, *supra* note 248, at 38.

291. See FISHER, *supra* note 248, at 205, 236.

292. See 2001 Copyright Law art. 10 (amended by the Standing Comm. Nat'l People's Cong., Oct. 27, 2001, effective Oct. 27, 2001) (P.R.C.).

whether those rights should be waivable or modifiable to some degree under Chinese copyright theory.²⁹³

Adopting an ACS would also help content producers by reducing overhead costs. Companies and individual artists could decrease or eliminate their expenditures for pressing, packaging, and distributing their content on optical media.

- c) An ACS could provide Chinese consumers with access to an unprecedented wealth of music and film entertainment for considerably less than what most consumers of music and movies currently pay, even for pirated products.

For the cost of a few pirated music CDs per consumer each month, an ACS could provide unlimited, DRM- and advertisement-free music and movies.

- d) An ACS could spur growth in the Chinese computer, home electronics, and internet industries.

The tremendous increase in music and film entertainment that the ACS would make available through the internet should help drive consumers to purchase the high-tech products needed to enjoy the content. This drive would spur demand for numerous primary electronic products and services, such as broadband internet access, computers, MP3 players, and home theater equipment, and help grow the domestic Chinese consumer electronic industries. It would also boost sales of ancillary products in seemingly countless diverse categories from wiring cables to Wi-Fi transmitters and receivers, as well as home video and audio recording equipment and software as more people feel an incentive to create at home and publish their works on the ACS. The system also likely would drive the development of entirely new products and service industries revolving around making the ACS experience more useful, enjoyable, and convenient.

- e) An ACS could help increase respect in China for intellectual property laws.

A likely reason intellectual property norms have a difficult time gaining traction in Chinese society is that the economy has grown at a dizzying pace since the 1980s, with no signs of slowing despite China's poor intel-

293. Chinese copyright law and theory are unclear on this point. It seems clear, however, that book publishers may revise and alter an author's work so long as the author has given permission. See FENG, *supra* note 90, at 118 (suggesting that authors of audiovisual works may also grant permission to alter such works).

lectual property protection record. While some in China might be aware in the abstract of the benefits of effective intellectual property protection, Chinese society simply has not experienced the tangible benefits of a system where creators receive fair compensation for their work. Thus, the individual's perceived benefit of buying or downloading pirated works (low cost) outweighs the perceived harm to society (low quality products and lack of indigenously produced works).

With an ACS in place, more Chinese citizens than ever before would pay for legitimate music and movies. Those paying the tax would have a strong incentive to use the ACS as their primary source for personal and home entertainment. ACS users would experience first-hand the increased quality and variety of indigenously produced audiovisual works and correlate the blossoming cultural industries with compensation for legitimate use. The experience could prove a valuable springboard to greater social and political enthusiasm for protection of intellectual property rights.

4. *Potential Problems*

This Article has discussed some potential drawbacks of a Chinese ACS, namely, difficulties surrounding the raising of revenue through taxation,²⁹⁴ international leakage,²⁹⁵ and possible conflicts with China's treaty obligations.²⁹⁶ Other potential problems include increased government intervention in the dissemination and consumption of art, stifling the innovation of private business models, bureaucratic rent-seeking, and exacerbating the growing divide between China's rich and poor.

a) *Governmental Intervention*

Government involvement in the funding and dissemination of art poses a significant problem for an ACS funded through taxation. This problem exists with any such system and is hardly unique to China. Indeed, Professor Fisher counts the opportunity "for government officials to indulge their biases" about art as "one of the primary hazards of an alternative compensation system."²⁹⁷ There is reason for particular concern in China, however, given the country's long history of state censorship and present policies for censoring or banning heterodox works.

In one sense, governmental involvement in an ACS probably raises fewer red flags in China than it would in the United States, where the government historically has had less direct involvement in the creative indus-

294. *See supra* text accompanying note 269.

295. *See supra* text accompanying note 286.

296. *See supra* text accompanying notes 278-284.

297. *See FISHER, supra* note 248, at 234.

tries. In this sense, an ACS would not leave Chinese consumers any worse off than they are now in terms of government control. Presently, state culture and propaganda agencies are deeply involved in publishing and disseminating art, including legitimate music and motion pictures in China.²⁹⁸ Implementing a system of government-controlled dissemination of movies and music online would do little more than move the present real-world entertainment industry model into cyberspace. This is in contrast to Western democratic countries, where such works are produced and distributed through private commerce. In these countries, an ACS would introduce more governmental involvement in the dissemination of music and films than currently exists.

One could argue, however, that Chinese consumers would be considerably worse off if an ACS were to successfully expand the market for legitimate works (all of which, in theory, are state-approved) and concomitantly decrease the market for and availability of pirated works. In Section IV.B, I noted that, from the consumer perspective, the current state of poor copyright enforcement has the fortunate byproduct of flooding the black market with a tremendous variety of audiovisual works beyond the reach of government censors. The ACS would be administered by a government agency—probably the NCA—that is closely tied to the system of state propaganda and censorship.²⁹⁹ A successful ACS would arguably further tighten propaganda officials' grip over the dissemination of art and information while invigorating them with a sharp increase in funding through ACS administrative fees. So, the ACS would not only decrease the market for uncensored, illegitimate works; it would also fund copyright and propaganda officials' efforts to further quash consumers' ability to access such works.

The increase in propaganda and censorship bureaucrats' power and funding is a serious concern, but it might be mitigated by two factors. First, most domestic Chinese works do not raise red flags for censors. The vast majority of pirated works are neutral in the eyes of government censors; that is, they are neither politically sensitive nor pornographic,³⁰⁰ and thus most works would easily be included in the ACS system. Content considered politically sensitive surely would be barred from the ACS. But such content, when available at all, is available through underground channels, which would still exist even if an ACS were adopted. Similarly, to the extent that foreign works are barred from the ACS there would un-

298. See MERTHA, *supra* note 132, at 145-52.

299. See, e.g., MERTHA, *supra* note 132, at 151 (describing the close relationship between the "culture bureaucracies" and copyright protection in China).

300. *Id.* at 144.

doubtedly be, due to their popularity, a thriving piracy trade in foreign music and films that would ensure public access to them until they are eventually permitted to register with the ACS system.³⁰¹ It seems censorship, whether in real- or cyberspace, never fails to create a thriving black market for desirable content made scarce through official action.

Second, as Andrew Mertha has pointed out, the same officials concerned with censorship are typically sensitive to market considerations and are more open-minded than many in the West realize.³⁰² It would be in the self-interest of officials administering the ACS to ensure that it is as successful as possible, as a thriving ACS would bring income and prestige to their organization. An ACS that is too restrictive with regard to permitting content would strangle itself, and it is a good bet that the officials involved would be fairly deferential to public tastes and demands and, therefore, try to be as inclusive as possible.

Of somewhat lesser concern are privacy and surveillance issues implicated by government involvement in distributing creative works over the internet. Professor Fisher writes that, for an ACS to work in the United States, the system's administrators must ensure the privacy of information gathered concerning individual usage patterns.³⁰³ Assurances that usage data would not be made public would be important to the success of an ACS in China, as well, but the potential for the government to use such data for ideological purposes is perhaps of greater concern. Theoretically, the ACS technology could allow the government to trace individual preferences in films and music, using it as a method of surveillance. While this thought is certainly unsettling from a human rights standpoint, what are the practical implications? Most consumers' usage probably would never raise any red flags. In most cases, if the government deems a given film or song heterodox, the government's response would most likely be to remove it from the system rather than take action against end users who happened to download it. Nevertheless, the possibility of end-user scrutiny always exists in such a system.

301. One might suggest this undercuts the argument for adopting an ACS in China in the first place because until state censorship policies are greatly relaxed, some level of piracy is always desirable. I am not arguing, however, that an ACS will eradicate all forms of audiovisual piracy. Rather, as a route to realizing the goals of the copyright law, an ACS is superior to the other alternatives discussed in this Article. Moreover, the implementation of the system can develop and improve over time: foreign works might be excluded from the system at first, but could be worked in over several years.

302. MERTHA, *supra* note 132, at 151-52.

303. See FISHER, *supra* note 248, at 228.

Therefore, the focus should be on whether an ACS would threaten end users' privacy to the point that it outweighs the benefits of the system. It probably would not. While the ACS's tracking ability theoretically makes end users more vulnerable than they currently are when purchasing physical media, it would not necessarily increase their vulnerability compared to their present risk when downloading illegal content from the internet. Indeed, downloading copyrighted works to one's hard drive without permission currently exposes one to civil liability under the copyright statute,³⁰⁴ and distributing more than one thousand unauthorized copies of a work on the internet exposes one to criminal liability,³⁰⁵ not to mention possible ideological red flags that might be raised by downloading or disseminating heterodox content. The technology and legal justifications already exist for governmental entities to track online activity and even make seizures and arrests. Any privacy violations to which users might be vulnerable using an ACS would not leave them worse off than they are now. In fact, an ACS probably would leave users better off than they are now in this regard because it would legalize an entire range of traceable internet activity for which users are currently civilly or criminally liable.

b) Stifling Innovation of Private Business Models

Section IV.B.2 discussed the likelihood that many copyright owners will shift to new business models in China that would provide them with fair compensation for their works and be less vulnerable to piracy. Adopting an ACS would likely defeat any need for private-sector development in China of movie and film content delivery systems on the internet. This development, in turn, could stifle the innovation of alternative private business models which, driven by market competition, might lead to a system superior in any number of ways to the ACS. An ACS, by contrast, is unlikely to develop as quickly as privately developed content distribution technologies forged in a competitive marketplace, thus undermining the ACS should its technology and user interface become outdated and lag behind contemporary technologies.

Despite the absence of market competition, the administrators of the ACS would have to continually develop or encourage development of content delivery technology that would be convenient, highly functional, attractive, and fun for Chinese consumers to use. To truly achieve its goals and provide the most accurate reflection of society's collective tastes, the ACS would have to be convenient and user-friendly enough that all users with a modicum of computer skills could take advantage of at least its ba-

304. See XUE & ZHENG, *supra* note 89, at 64.

305. See *supra* text accompanying note 102.

sic features. If a single demographic—say, younger users with advanced computing skills—becomes the system’s predominant user group because the system proves too unfriendly for other users, the monetary distribution will be drastically distorted compared to the tastes of society or even the tastes of eligible users. To avoid this issue, the government might contract a private developer to design, update, and operate the system, paying close attention to user-friendliness, convenience, and powerful features. The government might even inject competition into the process by requesting proposals from several vendors and awarding the contract to the company with the most intuitive, attractive, and powerful system. Or, if peer-to-peer technologies are employed, the government could encourage the organic development of several competing technologies. It would also be crucial that the government involve Chinese music and movie industry groups in the development process, and maintain a constant dialog with them thereafter. It might make sense to have a panel of entertainment industry experts review the system periodically and make specific recommendations based on user satisfaction data. The more users join the ACS, the more money the entertainment industries stand to make. The entertainment industries’ incentive to ensure the system is user-friendly, reliable, cutting edge, and enjoyable should go a long way toward compensating for the lack of market forces.

It is worth reiterating that solutions developed in the private sector, which typically use technological restrictions to compensate for insufficient copyright protection, will not necessarily strike a healthy balance between the interests of copyright owners and society. Private-sector solutions often seem to shift the balance substantially in favor of owners’ rights.³⁰⁶ Moreover, some observers believe legitimate for-pay internet music and film distribution services will never find success in China.³⁰⁷ Instead, they believe music and film distribution will always remain largely in the hands of pirates and file sharers and outside the legitimate entertainment industry’s control. In such a business model, artists use their notoriety to seek revenue from other sources such as corporate sponsorships. If the sponsorship model is indeed the future of the Chinese entertainment industry, then an ACS would not be stifling the development of a superior business model since it would be a substantial improvement over the sponsorship model. An ACS would guarantee income to artists for the consumption of their works and would not preclude artists from also earning income from sponsorships, licensing, or other such sources if they

306. *See supra* text accompanying notes 234-236.

307. *See, e.g.,* Maney, *supra* note 25.

choose to do so. It would, however, ensure that artists are not beholden to corporate sponsors, which are not easily found and can effectively limit artists' creative freedoms as much as government censors.

c) Bureaucratic Rent-Seeking and Infighting

The sample calculations for an ACS given previously envision apportioning 20% of the ACS's annual intake to a government agency, amounting to an administrative budget of nearly 346 million yuan (almost \$42 million). While the costs of setting up and operating an ACS are certain to be high, an ACS still puts a single government agency in a position to receive a large influx of money, opening the door for efficiency and rent-seeking concerns. It would be imperative that the ACS be structured to include a series of governmental checks and perhaps the opportunity for external review and recommendations by a board of music and film industry professionals.

A related problem is infighting among interested agencies. The same overlapping bureaucratic jurisdictions that create impediments to copyright enforcement in China³⁰⁸ could work against the effective implementation of an ACS. China sports an exceedingly complex latticework of culture bureaucracies,³⁰⁹ many of which could seek to stake a claim to or exert jurisdiction over some aspect of the ACS, potentially dooming it to stall in a quagmire of bureaucratic inertia and inefficiency. For this reason, it would be critical at the outset for the State Council, China's supreme administrative body, to designate one agency, presumably the NCA, with sole authority over all aspects of ACS administration—even powers and duties that other agencies hold in the non-ACS context. This issue is also critical with regard to tax collection. While an in-depth discussion of the conflicts and inefficiencies of the Chinese tax collection system is beyond the scope of this Article, ensuring the absolute minimum number bureaucratic units on all levels of government is involved in collecting taxes for an ACS is critical. At a minimum, establishing high-level working groups, with input from leaders of the creative industries as well as officials, appears mandatory to oversee the efficient administration of these systems.

d) Exacerbating the Divide between Rich and Poor

While it is true that most of China's hundreds of millions of rural poor have more pressing needs than a digital entertainment service, it is also true that the ACS, intended to enrich society with unprecedented access to creative works, would for many years remain a luxury of the urban elite.

308. See *supra* Section IV.A.1.

309. See MERTHA, *supra* note 132, at 145-49.

The basic price of admission—a personal computer and an internet access account—is beyond the financial reach (and often, in the case of internet access, geographical reach) of a majority of Chinese. The ACS would be yet another in a long list of lifestyle improvements dividing the Chinese upper and lower economic classes. On the positive side, as China's economy develops, internet access will penetrate deeper into Chinese territory and society. An ACS would provide yet another incentive for people of all backgrounds to join the internet community as it becomes feasible for them to do so.

e) Remaining Issues

The ACS faces other challenges, perhaps the most threatening being the possibility of “gaming” the system, for example, downloading one's own song endlessly in order to “ballot stuff” the results and obtain an undue share of the distribution. This problem, and others, are not specific to China, and have already been treated at length by Fisher and Netanel.³¹⁰ Suffice it to say that although this issue and others pose problems for the system, there is good reason to believe that such problems can be reduced to an acceptable level, if not solved altogether.

5. *The ACS and Chinese Copyright Theory*

Although an ACS would be in some ways an alternative to current copyright laws, how do the principles underlying the system stack up against the goals of copyright law in China?³¹¹ Indeed, an ACS as envisioned here would further many of the goals of Chinese copyright law better than a crackdown on piracy. True, an effective crackdown on piracy should help restore incentives to create, as an expansion of the legitimate market would allow the music and movie industries to invest in the creation of new works. However, Chinese copyright theory incorporates a strong, socialist-influenced public goods connotation.³¹² While this fact is often ignored in the West, socialism is still, at least in theory, an important feature of Chinese copyright as it fits into China's “socialist market economy.” Even if an effective widespread crackdown on piracy were possible, it would not provide a strategy for advancing this element of Chinese copyright law and theory, nor is it likely to provide the rich diversity of creative works an ACS promises.

The ACS would produce a nearly optimal balance between providing economic incentives to create and providing an acceptable, even essential,

310. See FISHER, *supra* note 248, at 226-34; Netanel, *supra* note 248, at 55-57.

311. See *supra* Section III.D.

312. See *supra* Section III.D.

role for the state in the development of the creative industries. While many in the West are wary of any system that relies on government involvement more than on market forces, throughout Chinese history, market forces did not drive creativity. China's incredibly rich artistic tradition was based on access, which allowed people to keep old works fresh by enjoying them repeatedly and using them as building blocks to develop new works. It was not based on copyright, which creates legal barriers to access, and which has, consequently, created a market for piracy. The state's role in an ACS need not, and should not, be overly intrusive. The state can, however, assume the admirable role of ensuring that a rich body of creative works is available to as many citizens as possible while simultaneously ensuring that those creating these works are duly rewarded for their important contributions. Such a system resonates with Chinese values and practices of the past and present.

6. *Prospects for an ACS in China*

Would China ever consider adopting an ACS? China probably is not prepared to take such a radical step in the near future. The internet is young and the Chinese music and movie industries are still facing their heaviest losses to physical, rather than internet, piracy. Moreover, many observers still have hope that copyright enforcement in China eventually will improve dramatically and the market will begin to function as it does in the most developed countries. However, if copyright enforcement fails to improve significantly during the next several years and if rapid broadband adoption leads to levels of file sharing that undermine any gains made against physical pirates, industry groups might begin calling for a solution at least as radical as an ACS. If another country adopts an ACS first and China is able to assess the success of that system, China may resort to adopting an ACS, given that its internet policies are strongly influenced by the policies of other countries.³¹³

There is reason to believe the idea of an ACS would be well received in China. In private interviews, a high-ranking official in Shanghai's General Legal Affairs Office praised the concept as "a truly proactive way of dealing with the piracy problem,"³¹⁴ while a music publishing executive

313. See, e.g., *EU to Help China Build Modern Copyright System*, XINHUA NEWS AGENCY, July 7, 2004, <http://www.china.org.cn/english/international/100511.htm> ("China is of particular interest on how Europe is adapting to the challenges of the Internet society, which has provided major challenges against illegal piracy," said Liu Jie, the acting director general of copyright department of [the NCA]. "China needs to adopt such systems," he said.").

314. Interview on Jan. 7, 2005 (on file with author).

believed the system could prove to be a viable solution to his industry's woes. An influential Chinese copyright scholar privately called it a highly effective solution³¹⁵ to the piracy problem. Another noted intellectual property scholar, Xue Hong, recently proposed a similar system as a solution to internet piracy, describing it as a "win-win" proposition for Chinese copyright owners and end users:

If copyright owners and end users consider the problem from one another's perspective, we can fashion a win-win solution. For example, we could set up a compulsory licensing system through a collective administrative organization that would allow users to exchange legal copies of copyrighted works. Every user that exchanges works using peer-to-peer technology would be required to pay a small copyright tax (if the number of users is in the multimillions, the copyright tax per individual could be very low). The administrative organization can develop a software program that will work with peer-to-peer systems, requiring users to register automatically with the administrative organization when they log in, and pay a certain amount of copyright tax based on the quantity of the works they upload or download (those works authorized by the original authors or in the public domain would be exempted). With this system, users can exchange works at a low price, peer-to-peer providers are free of liability, and owners' compensation is guaranteed. Why not kill three birds with one stone!³¹⁶

If more academics, officials, and entertainment executives become convinced an ACS is viable and would improve the fortunes of the Chinese music and film industries, if copyright enforcement conditions remain the same or worsen, and if privately held online content distribution systems have underwhelming success in China in the interim, an ACS could eventually receive serious consideration in China.

V. CONCLUSION

In the Introduction, I suggested that China is poised at a crossroads, where the physical piracy of the twentieth century intersects with the specter of widespread internet piracy in the twenty-first century. This intersection of the "old" and "new" presents immense challenges as well as oppor-

315. Interview on Jan. 12, 2005 (on file with author).

316. XUE HONG, ZHI SHI CHAN QUAN YU DIAN ZI SHANG WU [INTELLECTUAL PROPERTY IN ELECTRONIC COMMERCE] 367-68 (2002) (excerpt translated by Eric Priest and Wei Chen).

tunities and could be seen as symbolic of many aspects of China's reform, including the development of intellectual property norms. Piracy in China has been and will continue to be shaped by the tensions between myriad "new" and "old" cultural, economic, social, technological, and political forces. The piracy story in China is about the clash of socialism and free-market economics, which coexist simultaneously in this transitional period of a "socialist market economy." It is about the traditional political and cultural values of collectivism, state centralism, and emphasis of duties over rights intersecting with an ever-increasing awareness in China of individual rights, property rights, and intellectual property rights. It is, to some extent, about a generations-old Chinese association of intellectual property rights with colonialism and extraterritoriality and a renewed reluctance to allow foreigners to use intellectual property rights to leverage their way into an advantageous position in the Chinese market. It is about a society propelled by unprecedented economic development, with every manner of entertainment and innovative technology available to entice consumers, while the average worker subsists on one hundred dollars per month.

The government's present trajectory in the war on piracy—pursuing a long-term plan for improved intellectual property protection through measured reforms, education, and reliance on private parties to enforce their own copyright portfolios—will not solve the piracy problem or bring about significant relief to copyright owners for many years, if ever. In fact, the Chinese entertainment industry will likely turn to alternative business models that do not rely on copyright law to generate revenue before reliable copyright enforcement becomes a reality in China. The Chinese government's other major policy option for copyright enforcement—a truly effective crackdown on piracy in China—appears impossible in the foreseeable future. Too many political, institutional, economic, and cultural barriers to successful copyright enforcement exist, and Chinese consumers' have too strong an appetite for cheap music and movies. Indeed, the incentives for Chinese consumers to support the piracy trade have never been stronger. Piracy offers Chinese consumers a tremendous variety of works from all over the world at a fraction of the legitimate price. They accumulate huge libraries of music and movies, many of which would have been banned less than a generation ago. In a sense, pirated products represent a kind of consumer freedom—pirated goods are entirely free from government and corporate interference. In this way, attraction to pirated products in China is similar to the attraction many in the rest of the world have to the freedom from interference inherent in peer-to-peer content sharing.

The cultural factors contributing to piracy run deep. Even among academics, including legal academics, plagiarism in China is widespread.³¹⁷ Such examples seem to reveal a disconnect between what many in China “know” intellectually about the benefits of copyright protection for authors and society, on one hand, and their culturally informed behavior on the other. Copyright owners, especially foreign copyright owners, must be realistic about the prospects for reducing piracy in China. Those copyright owners who count all losses to piracy in China as displaced sales and hope for dramatic short-term improvement must lower their expectations. Reaching a law-based solution to the dearth of copyright norms in China will ultimately prove as nuanced and complex as the factors that accumulated to cause the situation. And that will take time—perhaps a very long time.

Meanwhile, the United States, while pressuring China to improve copyright enforcement, has experienced a growing chorus of voices from within seriously questioning the extent to which copyright is relevant and appropriate in the internet age.³¹⁸ They maintain that the internet poses the best opportunity in history to fulfill the promise of the original copyright bargain enshrined in the U.S. Constitution, that authors shall enjoy limited rights in their works in order to promote creation for the betterment of society.³¹⁹ Ironically, the seemingly endless expansion of copyright impedes, rather than facilitates, this promise by extending barriers to public access at a time when the internet could provide greater access than ever before.

317. See Tim Johnson, *In China, Faculty Plagiarism a “National Scandal”*, MERCURYNEWS.COM, Mar. 22, 2006, <http://www.mercurynews.com/mld/mercurynews/news/world/14161154.htm>.

318. See, e.g., FISHER, *supra* note 248 (proposing an ACS for sharing digital works on the internet); LAWRENCE LESSIG, *THE FUTURE OF IDEAS* (2001) (arguing that the digital era gives new life to the public domain, therefore necessitating sweeping changes to the term of copyright); JESSICA LITMAN, *DIGITAL COPYRIGHT* (2001) (proposing that copyright law in the digital age be altered to better align the law with what Litman believes is the public’s view of the copyright bargain, thus copying a protected work for pecuniary gain would be infringement, while copying for private use would not); Andrew Kantor, *CyberSpeak—There’s Little Right with Today’s Copyright Laws*, USATODAY.COM, Nov. 19, 2004, http://www.usatoday.com/tech/columnist/andrewkantor/2004-11-19-kantor_x.htm. Kantor writes:

The copyright system can’t be repaired. It needs to be rebuilt from scratch with 21st century ideas, and in a world where it’s acknowledged that people can copy and distribute content quickly and easily. Rather than fight that idea with lawyers, guns, and money (© Warren Zevon), the law needs to embrace it and give users the kind of rights that it’s willing to lavish on producers.

Id.

319. U.S. CONST. art. I, § 8, cl. 8.

Ultimately, both overly expansive copyright protections and piracy threaten creativity.

It might be, then, that copyright law as we know it does not strike the best balance between society's interest in accessing a rich variety of reasonably priced works and compensating copyright owners' for their creative efforts. While the United States struggles to define the role of copyright on the internet, China, relatively unsaddled with the pressure of domestic old-media lobbying, can explore the internet's potential for defeating physical piracy and developing its domestic music and film industries. Driven to tap the internet's promise as a means of bringing the creator and consumer closer together while keeping pirates out of the loop, the private and/or public sectors in China might greatly contribute to the next-generation distribution-compensation model that provides both extensive access to, and fair compensation for, creative works without relying on copyright. Social benefit is a core principle of Chinese copyright, and Chinese society would benefit mightily from a system that could harness internet technology to energize its music and film industries, spur development of a rich corpus of creative works, and increase public appreciation for the rights of all copyright owners, domestic and foreign. The Chinese music and film industries, despite their relatively small size and impact on the Chinese economy, have an important role to play in China's development. As the spokesman for the NCA has observed, "Rampant piracy harms people's creativity, and a nation without creativity is a nation without hope."³²⁰

320. *Officials, Entertainers Stage Events to Fight Piracy*, XINHUA NEWS AGENCY, Feb. 25, 2005, http://english.people.com.cn/200502/27/eng20050227_174806.html (quoting Wang Ziqiang).

THE AMBULANCE, THE SQUAD CAR, & THE INTERNET

By Susan P. Crawford[†]

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I. INTRODUCTION

The Federal Communications Commission (FCC) moved swiftly in 2005 to extend E911¹ and CALEA² requirements—two “social policies”³ that had been applied to telephone companies—to broadband internet access providers and providers of online applications. E911, broadly speaking, requires telephone companies to provide location information to a dedicated call center for anyone calling 911.⁴ CALEA, in general, requires telephone companies to design their services so that they are easily tappable by law enforcement.⁵ In the E911 context, dominant vendors of outsourced E911 compliance services persuaded the FCC to insist that online businesses find ways to make their services work with 30-year-old legacy emergency hardware (access to which is controlled by those vendors). In the CALEA context, law enforcement persuaded the Commission to require online businesses and broadband access providers to make their ser-

1. *In re* IP-Enabled Services and E911 Requirements for IP-Enabled Service Providers, 20 F.C.C.R. 10,245 (May 19, 2005) [hereinafter E911 Order], available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-116A1.pdf. The E911 Order requires providers of “interconnected VoIP” services (roughly, Voice over Internet Protocol online services that connect to the traditional telephone network) to make traditional 911 access available to their subscribers by November 28, 2005. *Id.* at 10,246, 10,267; E911 Requirements for IP-Enabled Services, 70 Fed. Reg. 37,273 (June 29, 2005) (to be codified at 47 C.F.R. pt. 9) (stating effective date and compliance date).

2. *In re* Commc’ns Assistance for Law Enforcement Act and Broadband Access and Servs., 20 F.C.C.R. 14,989 (Aug. 5, 2005) [hereinafter CALEA Order], available at <http://www.askcalea.net/docs/20050923-fcc-05-153.pdf>. The Communications Assistance for Law Enforcement Act (CALEA) Order states that providers of interconnected VoIP services and broadband internet access are required to comply with CALEA by May 2007 by making their applications and facilities easily tappable by law enforcement. *Id.* ¶ 3; Communications Assistance for Law Enforcement Act and Broadband Access and Services, 70 Fed. Reg. 59,664 (Oct. 13, 2005) (to be codified at 47 C.F.R. pt. 64) (stating effective date and compliance date).

3. The Commission uses the term “social policies” as a blanket descriptor for a list of regulations that have been applied to traditional telephones and are not related to the rates charged for particular services. *See, e.g., In re* IP-Enabled Servs., WC No. 04-36, ¶ 36 (Fed. Commc’ns Comm’n Mar. 10, 2004) [hereinafter IP NPRM], available at <http://www.askcalea.net/docs/20040310.fcc.04-28.pdf>. “We . . . focus primarily on [distinguishing] services that might be viewed as replacements for traditional voice telephony ([raising] *social policy* concerns relating to emergency services, law enforcement, access by individuals with disabilities, [etc.]) from other services (. . . not [raising] these same regulatory questions to the same extent).” *Id.* ¶ 36 (emphasis added); *see* Susan P. Crawford, *Shortness of Vision: Regulatory Ambition in the Digital Age*, 74 *FORDHAM L. REV.* 695, 714-19 (2005) (describing the IP NPRM and “social policy” approach in global context of internet regulation).

4. E911 Order, *supra* note 1, at 10,246.

5. CALEA Order, *supra* note 2, ¶¶ 2-8.

vices acceptable to law enforcement—either before those services are launched, thus constraining innovation, or for existing services at great retrofitting expense. In both settings, the FCC plunged quickly ahead to apply these policies to the internet with little consideration either for the economic impacts of its choices or for alternative strategies that might have been employed. And both policies have been lifted largely unchanged from the world of telephony, even though the internet presents a very different technical and economic context.

These proceedings, taken together, provide a case study in a new form of digital era regulatory capture. Where an independent agency believes it has a broad delegation of power from Congress over new technology, and has a political agenda and the technical assistance of dominant, unregulated entities intent on retaining the advantages that old technology gave them, incumbents can easily use regulation to raise the costs of entry for new competitors. In this case, assistance came from providers of outsourced compliance services to telephone companies, and from the Department of Justice, a powerful sister agency. Unlike the usual tale of regulatory capture, the work of FCC staff on these rulemakings was not necessarily corrupt, and can be explained in part by the cultural background of staff—their traditional telephony or “bellhead” orientation. But the interplay among the key players in this new form of capture has resulted in a toxic environment for new online businesses established to compete with traditional telecommunications providers: The combination of hard social questions, the ever-present threat of terrorism, captured but well-meaning staff, law enforcement heavy-handedness, dominant vendors of compliance services, and well-funded activities of rent-seeking incumbents has resulted in an unaccountable independent agency creating substantial barriers to entry for a significant portion of the American economy. The FCC’s application of E911 and CALEA policies to the internet has already sparked lawsuits.⁶ Although there are as yet no judicial opinions on these matters, a line from an article by Professor Thomas Merrill encourages me to proceed: “Legal scholars who take their cues from courts will always end up playing ‘catch-up,’ attempting to integrate judicial innovations with previously established understandings and (perhaps) with social science literature. But they will rarely serve as catalysts for

6. Chérie R. Kiser & Ernest C. Cooper, *Application of CALEA to Cable Operators: Current Issues and Status of FCC Rulemaking*, MONDAQ (Dec. 15, 2005), <http://www.mondaq.com/article.asp?articleid=37246&lastestnews=1> (discussing cases challenging CALEA Order consolidated in *Am. Council on Educ. v. FCC*, No. 05-1404 (D.C. Cir. filed Oct. 24, 2005)); *Nuvio Corp. v. FCC*, No. 05-1248 (D.C. Cir. filed Nov. 8, 2005) (challenging E911 Order) (on file with author).

change.”⁷ This Article tells the story of this new form of regulatory capture, and is aimed at galvanizing congressional action to constrain the Commission’s currently apparently unlimited discretion to regulate the internet.

The early rulemakings I discuss in this Article rely on assumptions: we are in a new age, *and therefore* social policies from the old age need to be brought forward into this new age. We are referred back, ceaselessly, to the need to assuage fears about emergency services and law enforcement access—to bring in the ambulance and the squad car—without much analysis. The FCC says only that it wants to provide a “level playing field” for the digital age by treating everyone alike in implementing these “social policies” online. It is requiring that these policies be carried out in a centralized, unitary, command-and-control fashion that is well-suited to the world of telephones. But the internet should have taught us, by now, that there are alternative ways to reach our social policy goals. The argument is not that the new actors discussed in this Article should be exempt from emergency and law enforcement concerns. Although there is a case to be made for that argument, it is politically untenable, and I do not advance it here. Instead, I suggest that by insisting that these actors pursue these ends by the same means as traditional telephone providers, we have both missed crucial opportunities and imposed heavy costs on new market entrants. In addition to outlining the case studies of regulatory capture provided by these proceedings, this Article examines the alternative routes that Congress might want to follow in the future.

To describe the capture case studies and suggest alternative routes requires some groundwork. Part II lays out the social concerns that underlie the E911 and CALEA rulemakings, describes the history of both of these efforts and the dynamic cooperation between third-party vendors of outsourced services, law enforcement/public safety officials, and staff, and details the enormous implementation difficulties that have been caused by the FCC’s rush to impose these social policies on online businesses.

These two rulemakings are at different stages. In the E911 context, the third-party outsourced service providers and incumbent telephone companies have successfully managed to convince the FCC to create a standard that serves their business interests and puts their competitors out of business. In the CALEA context, law enforcement has managed to convince the FCC to create a legally tenuous threat of non-compliance liability without saying what compliance actually entails.

7. Thomas Merrill, *Capture Theory and the Courts: 1967-1983*, 72 CHI.-KENT L. REV. 1039, 1067 (1997).

Part III sketches the market context for the E911 and CALEA rulemakings by introducing the *dramatis personae* involved in both proceedings. In brief, incumbent telephone companies are being undermined daily by the success of new online services, vendors of compliance services to traditional telephone companies are looking for new market niches to serve, and law enforcement and emergency services authorities are longing for the relative simplicity of the days of telephony. Part IV compares the case studies of regulatory capture provided by these rulemakings to prior capture narratives and suggests that we have moved into a new era of regulatory capture in the digital era. Part V outlines alternative ways in which the social policies embodied in the E911 and CALEA rulemakings might be implemented, and what role Congress should take at this pivotal moment in the short history of the internet.

II. THE MARKET CONTEXT

When Congress passed the Telecommunications Act of 1996,⁸ few people had heard of “broadband,” and telephone companies were selling telephone services. Today, the telephone companies are angling to provide television services and, according to the FCC, 38 million Americans—about 60% of active internet users in the U.S.—have broadband access.⁹

In this new world, the nation’s Baby Bell telephone companies—Verizon, SBC, BellSouth, and Qwest, the companies remaining from the seven original Baby Bells that were created in 1984 with the breakup of AT&T—have been struggling, cutting jobs, and losing market value. Telecommunications companies are losing local wireline (traditional) tele-

8. 47 U.S.C. § 609 (2000).

9. See Press Release, FCC, Federal Communications Commission Releases Data on High-Speed Services for Internet Access, July 7, 2005, available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hspd0705.pdf (last visited Mar 1, 2006). Internet access speeds are measured in kilobits per second (kbps) and megabits per second (Mbps). The FCC’s claims about U.S. broadband access have been sharply disputed because the FCC considers anything over 200 kbps to be “broadband.” *Id.*; see also S. Derek Turner, *Broadband Reality Check: The FCC Ignores America’s Digital Divide*, FREE PRESS, Aug. 2005, http://www.freepress.net/docs/broadband_report.pdf. This speed is too low to receive low-quality video, much less originate high-quality video. Turner, *supra*, at 2. In comparison, dial-up speed is around 56 kbps. Dial-up Access, WIKIPEDIA: THE FREE ENCYCLOPEDIA, <http://en.wikipedia.org/wiki/Dial-up> (last visited Mar. 16, 2006). The International Telecommunication Union (ITU) reported that in 2005 the top five nations for broadband network market penetration were Korea, Hong Kong, the Netherlands, Denmark, and Canada. Turner, *supra*, at 4 (citing ITU, April 13, 2005, <http://www.itu.int/osg/spu/newslog/ITUs+New+Broadband+Statistics+For+1+January+2005.aspx>). The ITU ranked the United States sixteenth in broadband penetration. *Id.*

phone customers to VoIP and wireless services at a rate of about 5% of their basic phone subscribers each year.¹⁰ According to a September 2005 report, 6% of U.S. households now have *only* wireless phones.¹¹ Since 2000, the number of wireline subscribers has fallen by 13.5 million, to 178 million in 2005.¹² SBC and Verizon lost 1.3 million and 3 million access lines, respectively, between June 30, 2004 and June 30, 2005.¹³

These Baby Bell difficulties relate to the growth of VoIP usage in the U.S. Although the idea of offering voice services online is not new,¹⁴ the availability of broadband access and special VoIP equipment has made these services truly attractive to consumers. The uptick in VoIP usage began in 2002, when 50-employee Vonage Holdings Corp. offered a much cheaper internet-based voice service that worked through telephone-like handsets connected to adapters that could packetize voice.¹⁵ Consumers no longer needed to talk into their PCs.

Vonage can offer voice services more cheaply than traditional telephone companies because Vonage customers do not have to pay the taxes and access fees associated with traditional phone service.¹⁶ Vonage, advertising itself as “The Broadband Phone Company”¹⁷ and using ads that poke fun at people who pay too much for phone service, has grown quickly since 2002, and now has 1500 employees and more than 800,000 subscribers.¹⁸ And free or nearly free voice offerings from Skype, Yahoo!,

10. See Jon Arnold, *The IP Heat Is On*, TELECOMMS. AMS., Feb. 14, 2005, at 8, available at 2005 WLNR 4973909; Leslie Cauley, *BellSouth Likes To Go It Alone*, USA TODAY, Nov. 1, 2005, available at http://www.usatoday.com/tech/news/techpolicy/business/2005-10-31-bellsouth-mergers_x.htm.

11. See THE INSIGHT RESEARCH CORP., *FIXED MOBILE CONVERGENCE: SINGLE PHONE SOLUTIONS FOR WIRELESS, WIRELINE, AND VOIP CONVERGENCE: 2005-2010* (2005), <http://www.insight-corp.com/reports/fixmobcon.asp>.

12. Elizabeth Wasserman, *The New Telecom Wars: Looking to Update a Landmark Law*, CQ WEEKLY, Nov. 14, 2005, at 3049.

13. Mike Farrell, *Dialing Without Dollars: Price Pressures Could Wring Profit Out of Cable's Booming Telephone Business*, MULTICHANNEL NEWS, Oct. 3, 2005, <http://www.multichannel.com/article/CA6262221.html?display=Search+Results&text=dialing+without+dollars>.

14. Net2Phone has been selling voice services since 1996. See About Net2Phone, <http://web.net2phone.com/about> (last visited Mar. 1, 2006).

15. See Shawn Young, *Talk is Too Cheap: VoIP Profits Grow Scarce*, GLOBE AND MAIL (TORONTO), Aug. 26, 2005, <http://www.theglobeandmail.com/servlet/ArticleNews/TPStory/LAC/20050826/WSJVOIP26>.

16. See Tom Johnson, *Calling the Shots and Holding the Line*, STAR LEDGER, Aug. 16, 2005, at B25, available at 2005 WLNR 12895661.

17. See Vonage, <http://www.vonage.com> (last visited Mar 16, 2006).

18. See Young, *supra* note 15.

MSN, and Google complicate things further for the Baby Bells.¹⁹ eBay's recent purchase of Skype increases the probability that Skype, with its 49 million users worldwide, will be a powerful player in North America even though it currently has only about 260,000 paying users.²⁰ VoIP services in general are growing quickly. There are now between 2 and 3 million VoIP subscribers in the U.S., and there are projected to be between 12 and 40 million by 2011.²¹

All of this activity has forced some striking price reductions in online voice services. Vonage cut its prices by nearly 30% in 2004. Comcast's decision to enter the online voice market is representative of a trend among cable companies to enter this market at very low prices.²² The Baby Bells are hoping to survive this price-cutting, as they survived the long-distance price wars in the 1990s.²³ And the Baby Bells are beginning to launch their own VoIP plans. For example, AT&T initiated its online voice service, called CallVantage, in April 2004, and charged a flat rate of \$40/month for all types of calls.²⁴ In response, Vonage lowered its monthly rates.²⁵ Verizon is now offering VoiceWing to customers for \$35/month, and Vonage, AT&T, and Verizon have all introduced even lower-cost plans.²⁶ Voice service online is becoming essentially free.

With one of their key business areas slipping away, the Baby Bells are looking for an operating plan that will allow them to survive. They are betting that, even if voice becomes essentially free, consumers will pay for bundled packages that include on-demand movies and other video services plus voice and data.²⁷ The Baby Bells believe—possibly rightly—that consumers would prefer to receive only one bill for all the communications services they use, and that online video services controlled by the access provider will be attractive to their subscribers. In effect, the Baby Bells are planning to combine all of their offerings on a single network

19. See Ben Charney, *Big Players Enter VoIP Game*, EWEEK, Sept. 20, 2005, <http://www.eweek.com/article2/0,1895,1861275,00.asp>.

20. Cf. Farrell, *supra* note 13.

21. Joyzelle Davis, *VoIP Battle Heats Up*, ROCKY MOUNTAIN NEWS, Nov. 7, 2005, at 1B; Farrell, *supra* note 13; Cauley, *supra* note 10.

22. Young, *supra* note 15.

23. *Id.*

24. *Id.*

25. *Id.*

26. *Id.*

27. See, e.g., Michael Khalilian & Farshid Mohammadi, *Carriers Win Big with Triple-Play IP Services*, PHONE+, June 2004, available at <http://www.phoneplusmag.com/articles/461soap.html>; David LaGesse, *The Battle Over Bundles*, U.S. NEWS, Mar. 20, 2006, available at <http://www.usnews.com/usnews/biztech/articles/060320/20phone.htm>.

instead of having separate networks for telephone, cell phone, internet, and television services, so that users can get to their e-mail from their television sets or any other network device, and see caller ID information on any device whenever the phone rings.²⁸ Throughout most of 2005, therefore, the Baby Bells bombarded the nation with advertisements for packages that included landline and wireless voice products, VoIP, internet access, and video services. They also began pushing for legislation that would allow them to offer “premium” packages of services.²⁹

In order to be confident that consumers will be willing to pay for these packages, the Baby Bells have worked hard to ensure that their networks will not be subject to common carriage or non-discrimination obligations that might force these network managers to carry competing voice or video services³⁰ such as Skype or Google Video. Immediately following the Supreme Court’s *Brand X* decision in 2005,³¹ which made clear that cable networks had no common carriage obligations, the Baby Bells demanded that DSL services be similarly released from any requirement to connect to all ISPs or carry all services. In August 2005, they achieved this goal with the issuance of the FCC’s Wireline DSL order.³²

Many non-Bell VoIP and video/audio application providers want to reach Bell subscribers and there is a tussle now over whether the Baby Bells can either insist that these other application providers pay them for the privilege of being accessed by end-users, or subtly discriminate against non-Bell applications by degrading the quality of service experienced by users when using these other applications. The Baby Bells have been extraordinarily active politically in trying to make sure that they have the power to control their last-mile networks, the funds for the building of which may have been provided by their subscribers in the first place. Ac-

28. See John C. Roper, *FCC Puts Off Merger Votes*, HOUSTON CHRON., Oct. 29, 2005, available at 2005 WLNR 17494376.

29. See Anne Broache & Declan McCullagh, *Playing Favorites on the Net?*, CNET NEWS.COM, Dec. 21, 2005, http://news.com.com/Playing+favorites+on+the+Net/2100-1028_3-6003281.html (“A bill expected early next year in the U.S. House of Representatives, coupled with recent comments made by executives from BellSouth and the newly merged AT&T and SBC Communications, has raised the prospect of a two-tiered internet in which some services—especially video—would be favored over others.”).

30. See 47 U.S.C. § 151 (2000) (defining common carrier requirements).

31. Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs., 125 S. Ct. 2688 (2005).

32. *In re* Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, CC No. 02-33, ¶ 5 (Fed. Commc’ns Comm’n Sept. 23, 2005) [hereinafter DSL Order] (classifying wireline broadband internet access service (DSL) as an information service under the Communications Act), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-150A1.pdf.

ording to the Center for Responsive Politics, the Baby Bells have given more than \$44 million since 1999 to federal candidates and parties (almost 60% to currently-powerful and traditionally deregulatory Republicans).³³

In addition to consolidating consumers' bills, the Baby Bells are consolidating themselves. By the end of 2005, SBC, having purchased AT&T, dominated the western U.S. as the largest telecommunications company in the country with about \$110 billion in annual revenue.³⁴ And Verizon, having purchased MCI, dominated the eastern portion of the country as the second largest telecom entity with about \$90 billion in annual revenue.³⁵

The Baby Bells' argument that they should have greater control over their networks has found support in concerns about a related U.S. policy issue: broadband penetration. Whether because of the lack of competition for broadband provision, because of the peculiar physical characteristics of the wide-open U.S. landscape, or because of bad policy, the U.S. is falling behind in ensuring that its citizens have high-speed access to the internet. Studies by the Organization for Economic Cooperation and Development and the International Telecommunication Union have found that the U.S. is either 12th (OECD) or 16th (ITU) in the world in terms of the percentage of people having broadband access to the internet.³⁶ In addition, broadband speeds in other countries are often four to five times faster than they are in the U.S.³⁷ The Baby Bells argue that without control over who has access to their networks, they will have no incentives to maintain or improve those networks and thus improve America's standing in the race to connect citizens to the high-speed internet—and the Baby Bells and the cable companies together control the market for broadband access in America.³⁸ So the Baby Bells suggest implicitly and explicitly that the *quid pro quo* for improving the American broadband story should be control over their networks and the ability to block competing services unless

33. *Untangling Telecom*, NEW JERSEY REC., Aug. 7, 2005, at B01.

34. Cauley, *supra* note 10.

35. *Id.*

36. Wasserman, *supra* note 12; *see also* Turner, *supra* note 9, at 3.

37. Wasserman, *supra* note 12 ("Internet services in South Korea, Japan and Italy can transfer data at eight to ten megabits per second . . . In the United States, cable users can download information from the Internet at about 3 to 6 megabits per second; DSL users . . . about 1.5 megabits per second."); *see also* Turner *supra* note 9, at 5-6.

38. At the moment, broadband access is provided by just two kinds of actors in the U.S. and ninety-five percent of U.S. zip codes broadband subscribers are served by cable and telephone companies. Cable has more subscribers than the Baby Bells do, with 21.4 million subscribers to the Baby Bells' 13.8 million. FCC, WIRELINE COMPETITION BUREAU, HIGH-SPEED SERVICES FOR INTERNET ACCESS: STATUS AS OF DECEMBER 31, 2004 2 (2005).

they are compensated for carrying them.³⁹ In November 2005, SBC Chairman Edward Whitacre made clear that SBC expected such control:

[Q] How concerned are you about Internet upstarts like Google[], MSN, Vonage, and others?

[A] How do you think they're going to get to customers? Through a broadband pipe. Cable companies have them. We have them. Now what they would like to do is use my pipes free, but I ain't going to let them do that because we have spent this capital and we have to have a return on it. So there's going to have to be some mechanism for these people who use these pipes to pay for the portion they're using. Why should they be allowed to use my pipes? The Internet can't be free in that sense, because we and the cable companies have made an investment and for a Google or Yahoo![] or Vonage or anybody to expect to use these pipes [for] free is nuts!⁴⁰

Indeed, the larger goal of the Baby Bells is to do away with the traditional telephone network, with all of its common carrier obligations and history of tariffing, altogether. Most traditional telephone lines in the U.S. will be replaced over the next five to ten years with DSL or fiber optic cable.⁴¹ The digital Internet Protocol⁴² (IP) based systems of DSL and fiber are 30% to 60% cheaper to run than the old traditional telephone network.⁴³ So the traditional telephone companies are looking for ways to protect their markets against the depredations of their competitors as they move their businesses entirely onto the internet.

39. Verso is already providing Skype blocking software to network providers. See Ted Shelton, *Verso Appliance Lets Enterprises Block Skype*, INFORMATIONWEEK, Sept. 21, 2005, <http://www.informationweek.com/shared/printableArticle.jhtml?articleID=171000619>.

40. Patricia O'Connell, *At SBC, It's All About "Scale and Scope"*, BUSINESSWEEK ONLINE, Nov. 7, 2005, http://www.businessweek.com/@@n34h*IUQu7KtOwgA/magazine/content/05_45/b3958092.htm; see also Arshad Mohammed, *SBC Head Ignites Access Debate*, WASH. POST, Nov. 4, 2005, at D01 (stating reactions to Whitacre statements, including "Internet companies said Whitacre was stating what they have long feared—that SBC and others may manage their networks to choke off access to Web sites or to target competing firms such as Vonage Holdings Corp. and Skype Technologies SA, which provide Internet-based phone services.").

41. Dave Burstein, *DSL (or Fiber) on Every Line*, DSL PRIME, Nov. 25, 2005, http://www.dslprime.com/News_Articles/news_articles.htm.

42. Internet Protocol (IP) is "[t]he protocol used to route a data packet from its source to its destination via the Internet." Red Hat Documentation, Red Hat Glossary, <http://www.redhat.com/docs/glossary> (last visited Mar. 1, 2006).

43. Dave Burstein, *7% of Japanese Can't Get DSL*, DSL PRIME, Nov. 25, 2005, http://www.dslprime.com/News_Articles/news_articles.htm.

One key market-protection move is to pile destructive regulations on new competitors.⁴⁴ Several of the Baby Bells have announced that they want to see that all VoIP providers meet the same “social policy” regulatory requirements that phone companies have had—including offering reliable emergency 911 service, submitting to the same federal wiretapping assistance guidelines to which traditional telephone companies are subject, contributing to the universal service fund, and paying access fees to connect to the traditional phone network.⁴⁵ I believe the Baby Bells themselves are content to comply with these regulations because they have assumed in their planning processes that they will be subject to these continuing costs. But new entrants may not have planned for this kind of permission-based future, and are likely to be put out of business by the regulatory machinations of the incumbents. Indeed, VoIP providers had been working on voluntarily providing better, more informational, Internet Protocol-based E911 services, but the Commission chose instead to adopt a plan that appeared to be aimed at raising their barriers to entry.

At the same time, a new class of regulatory capture players has emerged in the E911 and CALEA contexts: providers of outsourced com-

44. Regulation is often used as a strategic barrier to entry. “An innocent entry barrier is unintentionally erected as a side effect of innocent profit maximization. In contrast, a strategic entry barrier is purposely erected to reduce the possibility of entry.” Steven Salop, *Strategic Entry Deterrence*, 69 AM. ECON. REV. 335, 335 (1979) (emphasis omitted); see James B. Speta, *Deregulating Telecommunications in Internet Time*, 61 WASH. & LEE L. REV. 1063, 1140 (2004) (examining the 1996 Telecommunications Act and suggesting that “[r]egulation that burdens new entrants should be more suspect than regulation that burdens incumbents”).

45. Wasserman, *supra* note 12. BellSouth CEO Duane Ackerman stated “Congress must ensure that all the base-line social obligations placed on the communications business are equitably apportioned and supported by all competitors . . . regardless of the technology they choose to serve the public.” *BellSouth CEO Ackerman Offers Recommendations for Next Telecom Act*, TECH L.J., Dec. 14, 2005, <http://www.techlawjournal.com/alert/2004/12/20.asp>; *Regulatory Aspects of Voice over Internet Protocol (VoIP): Hearing Before the Subcomm. on Commercial and Admin. Law of the H. Comm. on the Judiciary*, 108th Cong. 77 (2004) (statement of John Langhauser, Vice President, Law, and Chief Counsel, Consumer Services Group, AT&T) (“We agree with those who’ve said that providers of VoIP must meet important social policies.”). Verizon has stated that “[S]ome regulation of VoIP services is appropriate to effect important federal policy objectives. As Chairman Powell has recognized, ‘rules designed to ensure law enforcement access, universal service, disability access and emergency 911 service can and should be preserved in the new architecture.’ Verizon supports these objectives.” Comments of Verizon Telephone Cos., *In re IP-Enabled Servs.*, WC No. 04-36, *In re* Petition of SBC Communications Inc. for Forbearance Under 47 U.S.C. § 160 from Application of Title II Common Carrier Regulation, WC No. 04-29, at 47-48 (Fed. Comm’n Comm’n May 28, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516199830.

pliance services to the Baby Bells. Intrado, a company that counts as its customers all of the Baby Bells and most of the nation's wireless carriers, has over the past 25 years created a database of 206 million subscriber records, and now handles more than 80% of the existing emergency call infrastructure in the United States.⁴⁶ Intrado's footprint and pre-existing relationships with all of the companies that control the specialized hardware—called “selective routers”—that must be used for access to the nation's 911 system have made it possible for Intrado to provide a nationwide compliance product to VoIP companies.⁴⁷ Intrado is the company that, under contracts with the Baby Bells, runs most of the selective routers that are the gateways to the E911 system.⁴⁸ In effect, Intrado is now in a position to deliver all of the major VoIP providers' E911 calls itself.⁴⁹ Verizon,⁵⁰ SBC (now AT&T),⁵¹ Vonage,⁵² and Qwest⁵³ all use Intrado for their VoIP E911 service. Intrado is the ultimate middleman in

46. Here's How Vonage-Verizon E-911 Will Work, Posting of Russell Shaw to ZDNet: IP, Telephony, VoIP, Broadband (May 4, 2005, 02:26 PM), <http://blogs.zdnet.com/ip-telephony/?p=397>; Robyn Weisman, *AT&T-Intrado E911 Deal Sign of Things To Come in VoIP World*, EWEEK, Aug. 2, 2005, <http://www.eweek.com/article2/0,1895,1935168,00.asp>; TRDO: Security Play with Recurring Revenue and New Product Growth; MARKET PERFORM, Stifel, Nicolaus Co., Aug. 2003, <http://www.stifel.com/stifelresearchdocs/TRDO%20090903%20FC.pdf> (reporting an 81% Intrado market share in wireless and wireline 911 provisioning and that Intrado services almost all of the Baby Bells).

47. Intrado's customers include all of the Baby Bells (BellSouth, Qwest, SBC (now AT&T), and Verizon) and most of the wireless carriers in the U.S. Corporate Profile. Intrado, <http://www.intrado.com/main/company/history/intradocorporateprofile> (last visited Dec. 10, 2005).

48. See Letter of Mary Boyd, Intrado, WC No. 04-36, at Attach. 1, 4-5 (Apr. 25, 2005) (on file with author).

49. Johanne Torres, *Intrado Interconnects Local Exchange Carriers*, TMCNET, Nov. 17, 2005, <http://news.tmcnet.com/news/2005/nov/1206361.htm>; Robert Poe, *Intrado Lays the Groundwork for Nationwide VoIP E911*, VOIP MAG., Nov. 18, 2005, <http://www.voip-magazine.com/content/view/600/>; Charlotte Wolter, *Outsourced e911: Help is on the Way*, XCHANGE, Aug. 1, 2005, <http://www.xchangemag.com/articles/581backoffice1.html>.

50. See generally Verizon Compliance Report, *In re IP-Enabled Servs.*, WC No. 04-36, E911 Requirements for IP-Enabled Service Providers, WC No. 05-196 (Fed. Comm'n Nov. 28, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518184175.

51. Weisman, *supra* note 46.

52. Shaw, *supra* note 46.

53. *Extending the Privilege of 911 Service to VoIP Callers*, VoIP Newsletter (Mercator Capital, Reston, Va.), Jan. 2005, at 3, <http://www.mercatorcapital.com/newsletters/January2005newsletter.pdf> (listing Qwest, along with Vonage, AT&T, and Verizon, as Intrado customer for E911 VoIP services).

this setting; anyone who wants to connect to E911 in this country needs to talk to Intrado first.

Another company, Level 3, serves as a key middleman for connection to the crucial selective routers. Level 3 provides myriad infrastructure and telecommunications services to many telephone and cable companies in both the United States and Europe.⁵⁴ It is certified as a “telecommunications carrier” in all 50 states—in effect, it has the status of a competitor to the Baby Bells—and claims that it has the network infrastructure to provide wholesale VoIP (and thus E911) services in areas covering approximately 69% of all U.S. households.⁵⁵ The Baby Bells are required to permit Level 3 to interconnect with their E911 systems.

In the CALEA context, the key provider of outsourced compliance services is VeriSign, which presented itself to the FCC as able to provide outsourced “cost-effective CALEA support solutions” for all providers of broadband access and VoIP.⁵⁶ VeriSign suggested to the Commission that a “service bureau” approach to CALEA compliance would dramatically lower costs and simplify the task of law enforcement authorities, whose only interface would be with VeriSign rather than with all communications service providers.⁵⁷ VeriSign, which has announced publicly that its

54. See Level 3 Communications, The Level 3 Story, <http://www.level3.com/576.html> (last visited Mar. 1, 2006) (noting that the ten largest internet service providers and the ten largest telecommunications carriers in the United States use Level 3). Level 3 is certified to connect to the selective routers around the country. See E-911: Enhanced 911 for VoIP, Level 3, http://www.level3.com/userimages/dotcom/pdf/Level_3_E-911_Fact_Sheet.pdf (last visited Mar. 1, 2006) (stating that Level 3 offers VoIP providers the ability to provide full E911 service for approximately 60% of U.S. households, and it plans to support 70% to 80% later in 2005).

55. Press Release, Level 3, Level 3 Selected by United Online to Enable VoIP Services (Dec. 15, 2005), available at <http://www.level3.com/press/6623.html>.

56. Comments of VeriSign, Inc., *In re* U.S. Dep’t of Justice, FBI, and DOJ Joint Petition for Rulemaking to Resolve Outstanding Issues Concerning the Implementation of CALEA, RM-10865, at 13 (Fed. Comm’n Comm’n Apr. 12, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516087646.

57. See Ex Parte Presentation of VeriSign, Inc., *In re* Joint Petition for Rulemaking to Resolve Various Outstanding Issues Concerning Implementation of CALEA, RM-10865 (Apr. 15, 2004) (attaching slides suggesting, among other things, that a service bureau approach to CALEA would facilitate subpoena process because online users could be easily identified), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516088289. “Since compliance with surveillance requests is a significant cost for carriers, telecommunications companies have acted as a check on government power, lobbying against excessive proposals. Now, private entities that profit from surveillance will have an incentive to lobby for more government surveillance pow-

goal is to have all suppliers of communications services as its customers,⁵⁸ asked that the Commission's Notice of Proposed Rulemaking (NPRM) give "special consideration" to service bureau architectures in implementing CALEA.⁵⁹ The resulting CALEA NPRM did exactly that: it outlined VeriSign's proposal that the use of a "trusted third party" be recognized as fulfilling CALEA compliance obligations, and included an appendix sketching out VeriSign's proposed flow of data between entities.⁶⁰

In addition to the incumbents pushing for telephony rules to be applied to the online world, and the outsourcing vendors pushing for standardized business opportunities, law enforcement and emergency services providers were anxious to receive familiar forms of data from new online companies and for CALEA and E911 rules to apply to VoIP and other online applications.

The CALEA rulemaking process discussed in this Article began with a petition filed on behalf of the Federal Bureau of Investigation, the Department of Justice, and the Drug Enforcement Administration asking for clarification of the scope of CALEA.⁶¹ The Joint Petition asked the FCC to declare that CALEA requires providers of broadband access services and VoIP services to design their facilities so as to make law enforcement wiretapping easier.⁶² And the FCC, so far, has cooperated: In a notice of proposed rulemaking issued in August 2004, the FCC suggested that "facilities-based providers of any type of broadband Internet access service" and "'managed' VoIP services" were subject to CALEA.⁶³ More recently,

ers." CALEA: The Perils of Wiretapping the Internet, Electronic Frontier Foundation, <http://www.eff.org/Privacy/Surveillance/CALEA> (last visited Mar. 1, 2006).

58. See Khali Henderson, *CALEA Compliance Goes Undercover*, PHONE+ (Jan. 2003), available at <http://www.phoneplusmag.com/articles/311FEAT4.html> ("The company [VeriSign] has the goal of supporting all suppliers, creating vendor neutral support for operators."). VeriSign, like Intrado, plans to migrate its pre-existing telecommunications carrier services to the online world. See VeriSign Comments, *supra* note 56, at 14-15.

59. Ex Parte Presentation of VeriSign, Inc., RM-10865, at 3 (Fed. Commc'ns Comm'n July 6, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516283062.

60. Notice of Proposed Rulemaking and Declaratory Ruling, *In re CALEA and Broadband Access Servs.*, ET No. 04-295, ¶¶ 69-74 & app. C. (Fed. Commc'ns Comm'n Aug. 4, 2004) [hereinafter CALEA NPRM], available at <http://www.askcalea.net/docs/20040809.fcc.04-187.pdf>.

61. Joint Petition for Expedited Rulemaking, *In re U.S. Dep't of Justice, FBI, and DOJ Joint Petition for Rulemaking to Resolve Outstanding Issues Concerning the Implementation of CALEA*, ET No. 04-295 (Fed. Commc'ns Comm'n Mar. 10, 2004), available at <http://askcalea.net/docs/20040310.calea.jper.pdf>.

62. *Id.* at 3, 8, 15-17.

63. CALEA NPRM, *supra* note 60.

the Commission has issued an order declaring that broadband access and “interconnected” VoIP services are covered by CALEA.⁶⁴

Ever since the 1994 enactment of CALEA, law enforcement, industry, and the FCC have been battling over what compliance with that statute requires of telecommunications carriers.⁶⁵ It is very likely that law enforcement authorities would like to replicate the call-identifying information that they have fought to obtain in the telephony world, and are interested in shifting the costs of sifting out that information to application providers and their customers.⁶⁶

In the E911 context, the role of the emergency services community is less obvious than the role of law enforcement in the CALEA proceeding. But public safety officials from New York told the FCC that all VoIP applications should be immediately subject to E911 requirements.⁶⁷ Other

64. CALEA Order, *supra* note 2, ¶ 7.

65. Industry groups came up with the first standard, which was known as the J-standard. Press Release, Telecommunications Industry Association, TIA and ATIS Publish Lawfully Authorized Electronic Surveillance Industry Standard (Dec. 5, 1997) (on file with author). The FBI took strong exception to the J-standard, and filed comments stating that the standard would have to be revised. *See* Comments of FBI, *In re* Implementation of CALEA, CC No. 97-213, at 36-38 (Fed. Commc’ns Comm’n Dec. 12, 1997); Reply Comments of the FBI, *In re* Implementation of CALEA, CC No. 97-213, at 4-7 (Fed. Commc’ns Comm’n Feb. 11, 1998), *available at* <http://www.askcalea.net/docs/980211.pdf>. The FBI then issued a list of additional requirements it wanted to see incorporated in the J-standard. *See* Joint Petition for Expedited Rulemaking, CC No. 97-213, at 35 (Fed. Commc’ns Comm’n Mar. 27, 1998) [hereinafter FBI Joint Petition], *available at* <http://www.askcalea.net/docs/980327.pdf> (addressing Establishment of Technical Requirements and Standards for Telecommunications Carrier Assistance Capabilities under the CALEA). The FBI Joint Petition asked for access to the communications of all parties in a conference call supported by the subscriber’s service or facilities; access to all subject-initiated dialing and signaling activity; information indicating whether a party is connected to a multi-party call at any given time (“party hold,” “party join,” and “party drop” messages); notification of messages for in-band and out-of-band signaling; timely delivery of call-identifying information; automated reporting of surveillance status; delivery of all call-identifying information over call data channels; and a limited number of standardized delivery interfaces. *Id.* at 20. These suggestions substantially raised the costs of compliance and led to litigation. *See* U.S. Telecomm. Ass’n v. FCC, 227 F.3d 450, 461-62 (D.C. Cir. 2000).

66. The CALEA NPRM sought further comment on how to define call-identifying information in packet technologies, and how much information is “reasonably available” to broadband access and VoIP providers. CALEA NPRM, *supra* note 60, at ¶ 2.

67. *See* Comments of Eliot Spitzer, *In re* IP-Enabled Servs., WC No. 04-36, at 5 (Fed. Commc’ns Comm’n May 28, 2004) (“VoIP providers’ products must allow their customers to access both traditional 911 and E911 systems.”), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516198823; Comments of King County E911 Program, *In re* IP-Enabled Servs., WC No. 04-36, at 2 (Fed. Commc’ns Comm’n May 27, 2004) (“The public expectation is that any device

public officials from both the King County, Washington E911 Program and the City of New York have told the FCC that E911 calls should pass only through traditional selective router hardware. These officials were very concerned that VoIP providers would route 911 calls to “administrative numbers”—numbers answered, if at all, by whatever clerk happened to be on duty—inside call center buildings rather than through the selective router to emergency operators.⁶⁸ Many emergency services providers commented that they were concerned about losing funding for 911 services when phone subscribers switched to VoIP services.⁶⁹

The combination of incumbent anxiety over future markets, third-party outsourced vendor interest in supplying compliance services, law enforcement’s desire for familiar forms of data, and public officials’ anxiety over funding for emergency services (as well as over retaining orthodox approaches to emergency service provision) produced an irresistible incentive for the FCC to adopt E911 and CALEA rules affecting online services. The following Part describes these rules and outlines the controversies surrounding their implementation.

III. FCC INTERNET SOCIAL POLICIES

In March 2004, the FCC initiated a broad rulemaking proceeding suggesting that “social policies” from the world of telephony might be appropriate for the internet.⁷⁰ The FCC has begun its work in this area by focusing on two issues: availability of emergency 911 service and assistance to law enforcement. This Part describes, first, the differences between te-

that can make voice phone calls can call 911 . . . [and] that full E911 service will be available on all telephone devices, including selective routing to the appropriate PSAP, and the provision of their call-back number and location information.”), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516188890.

68. Comments of King County E911 Program, *supra* note 67, at 2; Letter of Gino Menchini, Comm’r, N.Y. Dep’t of Info. Tech. and Telecomm., *In re* IP-Enabled Servs., WC No. 04-36, at 1 (Fed. Commc’ns Comm’n Apr. 18, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517587651; Letter of Gregory Ballentine, President, APCO Int’l, *In re* IP-Enabled Servs., WC No. 04-36, at 1 (Fed. Commc’ns Comm’n Apr. 15, 2005) (stating that while routing 911 calls to administrative numbers is “perhaps acceptable for some PSAPs, such an approach could endanger the public and disrupt already over-burdened PSAP operations” at others), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517519564.

69. E911 Order, *supra* note 1, at 10,273-74 (citing comments).

70. IP NPRM, *supra* note 3 (statement of Comm’r Kathleen Q. Abernathy); *see* Crawford, *Shortness of Vision*, *supra* note 3, at 714-19 (describing IP NPRM in global context of internet regulation).

lephony and the internet and, second, how the Commission proposes to implement these social policies with respect to online services.⁷¹

A. Telephony v. Internet

The fundamentals of telephony have not changed since its introduction. Early on, a pair of wires made up a circuit from the user to the operator and the operator would then complete the circuit between two users based on a caller's request. Later, the operator was replaced by automatic switching systems and the analog circuits were replaced by digital channels. But the overall operation and concept of the telephone network (the PSTN, or "public switched telephone network") remains the same. When a user requests it, the system opens a digital circuit between users for the duration of their call. This circuit carries the bits of information they want to send and, whether or not any user is saying anything, the circuit stays open until the call ends. Use of circuit switching therefore relies on intelligence—routing and processing decisions being made—residing at the center of the network. Indeed, a fundamental goal of telephony switches is to maintain control over circuits.⁷² Every time a new service (such as call waiting) is introduced, a tremendous amount of re-engineering of the network is required. For this reason, the scope of telephony services has not changed very much over the last fifty years. The idea of "someone in authority" standing between the user and the network, so prevalent in the early days of telephony, still exists.

This "someone in authority" notion is deeply connected to the presence of police and emergency assistance for telephone users. Indeed, from the very beginning of the history of telephony in the U.S., a principal pur-

71. Two other related initiatives, having to do with funding universal service and providing access to the disabled, are still under consideration and are not yet ripe enough to discuss. Chairman Martin has announced that imposing universal service funding obligations on internet services is one of his top priorities for 2006. Anne Broache, *FCC Chief Backs Net Phone Taxes*, CNET NEWS.COM, Dec. 14, 2005, http://news.com.com/FCC+chief+backs+Net+phone+taxes/2100-7352_3-5995488.html. A third internet-focused FCC initiative constraining the functioning of devices capable of retransmitting marked digital files online—the "broadcast flag" rule—was struck down by the D.C. Circuit in mid-2005. See *Am. Lib. Ass'n v. FCC*, 406 F.3d 689, 708 (D.C. Cir. 2005); see generally Susan P. Crawford, *The Biology of the Broadcast Flag*, 25 HASTINGS COMM. & ENT. L.J. 603 (2003) (describing broadcast flag proceeding and jurisdictional weaknesses of FCC's claims of authority to regulate design of devices, which includes personal computers, capable of processing TV signals).

72. See generally SUSAN LANDAU, SUN MICROSYSTEMS, NATIONAL SECURITY ON THE LINE 18 (2005) (discussing differences between circuit-switched and packet-switched networks) (citing ANDRE GIRARD, ROUTING AND DIMENSIONING IN CIRCUIT-SWITCHED NETWORKS 431 (1999)).

pose for telephone service has been to make emergency help available from a central source. Telephones are there to watch over us in our sleep. For example, a major emphasis of early Bell advertising was the usefulness of the telephone in times of emergency. An advertisement from 1905 reads: “The modern woman finds emergencies robbed of their terror by the telephone. She knows she can summon her physician, or if need be, call the police or fire department in less time than it ordinarily takes to ring for a servant.”⁷³ A 1910 Bell-funded telephone tract put the matter this way:

But it is in a dangerous crisis, when safety seems to hang upon a second, that the telephone is at its best. It is the instrument of emergencies, a sort of ubiquitous watchman. When the girl operator in the exchange hears a cry for help – “Quick! The hospital!” “The fire department!!” “The police!” she seldom waits to hear the number. She knows it. She is trained to save half-seconds. And it is at such moments, if ever, that the users of a telephone can appreciate its insurance value. No doubt, if a King Richard III were worsted on a modern battlefield, his instinctive cry would be, “My Kingdom for a telephone!” . . . When a small child is lost, or a convict has escaped from prison, or the forest is on fire, or some menace from the weather is at hand, the telephone bells clang out the news, just as the nerves jangle the bells of pain when the body is in danger. In one tragic case, the operator in Folsom, New Mexico, refused to quit her post until she had warned her people of a flood that had broken loose in the hills above the village. Because of her courage, nearly all were saved, though she herself was drowned at the switchboard. Her name—Mrs. S. J. Rooke—deserves to be remembered.⁷⁴

An advertisement from the 1920s reads:

[M]y heart stood still . . . I heard stealthy voices . . . someone tinkering with a lock . . . a muffled footstep . . . saw a shadow flit by my window . . . I reached over to the stand by the bedside and seized—no, not a revolver—a telephone.⁷⁵

An advertisement from the 1930s shows a picture of a little blond girl, arms innocently flung out in sleep. It reads: “Sleep Soundly, Little Lady. Mother and Daddy are near and the telephone is always close by. It

73. CLAUDE S. FISCHER, *AMERICA CALLING: A SOCIAL HISTORY OF THE TELEPHONE TO 1940* 140 (1994).

74. HERBERT N. CASSON, *HISTORY OF THE TELEPHONE 211-13* (1911), available at <http://casson.thefreelibrary.com/History-of-the-Telephone/1-6>.

75. FISCHER, *supra* note 73, at 68.

doesn't go to sleep. All through the night it stands guard over you and millions of other little girls and boys."⁷⁶ An advertisement from the 1940s says that telephone service is a bargain because it is "[a]dvantageous to you because it saves time, steps, and trouble. Stands guard over the security of your home."⁷⁷

Telephones are vigilant, centrally-controlled, located in an identifiable terrestrial place, and set up with services that the telephone company believes—or the government believes—are good ideas. By contrast, the internet has none of these characteristics. There is no one "in authority" between the user and the network, no central control, no necessary terrestrial connection to particular internet uses, no advertising for the internet touting its connection to emergency services, and anyone can begin a new service that is available around the world without asking permission from anyone else. An individual can make a VoIP call from a hotel room in London using a New York area code, and be for all purposes—except physical purposes—in New York.

The internet is not a telephony network in part because it is "packet switched" rather than "circuit switched," and in part because internet packets have no guarantees of service. The Internet Protocol can be understood as a language that allows the division of all communications into small packets that are then individually routed, one hop at a time, to their destination—without any router knowing more than where the next hop is. Because internet traffic has been packetized, there is no need for it to occupy a circuit for the full duration of an exchange. Instead, one can use the circuit just for the brief interval needed to transmit the packet. And because each packet has a unique source and destination address embedded in its header, simultaneous conversations can coexist on the same circuit without interfering with one another, and without anyone having to be in charge of the routing of these conversations.⁷⁸

The telephone network was built for a single purpose: voice telephony. By contrast, the Internet Protocol provides a simple, common interface for all kinds of networked applications to run over all kinds of physical networks.⁷⁹ Thus, fiber-optic infrastructure or wireless connections provide a

76. Advertisement on file with author.

77. *Id.*

78. See generally How Internet Infrastructure Works, <http://computer.howstuffworks.com/internet-infrastructure.htm> (last visited Mar. 1, 2006).

79. See Lawrence B. Solum & Minn Chung, *The Layers Principle: Internet Architecture and the Law*, 79 NOTRE DAME L. REV. 815, 822 (2004) (noting that layers are key architectural element of the internet and drive normative conclusions about internet regulation).

way for any networked application to be transmitted, and the Internet Protocol provides a predictable, well-defined interface for these transport mechanisms to work with applications.⁸⁰

The Internet Protocol provides the means to allow the end-to-end principle first articulated in an important paper by Jerome Saltzer, David Reed, and David Clark in 1984 to be implemented.⁸¹ The end-to-end principle suggests that the network itself should not filter or change the communications information contained in the IP packet's payload. Rather, such manipulation should occur only at the edges, at the level of end-user applications.⁸² This end-to-end principle, like the Internet Protocol, keeps bits flowing freely across the lower levels of the protocol stack, to be processed only when they get much closer to the end-user—the edge of the network.

Where a central telephone provider must provide enhanced functionalities at a physical termination point, IP network design is highly decentralized, allowing substantial innovation to occur at the edges of the network. Internet routers have not, to date, been designed to maintain control or accountability over circuits, or even to remember anything about the packets that pass through them. Instead, internet routers are designed only to forward packets one more step toward their destinations, and have no necessary connection to geography. Because of its protocols and layers, the internet allows any application to be used on any network and in any geographical location.

The flexible and free protocols of the internet have made innovation easy. Having to ask permission to introduce a new service, at any layer, is enormously destructive to the internet model that has brought such great benefits to the U.S. economy.

By contrast, the telephone network is completely geographically dependent and has been designed to carry a single application. In telephone networks, that application (phone service) and the physical connection to

80. *See id.* The layers concept has recently become a suggested model for regulatory intervention. In early 2004, MCI issued a paper suggesting that cable and telephone providers be required to make their networks available to others on a wholesale basis, citing (and relying on) the layers principle. *See generally* Richard S. Whitt, *A Horizontal Leap Forward: Formulating a New Communications Public Policy Framework Based on the Network Layers Model*, 56 FED. COMM. L.J. 587 (2004).

81. *See* Jerome H. Saltzer et al., *End-to-End Arguments in System Design*, 2 ACM TRANSACTIONS ON COMPUTER SYSTEMS 277 (1984), available at <http://web.mit.edu/Saltzer/www/publications/endtoend/endtoend.pdf> (illustrating the end-to-end principle).

82. *See* David S. Isenberg, *The Dawn of the Stupid Network*, NETWORKER, Mar. 1998, at 24, available at <http://www.isen.com/papers/Dawnstupid.html>.

the network itself are inextricably intertwined. This geographic fixity has made 911 service and wiretapping possible on telephone networks.

B. E911

There are many potential technologies, including location-aware services, that could benefit society enormously but may never come into being because of the E911 Order. First, there are substantial technical standard-setting activities underway that may be truncated because of the FCC's approach.⁸³ Second, starting in 2003, the National Emergency Number Association (NENA), which coordinates Public Safety Answering Point (PSAP) call centers used for 911 services described in the following section, began working with online VoIP companies to develop more innovative solutions for E911 services.⁸⁴ A Voice on the Net (VON)/NENA 911 working group was established in 2004 to implement the NENA efforts. And several VoIP providers began deploying interim 911 services—something that took wireless carriers sixteen years to do.⁸⁵ The VON/NENA efforts resulted in plans to roll out an IP-based E911 service offering which would deliver location information and callback numbers to PSAPs automatically in real time via the internet (rather than connecting through the traditional telephone system). As of February 2005, the plan was for these services to include enhanced digital capabilities:

By upgrading to Internet Protocol (IP) based equipment, 9-1-1 calls could be accompanied by much more information, such as a callers' medical records, medical status, language preference, or maps of commercial buildings. With today's system, there is no way for end users to automatically inform emergency technicians that someone has Alzheimer's, or for a PSAP to receive photo or

83. The Internet Engineering Task Force (IETF) is working on modifications to the Dynamic Host Control Protocol to allow a device to be assigned location information by a network when the device first connects to that network. *See generally* J. Polk et al., *Dynamic Host Configuration Protocol Option for Coordinate-based Location Configuration Information* (IETF, RFC 3825, July 2004), <http://www.ietf.org/rfc/rfc3825.txt>. There are proposals for voluntarily-provided emergency services based on instant messaging and other IP-based services. *See generally* H. Schulzrinne, *Emergency Services URI for the Session Initiation Protocol* (IETF, draft-ietf-sipping-sos-00, Feb. 2004), <http://www.ietf.org/proceedings/04aug/I-D/draft-ietf-sipping-sos-00.txt>.

84. Voice on the Net Coalition, *Answering the Call for 9-1-1 Emergency Services in an Internet World* (Jan. 12, 2005), at 1, http://www.von.org/usr_files/911%20VON%20White%20Paper%201-12-05%20final.pdf (discussing the December 2003 National Emergency Number Association agreement with 8 X 8, AT&T Consumer Services, Broadsoft, Dialpad, ITXC (now TeleGlobe), Level 3, PointOne, Pulver.com, Vonage, and Webley).

85. *Id.*

video images. In the future, VoIP 9-1-1 calls may be able to support not only voice but a variety of data and video features/functions.⁸⁶

Several companies put aside work on more robust emergency response efforts to devote their resources to complying with the FCC's approach in the E911 Order.⁸⁷ And because the FCC E911 Order was implemented before the public safety community finalized what had become known as the NENA "I2" standard,⁸⁸ major providers (including Intrado) implemented versions of E911 services that comply with the E911 Order but are noncompliant with the I2 standard—thus creating a continuing patchwork of E911 services.⁸⁹

Because the E911 Order requires all VoIP 911 calls to go through the selective router, it will not allow a 911 call to go through an Internet Protocol router to any call center. Therefore, the Order prevents any IP-based emergency network, together with the host of advances such a network can deliver, from coming into being. The FCC's June 2005 E911 Order cut off further development of these IP-based E911 services and sent companies scrambling to figure out how to connect with a legacy, centrally-switched, telephony-based 911 system. Commentators had suggested that VoIP should not be burdened with connecting to the legacy emergency system. For example, they noted that "[t]oday's emergency access network reflects the hierarchical nature of the incumbent local ex-

86. *Id.* Former FCC Chairman Michael Powell applauded these efforts: The 9-1-1 system is vital in our country, but it has limited functionality. In most systems, it primarily identifies the location from which the call was made. But an Internet voice system can do more. It can make it easier to pinpoint the specific location of the caller in a large building. It might also hail your doctor, and send a Text or Instant Message alert to your spouse.

Id.

87. The Department of Commerce had encouraged the development of a post-9/11 reverse 911 emergency broadcast system, and the city of Herndon, Virginia had developed an Amber Alert system over Cisco VoIP phones. Rather than continuing with work on breakthrough advances like these, companies put aside these efforts to focus on compliance. E-mail from Jonathan Askin, General Counsel, pulver.com to author (Feb. 12, 2006, 12:24:00) (on file with author).

88. See generally *Interim VoIP Architecture for Enhanced 9-1-1 Services (I2)*, NENA (Dec. 6, 2005), http://www.nena.org/9-1-1TechStandards/Standards_PDF/NENA_08-001_V1_12-06-05.pdf.

89. E-mail from Jonathan Askin, General Counsel, pulver.com to author (Feb. 12, 2006, 12:24:00) (on file with author).

change network,”⁹⁰ and pointed the Commission to consider the enhanced capabilities that IP-based emergency services communications could include. But the Commission ignored all of this and plunged forward (or backward) to tie emergency services to the existing legacy infrastructure.⁹¹ These requirements may drive many new VoIP entrants out of business.

1. Background

In April 2003, a Colorado mother watched her infant son die while she was switched from one 911 dispatcher to another.⁹² She blamed Comcast, her digital phone provider, for failing to record her address accurately.⁹³ In early 2005, a Houston teenager’s parents were shot during a robbery.⁹⁴ The teenager used a Vonage VoIP phone to call 911 and allegedly had trouble reaching a 911 dispatcher.⁹⁵ Similarly, in March 2005 a mother in Deltona, Florida used her Vonage phone to dial 911 when her daughter stopped breathing, but was unable to get through.⁹⁶ Her daughter subsequently died. The Attorneys General of three states—Texas, Michigan, and Connecticut—all separately sued Vonage, claiming that users had been deceived as to Vonage’s 911 capabilities.⁹⁷

Vonage called itself “The Broadband Phone Company,” but it apparently was not providing adequate 911 connectivity. At an open FCC meet-

90. Comments of Level 3 Communications, *In re IP-Enabled Servs.*, WC No. 04-36, Petition for Forbearance, No. 03-266, at 37 (filed May 28, 2004), available at http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516199232.

91. See, e.g., DALE N. HATFIELD, A REPORT ON TECHNICAL AND OPERATIONAL ISSUES IMPACTING THE PROVISION OF WIRELESS ENHANCED 911 SERVICES 41 (2002), available at http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6513296239. An IP-enabled emergency service system would enable “a caller to send a picture of a vehicle involved in a hit-and-run accident along with a voice message.” *Id.* IP-enabled emergency services would also allow deaf users to contact others.

92. Chris Vanderveen, *Mom Blames Phone Company Mix-Up for Death of Son*, 9NEWS.COM, Sept. 30, 2004, http://9news.com/acm_news.aspx?OSGNAME=KUSA&IKOBJECTID=4c3beadf-0abe-421a-0057-38432f27e620&TEMPLATEID=0c76dce6-ac1f-02d8-0047-c589c01ca7bf.

93. *Id.*

94. Ben Charny, *Deadly Delay on Vonage 911?*, CNET NEWS.COM, May 9, 2005, http://news.com.com/Deadly+delay+on+Vonage+911/2100-1037_3-5700493.html.

95. *Id.*

96. See *id.*

97. Eric Hellweg, *VoIP’s Call for Help*, TECH. REV., Mar. 25, 2005, at 1, available at http://www.technologyreview.com/articles/05/03/wo/wo_hellweg032505.asp (addressing VoIP issues in Texas); Ted Stevenson, *State To Target Vonage 911 Services*, INTERNETNEWS.COM, May 2, 2005, <http://www.internetnews.com/infra/article.php/3501991> (addressing VoIP issues in Michigan); Preston Gralla, *Connecticut Sues Vonage Over Emergency 911*, NETWORKINGPIPELINE.COM, May 5, 2005, at 1, available at <http://www.networkingpipeline.com/voicedata/162600024> (addressing VoIP issues in Connecticut).

ing on May 19, 2005, people involved in these Vonage incidents—including Cheryl Waller of Florida, the mother of the baby girl who died—testified to the effect that their expectation had been that they would be able to reach 911 operators just as with an “ordinary” phone. Waller’s story in particular was extraordinarily troubling:

In a hushed hearing room at the FCC headquarters last May, Cheryl Waller choked back tears as she recounted the death of her three-month-old daughter. At 6:35 p.m. on Mar. 24, the baby stopped breathing. The frantic mother dialed 911 several times but got only a voice recording. Finally, a neighbor reached a 911 operator—but by the time medics arrived, it was too late. The infant was pronounced dead at 6:51 p.m.

Waller . . . urged the Federal Communications Commission to pass Chairman Kevin J. Martin’s proposal to require Internet carriers to tighten up their emergency services within 120 days—“seven days longer than my daughter lived,” said Waller, dissolving into tears.⁹⁸

It seemed so easy: why *not* require the “The Broadband Phone Company” and other VoIP providers to make 911 service available to their subscribers, particularly when people could die if such service was not available? On the same day that Waller appeared before them, the FCC Commissioners voted 4-0 to adopt the E911 Order.⁹⁹

Given the differences between the way that traditional telephone networks work and the way the internet works, the E911 Order was a very dramatic piece of administrative activity. Briefly,¹⁰⁰ landline (traditional, non-wireless telephone) 911 works in this country because we have established a network of six thousand Public Safety Answering Points (PSAPs),¹⁰¹ whose staffs field 911 calls. Specialized routing within the telephone network, using centrally-programmed switches, ensures that a 911 call goes to the right PSAP.¹⁰² But, in the beginning, basic landline 911 calls did not arrive accompanied by location information or a callback

98. Catherine Yang, *Storm Warnings for Kevin Martin; The New FCC Chairman is About To Confront Issues that Divide Business*, BUS. WK., Oct. 31, 2005, at 59.

99. See Press Release, FCC, Commission Requires Interconnected VoIP Providers To Provide Enhanced 911 Service: Order Ensures VoIP Customers Have Access to Emergency Services (May 19, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-258818A1.pdf.

100. See HATFIELD, *supra* note 91, for the description of 911 impossibilities that follows.

101. *Id.* at 3-5; E911 order, *supra* note 1, at 10,251 n.14.

102. HATFIELD, *supra* note 91, at 3-5.

number.¹⁰³ This meant that the PSAP operator had no way to call the complaining person back or send an ambulance to the right destination unless the caller was able to describe her whereabouts and provide a number—something many people in an emergency are unable to do.¹⁰⁴

Using signals that automatically made analog queries to a billing database, PSAPs and local telephone companies were able to obtain the calling number.¹⁰⁵ (This is what software developers would call a “kludge,” or inelegant work-around allowing a desired result.) A separate kludge was set up to allow PSAP equipment to automatically query an Automatic Location Identification (ALI) database over a separate data circuit, separate from the call itself, providing the ALI with the in-calling phone number.¹⁰⁶ The ALI then returned location information to the PSAP.

In time, local telephone companies were able to program selective routers—hardware—to query these databases and provide both a callback number and location information to a PSAP at the same time that the 911 call was coming in.¹⁰⁷ Thus enhanced 911—or E911, 911 that includes location information and a call-back number—came into being thirty years ago, based not on digital signaling but on centralized router programming by phone companies. This was possible for telephone companies that had knowledge of the subscriber’s location for billing purposes; indeed, this 1970s E911 system was dependent on using numbers that closely tied to both subscriber location and existing physical network switches.

Wireless carriers do not have selective routers of their own. They need the permission and active cooperation of the carriers who control these selective routers to connect to them. Without these connections the wireless industry cannot provide accurate information to existing PSAPs. For this reason, the FCC and the wireless industry have been working since 1993 on wireless E911 arrangements, with countless extension and waiver requests being filed by the wireless companies.¹⁰⁸ The details of these negotiations are beyond the scope of this Article. But the bottom line is that given the kludges and legacy systems in place for landline PSAPs, as well as the absence of incentives for landline telephone companies to allow wireless companies to interconnect with their selective routers, it has

103. *Id.*

104. *Id.*

105. *Id.* at 3-4.

106. *Id.* at 4.

107. *Id.* at 4-5.

108. See Kelly Carroll, *One Fine E911 Mess*, TELEPHONYONLINE, Aug. 20, 2001, http://telephonyonline.com/mag/telecom_one_fine_mess/index.html (noting delays and extension requests).

proven extremely difficult to implement E911 services for wireless subscribers. Because 911 continues to be based on a 1970s legacy system, it has taken more than ten years for nomadic cell phones to have reliable 911 access.¹⁰⁹ Cell phone operators use tower location and triangulation to make location information available for 911 purposes—information that is not available to mobile VoIP providers.

Despite the history of slow and difficult implementation of 911 on the wireless side, FCC Chairman Kevin J. Martin must have felt he had to act quickly to address the searing press coverage of deaths caused, arguably, by inadequate VoIP 911 service. On May 19, 2005, after Cheryl Waller gave her testimony about the death of her daughter and the Commission adopted the E911 Order, Chairman Martin said: “Today’s action seeks to remedy a very serious problem—one quite literally of life or death for the millions of customers that subscribe to VoIP service as a substitute for traditional phone service.”¹¹⁰

In the E911 Order, the Commission mandated that “interconnected VoIP” providers be able to route all 911 calls, accompanied by a call-back number and the caller’s location, through the traditional telephone 911 network to appropriate local emergency authorities by November 28, 2005.¹¹¹ The Commission defined “interconnected VoIP” as those services that (1) allowed for “real-time, two-way”¹¹² voice communications, (2) required a broadband connection, (3) required end-user equipment to process and receive Internet Protocol packets, and (4) allowed users to *both* receive calls from traditional telephone networks *and* make calls to telephone numbers.¹¹³ Thus, a free online voice service that made it possible for users to “call” traditional telephone numbers and receive calls from the network must find ways to get location and callback information to a local emergency center through a centrally-located and customized piece

109. According to the CEO of Nuvio, a VoIP provider, “The cellular industry has been grappling with these [E911 implementation issues] for a dozen years.” Jon Van, *Internet Phone Service Provider Files Suit, Seeks Clarity from FCC*, CHI. TRIB., Aug. 16, 2005.

110. E911 Order, *supra* note 1, at 10,328 (statement of Kevin Martin, FCC Chairman).

111. *See id.* at 10,328 (requiring implementation of E911 requirements within 120 days).

112. *Id.* at 10,254 n.58.

113. *Id.* at 10,257-58; Catherine Yang, *Storm Warnings for Kevin Martin: The New FCC Chairman is About To Confront Issues that Divide Business*, BUS. WK., Oct. 31, 2005, at 41.

of hardware—the selective router—controlled, for the most part, by Intrado.¹¹⁴

Interconnected VoIP providers were also directed to find ways to obtain updated information as to the physical locations of their subscribers. They were told that they had to instruct their customers immediately and obtain affirmative acknowledgements from subscribers that they had received these instructions as to the extent of 911 service provided to them.¹¹⁵ Providers of these interconnected VoIP services were ordered to find ways to make 911 services available to their subscribers, and told that connecting to the existing 911 legacy structure was a condition of being permitted to provide services at all.¹¹⁶ The Commission noted that third-party providers of outsourced services (including, prominently, Intrado) were available to assist interconnected VoIP providers with connections to the traditional telephone 911 system because these providers had been certified as telecommunications carriers.¹¹⁷ The Commission also said it would not shield interconnected VoIP providers from liability under state laws for mistakes occurring in connection with provision of emergency services.¹¹⁸ Telephony providers, both wired and wireless, do have such liability protections by statute.¹¹⁹

2. *Implementation Difficulties*

Making E911 services available to consumers within four months was impossible to do for most VoIP companies.¹²⁰ The existing 911 infrastruc-

114. As the Commission notes, 911 systems “usually are based on a 25-year-old architecture and implemented with legacy components that place significant limitations on the functions that can be performed over the network.” E911 Order, *supra* note 1, at 10,252.

115. *Id.* at 10,334.

116. *Id.* at 10,272 (“Thus, interconnected VoIP providers must, as a condition of providing that service to a consumer, provide that consumer with E911 service as outlined in [this Order].”)

117. *See id.* at 10,256-57. The Baby Bells are required to provide access to 911 databases and interconnection to 911 facilities to all telecommunications carriers, pursuant to the Telecommunications Act, 47 U.S.C. §§ 251(a), 251(c), 271(c)(2)(B)(vii) (2000).

118. E911 Order, *supra* note 1, at ¶ 54.

119. *See, e.g.*, Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, § 4(a), 113 Stat. 1286, 1288 (1999) (providing wireless carriers, and their officers, directors, employees, vendors and agents the same immunity or protection from liability as local exchange companies enjoy in the same jurisdiction). Both liability protection and mandated access to selective routers are being addressed by draft bills now pending in Congress. *See* COMMS. DAILY, 2005 WLNR 17729142 (Nov. 3, 2005).

120. *See* Charlotte Wolter, *FCC’s Deadline To Make VoIP Services E-911 Capable Will Be Difficult To Meet*, WARREN’S WASH. INTERNET DAILY, June 9, 2005; Charlotte

ture in the U.S. is extremely antiquated, to the point where even wireless companies have had great difficulty implementing 911. The E911 Order gives interconnected VoIP providers no new rights that will help them comply, and does not obligate local telephone companies to allow them to connect to the essential selective routers owned by these telephone companies.¹²¹ Thus, VoIP service providers have no right to access selective routers, and have to wait for the Baby Bells to slowly give them permission to connect. The E911 Order did not set rates or otherwise control what the essential facility provider—the incumbent local telephone company—could do to hold up a VoIP provider seeking access to the special emergency communications equipment whose use the E911 Order mandated.¹²²

The complexities of nomadic VoIP services—usable from any net connection anywhere in the world, using any area code, over any form of transport—make connection to the legacy E911 system difficult. Thus, online voice providers will need to persuade the Baby Bells to give them access to the necessary facilities through intermediaries at a sensible cost, and load up routers and databases with the right information, without any protection from liability if they make mistakes. Compliance may be suffi-

Wolter, *Vonage CEO Citron: No One Can Meet FCC 911 Deadline*, NEW TELEPHONY, June 14, 2005, <http://www.newtelephony.com/news/56h1485125.html>.

121. See *FCC Adopts Order Expanding E911 Regulation To Include Some VOIP Service Providers*, TECH L. J., May 19, 2005, <http://www.techlawjournal.com/alert/2005/05/20.asp>.

122. Vonage, in particular, bitterly complained to the FCC that although BellSouth and SBC were giving the appearance of cooperating in granting access to their selective routers to Vonage, they were in fact making such connection difficult. See, e.g., Letter from Jeffrey Citron, Vonage Chief Executive Officer, to Bill Smith, BellSouth Chief Tech. Officer, *In re IP-Enabled Servs.*, WC No. 04-36, at 2 (Fed. Commc'ns Comm'n May 9, 2005) ("I write to seek your clarification that BellSouth will make available all elements necessary to allow Vonage and BellSouth to implement a solution that will allow for the extending the benefits of E911 to nomadic VoIP consumers."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517601367; Letter from William B. Wilhelm, Jr., Counsel, Vonage, to Marlene H. Dortch, Sec'y, FCC, *In re IP-Enabled Servs.*, WC No. 04-36, at 2 (May 10, 2005) (attaching April 27, 2005 letter from SBC and stating that "[C]ontrary to the public pronouncements of several RBOCs, many of the proposed solutions are limited to delivery of 911 to fixed location end users with geographically valid telephone numbers."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517601482; Letter from William B. Wilhelm, Jr., Counsel, Vonage, to Marlene H. Dortch, Sec'y, FCC, *In re IP-Enabled Servs.*, WC No. 04-36, at 1-2 (May 13, 2005) ("SBC's recently announced VoIP 'solution' is inadequate and does not fully support nomadic VoIP providers. . . . Vonage often has difficulty provisioning selective router trunking because of limitations in carrier interconnection agreements."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517605052.

ciently expensive to make it no longer worthwhile for some VoIP providers to stay in business.¹²³

In the E911 Order, the FCC firmly told providers of interconnected VoIP services that if they did not comply with the Order by November 28, 2005, they would be forced to stop offering services to customers.¹²⁴ In October 2005, Nuvio (a VoIP company) moved for a stay of the E911 Order's requirements.¹²⁵ Then, in November 2005, prompted by Nuvio's and other industry complaints, the FCC backed down.¹²⁶ VoIP providers were told that if they did not comply with the E911 Order as of November 28, 2005, the Commission would "expect that such providers will discontinue marketing VoIP service, and accepting new customers for their service" in areas where E911 services were not available.¹²⁷ The Commission "strongly encourage[d]" VoIP providers to adopt the E911 compliance plans that had been filed by AT&T and Verizon when they merged with SBC and MCI, respectively. The AT&T and Verizon plans had been exacted by the Commission as a condition of the mergers, including commitments not to accept new customers in areas where E911 service was not available.¹²⁸ The clear implication to be drawn from this "strong en-

123. Indeed, pulver.com has "chosen not to offer a PSTN-connected VoIP service in the U.S. because of the FCC's backward-looking, anti-innovative rules on E-911 and CALEA." E-mail from Jonathan Askin, General Counsel, pulver.com to author (Dec. 20, 2005, 16:02:43) (on file with author).

124. See 47 C.F.R. § 9.5(b) (2006).

125. See Motion for Partial Stay, *In re IP-enabled Servs. and E911 Requirements for IP-Enabled Service Providers*, WC Nos. 04-36, 05-196, at 5-9 (Oct. 24, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518174062.

126. Press Release, VON Coalition, VoIP Providers Announce Significant Progress on E911 (Nov. 11, 2005), at 3, available at http://www.von.org/usr_files/911%20-%20Survey%202005%20final.pdf (reporting that nearly half of independent VoIP providers surveyed said they would have to cut off customers because they could not meet the Commission's November 28th deadline).

127. Public Notice, Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters, WC Nos. 04-36, 05-196, at 4 (Nov. 7, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-2945A1.pdf.

128. Public Notice, Enforcement Bureau Provides Guidance to Interconnected Voice Over Internet Protocol Service Providers Concerning the July 29, 2005 Subscriber Notification Deadlines, WC Nos. 04-36, 05-196, at 2 (Nov. 7, 2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-2085A1.pdf. The Verizon and AT&T plans included a wildly kludge-y way of updating consumer location information:

By November 28, Verizon expects to have a capability to detect when a customer's VoiceWing telephone adapter is disconnected from the network. If we detect that the customer's adapter has been disconnected, we will suspend the customer's service, with the exception of

couragement” was that VoIP providers who did not file equivalent compliance plans by November 28, 2005 would be viewed as being candidates for enforcement actions. Wireline and wireless providers have never been required to obtain acknowledgements from their subscribers of the limitations of their 911 services, to disconnect subscribers because of these limitations, or to limit their marketing efforts—even though it has taken wireless providers more than a decade to get E911 services working.

Most VoIP providers missed the November 28 deadline¹²⁹ and some, including Vonage, continued to market services to customers even though E911 service was not available.¹³⁰

The nature of VoIP services makes it difficult for VoIP providers to comply. Let us say you are sitting in London using a U.S. online voice

911 calls and calls to customer service. At the same time, we will send the customer an e-mail and post a message to the customer’s Personal Account Manager asking the customer to confirm his or her existing Registered Location, or register a new location.

While in suspend status, if the customer attempts to make any calls, other than 911 calls or calls to customer service, before he or she confirms or registers a new location, Verizon will intercept the call and play an announcement that will inform the customer of the service suspension and transfer the customer to a customer service representative for assistance. If the customer confirms to the service representative that the customer’s Registered Location has not changed, full service will be restored by Verizon. If the customer indicates that he or she has moved from the existing Registered Location, service will remain suspended unless and until the customer registers a new address in an area where Verizon can provide 911 service. If the customer fails to choose either option (for example by hanging up), service will remain suspended . . . As a result, the customer will be required to register a new address when the service is used nomadically.

Ex Parte letter of Verizon, WC Nos. 04-36, 05-196, at 2-3 (Fed. Commc’ns Comm’n Oct. 21, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171541 (citations omitted).

129. Geoff Duncan, *VOIP Providers Largely Miss E911 Deadline*, DESIGNTECHNICA.COM, Nov. 30, 2005, <http://news.designtechnica.com/article8935.html>.

130. Roy Mark, *Vonage Markets On Despite FCC E911 Order*, INTERNETNEWS.COM, Nov. 29, 2005, <http://www.internetnews.com/bus-news/print.php/3567211>. Vonage sought a waiver of the FCC rule, stating that it had been able to extend E911 service to only 26% of its subscribers. *Id.* More than a dozen other VoIP companies also sought waivers. It is difficult for VoIP providers to limit who sees their online advertisements. Additionally, this marketing requirement seems to plunge the FCC deeply into advertising regulation—territory thought to be within the purview of the Federal Trade Commission. *See, e.g.*, ONLINE PROFILING: BENEFITS AND CONCERNS, 105th Cong. 297 (2000) (statement of Jodie Bernstein, Dir. of the Bureau of Consumer Prot., FTC). If the FTC does get involved, it might require bold letter warnings: “You are not buying a telephone service. If you want telephone services, go somewhere else.”

service with a Rhode Island number, and you are speaking to a friend in Singapore. Let us assume you get into some kind of trouble. How is the online voice application supposed to know who to tell, and what to tell them to do? The answer, for the moment, is that the online voice application is supposed to make arrangements through local phone companies and with all selective routers, which are in turn connected to their relevant PSAPs, to provide databases of location information and callback numbers. This location information is then supposed to be provided and updated by the subscriber, even if the subscriber is going ninety miles per hour down a Montana freeway.¹³¹

And what exactly is a “VoIP provider”? The internet is indifferent to the nature of the applications that it carries. In turn, to each application one bit looks just like another.¹³² So, for example, instant messaging (IM) platforms that include many straight data tools—text, maps, collective picture drawing, file sharing—can also easily include voice applications which are also straight data tools.¹³³ The instant messaging user can talk to

131. The FCC appears to be planning to require any VoIP-capable device (including PCs) to be able by June 2006 to *automatically* declare its location. In the E911 Order, the Commission asks whether it should “require all terminal adapters or other equipment used in the provision of interconnected VoIP service sold as of June 1, 2006 to be capable of providing location information automatically, whether embedded in other equipment or sold to customers as a separate device?” E911 Order, *supra* note 1, at 10,277. This suggestion that eventually all VoIP-capable applications and devices (including PCs) should be automatically reporting their precise locations should raise substantial privacy concerns and worries about technical mandates. *See infra* Part V.

132. As used in this Article, the term “bits” refers to machine-readable representations of information. “Bit” is shorthand for “binary digit,” the smallest unit of information on a machine. Bit, WIKIPEDIA: THE FREE ENCYCLOPEDIA, <http://en.wikipedia.org/wiki/Bit> (last visited Mar. 10, 2006). A single bit can exemplify only one of two values: 0 or 1. *Id.*

133. *See* Elena Malykhina, *AOL, Microsoft’s MSN, and Yahoo are Adding VoIP Capabilities to Their Popular IM Software, Giving More Credence to the Burgeoning Technology*, INFORMATIONWEEK, May 16, 2005, available at <http://www.informationweek.com/story/showArticle.jhtml?articleID=163101889>.

Spending by U.S. companies and public-sector organizations on voice-over-IP systems will grow to \$903 million this year, up from \$686 million in 2004, according to research firm Gartner. Investment in hybrid systems, which handle VoIP and conventional calls, will grow from \$1.5 billion to \$2 billion. By 2007, Gartner predicts, 97% of new phone systems installed in North America will be VoIP or hybrids.

These statistics aren’t lost on the major internet companies. America Online, Microsoft’s MSN division, and Yahoo are all entering the VoIP market, armed with services and capabilities that they’ve added to their popular instant-messaging software.

others to her heart's content. Are IM providers "VoIP providers"? At the moment, the answer from the FCC is "not necessarily," because most of these applications do not make it possible to both send data to particular phone numbers and receive data "at" a particular phone number (and thus are not interconnected VoIP providers).¹³⁴ But in time more of these applications may have this capability, or the FCC may broaden the scope of its rule to include them.¹³⁵ The FCC is already signaling that its definition of "interconnected VoIP" will broaden to include VoIP applications that are "capable of" connection to traditional telephone networks.¹³⁶

More fundamentally, there is no magic distinction between "voice" data and any other kind of data. Voice, when digitized, looks and acts just like any other data stream. From an internet point of view, the E911 mandate has no principled limits and could apply to any application that is capable of connection to any public network. Although making nomadic VoIP services, much less any other data application, connect to legacy E911 hardware seems strange from an internet perspective, it fits perfectly with the mindset of people who have grown up in the telephone world.

A darker, less public-service-oriented part of the telephony mindset is bent on squashing competitive services. Alexander Bell's own success was made possible by a strong patent and investors who were willing to fund what must have seemed like an endless flow of litigation.¹³⁷ In the absence of an unassailable patent, today's telephony providers have had to find another approach to the enormous online voice marketplace. There is at least the possibility that the E911 order is an unprincipled or political move,

Id. Yahoo! Messenger is already providing voice services to millions of people. *See* Yahoo Messenger, <http://messenger.yahoo.com> (last visited Mar. 10, 2006).

134. *See* E911 Order, *supra* note 1 (stating FCC's definition of "interconnected VoIP").

135. The FCC is planning to promptly reconsider the scope of the application of E911 requirements. *See id.* at 10,277. Most observers agree that there is no principled line to be drawn between one kind of VoIP and other services that also offer voice affordances, and that it will be very difficult to limit expansions of this mandate. *See, e.g.,* Educause, School and Library Networks Threatened by Proposed CALEA Expansion, <http://educause.edu/ir/library/pdf/EPO0415.pdf> (explaining that the FCC's analysis makes all information services, including instant messaging and e-mail, vulnerable to the future imposition of CALEA obligations). This means that Skype, an extraordinarily popular online voice service that has been downloaded by more than 100 million people will likely soon be subject to E911 obligations. *See generally* James E. Gaskin, *What Is Skype*, O'REILLY NETWORK, Aug. 4, 2005, <http://www.oreillynet.com/pub/a/network/2005/08/04/whatisSkype.html>.

136. CALEA Order, *supra* note 2, ¶ 39.

137. *See* Mike Gorman: Bell's Path to the Telephone, <http://www3.iath.virginia.edu/albell/homepage.html> (last visited Apr. 15, 2006).

designed to protect the incumbents' ability to control the market for online voice services. The next section delineates the background for this view.

3. *The Capture Story*

At a November 2005 telecommunications conference in Washington, D.C., Stagg Newman, a Senior Telecommunications Practice Expert with McKinsey & Co., a management consulting firm, and a former Chief Technologist at the FCC, said that he had heard that a single company wrote the E911 rule.¹³⁸ He refused to elaborate on his remarks.

Even without Mr. Newman's last word on the subject, one can see the influence of third party compliance providers in cooperation with incumbent telephony companies in the E911 rule. Third party vendors met early and often with staff and Commissioners, and filed numerous comments.¹³⁹ Intrado, the vendor that runs 80% of the selective router and E911 infrastructure in this country, met with staff to give presentations or filed comments sixteen times between April 2004 and December 2005.¹⁴⁰ Both Intrado and Level 3 patiently explained to staff how the E911 system functioned and how the FCC should frame its Order.¹⁴¹ The FCC's June 2005

138. Stagg Newman, Statement at pulver.com Peripheral Visionaries' IP-Based Communications Policy Summit (Nov. 10, 2005) (notes on file with author).

139. See generally Letter from Susanne A. Guyer, Senior Vice President of Fed. Regulatory Affairs, Verizon, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 21, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171541.

140. Listing of Intrado Comments to FCC, http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi (in Field 4, type "intrado," then in Field 3, select "co," then retrieve document list).

141. According to Jonathan Askin of pulver.com, the FCC had considerable help in the technical parts of the Order from the firms that supply the systems used for E911 by telephone companies. E-mail from Jonathan Askin, General Counsel, pulver.com, to the author (Dec. 22, 2005, 11:07:00) (on file with author). Even without this secondhand report, the ex parte filings made by Intrado and Level 3, which included many Power-Point presentations and indications of telephonic and other contacts, tell a skeletal story of influence. Many of these filings are written too summarily to be helpful, however. For example, days before the E911 Order was adopted, Intrado representatives spoke to FCC staff. Here is the full report of that call in the ex parte filing made by Intrado:

On May 3, 2005, Stephen Meer, Chief Technology Officer of Intrado Inc. ("Intrado"), spoke telephonically with Julie Veach, Christi Shewman and Nicholas Alexander of the Wireline Competition Bureau to discuss 9-1-1 service provisioning for Voice Over Internet Protocol, specifically relating to New York City. Additional items discussed included ownership of telephone number blocks and 9-1-1 data management scenarios.

Letter from Mary Boyd, Vice President of Gov't & External Affairs, Intrado, to Marlene H. Dortch, Sec'y, FCC, *In re* IP-Enabled Servs., WC No. 04-36, at 1 (May 5, 2005),

E911 Order cites Intrado's filings more than twenty times, and mentions that VoIP providers can use Intrado's services to connect to the dedicated hardware that serves as the gateway to the telephone companies' emergency services system.¹⁴² Intrado's stock price jumped substantially during the summer of 2005.¹⁴³ With the Baby Bells and the largest non-Bell VoIP provider as its customers, and with its almost complete control over access to the required gateway to the E911 system, Intrado had every incentive to help the FCC shape the E911 rules.

Level 3, unlike Intrado, argued actively in the E911 proceeding that the Commission should take a flexible approach to E911 compliance standards for VoIP providers. For example, Level 3 noted that "VoIP's flexibility and the growth in broadband access will lead to ever-increasing use of nomadic or mobile VoIP with added features and functionalities not available on traditional phones" ¹⁴⁴ Although the Commission declined to take this flexible route, it was no doubt comforted by Level 3's ability to make compliance by VoIP providers easier, as it stated in the Order that interconnected VoIP providers could comply with the Commission's mandate in most of the households in the country by buying Level

available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517596672. A July 2005 call, held after the E911 Order was finalized, was reported as follows:

In this meeting, Intrado relayed its commitment to working with all parties to assist in meeting the Commission's rules regarding VoIP and E911. Intrado also discussed issues related to implementation with the Commission and highlighted the cooperative efforts involved in the deployment of VoIP E911 services in New York City.

Letter from Mary Boyd, Vice President of Gov't & External Affairs, Intrado, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196, at 1 (Jul. 21, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518012587

142. E911 Order, *supra* note 1, at 10,267-68.

143. Intrado's stock was flat at \$12 per share from 1998, when it went public, until June 2005. See Intrado, Inc., HOOVERS, <http://www.hoovers.com/free/co/fin/stockquote.xhtml?COID=56660&ticker=TRDO> (last visited Dec. 21, 2005). In June 2005—after the E911 Order was announced, but before the Order was released—its stock price went up to \$15; as of December 21, 2005, Intrado's stock price was \$22.69. See *id.* (tracking Intrado stock price changes); Gene Marcial, *The Lines Ring Off the Hook at Intrado*, BUS. WK., Aug. 1, 2005, available at http://www.businessweek.com/magazine/content/05_31/b3945127_mz027.htm.

144. Reply Comments of Level 3, *In re* IP-Enabled Servs. & E911 Requirements for IP-Enabled Serv. Providers, WC Nos. 04-36, 05-196, at 3 (Fed. Commc'ns Comm'n Sept. 12, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518157216.

3's wholesale E911 services.¹⁴⁵ Level 3 pushed the Commission to require E911 services of VoIP providers, at least for those services that competed with traditional telephone services and for which consumers had an expectation of such access.¹⁴⁶

The incumbent telephone companies underscored the availability of these third-party 911 solutions in their own presentations,¹⁴⁷ while emphasizing their own abilities to provide E911 services to their VoIP subscribers.¹⁴⁸ Meanwhile, both third-party service providers and public safety officials noted that VoIP operators were not paying for emergency call centers via user fees, but that third-party solution providers were making such contributions.¹⁴⁹ All of this must have satisfied the Commission that compliance with the E911 mandate made sense for VoIP providers, given that

145. E911 Order, *supra* note 1, at 10,267-68 (citing Level 3's fact sheet, E-911: Enhanced 911 for VoIP, *supra* note 54). Level 3 met with the Commission or filed comments more than forty times in the E911 proceeding, and the Commission referred to Level 3 fifteen times in the E911 Order. See Listing of Level 3 Comments to FCC, http://gullfoss2.fcc.gov/prod/ecfs/comsrch_v2.cgi (in Field 4, type "level 3", then in Field 3, select "co," then retrieve document list).

146. Comments of Level 3, *In re* IP-Enabled Servs. & E911 Requirements for IP-Enabled Serv. Providers, WC Nos. 04-36, 05-196, at 3, 25 (Fed. Commc'ns Comm'n Sept. 12, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518157216.

147. See, e.g., BELLSOUTH, E-9-1-1/VOIP INTEGRATION, WC Nos. 04-36, 05-196, at 4 (Fed. Commc'ns Comm'n May 12, 2005) ("BellSouth will provide database services via Intrado which includes edits, posting, and return of errors for resolution by the VoIP provider."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517603049; Verizon, Current VoIP 911, WC Nos. 04-36, 05-196, at 4 (Fed. Commc'ns Comm'n May 16, 2005) (showing "Intrado Gateway" to E911 system), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517602285.

148. See *supra* note 148; Ex Parte Comments of SBC Commc'ns, Inc., *In re* IP-Enabled Servs. & E911 Requirements for IP-Enabled Serv. Providers, WC Nos. 04-36, 05-196, at 18 (Fed. Commc'ns Comm'n Aug. 15, 2005) ("Even before the Commission adopted the *VoIP 911 Order*, SBC and other ILECs were already offering a variety of 911 services directly to VoIP providers."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518142908.

149. Letter from Bruce A. White, Vice President & General Counsel, Telecomm. Sys., to Marlene H. Dortch, Sec'y, FCC, WC No. 04-36, at 23 (Apr. 22, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517582385; Letter from Gregory S. Ballantine, President, APCO Int'l, to Kevin Martin, Chairman, FCC, WC No. 05-196, at 1 (Nov. 30, 2005) (noting that only those service providers paying state level emergency fees should be permitted to have access to the numbers needed for nomadic VoIP users to trigger emergency responses), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518184848. TCS also noted in a later presentation that public safety officers reap almost \$1 per subscriber line in revenues, and are worried about that funding decreasing. *Id.*

so many third parties stood ready to assist them to reduce the complexities inherent in connecting one-by-one with all of the emergency call centers in the country.

Before permitting the 2005 mergers of SBC/AT&T and MCI/Verizon to close, the FCC apparently required that AT&T, MCI, and Verizon file nomadic VoIP E911 compliance plans.¹⁵⁰ Each of these plans stated that the entity would no longer market VoIP products to customers in areas in which E911 services were not available.¹⁵¹ At least two of these plans, AT&T and Verizon, announced compliance solutions that relied entirely on Intrado-provided services. The FCC then applauded these plans and strongly urged other VoIP providers to follow their model.¹⁵² The implicit bottom line: any non-Bell, non-Vonage independent VoIP provider would need to sign up with Intrado's services (whatever their cost), or another third-party's services, and stop marketing to customers who would not be able to receive E911 services.¹⁵³ The combination of the presence of In-

150. See Letter from Robert W. Quinn, Jr., Vice President of Fed. Gov't Affairs, AT&T, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 7, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518167082; Letter from Richard S. Whitt, Vice President of Fed. Regulatory Affairs, MCI, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 21, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171530; Letter from Susanne A. Guyer, Senior Vice President of Fed. Regulatory Affairs, Verizon, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 21, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171541.

151. The plans also uniformly stated that existing VoIP customers in areas not served by 911 would be "grandfathered," and that per-grandfathered-subscriber contributions would be made to local emergency services organizations—ranging up to \$1.00 per grandfathered subscriber per day. See Letter from Robert W. Quinn, Jr., Vice President of Fed. Gov't Affairs, AT&T, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 7, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518167082; Letter from Richard S. Whitt, Vice President of Fed. Regulatory Affairs, MCI, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 21, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171530; Letter from Susanne A. Guyer, Senior Vice President of Fed. Regulatory Affairs, Verizon, to Marlene H. Dortch, Sec'y, FCC, WC Nos. 04-36, 05-196 (Oct. 21, 2005), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518171541.

152. See Public Notice, Enforcement Bureau Provides Guidance to Interconnected Voice Over Internet Protocol Service Providers Concerning the July 29, 2005 Subscriber Notification Deadlines, *supra* note 128, at 1-2 n.5 (discussing the compliance plan that AT&T is implementing to address July 29, 2005 Subscriber Notification Deadlines for VoIPs).

153. The Commission's adjuration that VoIP firms stop marketing to customers (or accepting new customers) in all areas where they are not transmitting 911 calls to the

trado and Level 3, with their long customer lists and control over the selective routers, together with the desire of the Baby Bells to avoid competition from upstart independent VoIP providers, provided an irresistible impetus for the resulting FCC rule.

A further capture wrinkle makes the story even plainer: In a public session held at CompTel on December 14, 2005, FCC Chairman Martin told an audience of local telephone companies (non-Bell companies attempting to compete with the Baby Bells) that the E911 Order had created enormous market opportunities for them.¹⁵⁴ Why? Because, like Intrado, these local telephone companies can qualify as “telecommunications carriers.” VoIP providers, by contrast, are “information services.” Only “telecommunications carriers” can be certified to connect directly to the incumbents’ selective routers—the hardware that accesses the special legacy emergency system that VoIP providers are required to use according to the E911 Rule. Indeed, the incumbent Bell companies *must* by law provide interconnection to these companies. Martin suggested that this was a positive development for these companies:

“That [selling retail access to VoIP providers to selective routers] is probably a business opportunity for many of the carriers that are out there,” Martin said . . . “I have continued to believe that the competitive carriers are going to play an important role and many of our rules and regulations should be viewed as actually an opportunity for people.”¹⁵⁵

This is a breathtaking statement. It strongly suggests that the FCC not only supported obligating VoIP providers to go through the legacy system—a solution that was bad enough in itself—but was also suggesting that VoIP providers work through middlemen.¹⁵⁶ And, to boot, the FCC

appropriate PSAP in full compliance with the Commission’s rules is a very telephony-minded approach that raises fascinating questions. *See* Enforcement Bureau Outlines Requirements, *supra* note 127, at 4. Although telephone companies know who their customers are (because they run physical, centrally-controlled networks), online VoIP providers cannot limit who sees their online advertisements. VoIP providers could perhaps comply with this FCC marketing ban by placing disclaimers on their online advertisements (“this service may not be available in all areas”), but that suggestion raises yet another question: is the FCC becoming an advertisement regulator? Isn’t that advertising the terrain of the Federal Trade Commission? In effect, the FCC is mandating that VoIP providers post ads stating, “Buy our service. It may kill you.”

154. Drew Clark, *FCC Chief Tells VoIP Firms More Regulation is an Option*, NAT’L J.’S TECH. DAILY, Dec. 14, 2005.

155. *Id.*

156. Recall that the FCC did not require in the E911 Order that the Baby Bells open up their selective routers to VoIP companies. E911 Order, *supra* note 1, at 10,269 (ex-

supported the middleman-market as an “opportunity” for its familiar regulated entities, telephone companies.

If the Commission was captured along these lines, it was not necessarily acting corruptly. The widely-reported Vonage-related deaths in 2005 may have made the FCC’s telephony-minded staff feel a need to act quickly. Those who are steeped in telephony strongly believe that any communications service offered to the public must provide access to emergency officials and that technological developments must not be allowed to avoid this regulatory requirement. That dramatic May 2005 FCC meeting, marking the adoption of the E911 mandate, made this point clear.¹⁵⁷

Given all the actors involved and the telephony mindset of staff, the stars were aligned in such a way that the Commission was emboldened to adopt what it itself termed an “aggressive” strategy.¹⁵⁸ Arguably, the Com-

pressing no mandate for interconnection, but stating “[w]e expect and strongly encourage all parties involved to work together to develop and deploy VoIP E911 solutions”). During this same session, Chairman Martin rejected the notion that legislation was needed to require the Baby Bells to open connections to their selective routers to VoIP providers. Congress has been considering such legislation. *See* S. 1063, 109th Cong. (2005). Chairman Martin also implicitly rejected a plan, advanced by VoIP providers, for the appointment of an independent administrator to address the emergency number compatibility with nomadic VoIP providers. Clark, *supra* note 154. No such administrator was needed because Level 3 and other middlemen would provide interconnection services to the VoIP providers. *Id.*

157. During that meeting, one local emergency services employee said, passionately:

We should never allow an embedded base of technology subscribers and users to grow out of control before wrestling the technological and policy challenges to the ground. Any technology, any service offering, any entrepreneurial venture that would seek to gain acceptance from the public should always have 911 and access to emergency services as its first item on the checklist before products and services are delivered to the consumer.

FCC Open Meeting, May 19, 2005 (statement of John Melcher, Executive Director, Greater Harris County 9-1-1 Emergency Network). It is hard to imagine that all online services (including newspapers and banks) should come provisioned with E911 service, but the telephony mindset might lead in this direction. In introducing Mr. Melcher, Chairman Martin referred to the “invasion” of VoIP services. *Id.*

158. E911 Order, *supra* note 1, at 10,266-67 (“While 120 days is an aggressively short amount of time in which to comply with these requirements, the threat to public safety if we delay further is too great and demands near immediate action.”) In a recent paper, J. Scott Marcus expressed his amazement at the overbearing nature of the E911 VoIP edict, saying:

What is striking in the case of the emergency services order . . . is the degree to which it imposes harsh, lopsided, even Draconian regulation on new market entrants. . . . Given the VoIP industry’s active engage-

mission's E911 order was impossible to implement by independent VoIP providers and deeply favored the incumbent Baby Bells. The Order also represented a missed opportunity. The FCC had nipped in the bud the development of more flexible IP-based emergency response systems, which might have been extremely helpful to consumers.

C. CALEA

As with the E911 story, the CALEA controversy and the FCC's adoption of the CALEA Order in August 2005 represents a wealth of missed opportunities, permission-culture regulatory heavy-handedness, and willful misreadings of statutory requirements. If law enforcement wants access to data, it can clearly get it without insisting that it be in pre-digested form.¹⁵⁹ Forcing data into forms that fit the era of telephony require forcing applications to collect recognizable data—which in turn will require those applications to be designed, in advance, to meet the needs of law enforcement.

1. Background

The 1994 CALEA statute “requires telecommunications common carriers to ensure that new technologies and services do not hinder law enforcement access to the communications of a subscriber who is the subject of a court order authorizing electronic surveillance. . . .”¹⁶⁰ To this end, CALEA mandates the carriers to be able to “expeditiously isolat[e] and enabl[e] the government, pursuant to a court order or other lawful authorization, to access call-identifying information that is reasonably available to the carrier”¹⁶¹ CALEA also requires that carriers deliver intercepted communications and call-identifying information to the govern-

ment with the emergency services community, and their significant investment in customer education on this point, it is difficult to understand the rationale.

J. Scott Marcus, *Is the U.S. Dancing to a Different Drummer?*, 60 COMM. & STRATEGIES 39 (4th Quarter 2005) (discussing differences between U.S. and European telecommunications regulatory approaches), available at http://www.idate.fr/fic/revue_telech/132/CS60%20MARCUS.pdf.

159. The traditionally cooperative nature of the relationship between telcos and law enforcement is well-known, and has recently become the subject of broad public scrutiny. See Scott Shane, *Attention in N.S.A. Debate Turns to Telecom Industry*, N.Y. TIMES, Feb. 10, 2006, at A11 (“Some [telecommunications] companies are said by current and former government officials to have provided the eavesdropping agency access to streams of telephone and Internet traffic entering and leaving the United States.”).

160. H.R. REP. NO. 103-827, at 16 (1994), reprinted in 1994 U.S.C.C.A.N. 3489, 3496.

161. Communications Assistance for Law Enforcement Act (CALEA), Pub. L. No. 103-414, § 103, 108 Stat. 4279, 4281 (1994).

ment “in a format such that they may be transmitted . . . by the government to a location other than the premises of the carrier.”¹⁶²

CALEA was a heavily-negotiated statute that sought to make digital telephony service architecture tappable by law enforcement. The act authorized the federal government to pay \$500 million in industry costs incurred before 1995 to bring telephony facilities into compliance with law enforcement’s interception requirements.¹⁶³ But Congress wrote CALEA so as *not* to apply to “information services,” defined to be services “generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications,” including services “that permit[] a customer to retrieve stored information from, or file information for storage in, information storage facilities.”¹⁶⁴ In other words, CALEA did not apply to the internet or online applications. It bears repeating: The internet and online applications were specifically excluded from CALEA’s coverage.¹⁶⁵

The CALEA Order released in August 2005 interprets CALEA to cover any services provided by non-telephone companies that are in some way (however minor) replacements for telephone services.¹⁶⁶ As I have explained elsewhere,¹⁶⁷ this interpretation is at best tenuous. Although CALEA defines covered “telecommunications carriers” to include entities (1) engaged in providing switching or transmission services (2) to the extent that the Commission finds such services to be “a replacement for a substantial portion of the local telephone exchange service,” the statute also *exempts* “information services” from the definition of “telecommunication carrier.”¹⁶⁸ And broadband providers and VoIP applications (as well

162. *Id.*

163. *Id.* § 102(6)(A), 108 Stat. at 4279.

164. *Id.* § 110, 108 Stat. at 4288.

165. *See, e.g.*, H.R. REP. NO. 103-827, at 23 (“[T]he capability requirements only apply to those services or facilities that enable the subscriber to make, receive or direct calls [and] [t]hey do not apply to information services, such as electronic mail services, or on-line services, such as CompuServe, Prodigy, America-On-line or Mead Data, or Internet service providers.”).

166. CALEA Order, *supra* note 2, ¶ 10. FCC Commissioner Copps acknowledged the shortcoming of the Commission’s attitude concerning “substantial replacement,” saying: “To me, it strains credibility to suggest that Congress intended ‘a replacement for a substantial portion of the local telephone exchange’ to mean the replacement of any portion of any individual subscriber’s functionality.” *Id.* ¶ 35 (separate statement of Michael J. Copps, Comm’r).

167. *See generally* Crawford, *Shortness of Vision*, *supra* note 3.

168. 47 U.S.C. § 1001(8) (2000) (defining “telecommunications carrier”).

as any other internet application) are “information services”—indeed, the FCC has said so on many occasions.¹⁶⁹

The statute intended to provide law enforcement faced with digital phone systems with the tappability it had been used to with analog and mechanical phone systems. Although so far there is no evidence that law enforcement is having difficulty implementing warrants for information from broadband providers or VoIP applications,¹⁷⁰ law enforcement asked the FCC to “clarify” its reading of CALEA to include these companies.¹⁷¹ Law enforcement takes the view that because these new technologies and services are relied on by the American public, CALEA should apply to them¹⁷²—even though the CALEA statute itself appears to specifically exclude them.

In response to law enforcement’s requests, the FCC issued its CALEA Order in the fall of 2005.¹⁷³ The CALEA Order stated generally that

169. *E.g.*, DSL Order, *supra* note 32 (classifying wireline broadband internet access service (DSL) as an information service under the Communications Act).

170. BellSouth cited an April 2004 audit report of the Department of Justice that stated: “[T]he FBI was unable to provide the [Auditor] with data showing the extent to which state and local law enforcement has been unable to conduct electronic surveillance as a result of these delays [in implementing CALEA solutions].” Comments of BellSouth Corp., *In re* CALEA & Broadband Access & Servs., ET No. 04-295, at 2-3 n.2 (Nov. 8, 2004) (on file with author) (citing U.S. DEP’T OF JUSTICE, OFFICE OF THE INSPECTOR GEN., AUDIT REP. 04-19, IMPLEMENTATION OF THE COMMUNICATIONS ASSISTANCE FOR LAW ENFORCEMENT ACT BY THE FED. BUREAU OF INVESTIGATION 6 (2004)).

171. Law enforcement initially asked for a declaratory ruling rather than a rulemaking with respect to the CALEA scope issues. FCC declaratory rulings are supposed to terminate a controversy or remove uncertainty regarding the application of existing laws. 47 C.F.R. § 1.2 (2000). Law enforcement may have gone this route in order to avoid the notice-and-comment rulemaking that would be required by the Administrative Procedure Act for the promulgation of new rules or changes to existing rules. 15 U.S.C. § 553 (2000). The Commission proceeded, however, to issue a Notice of Proposed Rulemaking concerning CALEA’s scope. CALEA Order, *supra* note 2, ¶ 5 (“The Commission declined to issue a declaratory ruling, finding instead that it was necessary to compile a more complete record on the factual and legal issues surrounding the applicability of CALEA to broadband Internet access services and VoIP services, and thus issued a Notice of Proposed Rulemaking.”)

172. *See* AskCALEA, Frequently Asked Questions, <http://www.askcalea.net/faqs.html> (last visited Feb. 28, 2006).

173. CALEA Order, *supra* note 2. As I have explained elsewhere, the FCC’s issuance of the CALEA NPRM and subsequent CALEA Order was very likely a quid pro quo for the DOJ’s willingness to take the 9th Circuit’s *Brand X* decision to the Supreme Court on the Commission’s behalf. Crawford, *Shortness of Vision*, *supra* note 3. The DOJ is the FCC’s lawyer for petitions for certiorari, and likely refused to take *Brand X* to the Supreme Court without a clear understanding with the FCC as to how “information services” would be treated under CALEA. Section 402(j) of the Communications Act and

CALEA applies to all facilities-based broadband internet access providers (including wireless, DSL, and cable) and providers of “interconnected VoIP” services. The Order included within its scope all VoIP applications that are *capable of* connecting to the traditional telephone network, even if they do not actually connect.¹⁷⁴ In addition, the Commission (prompted by law enforcement) appears to be taking the position that all private broadband networks that are capable of connecting to the public internet are also covered by the FCC’s interpretation of CALEA.¹⁷⁵ The FCC announced in the CALEA Order that it would issue a second order (on an unstated timetable), addressing the standards for CALEA compliance.¹⁷⁶

section 2350(a) of the Judicial Review Act give the Commission the right to file petitions for writ of certiorari. But, “[u]nder current practice, the Commission coordinates its petitions with the Solicitor General.” Marshall J. Breger & Gary J. Edles, *Established By Practice: The Theory and Operation of Independent Federal Agencies*, 52 ADMIN. L. REV. 1111, 1252 (2000). Litigation authority matters. When the DOJ wields litigation authority, the President can ensure that “government” speaks with a single voice. *See generally* Neal Devins, *Political Will and the Unitary Executive: What Makes an Independent Agency Independent?*, 15 CARDOZO L. REV. 273, 274 (1993); Neal Devins & Michael Herz, *The Battle That Never Was: Congress, the White House, and Agency Litigation Authority*, 61 LAW & CONTEMP. PROBS. 205, 205 (1998) (“For DOJ and agency lawyers, [the question of litigation authority] is of monumental importance [but] [f]or members of Congress and their staff . . . this question is almost always a non-starter.”)

174. CALEA Order, *supra* note 2, ¶ 39 (“To be clear, a service offering is “interconnected VoIP” if it offers the capability for users to receive calls from and terminate calls to the PSTN; the offering is covered by CALEA for all VoIP communications, even those that do not involve the PSTN.”). The CALEA Order generally adopted the E911 Order’s definition of “interconnected VoIP” and indicated that the definition of “interconnected VoIP” might itself evolve over time. *Id.* ¶ 39 n.108.

175. CALEA does not apply to “equipment, facilities, or services that support the transport or switching of communications for private networks.” 47 U.S.C. § 1002(b)(2)(B) (2000). But footnote 100 of the CALEA Order appears to eviscerate this private network exception, by stating that any networks that are *capable of* connecting to the internet, and any “facilities” involved in these networks, are covered by CALEA. *See* CALEA Order, *supra* note 2, ¶ 36 n. 100. This broadening of CALEA in footnote 100 of the CALEA Order, using notions taken directly from the DOJ’s Reply Comments in this proceeding, and has caused universities and other private network providers to sue the FCC. *See* Reply Comments of the U.S. Dep’t of Justice, *In re* CALEA and Broadband Access Services, ET No. 04-295, at 18 (Fed. Comm’n Dec. 21, 2004), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516885861; *see also infra* note 201. Arguments against footnote 100 are entirely separate from the “information services” attack on the CALEA Order. It is not clear what precisely is meant by “facilities that support the connection of the private network” to the internet, a notion that was suggested in the DOJ’s reply comments. *See infra* text accompanying note 220.

176. CALEA Order, *supra* note 2, ¶ 3.

FCC Commissioner Abernathy noted the weakness of the FCC's legal claim at the time the CALEA NRPM was issued, saying:

The NPRM we are issuing proposes a plausible interpretation of the "substantial replacement" provision in CALEA that would extend the assistance-capability requirements to broadband access services and IP telephony. But such an extension clearly would be fraught with legal risk. *The Commission thus would benefit greatly from further congressional guidance in this area.*¹⁷⁷

She again expressed her concern when the Order was released, saying:

Because litigation is as inevitable as death and taxes, and because some might not read the statute to permit the extension of CALEA to the broadband Internet access and VoIP services at issue here, I have stated my concern that an approach like the one we adopt today is not without legal risk.¹⁷⁸

Congress has yet to address this point. The FCC will likely extend the scope of its CALEA requirements even beyond "interconnected VoIP" (defined in the E911 proceeding to mean applications that are capable of both receiving calls from and making calls to the traditional telephone network) to other online applications with fewer direct connections to traditional phone numbers.¹⁷⁹

2. *Implementation Difficulties*

The Order sets a definite date for broadband facilities providers and "interconnected VoIP" providers to comply with CALEA: Eighteen months following November 15, 2005 (or in May 2007), after which covered entities will be subject to \$10,000 fines for each day of non-compliance.¹⁸⁰ The trouble is, however, that the FCC has set no standards for what CALEA "compliance" means for newly-covered entities. By making compliance begin before defining what companies must do to

177. Notice of Proposed Rulemaking and Declaratory Filing, *In re Commc'ns Assistance for Law Enforcement Act and Broadband Access and Servs.*, 19 F.C.C.R. 15,676, 15,772 (Aug. 4, 2004) (statement of Kathleen Q. Abernathy, Comm'r) (emphasis added), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-250547A2.doc.

178. CALEA Order, *supra* note 2 (statement of Kathleen Q. Abernathy, Comm'r).

179. E911 Order, *supra* note 1, at 10,277 ("Are there any other services upon which the Commission should impose E911 obligations?"); CALEA Order, *supra* note 2, ¶ 39 n.108 ("To the extent that the Commission modifies its definition of interconnected VoIP in the future, the CALEA obligations we establish today for interconnected VoIP providers will reflect such modifications.")

180. CALEA Order, *supra* note 2, ¶ 3.

comply, the Commission has put technology providers in an extremely difficult position; they may end up investing in compliance measures that are later found to be unnecessary, or building in elements that later must be retrofitted to conform to a compliance scheme.

As an initial matter, it was unclear exactly what entities the Order covered, given its murkiness on the subject of “private networks”¹⁸¹ and CALEA’s apparent complete exclusion of “information services.” Also, there are many outstanding questions under the general heading of “compliance.” What is “call-identifying information” for broadband providers? Although Section 1001(2) of CALEA defines “call-identifying information” as “dialing or signaling information that identifies the origin, direction, destination, or termination of each communication generated or received by a subscriber by means of any equipment, facility, or service of a telecommunications carrier,”¹⁸² that definition does not necessarily fit the online world.¹⁸³ Under current surveillance statutes, the content of communications may not be made available to government entities absent appropriate warrants. But because all online packets contain both “header” information (about routing) and “payload” or content information, it is not clear how online services can comply with CALEA’s mandate. CALEA’s requirements that the privacy of subscribers be protected and that call-identifying information may not include “any information that may disclose the physical location of the subscriber”¹⁸⁴ further complicate this question for online applications.¹⁸⁵

181. *See infra* note 204.

182. 47 U.S.C. § 1001(2) (2000).

183. In the CALEA Order, the Commission said that this and other questions would be answered in a forthcoming Order, including “the ability of broadband Internet access providers and VoIP providers to provide all of the capabilities that are required by section 103 of CALEA” and “what those capability requirements mean in a broadband environment.” CALEA Order, *supra* note 2, ¶ 46. Section 1002 broadly requires covered entities to ensure that their equipment, facilities, and services enable interception, isolate call-identifying information “that is reasonably available to the carrier,” allow this information to be delivered to law enforcement in an approved format, and protect subscribers’ privacy and the confidentiality of the interception. 47 U.S.C. § 1001(a)(2) (2000).

184. 47 U.S.C. § 1002(a)(2)(B) (2000). Specifically, section 1002(a)(4) states that common carriers should not disclose “call-identifying information” that is “not authorized to be intercepted.” The Commission has said that “privacy concerns could be implicated if carriers were to give to [law enforcement agencies] packets containing both call-identifying and call content information when only the former was authorized.” CALEA, Third Report and Order, 14 F.C.C.R. 16,794, ¶ 48 (1999).

185. *See Crawford, Shortness of Vision, supra* note 3, at 723 (noting that IP addresses may in fact reveal the physical location of users.)

What new designs will be required of VoIP applications? What information is “reasonably available” to these entities?¹⁸⁶ Congress sought to standardize the forms of data delivered to law enforcement, but the Commission has not identified acceptable forms of data. The FCC expressly tabled for later Orders the meaning of compliance and potential exemptions from coverage.¹⁸⁷

The implementation of CALEA in the telephone world has been (and continues to be) extremely difficult. Law enforcement rejected an initial industry-created standard for telephony compliance (the J-standard), and it then proposed an elaborate “punchlist” of desired compliance elements.¹⁸⁸ This “punchlist” led to extensive litigation and further FCC action lasting more than a decade.¹⁸⁹ Now, in the online context, law enforcement has requested that compliance standards be set by industry, with law enforcement and the FCC to later deem those standards deficient or not.¹⁹⁰

This method of proceeding (decide generally who is covered by CALEA, using dubious legal reasoning, without deciding what standards of compliance apply to those entities) creates enormous risks for entities newly covered by CALEA. If they are found in the future to have built products considered “deficient” by law enforcement, they run the risk of having their services taken off the market and incurring enormous fines. Indeed, law enforcement emphasized to the FCC that service providers should build their systems in the first place to be CALEA-compliant, because it would be expensive to have to retrofit them later.¹⁹¹ All prudent businesses will want to have law enforcement approve their services, suggested the DOJ:

Service providers would be well advised to seek guidance early, preferably well before deployment of a service, if they believe that their service is not covered by CALEA. . . . DOJ would cer-

186. The CALEA does not define or interpret the term “reasonably available.” See generally CALEA Order, *supra* note 2.

187. *Id.* ¶ 3.

188. For the history of this battle, see generally CALEA, Third Report and Order, 14 F.C.C.R. 16,794, 16,795-802 (Aug. 26, 1999).

189. See *id.* ¶ 2-11.

190. Reply Comments of U.S. Dep’t of Justice, *In re* CALEA and Broadband Access and Servs., at 39-43, ET No. 04-295 (Fed. Commc’ns Comm’n Nov. 8, 2004) (arguing that DOJ prefers to use the deficiency petition process to resolve standards disputes), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516793569.

191. *Id.* at 44-45.

tainly consider a service provider's failure to request such guidance in any enforcement action.¹⁹²

This is a threat: come negotiate with us first, or you will run the risk of being subject to penalties later. The warning flies in the face of the legislative history of CALEA, for Congress said when the statute was adopted that "if a service of [sic] technology cannot reasonably be brought into compliance with the interception requirements, then the service or technology can be deployed," and rejected "original versions of the legislation, which would have barred introduction of services or features that could not be tapped."¹⁹³

But service providers reading the CALEA Order had to take law enforcement's pre-approval approach seriously because it was apparent that law enforcement was feeling powerful. This was extremely awkward for technology providers, because they were unsure what the standards were to which they were going to need to build, and, in some cases, whether they were covered by the statute's mandates in the first place. The CALEA Order arguably created a cloud over innovation and product development, particularly for smaller technology providers who might be unable to bear the costs of potentially unlimited compliance requests by law enforcement.¹⁹⁴

For example, pulver.com makes a free service called Free World Dialup available to the public. Free World Dialup (FWD) uses peer-to-peer connections between people communicating, but is capable of connecting to the traditional telephone network.¹⁹⁵ Because it is a free service, no compliance costs are bearable. But pulver is unsure whether CALEA applies to Free World Dialup, and has therefore decided to cease to provide FWD in the U.S.¹⁹⁶ Similarly, Skype is a peer-to-peer application that

192. *Id.* at 11.

193. H.R. REP. NO. 103-827, at 23 (1994).

194. For example, a small business making mesh network access available to rural areas (by providing equipment that allows each computer to seek out other nodes that may or may not be connected to the internet) might be forced under the CALEA Order to comply with unpredictable "punchlist" demands by law enforcement, and would likely respond by going out of business. CALEA compliance would likely be nearly impossible for open source projects that always publish their code publicly. *See* Comments of 8x8, Inc. et al., *In re* CALEA, ET No. 04-295, and Broadband Access and Services, RM-10865, at 1-5 (Fed. Comm'ns Comm'n Jan. 31, 2005) (petitioning for reconsideration and clarification of the CALEA applicability Order), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518192043.

195. *See* FWD, <http://www.freeworlddialup.com> (last visited Apr. 15, 2006).

196. Greg Piper, *Groups Ask Appeals Court to Overturn FCC CALEA Order*, COMM. DAILY, Oct. 26, 2005; E-mail from Jonathan Askin, General Counsel, pulver.com, to

has been downloaded by more than 150 million people.¹⁹⁷ Subscribers can purchase from Skype the ability to connect to traditional telephone numbers and to receive calls from traditional telephone subscribers. It is unclear whether Skype is covered by CALEA.¹⁹⁸

Although the first CALEA order issued by the FCC covers only scope—the question of which entities are considered by the FCC to be obligated to comply with CALEA—law enforcement, in the coming months, will likely dictate to the FCC its strong view of the mandatory requirements to be applied to the internet and VoIP applications.¹⁹⁹ And, of course, VeriSign stands ready to provide the data formats preferred by law enforcement. Indeed, law enforcement has cited VeriSign's service pitches in arguing that CALEA compliance will not be expensive and, therefore, that the costs for such compliance may be borne by the businesses covered by the CALEA statute.²⁰⁰

Soon after the FCC published the CALEA Order, five sets of parties sought to have it stayed or reversed by the D.C. Circuit.²⁰¹ For example,

Susan P. Crawford, Assistant Prof. of Law, Benjamin N. Cardozo School of Law (Dec. 20, 2005 3:53:00 pm) (on file with author) (noting that pulver.com has “chosen not to offer a PSTN-connected VoIP service in the US because of the FCC's backward-looking, anti-innovative rules on E-911 and CALEA”).

197. In late 2005, eBay purchased Skype for \$2.6 billion. Richard Waters & Paul Taylor, *Ebay, Skype Deal Challenges Rivals*, FT.COM, Sept. 12, 2005, <http://news.ft.com/cms/s/45b40bd0-2326-11da-86cc-00000e2511c8.html>.

198. Ryan Singel, *Furor Grows Over Internet Bugging*, WIRED NEWS (Oct. 20, 2005), <http://www.wirednews.com/news/technology/0,69277-0.html> (noting that CALEA Order “appears to pull in” Skype; Skype did not return a call seeking comment).

199. The FCC announced in the CALEA Order that it would issue a second order (on an unstated timetable) addressing the standards for CALEA compliance. CALEA Order, *supra* note 2, ¶ 3. The generally-accepted wisdom of FCC-watchers was that the FCC would not refuse any requests law enforcement made for particular elements of compliance.

200. Joint Reply Comments of U.S. Dep't of Justice, FBI, & DEA, *In re* Joint Petition for Rulemaking to Resolve Various Outstanding Issues Concerning the Implementation of CALEA, RM-10865, at 47 n. 114 (Fed. Commc'ns Comm'n Apr. 27, 2004) (“[Concerning] CALEA compliance costs. . . one solution vendor (Verisign) stated in its comments that. . . solutions are available at reasonable prices. . . Verisign's ex parte presentation dated April 15, 2004 shows, the CALEA capital costs for VOIP and IP-enabled services. . . range from \$100,000 to 405,000 per year.”), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516182053.

201. All of these cases were filed in the D.C. Circuit with the FCC and the United States as respondents: No. 05-1404, American Council on Education; No. 05-1408, American Library Association, Association of Research Libraries, Center for Democracy & Technology, COMPTTEL, Electronic Frontier Foundation, Electronic Privacy Information Center, Pulver.com, Sun Microsystems; No. 05-1438, American Civil Liberties Union; No. 05-1451, Pacific Northwest GigaPOP, Corporation for Education Network Ini-

the American Council on Education (ACE), a trade association for institutions of higher education in the U.S., filed a lawsuit on Oct. 24, 2005, alleging that the Order would cause a \$7 billion upgrading expense to colleges and universities who provide broadband access to others.²⁰² ACE argued that the “incredible cost of compliance” made the Order an inefficient approach to assisting law enforcement.²⁰³ ACE also noted that CALEA cannot be read to apply to providers of facilities that connect private networks to public networks, because Congress made clear in the statute that CALEA requirements do not apply to “equipment, facilities, or services that support the transport or switching of communications for private networks.”²⁰⁴ The Center for Democracy and Technology (CDT), together with a large group of other civil society groups and companies, sought relief from the Order on the grounds that it exceeded the Commission’s statutory authority and was arbitrary and capricious in establishing a hard deadline for compliance without saying what compliance entailed.²⁰⁵ The CDT lawsuit also emphasized the substantial risks to innovation²⁰⁶ posed by forcing service providers to seek approval from law enforcement before launching any potentially CALEA-covered application or network facility.²⁰⁷

tiatives in California, Internet2, and National LambdaRail; No. 05-1453, American Association of Community Colleges et al. *See* Brief for Petitioners, Am. Council on Educ. v. FCC, No. 05-1404 (D.C. Cir. Jan. 26, 2006), *available at* http://www.cdt.org/digi_tele/20060126ace-opening-brief.pdf. The cases were consolidated for expedited briefing and argument in mid-December 2005.

202. Press Release, American Council on Education, ACE Files Suit Against FCC Over New Wiretapping Regulations (Oct. 24, 2005), <http://www.acenet.edu> (search for “Ace files suit against FCC”; then link to press release); Declan McCullagh, *FBI Net-wiretapping Rules Face Challenges*, CNET NEWS.COM, Oct. 25, 2005, http://news.com.com/FBI+Net-wiretapping+rules+face+challenges/2100-1028_3-5911676.html.

203. Ace Files Suit, *supra* note 202.

204. Brief for Petitioners, *supra* note 201, at 4.

205. This group also includes the American Library Association, the Association of Research Libraries, COMPTEL, the Electronic Frontier Foundation, the Electronic Privacy Information Center, Pulver.com, and Sun Microsystems. *Id.* at cover page.

206. In addition to the risks to innovation, Susan Landau of Sun Microsystems argues in a recent paper that applying CALEA to VoIP poses substantial national security risks. Susan Landau, *National Security On the Line*, at 27-35 (Dec. 30, 2005) (unpublished manuscript, on file with author) (“[I]n the current communications environment, with an unsecured Internet upon which critical infrastructure depends heavily, building surveillance technology directly into Internet protocols has very negative national-security implications.”).

207. CDT and its co-petitioners filed their opening brief on Jan. 26, 2006. Brief for Petitioners, *supra* note 201, at 71. Oral argument has not yet been scheduled.

3. *The Capture Story*

CALEA is similar to E911 in that in both proceedings some of the incumbent Baby Bells are pushing for CALEA compliance that will burden their competitors, the VoIP providers.²⁰⁸ And the key compliance vendor, VeriSign, did its best to persuade the Commission that its service bureau model would minimize any impacts on innovation that application providers might otherwise experience.²⁰⁹ In the end, the Commission's CALEA Order did recognize that "[i]ndustry solutions" for compliance with CALEA "appear to be readily available."²¹⁰

VeriSign did more than simply hawk its services, however (although it did that with astonishing bravado). It also toiled to persuade the Commission that the U.S. lags behind other countries in its support for law en-

208. Verizon filed comments strongly supporting the Commission's reading of CALEA to include VoIP providers. See Comments of Verizon, *supra* note 45, at 5, 48-50; Reply Comments of Verizon, *In re CALEA and Broadband Access Servs.*, ET No. 04-295, RM-10865, at 10 (Fed. Commc'ns Comm'n Dec. 21, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516885832. It also supported the Commission's determination that law enforcement needs mandated extension of CALEA to all broadband providers. Comments of Verizon, *supra* note 45, at 8 (arguing that CALEA should be applied to all broadband access providers because to do otherwise would enable individuals "to avoid electronic surveillance simply by switching to VoIP service"). SBC also pushed for CALEA requirements to be broadly applied to ensure a level playing field. See Comments of SBC Commc'ns, *In re CALEA*, ET No. 04-295, at 7 (Fed. Commc'ns Comm. Nov. 8, 2004) (stating that "the Commission must ensure that the application of CALEA is competitively neutral . . . [a]ll service providers, regardless of the platform they use to deliver the services (i.e., cable, DSL, wireless, satellite, powerline), should be subject to the same CALEA obligations"), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516793572.

209. VeriSign made clear to the Commission that it already had a compliance service in the marketplace. See Ex Parte Presentation of VeriSign, *supra* note 57, at 1 ("VeriSign is a globally recognized leader in providing an array of large-scale, ultra-high availability infrastructure support capabilities for . . . lawfully authorized electronic surveillance (lawful interception) capability requirements to communication providers globally, other lawful access services (i.e., subpoena processing)."). Although a list of VeriSign's customers for NetDiscovery is not public, Vonage and Cox Communications have both adopted this service. Press Release, VeriSign, VeriSign NetDiscovery Services Selected by Vonage (Mar. 8, 2004), http://www.verisign.com/verisign-inc/news-and-events/news-archive/us-news-2005/page_028679.html; Press Release, VeriSign, VeriSign NetDiscovery Services Implemented by Cox Communications (Apr. 5, 2004), http://www.verisign.com/verisign-inc/news-and-events/news-archive/us-news-2004/page_004015.html. Vonage is far larger than the other VoIP players. See *Internet Phone Service Vonage Hits 155,000 Users*, FORBES.COM, May 17, 2004, <http://www.forbes.com/technology/networks/newswire/2004/05/17/rtr1373314.html>.

210. CALEA Order, *supra* note 2, ¶ 43.

forcement's lawful access to communications.²¹¹ For example, in a presentation by VeriSign in July 2004, the company repeatedly stated that the Commission's action on CALEA for broadband and VoIP was needed to align with "worldwide requirements" and "worldwide related activities and actions."²¹² VeriSign implied that "Next Generation Network" standard-setting activities around the world justified that CALEA mandates be put in place.²¹³

Even after the Commission issued its CALEA order in September 2005, VeriSign continued to agitate for better treatment. It suggested (while reminding the Commission of its existing compliance service bureau offering) that all providers of VoIP services (not just those interconnecting with the traditional telephone network) be covered by the mandate.²¹⁴ VeriSign urged the Commission to hurry up with the implementation of its order, saying that VeriSign had been *relying* on the Commission's imposition of CALEA on a broad range of applications and services.²¹⁵ VeriSign also stated that any potential incurred costs to entities covered by the CALEA mandate "can be readily outsourced with a CALEA service bureau as part of a compliance agreement"—VeriSign's

211. *E.g.*, Reply Comments of VeriSign, Inc., *In re* Joint Petition for Rulemaking to Resolve Various Outstanding Issues Concerning Implementation of the CALEA, RM-10865, at 4-5 (Fed. Commc'ns Comm'n Apr. 27, 2004) ("[T]he capabilities sought by law enforcement have been available for more than a decade, and deployed on an ad-hoc basis in the U.S. over that period. In some G8 countries, this has occurred on a national scale."), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516089605.

212. Ex Parte Presentation of VeriSign, *supra* note 57, at 7.

213. *See id.* at 10. "Next Generation Network" is an umbrella term for the kind of network that incumbent telephone companies and cable companies would like to substitute for the public internet. It is characterized by services that, much like those provided by mobile phone companies, can be easily tracked and charged; it is a "walled garden" that is controlled by the service provider. According to Wikipedia, "The general idea behind NGN is that all information is transmitted via packets, like the Internet; packets are labeled according to their type (data, voice, etc) and handled differently for QoS [quality of service] and security purposes by traffic management equipment." Next Generation Networking, WIKIPEDIA: THE FREE ENCYCLOPEDIA, http://en.wikipedia.org/wiki/Next_Generation_Networking (last visited Feb. 28, 2006).

214. Comments of VeriSign, Inc., *In re* CALEA and Broadband Access Servs., ET No. 04-295, at 2 (Fed. Commc'ns Comm'n Nov. 14, 2005), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518180053.

215. VeriSign, Inc. Opposition, Request for Stay Pending Issuance of Subsequent Orders and for Stay Pending Judicial Review, *In re* CALEA and Broadband Access Servs., ET Nos. 04-295, RM-10865, at 10 (Fed. Commc'ns Comm'n Dec. 2, 2005).

service—and that these costs would quickly end if the scope of the Commission’s CALEA mandate was found to be improper by a court.²¹⁶

But the overall capture profile for CALEA is different from that for E911. Although compliance companies—most notably VeriSign—would like to ensure that their services are called for by the Order, and the FCC takes some comfort in requiring CALEA compliance of broadband providers and “interconnected VoIP” companies because of the existence of such third-party services,²¹⁷ the Commission has not yet stated what compliance with CALEA will entail. Third party providers of outsourced services are thus not as firmly in the driver’s seat in the CALEA context as they are in the E911 realm: In CALEA there is no legacy infrastructure (or even a set of standards) over which a third party already has control. Third parties like VeriSign, accordingly, could promise as a “trusted third party” to install Carnivore-like black boxes²¹⁸ to inhale all data from broadband providers and applications, and then parse it on behalf of law enforcement,²¹⁹ but the FCC’s initial Order did not state whether that would be enough for law enforcement. Indeed, law enforcement comments in the CALEA proceeding made clear that they wanted to maintain direct contact with entities covered by the statute in order to ensure compliance with all of their demands.²²⁰

216. *Id.*

217. CALEA Order, *supra* note 2, ¶ 43, n. 126-27 (noting VeriSign’s claim of the “ready availability [to providers of VoIP and broadband Internet access services] of high-performance, reasonably priced adjunct devices capable of supporting law enforcement needs,” and citing Vonage’s adoption of VeriSign’s NetDiscovery services (internal quotations omitted)).

218. *See generally* Carnivore FAQ, <http://corz.org/public/docs/privacy/carnivore-faq.html> (last visited Apr. 15, 2006).

219. *See* VeriSign Comments, *supra* note 56, at 8 (noting use in service bureau model of “isolated adjunct devices that passively duplicate transmission streams and actively filter target communications”). VeriSign even promised to adjust to law enforcement demands without necessarily needing to consult with the covered entity. *Id.* at 21 (“If standards do not exist, or are deemed deficient by law enforcement, or are evolving because of changed or additional law enforcement requirements, the service bureau effects necessary interim solutions to the satisfaction of law enforcement and their collection and analysis equipment vendors.”).

220. *E.g.*, Reply Comments of U.S. Dep’t of Justice, *In re* CALEA and Broadband Access Servs., ET No. 04-295, at 28-29 (Fed. Commc’ns Comm’n Dec. 21, 2004) (noting that entities obligated to comply with CALEA must remain fully involved in designing CALEA solutions; Commission should be reluctant to shift CALEA responsibilities to trusted third parties), *available at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516885861.

The real story of this rulemaking is that law enforcement drove the Commission to rely on an unsupportable reading of CALEA. At least one of the Baby Bells even recognized this. As BellSouth commented:

[N]ational security concerns should not and cannot be used as a veil for the Commission to embark upon an administrative rewrite of CALEA when the statute does not grant such authority. . . . [M]any of the rules and requirements proposed in the [NPRM] are plainly inconsistent with both the language and legislative history of the statute. . . . To the extent the needs of law enforcement have changed and communications technology has evolved since CALEA was enacted, law enforcement and the industry should work with Congress to amend the current law.²²¹

The *Brand X* deal²²² and the heavy hand of law enforcement in the post-9/11 world pressured the FCC into doing the best it could to give law enforcement the design authority it sought, while shielding the DOJ from the vicissitudes of the legislative process. In effect, the Commission—*encouraged* by law enforcement—reached the conclusion that it would apply CALEA to broadband and VoIP and then backed into the legal reasoning it needed in order to do this without Congressional authorization. But, as noted by Congress at the time of CALEA's enactment, CALEA was “not intended to guarantee ‘one-stop shopping’ for law enforcement,”²²³ and it is very likely that the lawsuits already filed will slow the broadening of CALEA that law enforcement seeks.

Again, as in the E911 setting, the Commission's actions in construing CALEA in the manner that it did were not necessarily corrupt. It is very likely that the Commission was told, as Americans are told these days in many contexts, that the FCC's failure to extend CALEA would exacerbate the United States' vulnerabilities. The absence of a colorable legal justification to issue the CALEA Order did not stop the FCC from acting. It undoubtedly believed it was helping those who protect United States citizens.²²⁴

221. Comments of BellSouth Corp., *In re* CALEA and Broadband Access Servs., ET No. 04-295, at 2 (Fed. Comm'n Nov. 8, 2004), available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516793535.

222. See *supra* note 173.

223. H.R. REP. NO. 103-827, pt. 1, at 22 (1994).

224. A possible parallel looms here: the (very persuasive and powerful) content community caused the FCC, in the broadcast flag context, to take the position that it had jurisdiction to mandate that all devices capable of receiving a digital television signal have secure digital outputs that prevented onward transmission of a marked file over the internet. In the flag context, as in the CALEA context, not having legal authority did not

IV. NEW FORMS OF CAPTURE

The delegation by Congress of broad power over communications to an independent, unaccountable “expert” agency is, in this age of convergence, leading to a situation in which the capture of “new technology” rulemakings by “old technology” companies and interests is very likely. Out of the glare of public scrutiny that would likely accompany any attempt to legislate in the CALEA and E911 context, incumbents, law enforcement, and vendors of compliance services are finding it relatively easy to exact Commission rules that favor these parties and keep the world of telephony policy in place. These parties would find it relatively difficult to obtain these same rules from Congress, because more interest groups would be involved and more eyes would be watching. Because “innovation” does not have a lobbyist, and because the providers of online services are not as well-organized, well-funded, or well-connected as the capturers are, opposition to the Commission’s initiatives is easily ignored. The mainstream press is not paying attention to the enormous power grab that is proceeding at the Commission. And there is no way to remove from office the Chairman and Commissioners who have brought these most recent rules to pass. The only way to address the FCC’s actions is to sue, and both of these rules have prompted lawsuits. The aim of this Part is to summarize the pre-issuance capture story these case studies reveal, in hopes that Congress will be more careful in the future. This Part proceeds in three subsections: an explanation of the delegation history for the two rulemakings, an exploration of the “expertise” of the FCC in these two areas, and the capture narrative.

A. Delegation

These two rulemakings do not have the same delegation background. In the CALEA context, it is extremely unlikely that Congress intended for broadband access and VoIP services to be covered by CALEA.²²⁵ Thus, it is likely that the D.C. Circuit will find that no delegation has occurred, and law enforcement will need to return to the Hill in order to obtain the authority it seeks.

In the E911 world, by contrast, recent case law interprets the Commission’s “ancillary authority” under the Telecommunications Act to give the FCC almost unlimited power over anything concerning a wire or a radio signal in the U.S.—and thus, impliedly, over any application used

stop the FCC from acting. See Crawford, *The Biology of the Broadcast Flag*, *supra* note 71, at 608-16.

225. See discussion *supra* Section III.C.i.

online.²²⁶ Given the importance of the internet to the economic future of this country, Congress should act to discipline the Commission's authority; at the very least, Congress should be explicit that it is giving power over the internet to the FCC.

The Commission divides all possible radio and wire communications into two broad categories: (1) telecommunications services, regulated under Title II of the Communications Act, and required to charge tariffed fees, pay into the universal service fund, and not discriminate against others who want to connect to them; and (2) information services.²²⁷ The FCC has taken the position that all IP-enabled services of whatever description (save for the Internet Protocol itself, or "internet governance") fit into the information services category,²²⁸ and therefore are regulated under its general powers (including its "ancillary" powers) under Title I. Commentators have even referred to "Title I" and "Title II" services.²²⁹

Title I contains a "necessary and proper" rulemaking provision, Section 154(i), that says that the Commission may "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions."²³⁰

226. See, e.g., *United States v. Sw. Cable Co.*, 392 U.S. 157 (1968).

227. See *In re IP-Enabled Services*, 19 F.C.C.R. 4863, 4880-81 (Fed. Comm'n Mar. 10, 2004).

228. *Id.* at 4864 n.1.

229. JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, *DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE* 213 (2005). In the E911 context, the FCC finessed the classification question, saying that it had not decided whether interconnected VoIP services were telecommunications services or information services, but that it analyzed E911 primarily under its Title I ancillary jurisdiction "to encompass both types of service." E911 Order, *supra* note 1, at 10,256. It is astonishing for the Commission to avoid deciding (or declaring) where its authority comes from in taking a particular regulatory position. However, the FCC had every political reason to approach the VoIP E911 question in this way; the public outcry that would have resulted if the FCC had attempted to create tariffing structures and interconnection requirements and special charges for VoIP services made the choice of Title II classification inappropriate, but the FCC's ancillary Title I jurisdiction over "interconnected VoIP" services is unclear (as I discuss *infra*). And so the Commission spread its bets by choosing both classifications. The FCC may have wished to avoid any conflict with a 1998 FCC report (the "Stevens Report") that reviewed VoIP services in connection with universal service obligations. See generally Report to Congress, *In re Federal-State Joint Board on Universal Serv.*, CC No. 96-45 (Fed. Comm'n Apr. 10, 1998) [hereinafter Stevens Report], available at http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=2062770001. The Commission tentatively concluded in the Stevens Report that some "phone-to-phone" VOIP services "lack[] the characteristics that would render them "information services" within the meaning of the statute, and instead bear the characteristics of "telecommunications services." *Id.* at 3.

230. 47 U.S.C. § 154(i) (2000).

This Section allows the Commission to implement regulations that are necessary to carry out its explicit responsibilities under the Communications Act, and courts have found that the FCC can exercise “ancillary authority” to adopt legislative rules using Section 154(i) when two conditions are met: (1) it otherwise has subject matter jurisdiction over the service to be regulated²³¹ and (2) its regulations are reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.²³²

From the Commission’s perspective, the only question it must answer for the first part of this test is whether “interconnected VoIP” services specifically, or IP-enabled services generally, use wires or radios. Because they do, the FCC asserts that “these services come within the scope of the Commission’s subject matter jurisdiction granted in section [152(a)] of the Act.”²³³ Following the Commission’s logic, Section 152(a) gives the Commission subject matter authority over all communications by wire and radio anywhere in the world.²³⁴

231. See *Sw. Cable Co.*, 392 U.S. at 172-75 (upholding cable television regulations before FCC had express congressional grant of regulatory authority over cable); *In re Digital Broadcast Content Protection*, MB 02-230, at 14 (Fed. Commc’ns Comm’n Nov. 4, 2003), available at http://www.eff.org/IP/Video/HDTV/20031104_fcc_order.pdf.

232. See *Sw. Cable Co.*, 392 U.S. at 178. The D.C. Circuit has recently been quite skeptical of the Commission’s Title I authority. When the FCC used its Title I jurisdiction to justify video description for television programs, the D.C. Circuit struck down those rules because they were outside the Commission’s authority. *Motion Picture Ass’n of Am., Inc. v. FCC*, 309 F.3d 796, 798-99 (D.C. Cir. 2002). And in *American Library Ass’n v. FCC*, the D.C. Circuit ruled that the Commission lacked authority to impose broadcast content redistribution rules on equipment manufacturers (the “broadcast flag” rules) using its Title I ancillary jurisdiction because the equipment was not subject to the Commission’s subject matter jurisdiction. 406 F.3d 689, 692 (D.C. Cir. 2005). The FCC argued for very broad ancillary authority in the broadcast flag case, announcing that unless Congress has told the Commission it cannot regulate, it has the power to adopt any rules that “effectuate the goals” of the Communications Act with respect to “instrumentalities, facilities, and apparatus associated with the overall circuit of messages sent and received” via wire or radio. *Am. Library Ass’n*, 406 F.3d at 698 (citing Brief for respondent); E911 Order, *supra* note 1, at 10,264-65.

233. E911 Order, *supra* note 1, at 10,261-62.

234. Section 152(a) is about the scope of the coverage of the Act—it intentionally excludes people in the Canal Zone, for example—and says nothing about rulemaking authority. The section states:

The provisions of this chapter shall apply to all interstate *and foreign communication* by wire or radio and all interstate and foreign transmission of energy by radio, which originates *and/or is received* within the United States, and to all persons engaged within the United States in such communication or such transmission of energy by radio, and to the licensing and regulating of all radio stations as hereinafter provided;

As for the second step in the ancillary jurisdiction test, the Commission acknowledges in a footnote that the Telecommunications Act states that “[i]t is the policy of the United States—to preserve the vibrant and competitive free market that presently exists for the internet and other interactive computer services, unfettered by Federal or State regulation.”²³⁵ At the same time, the Commission asserts that it does not believe that this “policy statement precludes [it] from adopting E911 rules for interconnected VoIP providers here.”²³⁶ The Commission rehearses its “safety of life and property” arguments, notes that it has imposed E911 rules on providers of new telephone technologies, argues that Congress has “ratified” its exercises of authority in this area in the 1999 Wireless Act, and asserts that the Order is reasonably ancillary to the Commission’s effective performance of its statutorily mandated responsibilities.

In the NPRM accompanying the E911 Order, the Commission reveals its intention to do even more. As noted, the FCC appears to be considering whether to require any VoIP-capable device to be able by June 2006 to automatically determine its location to be provided in a E911 call.²³⁷ The FCC questions whether its focus on “interconnected VoIP” services is too narrow.²³⁸ The Commission is considering adopting consumer privacy protections applicable to E911 service, implying that the FCC will create through regulation broad online privacy rules that to date Congress has resisted legislating.²³⁹ It is very likely that future IP-enabled services “social policies” will be based on the same jurisdictional arguments.

The chief problem with the Commission’s claims is that the jurisdictional arguments made in the E911 Order have very few principled limits. Anything that has something to do with a wire or a radio may be asserted

but it shall not apply to persons engaged in wire or radio communication or transmission in the Canal Zone, or to wire or radio communication or transmission wholly within the Canal Zone. The provisions of this chapter shall apply with respect to cable service, to all persons engaged within the United States in providing such service, and to the facilities of cable operators which relate to such service, as provided in subchapter V-A.

47 U.S.C. § 152(a) (2000).

235. 47 U.S.C. § 230(b)(2) (2000).

236. E911 Order, *supra* note 1, at 10,262 n. 95.

237. *See id.* ¶ 57. Arguably, Congress in Section 230 of the Telecommunications Act said clearly that special federal regulation of “internet services” was inappropriate. It appears that the Commission has convinced itself that the word “regulation” in Section 230 refers only to Title II common carrier-type regulations having to do with tariffs and interconnection, and not to “social policies.” *See* 47 U.S.C. § 230.

238. *See* E911 Order, *supra* note 1, ¶ 58.

239. *See id.* ¶ 62.

to be within the FCC's jurisdiction, and the FCC may expand the scope of its policies at any time. Although the Telecommunications Act does not impose any explicit regulatory burdens on "information services," the FCC views itself to have complete discretion under its "ancillary jurisdiction" to decide what requirements it should mandate with respect to these services.²⁴⁰

The FCC's policy, until relatively recently, was that online services should be unregulated.²⁴¹ As it turns out, however, all services that use the Internet Protocol are "unregulated" only in the sense that they are not classified as Title II common carrier services (subjected to tariffing and interconnection obligations), even though they are regulated in reality. The E911 Order is the clearest demonstration to date that the FCC's telephony mindset drives it to believe that it has absolute discretion under Title I to impose fundamentally unchanged telephony-based mandates on IP-enabled services.²⁴²

The Commission's belief in its "unregulation" agenda for IP-enabled services received a substantial shot in the arm as a result of the Supreme

240. The FCC's views about its Title I jurisdiction have become more aggressive in recent years. In 2001, in its approval of the AOL-Time Warner merger, the Commission imposed conditions on AOL's instant messaging application (conditions that were later lifted), but based its authority on its power over approving spectrum license transfers from Time Warner's cable companies, broadcast companies, and telephony interests to the merged entity as well as on its Title I jurisdiction. *See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, 16 F.C.C.R. 6547 (Jan. 22, 2001). This assertion of Title I jurisdiction was not tested on appeal. Today, in 2005, it is very likely that the Commission would base its authority to regulate instant messaging solely on its ancillary jurisdiction under Title I.

241. *See* Jason Oxman, *The FCC and the Unregulation of the Internet* (Fed. Comm'n Comm'n Office of Plans & Policy, Working Paper No. 31, 1999), http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.pdf, at 22.

242. Philip Weiser has recommended that the FCC regulate all internet services under Title I using antitrust principles. *See* Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41, 66 (2003) ("outlin[ing] how the FCC can rely on its Title I authority to employ a reactive, antitrust-like model of regulation for the emerging broadband market"). By contrast, James Speta takes the view that Title I does not stretch as far as the Commission would like it to, and that the FCC's regulatory authority should be limited. James B. Speta, *FCC Authority To Regulate the Internet: Creating It and Limiting It*, 35 LOY. U. CHI. L.J. 15, 22-24, 38-39 (2003). The Commission appears to be listening to neither Weiser nor Speta, because it is forging ahead with non-antitrust regulation under a broad reading of Title I. It will take a substantial change in public concern over the fate of internet services and a clearly different congressional direction for the Commission to change its approach.

Court's recent *Brand X* opinion.²⁴³ Justice Thomas, writing for the Court, ruled in support of judicial deference to the Commission's determination that cable modem internet access service is an "information service."²⁴⁴ This holding was legally sound, but in dicta the Court said that although "information-service providers . . . are not subject to mandatory common-carrier regulation under Title II . . . the Commission has jurisdiction to impose additional regulatory obligations under its Title I ancillary jurisdiction,"²⁴⁵ and indicated that policy in this "technical and complex" area should be set by the Commission (and thus impliedly not by the courts or Congress).²⁴⁶

This dicta in *Brand X* can fairly be read to give the Commission complete discretion over what rules to mandate with respect to "information services" (including the internet), even if those rules adopted (like E911) look just like rules applied to common carriers. In other words, classification of services as "telecommunications," on the one hand, or "information services," on the other, has become a matter of form over substance. Even if something is called an "information service," the Commission can mandate requirements of it that used to be required only of "communications services." The opinion also signals that the internet is too difficult and complicated for any branch of government other than the FCC to deal with.²⁴⁷

Justice Scalia's stinging dissent makes the judicial grant of power to the Commission clear:

[W]hat the Commission hath given [by classifying cable modem service as an information service], the Commission may well take away—unless it doesn't. This is a wonderful illustration of how an experienced agency can (with some assistance from credulous courts) turn statutory constraints into bureaucratic discretions.²⁴⁸

243. See *Nat'l Cable and Telecomm. Ass'n v. Brand X Internet Serv.*, 125 S. Ct. 2688, 2712 (2005).

244. *Id.* at 2690.

245. *Id.* at 2696.

246. See *id.* at 2705.

247. See *id.* at 2712 ("The questions the Commission resolved in the order under review involve a 'subject matter [that] is technical, complex, and dynamic.' . . . Nothing in the Communications Act or the Administrative Procedure Act makes unlawful the Commission's use of its expert policy judgment to resolve these difficult questions.") (citations omitted).

248. *Id.* at 2718 (Scalia, J., dissenting).

The E911 Order marks only the beginning of the Commission's regulation of the internet under its unprincipled (and potentially unlimited) reading of its ancillary jurisdiction. In this crucial area, silence (or even ambiguous statements) by Congress should not afford the Commission such enormous powers.²⁴⁹ Congress should act to cabin and explicate the scope of the Commission's authority to regulate the internet. The difficult and important question of how to govern the internet should be answered explicitly rather than through formalistic re-characterization of internet services by an independent agency.²⁵⁰

B. Expertise

To the extent that the FCC's expertise and political neutrality legitimate congressional delegation of power over IP-enabled services (if such delegation occurred),²⁵¹ both the E911 and CALEA rulemakings substantially undermine this theory.

249. For important questions, or questions with substantial economic impact, the Supreme Court has ruled that an agency's interpretation of an ambiguous statute deserves no deference:

Deference under Chevron to an agency's construction of a statute that it administers 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. In extraordinary cases, however, there may be reason to hesitate before concluding that Congress has intended such an implicit delegation.

Food & Drug Admin. v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 159 (2000) (citations omitted). Regulation of the internet is the kind of "extraordinary case" to which the Court was referring. As in *Brown & Williamson*, this broad swath of regulatory power (i) addresses an important domain—regulation of a great "basic industry"—for which authority could not have been delegated accidentally; and (ii) concerns a question about which Congress has already enacted several statutes. Congress should refuse to grant such broad jurisdiction to a single, easily captured agency.

250. See John T. Nakahata, *Broadband Regulation at the Demise of the 1934 Act: The Challenge of Muddling Through*, 12 *COMMLAW CONSPECTUS* 169 (2004) (questioning the Commission's authority to create new regulatory structures for "Title I" services).

251. Independent agencies were supposed to be "a body of experts who shall gain experience by length of service—a body which shall be independent of executive authority, except in its selection, and free to exercise its judgment." Marshall J. Brefer & Gary J. Edles, *Established by Practice: The Theory and Operation of Independent Federal Agencies*, 52 *ADMIN. L. REV.* 1111, 1113 (2000) (citing *Humphrey's Ex'r v. United States*, 295 U.S. 602, 625-26 (1935) (internal quotation marks and citation omitted)). "[T]he independent commission as an organizational form did not emerge full-blown with the passage of the Interstate Commerce Act. Rather, it evolved over the course of several decades, coming to maturity late in the Progressive Era." MARC ALLEN EISNER, *REGULATORY POLITICS IN TRANSITION* 48 (1993). The Progressives saw great value in independent regulatory commissions, as "an important conduit through which market correction was administered." Brefer & Edles, *supra*, at 1131. The idea of expert admin-

It is not just that the Commission needed the technical assistance of Intrado and VeriSign to write these rules—agency resource limitations often dictate that the help of outside parties is called for. And it is not just that law enforcement forced the Commission into the CALEA rulemaking as a quid pro quo for the DOJ’s help with the *Brand X* case, or that both rulemakings—despite their heavily regulatory character—fit neatly into the apparent thematic thread of the current White House by emphasizing security and law enforcement. It is more that both rulemaking efforts ignore major technical differences between the telephone system (centralized, controllable) and the internet (decentralized, any service can be added without permission), and attempt to apply telephony-based rules to the internet with almost no changes. This element of the E911 and CALEA rules, failing to consider alternative ways of reaching desirable social goals, demonstrates the Commission’s inexpert approach toward a world that has changed enormously. Expertise was not the basis of these rules. Indeed, it is easy to demonstrate better ways of reaching the FCC’s social policy goals.²⁵²

Just as expertise was not the basis for these rules, it would be impossible to say that they represent a “scientific” response to a political question. Instead, it is apparent that they are both deeply political responses to a series of political requests. Both rulemakings have at their heart important questions of social policy, which makes them difficult to attack. As a matter of both law and technical reality, however, they represent some of the most unlikely responses to these social questions.

For example, in the E911 context, who would have imagined that new VoIP services (capable of transmitting a picture of the house where the injury has occurred, able to gather health data and doctor contact data and convey it to emergency responders) must use a 30-year-old legacy system that sharply *limits* the emergency assistance provided by the services? In the CALEA context, who would have imagined that the Commission would read the statute’s exclusion of “information services” to allow *inclusion* of those services under the CALEA mandate? And who would

istrators with technical competence became very important during this era. Progressives believed in “the almost unlimited potential of science and administration.” *Id.* at 1131 (quoting RICHARD L. MCCORMICK, *THE PARTY PERIOD AND PUBLIC POLICY: AMERICAN POLITICS FROM THE AGE OF JACKSON TO THE PROGRESSIVE ERA* 201 (1988)). The independent agency “was envisioned as an institution capable of compensating for the shortcomings of the ‘political’ institutions of American government.” EISNER, *supra*, at 44. “Many believed that the only way to achieve effective business regulation was to establish a trade commission completely removed from the political fray.” Brefer & Edles, *supra*, at 1132-33.

252. See *infra* Part V.

have imagined that the online world, a great engine of economic growth in America, would have been subject to pre-approval by law enforcement? This may sound (and possibly is) conclusory, but it is impossible to pretend that what the FCC did with the E911 and CALEA rules was apolitical. These were hardly “scientific” results.

Past chairs of the FCC understood very clearly that the FCC was a political entity. And current Chairman Kevin Martin is undoubtedly a political actor. The chair of the FCC, who is appointed by the President and part of his political party, is the most powerful figure in the agency. Chairman Martin has close ties to the White House.²⁵³ Prior to his FCC position, he served on the Bush-Cheney transition team and as general counsel for Bush’s 2000 Presidential campaign. His wife, Cathie Martin, is a former adviser to Vice President Dick Cheney. She works in the White House as a special assistant to the President for economic policy.²⁵⁴ The Martins are extremely well-connected to the White House, and Kevin Martin is very likely to be interested in ensuring that his agency is on the same page as the Administration.

C. Capture Theory

Absent some action by Congress, the FCC will continue to argue that it has broad delegated powers to regulate internet services. With this unlimited delegation and the FCC’s broad preemption of any state efforts to make rules about online services,²⁵⁵ capture is relatively easy: there is only one entity to capture, and it is the FCC. This next Section deals with the capture narrative that has resulted.

1. Comparison of New Capture to Old Capture

The regulations at issue here do not fit the usual capture complaint, which focuses on the capture of agencies by the very groups they are supposed to regulate. Although it is true that the Baby Bells were happy to visit regulatory burdens on their VoIP competitors, these case studies show that primarily third-party middlemen—entities that are not regulated by the FCC—captured the FCC in the E911 setting. And in the CALEA

253. Genaro C. Armas, *Bush Names Kevin Martin New FCC Chairman*, USA TODAY, Mar. 16, 2005, http://www.usatoday.com/news/washington/2005-03-16-martin-fcc_x.htm.

254. *Id.*

255. *See In re Vonage Holdings Corporation for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, 19 F.C.C.R. 22,404, 22,404-05 (Nov. 12, 2004) (showcasing the FCC’s authority to “preempt an order of the Minnesota Public Utilities Commission (Minnesota Commission) [to apply] its traditional “telephone company” regulations to Vonage’s DigitalVoice service”).

context, an executive agency, the Department of Justice, captured the Commission, an independent agency.²⁵⁶ Neither of these stories is the traditional one.

From the first, the mere existence of administrative agencies has prompted questions as to their constitutionality and accountability.²⁵⁷ But until relatively recently—the middle of the last century—few questioned that agencies were interested in serving the public good above all else. Beginning in the 1960s, however, federal judges became concerned about capture.²⁵⁸ The worry was that if agency officials were both given discretion to act and were protected from political accountability, they would be subject to enormous pressures by the entities they regulated to help their particular business models rather than the public interest.²⁵⁹ The term cus-

256. 44 U.S.C. § 3502(5) (2000) (denominating the FCC as an independent committee). The FCC has a bipartisan group of Commissioners who are appointed by the President with the advice and consent of the Senate and serve for five years. 47 U.S.C. § 154(a) (2000). The maximum number of Commissioners from any party is a number equal to the least number that would constitute a majority, and the Chairman serves as the Chief Executive Officer of the agency. For an extensive discussion of the practices of independent agencies, see Breger & Edles, *supra* note 173.

257. Mark C. Niles, *On the Hijacking of Agencies (And Airplanes): The Federal Aviation Administration, "Agency Capture," and Airline Security*, 10 AM. U. J. GENDER SOC. POL'Y & L. 381, 387 (2002) (analyzing allegation that FAA has been "captured" and noting that questions began with formation of Interstate Commerce Commission (abolished in 1995) in 1887). The idea of capture is generally assumed to stem from MARVER H. BERNSTEIN, *REGULATING BUSINESS BY INDEPENDENT COMMISSION* (1955).

258. See Merrill, *supra* note 7, at 1042 (arguing that courts' assertiveness between 1967 and 1983 is explained by concerns about capture and belief that courts could do something about it, which was replaced by later pervasive pessimism); Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669, 1713 (1975) ("It has become widely accepted, not only by public interest lawyers, but by academic critics, legislators, judges, and even by some agency members, that the comparative overrepresentation of regulated or client interests in the process of agency decision results in a persistent policy bias in favor of these interests.").

259. John Shepard Wiley, Jr., *A Capture Theory of Antitrust Federalism*, 99 HARV. L. REV. 713, 725-26 (1986); see MARTIN SHAPIRO, *WHO GUARDS THE GUARDIANS: JUDICIAL CONTROL OF ADMINISTRATION* 65-66 (1988) (discussing explanations of regulatory capture); Mark Seidenfeld, *A Civic Republican Justification for the Bureaucratic State*, 105 HARV. L. REV. 1511, 1565-70 (1992).

According to the capture hypothesis, instead of providing meaningful input into deliberation about the public interest, industry representatives co-opt government regulatory power in order to satisfy their private desires. Regulated entities are well organized and generally well funded, and they often have strong interests at stake, which they do not share with the polity as a whole. These entities have much to gain by ensuring that they have control over government decisionmakers and that the decisionmakers whom they do control remain in office.

tomarily used for this problem is “pathology”—that agencies were subject to the pathologies of interest groups and regulated entities. The answer given by the federal courts, at least initially, was that robust and energetic reform activities would fix the pathologies of agencies.²⁶⁰ For example, famed D.C. Circuit Judge Skelly Wright demanded that the FCC put its ex parte contacts with industry on the public record, noting his concern “that the final shaping of the rules we are reviewing here may have been by compromise among contending industry forces, rather than by exercise of the independent discretion in the public interest the Communications Act vests in individual commissioners.”²⁶¹ Expansion of citizens’ standing rights and the “hard look” doctrine in the 1960s and 1970s are part of this robust reform approach, aimed at reducing the risks of capture.²⁶²

In general, agency capture is said to happen when “compact groups whose members have high per capita stakes in a controversy out-organize and out-influence larger more diffuse groups.”²⁶³ Usually capture stories concern the excessive influence of regulated entities.²⁶⁴ Thus, the academic literature contains accounts of the alleged capture of the FAA by

Id. at 1565.

260. Merrill, *supra* note 7, at 1052.

261. *Home Box Office v. FCC*, 567 F.2d 9, 53 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 829, *reh’g denied*, 434 U.S. 988 (1977). Wright ordered the Commission to submit a list of all ex parte communications, but fumed that “it is still not possible to determine the effect of such communications on the integrity of the rulemaking. As a result, the elaborate public discussion in the dockets here under review may be a sham and a fiction.” *Home Box Office*, 567 F.2d at 15; *cf.* *Action for Children’s Television v. FCC*, 564 F.2d 458 (D.C. Cir. 1977) (holding that ex parte prohibitions in rule-making proceedings are only applicable when competing private claims to a valuable privilege involved). In *Home Box Office*, Judge Wright ordered that the substance of all ex parte conversations be written down and filed. *Home Box Office*, 567 F.2d at 15. It is fair to say that the Intrado and Level 3 filings do not reveal much of the substance of the conversations they record. It is also fair to say that there were undoubtedly many DOJ contacts that were never reflected in public filings.

262. David B. Spence, *A Public Choice Progressivism, Continued*, 87 CORNELL L. REV. 397, 410 (2002) (sketching a history of Progressive movement and capture response).

263. Merrill, *supra* note 7, at 1053. In an important paper, George Stigler developed the “capture theory,” suggesting that “regulation is acquired by the industry and is designed and operated primarily for its benefit.” George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 3 (1971).

264. “In ‘captured’ agencies, agency regulators do not act as ‘arms-length’ representatives of some larger ‘public interest’ in their interaction with regulated industries. Instead, government officials . . . advance the agenda of current firms in the industry by formulating regulations that benefit or at least do not substantially burden the industry.” David Dana & Susan Koniak, *Bargaining in the Shadow of Democracy*, 148 U. PA. L. REV. 473, 497 (1999) (exploring the “regulatory contract” phenomenon).

the airline industry,²⁶⁵ and the capture of the USDA by the meat and poultry industries.²⁶⁶ In all of these cases, the agency is said to have lost focus on its public mission in favor of the interests of regulated private actors.

Capture theory is often criticized as imprecise and over-simplified,²⁶⁷ both because it is difficult to say when private interests fail to coincide with the overall public interest, and because it deals insufficiently with the messy world of real politics. It is, for example, often true that agencies must depend on outside sources of information. It is also true that organized interests, like regulated firms, often provide that information. They have incorrupt reasons to do so, for they have a stake in the policy that will emerge and the resources to help.²⁶⁸ By contrast, consumers and other unorganized interests ordinarily have stakes that are too small to justify intervening in the agency's work. There is nothing necessarily wrong with this reality.

Increasingly pessimistic public choice theory, under which all governmental decisions are seen as the result of rent-seeking behavior on the part of many different groups, has gradually subsumed capture theory.²⁶⁹ Very roughly speaking, “[m]odern public choice theory regards all organized groups demanding services from political institutions—including not just business and producer groups, but also environmental groups, labor unions, civil rights groups, and rent control activists—as being subject to a unitary logic of collective action.”²⁷⁰ Unlike the capture theorists who sug-

265. Niles, *supra* note 257, at 401.

266. See generally Dion Casey, *Agency Capture: The USDA's Struggle to Pass Food Safety Regulations*, 7 KAN. J. L. & PUB. POL'Y 142 (1998).

267. Dana & Koniak, *supra* note 264, at 498 (“[I]t is possible to speak of illegitimate interest group influence only if one has a coherent normative baseline defining legitimate interest group influence.”).

268. See Richard B. Stewart, *The Discontents of Legalism: Interest Group Relations in Administrative Regulation*, 1985 WIS. L. REV. 655, 663-65 (suggesting that constructive relationships between regulators and regulated industry can benefit society, avoid litigation, and do not represent capture).

269. See, e.g., Daniel A. Farber & Philip P. Frickey, *The Jurisprudence of Public Choice*, 65 TEX. L. REV. 873, 883-906 (1987). Roughly, public choice is the “application of the economist's methods to the political scientist's subject.” DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION* 1 (1991); see also Daniel A. Farber & Philip P. Frickey, *Foreword: Positive Political Theory in the Nineties*, 80 GEO. L.J. 457, 458-463 (1992) (defining public choice as using economics to focus on the maximizing behavior of rational beings). Not all administrative law scholars accept the “homo economicus” view that public choice theorists posit. See, e.g., Abner J. Mikva, *Foreword*, 74 VA. L. REV. 167 (1988) (condemning view of human nature professed by public choice analyses).

270. Merrill, *supra* note 7, at 1069; see also Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U. L. REV. 543, 561 (2000) (“Public choice theory understands

gested reforms of agency processes to protect against capture, early public choice theorists did not necessarily propose a path forward; rather, they aimed to demonstrate that regulatory decisions were inherently biased, and that market-mimicking agency actions should usefully be replaced by markets themselves or never delegated in the first place.²⁷¹ Early public choice scholarship perceived reform efforts as impossible, and the simple libertarian responded by pulling up stakes and removing discretion from administrative agencies.

In the present day, the delegation debate continues unabated. The enormous world of public choice scholarship has become a rich one that is no longer simply based on seeing venal motives in every step by a regulator. Today, “public choice” can mean anything from modeling complex systems inside agency decision making to empirically examining influence across a wide range of decisions by a wide range of institutional actors.

My contribution to the enormous capture/public choice literature is modest. I am providing a live case study, showing that prior capture theories may have been too simple in their focus on regulated firms.²⁷² Here, the capturing interests were neither regulated entities nor, in the case of the E911 rule, particularly visible. But both law enforcement and E911 outsourced services firms are intensely concentrated interests (as opposed to diversified public interests) that can claim expertise and devote resources to push for their versions of regulation. And both groups likely received better treatment from the FCC in these rules than they could have

administrative decision as the product of interest group pressure brought to bear on bureaucrats seeking rewards such as job security, enhanced authority, or the favor of powerful legislators upon whom the agency depends . . . treating agency outcomes as products of interest group appeals to individual bureaucrats’ preferences.”)

271. See, e.g., David B. Spence & Frank Cross, *A Public Choice Case for the Administrative State*, 89 GEO. L.J. 97, 98-99 (2000) (citing scholars who feel public choice is hostile to delegation); JERRY L. MASHAW, GREED, CHAOS, & GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 6-25 (1997).

272. I am not the first to recognize that unregulated private firms may have captured an agency’s decision making process. In a 1993 article, Bradford Mank suggested that contractors hired by the EPA to conduct Superfund cleanup activities had formed a “dependent bureaucracy that fed on the program’s structural incentives,” a conclusion that had earlier been reached by the Congressional Office of Technology Assessment. See Bradford C. Mank, *Superfund Contractors and Agency Capture*, 2 N.Y.U. ENVTL. L.J. 34, 60-63, 80 (1993). Mank noted that James Q. Wilson had argued that unregulated interest groups “have reason to develop client relationships” with agencies. *Id.* at 61 (citing JAMES Q. WILSON, BUREAUCRACY: WHAT GOVERNMENT AGENCIES DO AND WHY THEY DO IT 83-85 (1990), which discusses academic scientists’ relationship with the National Academy of Sciences and National Science Foundation). Mank suggested limiting contractor functions and strengthening EPA enforcement efforts. See *id.* at 76-77.

from Congress. My assertion is that, in both the E911 and CALEA contexts, rules were written that benefited an identifiably smaller “public” interest at the expense of a larger, but more diffuse, one: the interest in continued online innovation.

In the E911 context, a largely invisible vendor, Intrado, making opaque “ex parte” filings, orchestrated a rule adoption that assured the vendor’s continued dominance and relevance. Without even giving VoIP providers the time to show that alternative E911 schemes could have provided better (more modern, more informative) results for consumers, the Commission forced them to interconnect with hardware controlled almost completely by that invisible vendor, at a cost that vendor could control. Failure to connect in this fashion may force VoIP providers to cut off their customers, creating unprecedented, Commission-approved market constraints.

In the CALEA context, an interest group in the form of another sister agency, the Department of Justice, was able to obtain rules that it likely could not have gotten from Congress. It is likely that there were broad ex parte contacts between DOJ and FCC before DOJ sought a petition for certiorari in the *Brand X* case.²⁷³ The DOJ was even able to have the FCC set a hard eighteen-month deadline for compliance without any indication of what compliance meant. And, as in the E911 context, innovation is very likely to suffer: law enforcement appears to be seeking pre-launch approval of any potentially covered application or connection, to ensure that desired data fields are available to them.

Where an agency is in thrall to a sister agency, and that sister agency is asserting itself as a single, governmental audience for a standard that will have dramatic effects on innovation, neither traditional “capture” nor more recent “public choice” theory fits the situation. Traditional capture theory never envisioned that the capturer would be another government agency. Rather, the enemies of the public interest were viewed as business interests, with unions and civil society viewed tacitly as carrying out the public interest themselves in their interactions with agencies. Under capture theory, a sister agency would certainly have been viewed as having the public interest at heart, and no “fixes” would have been called for. As for public choice theory, there is no market-mimicking behavior being approximated

273. “A reliance on impermissible factors renders an agency decision arbitrary.” Breyer & Edles, *supra* note 173, at 1193 (citing *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 46 (1983), which concluded agency’s decision to rescind rule was arbitrary and capricious). Because these contacts would have been related to ongoing litigation rather than an open rulemaking, nothing would have been made public about them.

by the FCC; indeed, because there is no competition for the government's desire for information, no "market" forces can possibly operate to set the scope of coverage and level of compliance. So public choice criticism will not help; there is no "market" to which to devolve the creation of the standard.

2. *The Limits of Traditional Answers to Capture*

The traditional answer to capture problems has been procedural. For example, Judge Skelly Wright in *Home Box Office* thought that having ex parte filings put on the record might help.²⁷⁴ But in the E911 and CALEA settings, even had there been more information about the respective roles of third party vendors or law enforcement, there are no other actors involved that have the resources and concentrated attention to act on these disclosures. The internet is useful in spreading information about what is going on at the FCC, but it cannot embarrass the FCC out of this kind of action; the FCC would likely see itself as simply having been convinced by the most forcefully, articulately, and expertly advanced set of considerations about technical matters. Additionally, the leader of the FCC will certainly not be embarrassed about forwarding his Administration's objectives.

Similarly, strengthening "revolving door" prohibitions (keeping former staffers from lobbying their agency for a longer period of time) are unlikely to help. The problems in these rulemakings are not a matter of corruption or of individual agency actors seeking personal advantage. The problems stem from an absence of organizational structures that have the resources and incentives to fight for the public good when that good is innovation. Thus, even if sunlight and anti-corruption rules might help prevent capture by the regulated industry itself, there will still be capture by the potential beneficiaries of a central rule—even when those beneficiaries are other arms of government or vendors who can help industry comply with the rule.

V. BETTER WAYS FORWARD

Many inextricably intertwined factors have led the FCC to assert social policy control over internet services without translating those policies for the internet age. Commission staff members, although operating with the best will in the world, may have been blinded by their telephony mindsets to the implications of the Commission's current trajectory. Capture by third party vendors and law enforcement may have been difficult to avoid,

274. See *Home Box Office*, 567 F.2d at 17.

given the intensity of their involvement and their superior technical resources. And lobbying efforts by current (old-style) communications providers have been extraordinary: between 1998 and 2004, the communications industry as a whole (including broadcast) spent \$760 million to affect the work of the Commission and Congress, and the cable and telephone industries alone spent \$100 million in 2004.²⁷⁵ By contrast, the oil and gas industry spent almost \$400 million between 1998 and 2004 on lobbying.²⁷⁶ Since 1997, about 400 FCC staff and congressional employees have gone to work in the “companies they used to regulate.”²⁷⁷ Both the communications industry and law enforcement authorities have great influence with key FCC staff. At the same time, the FCC’s internal resources are constrained.²⁷⁸

Thus, the only institution that can help here is Congress. Because there are so many more players who can intervene in any given legislative matter, and so many more independent leaders who can have a point of view, it takes much less force to block something in Congress than at the FCC. Congress, unlike the FCC, has no institutional imperative to come up with a particular solution that will make either incumbent telephone companies or law enforcement happy. Indeed, if Congress had decided, in advance, that we needed a single rule for both E911 and CALEA, it would have in effect licensed capture of the political process to the group with most concentrated and motivating interests. Because Congress arguably did not make such a delegation, we can consider afresh whether a delegation of the powers the FCC asserted in the E911 and CALEA Orders is necessary.

Provision of emergency services and assistance to law enforcement have in the past been deemed by Congress to be worthy social goals for telephony.²⁷⁹ Now that more of life is migrating online, it must be deter-

275. See CENTER FOR PUBLIC INTEGRITY STUDY, NETWORKS OF INFLUENCE: THE POLITICAL POWER OF THE COMMUNICATIONS INDUSTRY (2004) [hereinafter CENTER FOR PUBLIC INTEGRITY STUDY], <http://www.publicintegrity.org/telecom/report.aspx?aid=405>. The cable TV industry has spent \$37.4 million on federal political contributions since 1990, according to the Center for Responsive Politics. That is dwarfed by the \$102 million doled out by phone companies in that period. Reinhardt Krause, *In Telecom Lobbying, It's the Bells vs. Cable; AT&T, MCI Deals Near; With most long-distance carriers acquired, it's a new legislative landscape*, INVESTOR'S BUSINESS DAILY, Oct. 19, 2005.

276. CENTER FOR PUBLIC INTEGRITY STUDY, *supra* note 275.

277. *Id.*

278. In 1999, the FCC established a Technical Advisory Council to assist it with questions requiring technical expertise. Press Release, FCC, FCC Announces Formation of Technological Advisory Council (Apr. 2, 1999), available at <http://www.merit.edu/mail.archives/mjts/1999-04/msg00010.html>.

279. See, e.g., 47 U.S.C. §§ 228, 229, 254, 255, 258 (2000) (requiring CALEA, universal service, access for persons with disabilities, and anti-slamming).

mined whether these same social goals are appropriate for the internet. As discussed above, the FCC asserted power to implement these social goals online through regulatory back doors based on either its very broad understanding of its implicit “ancillary” powers under the Telecommunications Act or a willful misreading of CALEA. The Commission is no doubt straying beyond its statutory powers, and the lawsuits that have been filed likely will be successful. In order to avoid the capture described in this Article, Congress should decide what list of social policies is the right one for the internet, and how any such policies should be implemented in the online environment.²⁸⁰

If we assume that emergency service support should continue to be relevant for phones, that consumers will continue to expect that 911 will function for phones, and that phones may use either circuit-switched or packet-switched technologies, then Congress needs to work on the question of “What is a phone?” Perhaps only those things that *are* identified as phones (for example, in special colors, marked “PHONE,” and using traditional handsets) should be mandated to have complete E911 service. Through public service campaigns and other marketing efforts, Congress could make very clear that the thing that is a “PHONE” has 911 access, and “PHONES” could provide quite elaborate and innovative services on top of merely giving access to location information. This would not preclude other applications, other things that are not “PHONES,” from having extensive safety features as a voluntary matter. This focus on defining “PHONES” would serve consumer expectations, and would keep new technologies from being forced to use an antiquated legacy system.

As for CALEA, it is not clear why law enforcement should be entitled to effectively force an amendment to that law—an amendment covering what they obtained through the FCC’s good offices. Congress should, at the most, bless law enforcement’s ability to, with proper legal authorization, gain access to streams of information that they must parse to obtain what they are authorized to read. There is no good policy reason to require pre-approval of all VoIP applications by law enforcement. First, the costs of such a step far outweigh any possible benefits. Second, there is no principled line between VoIP applications and any other online application, because a bit is a bit. Congress should state clearly that CALEA is for “PHONES.” Taking the route requested by law enforcement of extending CALEA to “interconnected VoIP” and broadband access will lead to another outsourced vendor capture problem when VeriSign claims it can as-

280. Congress should also consider exercising its authority to circumscribe what administrative remedies may be called for by the Agency, and should state clearly where the Agency’s authority begins and ends.

sist all possible actors with compliance. On a meta-level, it seems clear that law enforcement believes it has authority to, carnivore-like, inhale all possible data and parse it.²⁸¹ If it can do that, it does not need applications to be designed in advance so as to be easily tappable.

There are better, more internet-minded ways for law enforcement to obtain the information it wants pursuant to lawful wiretap orders. Rather than requiring centralized, FBI approval of the design of all online applications prior to launch to ensure that they are easy to tap, ISPs could make streams of data available that could be accessed by law enforcement only following issuance of a subpoena or other judicial order.²⁸² Rather than forcing the standardization of data, law enforcement could learn how to understand traffic associated with particular people—already located by ISPs for them—once a subpoena has issued. Furthermore, it may be wise to limit law enforcement’s self-restraint by continuing to require it to access data from the edge of the network, instead of trusting law enforcement’s overwhelming negotiating strength with ISPs for a path to the center of the network.

Law enforcement’s appetite for data is insatiable, and we need to find some internet-minded response to its requests—preferably one that balances respect for the rule of law against concerns about innovation. The internet, after all, provides law enforcement with potentially better, more detailed, and more quickly-available information than it could ever have obtained offline. But law enforcement is causing the FCC to apply telephony-world rules and assumptions to a changed IP world, with no regard to the consequences.

VI. CONCLUSION

The E911 and CALEA rulemakings show that it is inappropriate to allow a toxic combination of broad, unquestioned delegation, lack of political accountability, resulting capture by concentrated interests (vendors or law enforcement), and questionable claims of “expertise” to create a single

281. Eric Lichtblau & James Risen, *Spy Agency Mined Vast Data Trove, Officials Report*, N.Y. TIMES, Dec. 24, 2005, at A1 (“National Security Agency has traced and analyzed large volumes of telephone and internet communications flowing into and out of the United States as part of the eavesdropping program that President Bush approved.”).

282. Indeed, the DOJ has said that it is interested in having all ISPs store information for its use, and it is more than conceivable that the FCC could use its newly-enhanced “ancillary jurisdiction” over ISPs to ensure that this happens. Declan McCullagh, *Your ISP As Net Watchdog*, CNET NEWS.COM, June 16, 2005, http://news.com.com/Your+ISP+as+Net+watchdog/2100-1028_3-5748649.html; see *supra* Section IV.A (discussing ancillary jurisdiction).

rule about how intangible online services may be offered. It is far too easy for old technology players, some of them invisible, to take over the rule-making process at the FCC.

These are just the first two rulemakings. There will undoubtedly be many more, and they will likely have similar effects on innovation. FCC regulation of the internet is just emerging, and governments all around the world are following suit. Thus, the U.S. has an opportunity to take the lead in self-restraint, but Congress will need to be thoughtful and acknowledge the differences between telephony and the internet—something it often seems to have trouble doing. There is very little information available to policymakers about how treating the internet as a telephone network will affect our future. There is ample latitude for work on why (or whether) adopting an internet mindset—encouraging decentralized, alternative ways to reach agreed social goals—will provide a more encouraging framework for economic development. We have time to consider the potential troubles that will be created if this kind of alternative approach is adopted. The first step should be for Congress to re-examine the enormous power the FCC is asserting over all possible online activities. We should not risk our collective online future by continuing to stumble forward as we have thus far.

For online companies, the need to step up as policy players and lead the public along a new trajectory poses an enormous challenge. Very few companies seem willing to take on the FCC's appetite for internet regulation, for fear of being branded anti-law enforcement, anti-consumer, pro-pornography, or some other headline-grabbing attribute. But the importance of the internet's future should far outweigh the short-term attractiveness of making deals with cable and telephone companies.

The FCC needs to recognize that it has in many senses been captured by its own history. It should not pretend to be "the internet agency," and it does not have the capacity to draw lines that will make sense in this quickly-evolving set of circumstances. Indeed, no one does. Technical mandates and requirements based on legacy understandings and technologies are doomed to be unsuccessful and to serve only the incumbents and outsourced compliance vendors who demanded them in the first place. The regulators need to take the time to evaluate, within the sharply-defined mandate handed them by Congress, how to address the social policies in which they are interested. It may be that a single rule is always inappropriate for the online world.

The great advantage of understanding how the internet works is that this network of networks finally makes possible the kind of collaboration and self-determination that is the stuff of human dreams. The internet en-

courages economic development and human empowerment on many levels. To cut off all of these benefits in favor of today's focus on "security" or "safety" would be unfortunate and wholly short-sighted. In an increasingly flat world, U.S. internet users gain few benefits from the kinds of regulatory activities described in this Article. The sooner we recognize this in policy as well as in reality, the better off the United States economy will be.

That a crucial set of misunderstandings, pathologies, and incorrect assumptions has led us down a destructive path does not mean that we should not make an effort to correct them. Awareness of the current, yet largely unnoticed, trajectory of the FCC presents a fascinating opportunity that could allow us, as a nation, to lead the world in encouraging enormous innovation, creative growth, and human collaboration. It is essential that we try.

A THEORY OF DE MINIMIS AND A PROPOSAL FOR ITS APPLICATION IN COPYRIGHT

By Andrew Inesi[†]

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I. INTRODUCTION

Copyright, perhaps more than any other area of the law, invites trivial violations. Everyday activities such as photocopying a magazine cartoon, snapping a photograph of a public sculpture, or singing “Happy Birthday” at a restaurant exemplify the frequency with which copyright can be violated in minor ways.¹ In the past, these infringements generally went unheeded, either because the copyright owner was unaware of the violation or felt a legal dispute was not worth the effort. In recent years, however, an increasing number of trivial copyright violations have made it to court, and new technological and political developments are likely to accelerate this trend.

This increase in litigation of trivial copyright violations is problematic for three reasons. First, the social cost of adjudicating trivial copyright disputes often outweighs the maximum possible benefit. Court costs alone can be orders of magnitude larger than the social reward, direct or indirect, that would result from adjudication. Second, strict enforcement of copyright for trivial violations rarely furthers, and often contravenes, the purpose of copyright: promotion of creativity. Third, courts have not taken a consistent approach to adjudicating trivial violations: a few hold that liability extends even to the most innocuous violations, while most find a way to privilege trivial violations using one of several different doctrinal tools. Unfortunately, these tools, most notably fair use and substantial similarity, have at times been stretched beyond recognition to achieve the courts’ desired results.

One obvious solution to the dangers posed by trivial copyright litigation is *de minimis non curat lex*, a legal maxim commonly used to privilege trivial violations in other areas of the law. However, the maxim has rarely been used as an independent defense to copyright infringement. Rather, *de minimis* has been largely limited to an ambiguous role within other copyright doctrines. Moreover, even this limited role is subject to debate, as exemplified by the recent Sixth Circuit opinion in *Bridgeport Music, Inc. v. Dimension Films*.²

This Article argues that *de minimis* can and should play a more prominent role in copyright. It begins, in Part II, with a study of *de minimis* generally (i.e., outside of copyright). Given its prominence as a centuries-old interpretive aid, *de minimis* has received surprisingly little theoretical attention. While it is clear that courts use the maxim to dismiss cases of minor importance, there is no consistent set of principles to guide its applica-

1. See discussion *infra* Section IV.B.

2. 401 F.3d 647 (6th Cir. 2004).

tion. Working from both case law and various conceptions of de minimis's purpose, Part II proposes a theoretical framework for de minimis and a two-step guide to its application. It is argued that this theory explains most de minimis holdings, and provides insight into the seemingly disparate justifications given for those holdings.

Part III shifts the focus to copyright, where the maxim has played a more complex role. In particular, de minimis has been used in three separate areas of copyright: (i) as part of substantial similarity analysis; (ii) as part of fair use analysis; and (iii) as a separate defense (henceforth "classic de minimis"). As if this multiplicity of uses were not sufficiently confusing, Part III will explain that within each of these areas, the role of the maxim is often unclear.

Part IV suggests two simple changes that courts can make to ensure that de minimis lives up to its considerable potential in copyright. First, courts must be clear regarding the function the maxim plays in their decisions. In effect, this means de minimis should be used only colloquially, if at all, in substantial similarity and fair use. Second, classic de minimis should be reinvigorated as a viable defense for trivial copyright infringements. The need for such a defense, always great, is growing as new technologies and attitudes increase the likelihood of legal disputes over trivial copyright violations. Further, there are theoretical and practical reasons to favor classic de minimis over fair use, its most likely doctrinal rival. Indeed, the clarity and consistency of fair use is likely to be improved by proper use of de minimis. Part IV concludes with a discussion of how and under what circumstances de minimis should apply in copyright, a discussion that mirrors the analysis from Part II.

II. DE MINIMIS OUTSIDE COPYRIGHT: A THEORETICAL APPROACH

A. Introducing De Minimis

De minimis non curat lex is commonly translated as "the law does not concern itself with trifles."³ Often shortened to "de minimis," other English-language formulations of the maxim include "the law doth not regard trifles,"⁴ and "the law cares not for small things."⁵ Although there is some

3. BLACK'S LAW DICTIONARY 443 (7th ed. 1999); see also *Ringgold v. Black Entm't Television, Inc.*, 126 F.3d 70, 74 (2d Cir. 1997); Pierre N. Leval, *Nimmer Lecture: Fair Use Rescued*, 44 UCLA L. REV. 1449, 1457 (1997).

4. Max L. Veech & Charles R. Moon, *De Minimis Non Curat Lex*, 45 MICH. L. REV. 537, 538 (1947) (quoting THOMAS BRANCH, PRINCIPIA LEGIS ET ÆQUITATIS 36 (William Waller Henning ed., T.H. White, 1st Am. from 4th London ed. 1824)).

debate regarding which definition is most accurate,⁶ and considerable question about what qualifies as a trifle,⁷ the basic meaning of the maxim is clear: the law will not resolve petty or unimportant disputes.

De minimis has a long legal history. It first became known in civil law at least as early as the fifteenth century, and there are earlier recorded instances of de minimis being applied in fact if not in name.⁸ Initially applied only in cases of waste,⁹ English courts began to use de minimis in a variety of situations in the sixteenth century.¹⁰ De minimis was first included in a collection of legal maxims early in the nineteenth century, and since that time “use of the maxim has increased steadily in all courts and the field of its application has steadily broadened.”¹¹

Courts today apply de minimis to a wide variety of legal disputes, “including contract, tort, civil, and criminal matters.”¹² While some courts have claimed that the maxim does not apply in certain legal areas, including constitutional disputes,¹³ real property disputes,¹⁴ and criminal disputes,¹⁵ there are counterexamples in each of these areas,¹⁶ and no real

5. Porter v. Rushing, 65 F. Supp. 759, 760 (W.D. Ark. 1946).

6. See Veech & Moon, *supra* note 4, at 538 (discussing the merits of using the verb “regard” when translating de minimis non curat lex).

7. See generally Jeff Nemerofsky, *What is a “Trifle” Anyway?*, 37 GONZ. L. REV. 315 (2001/2002).

8. See Veech & Moon, *supra* note 4, at 538.

9. For example, one fourteenth century court held the removal of five trees “too trifling for us to adjudge it waste.” Anon, Y.B. 8 Edw. 2, East. 11, Case I (1315), reprinted in 41 SELDEN SOCIETY 121 (1924), quoted in Veech & Moon, *supra* note 4, at 540.

10. Veech & Moon, *supra* note 4, at 540-42.

11. *Id.* at 539.

12. Nemerofsky, *supra* note 7, at 324.

13. See, e.g., Lewis v. Woods, 848 F.2d 649, 651 (5th Cir. 1988) (stating that “[a] violation of constitutional rights is never de minimis”); Nettles v. Griffith, 883 F. Supp. 136, 144 (E.D. Tex. 1995) (quoting Lewis, 848 F.2d at 651).

14. See, e.g., Reeves v. Jackson, 184 S.W.2d 256, 258 (Ark. 1944) (“The maxim *de minimis non curat lex* is never applied to the positive and wrongful invasion of another’s property.”); Wartman v. Swindell, 25 A. 356, 357 (N.J. 1892) (“The right to maintain an action for the value of property, however small, of which the owner is wrongfully deprived, is never denied.”).

15. See, e.g., Hessel v. O’Hearn, 977 F.2d 299, 303 (7th Cir. 1992) (“The law does not excuse crimes or torts merely because the harm inflicted is small.”).

16. For a counterexample in the constitutional context, see Bart v. Telford, 677 F.2d 622, 625 (7th Cir. 1982) (noting that “even in the field of constitutional torts *de minimis non curat lex*”) (emphasis added). In the criminal context, see for example, State v. Smith, 480 A.2d 236 (N.J. Super. Ct. 1984) (holding the theft of three pieces of bubble gum to be de minimis). In the real property context, see, e.g., Yeakel v. Driscoll, 467

consensus in any of them. As recently noted by the Supreme Court, “the venerable maxim *de minimis non curat lex* . . . is part of the established background of legal principles against which all enactments are adopted, and which all enactments (absent contrary indication) are deemed to accept.”¹⁷

Given the prominence of *de minimis* as a defense to legal violations of all kinds, surprisingly little scholarship has focused on the maxim, and, more importantly, on the questions of how and under what circumstances it is applied. The most ambitious attempt to explain *de minimis* decision-making, which is over fifty years old, describes several factors that influence courts’ *de minimis* decisions, but does not fit those factors into a broader theoretical framework.¹⁸ More recent *de minimis* scholarship is largely limited to descriptions of cases in which the maxim has been used.¹⁹

The difficulty of discerning theoretical patterns in *de minimis* case law may explain this lack of scholarship. Courts have relied upon a number of different justifications for their *de minimis* decisions,²⁰ and justifications that play a prominent role in some cases are ignored in others. The fact-intensive nature of *de minimis* determinations exacerbates this theoretical confusion, which can make it difficult to extrapolate from one case to others.²¹ Additionally, since *de minimis* cases involve matters that are, by

A.2d 1342, 1344 (Pa. Super. Ct. 1983) (refusing to order removal of a firewall that encroached several inches onto the plaintiff’s property).

17. *Wis. Dep’t of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 231 (1992). The specific question posed in the case was whether Wrigley’s Wisconsin business activities were sufficient to support imposition of state tax. The statutory provision in question prohibited a state from taxing the income of a party whose only business activities in the state were order solicitations. *Id.* at 223. Justice Scalia, writing for the court, ruled that Wrigley would qualify for the protection of the provision even if it had engaged in business activities other than solicitation of orders, so long as those activities were *de minimis*. *Id.* at 231-32. The court concluded, however, that Wrigley’s business activities in Wisconsin, which included replacement of stale gum by sales representatives and storage of gum, were not *de minimis*. *Id.* at 233. It should also be noted that there remains considerable debate concerning what constitutes a Congressional “contrary indication,” such that *de minimis* would no longer apply. *See, e.g.*, *Alabama v. Bozeman*, 533 U.S. 146, 153-54 (2001) (suggesting that use of command words such as “shall” in the relevant statute militates against application of *de minimis*).

18. *See generally* Veech & Moon, *supra* note 4.

19. *See generally* Nemerofsky, *supra* note 7.

20. *See generally* Veech & Moon, *supra* note 4; *see also infra* notes 183-187 and accompanying text.

21. As one pair of scholars puts it, *de minimis* cases cannot “be readily reconciled, and, since identical fact situations rarely occur, there is seldom direct precedent to be applied in a new case.” Veech & Moon, *supra* note 4, at 544.

definition, of trivial importance, many courts dismiss the relevant claims without extensively documenting their reasoning.²² Worse, several courts have made mistakenly broad pronouncements regarding the applicability of *de minimis* to certain subject areas.²³ In sum, *de minimis* case law seems both contradictory and confusing; it is no wonder that one court called *de minimis* “an exercise of judicial power, and nothing else.”²⁴

Aggravating this confusion is the fact that courts and commentators use the term “*de minimis*” in two very different ways. First is the use described above: *de minimis* as a defense to minor legal violations—an abbreviation of “*de minimis non curat lex.*” Second, courts sometimes use “*de minimis*” more informally, as an adjective meaning trifling, unimportant, or insufficient.²⁵ This second use of *de minimis* is not surprising given the literal meaning of the term.²⁶ However, it can be confusing, and courts sometimes fail to clearly distinguish between the two uses of *de minimis*.²⁷ This confusion has not caused significant problems in most areas of the law. In copyright, however, confusion between the two uses of *de minimis* has wreaked jurisprudential havoc, as will be demonstrated in Part III.

Despite these problems, there is a common theoretical thread to *de minimis* jurisprudence, albeit one that is difficult to extrapolate from the cases alone. As detailed in the following sections, basic economic analysis, when applied to common formulations of the purpose of *de minimis*, yields a theory for how courts wishing to implement that purpose should

22. See, e.g., *Raymon v. Alvord Indep. Sch. Dist.*, 639 F.2d 257, 257 (5th Cir. 1981) (stating that the claim in question was “trifling” but nowhere mentioning *de minimis*).

23. See *supra* notes 11-14 and accompanying text.

24. *State v. Park*, 525 P.2d 586, 592 (Haw. 1974), *quoted in* *Nemerofsky*, *supra* note 7, at 341.

25. See, e.g., *Kelo v. City of New London*, 125 S. Ct. 2655, 2670 (2005) (Kennedy, J., concurring); *Ortiz v. Fibreboard Corp.*, 527 U.S. 815, 860 n.34 (1999) (“[I]t is worth noting that if limited fund certification is allowed in a situation where a company provides only a *de minimis* contribution to the ultimate settlement fund”); *Overton v. Bazzetta*, 539 U.S. 126, 136 (2003) (“[A prisoner alluded to] some obvious regulatory alternative that fully accommodates the asserted right while not imposing more than a *de minimis* cost to the valid penological goal.”).

26. See BLACK’S LAW DICTIONARY, *supra* note 3, at 443 (translating *de minimis* as “trifling; minimal”); *De minimis*, WIKIPEDIA: THE FREE ENCYCLOPEDIA, http://en.wikipedia.org/wiki/De_minimis (last visited Apr. 11, 2006) (translating *de minimis* as “about minimal things”).

27. For example, the Supreme Court recently noted that Congress has the power to regulate conduct that collectively has a significant effect on interstate commerce even if individual instances of the conduct in question have a “*de minimis* character.” *Gonzales v. Raich*, 125 S. Ct. 2195, 2206 (2005).

make de minimis decisions. This theory, it is argued, helps to explain de minimis case law—both the decisions made and the factors considered.

B. Factors Commonly Considered by Courts Applying De Minimis

As the above discussion suggests, there is a great deal of variety in de minimis jurisprudence. This section introduces de minimis case law and begins analysis of it.²⁸ Building on work begun by Max Veech and Charles Moon,²⁹ the discussion is organized around the factors most commonly considered by courts applying de minimis: the size and type of the harm, the cost of adjudication, the purpose of the rule or statute in question, the effect of adjudication on the rights of third parties, and the intent of the infringer.³⁰

1. *The Size and Type of the Harm*

The first and most important de minimis factor is the size of the harm done by the relevant legal violation. In its most straightforward incarnation, this factor is used to dismiss claims for small dollar amounts, such as a prisoner's claim for \$1.05 in compensation for confiscated newspapers,³¹ or a motorist's claim for the return of \$20.35 paid for highway tokens.³² However, small monetary damages alone do not guarantee a de minimis holding. The de minimis defense was denied in a case involving illicit sales of \$75.87,³³ as well as in a criminal action resulting from the theft of \$.35 worth of candy.³⁴ Similarly, it is not possible to fix an amount of monetary damages above which de minimis cannot apply: some courts have applied the maxim when the amount in controversy is large in an ab-

28. For purposes of clarity, it should be emphasized at the outset that this Section is not intended to exhaustively describe either de minimis case law or every factor ever considered therein. Rather, it has two purposes. First, it is intended to provide an introduction to typical de minimis fact patterns. Given the difficulty of defining what qualifies as a trifle, some familiarity with case law is essential for a full understanding of the maxim. Second, examination of the factors most important to de minimis decision-making helps to bring some order to the case law, and sets up the theoretical discussion of Section II.C.

29. See generally Veech & Moon, *supra* note 4.

30. This list is related to, but different from, the list provided by Veech and Moon. Their factors were: the purpose of the rule in question, intent, the size of the harm (they called it "value"), mutuality, and practicality. The practicality factor is not included herein because it is little more than a proxy for de minimis itself. The mutuality factor, on the other hand, does not appear to be significant in modern de minimis case law. See Veech & Moon, *supra* note 5, at 545-60.

31. Northern v. Nelson, 448 F.2d 1266, 1266 (9th Cir. 1971).

32. Schlichtman v. N.J. Highway Auth., 579 A.2d 1275, 1277 (N.J. Super. Ct. 1990).

33. Repp v. Webber, 914 F. Supp. 80, 83-84 (S.D.N.Y. 1996).

34. Commonwealth v. Moses, 504 A.2d 330, 332 (Pa. Super. Ct. 1986).

solute sense, but small in a relative sense. In *Industrial Ass'n of San Francisco v. United States*, for example, the Supreme Court held that a controversy over a few thousand dollars was de minimis when compared with total economic activity of over \$100,000,000.³⁵ More recently, the Ninth Circuit held that \$32,000 was de minimis when compared to a total unsecured debt of \$4,000,000.³⁶

Damages that are difficult to measure can also contribute to a de minimis ruling. In *Swick v. City of Chicago*, the Seventh Circuit held de minimis a police officer's claim that he suffered a denial of due process when placed on leave. The court based its holding largely on the difficulty of measuring the officer's injury.³⁷ Another court argued that a lawsuit alleging a First Amendment violation based on the inclusion of a painting of the Madonna on a postage stamp, deserved dismissal under a de minimis treatment.³⁸ One court even implied that difficulty of measurement is more important to a de minimis ruling than is the size of the harm,³⁹ though this view seems to be a minority position.⁴⁰ Regardless, it is clear that difficult-to-measure damages alone are insufficient to justify a de minimis ruling.⁴¹

2. *The Cost of Adjudication*

A second common de minimis consideration is the cost of adjudication. For example, when a man sued a company for tricking him into

35. 268 U.S. 64, 84 (1925).

36. *In re Ambanc La Mesa Ltd. P'ship*, 115 F.3d 650, 655-56 (9th Cir. 1997).

37. *Swick v. City of Chicago*, 11 F.3d 85, 87 (7th Cir. 1993) (holding that the function of de minimis "is to place outside the scope of legal relief the sorts of intangible injuries normally small and invariably difficult to measure that must be accepted as the price of living in society . . .").

38. *Protestants & Other Ams. United for Separation of Church & State v. O'Brien*, 272 F. Supp. 712, 713 (D.D.C. 1967).

39. *Hessel v. O'Hearn*, 977 F.2d 299, 303 (7th Cir. 1992) (De minimis "has little or no proper application to cases in which the monetary cost of the loss is, though tiny, readily determinable.").

40. For counterexamples, see *supra* notes 29 and 31 and accompanying text.

41. For example, one court held that there is no de minimis defense for inadvertently driving a short distance into Pennsylvania with a suspended license, given the state's strong, though difficult to measure, interest in preventing drunk driving. *Commonwealth v. Guthrie*, 616 A.2d 1019, 1020-21 (Pa. 1992). Similarly, several courts have held that there are no de minimis violations of certain safety-related regulations. *See, e.g.*, *Turner Commc'ns Corp. v. Occupational Safety & Health Review Comm'n*, 612 F.2d 941, 944-45 (5th Cir. 1980); *338 Cartons, More or Less, of Butter v. United States*, 165 F.2d 728, 731 (4th Cir. 1947); *United States v. Undetermined Quantities of Various Articles of Device Consisting in Whole or in Part of Proplast III or Proplast HA*, 800 F. Supp. 499, 502 (S.D. Tex. 1992).

opening an envelope, a California appellate court called the suit “an absurd waste of the resources of this court, the superior court, the public interest law firm handling the case and the citizens of California whose taxes fund our judicial system.”⁴² Another court summed up the position by describing a de minimis matter as one that the court should dismiss “in the interest of judicial economy.”⁴³

Some courts take a broad view of the costs of adjudication, suggesting that they include not just the costs directly incurred by the court, but also the opportunity cost posed by occupying a busy court’s time. As the Fifth Circuit noted in a suit over a small change in a student’s grade point average, “[e]ach litigant who improperly seeks federal judicial relief for a petty claim forces other litigants with more serious claims to await a day in court.”⁴⁴ This broad view of adjudication costs makes sense, as one of the primary purposes of de minimis is to help prevent delayed justice.⁴⁵

Despite the importance of the adjudication cost factor, it is insufficient to independently justify a de minimis ruling. If this were not true, de minimis could be used to dismiss almost any action. Rather, factor 2 (adjudication cost) is closely tied to factor 1 (the size of the harm in question). Only when the cost of adjudication outweighs the harm incurred may de minimis be justified. Put another way, it “is just not good common sense to encourage or allow further litigation at an expense in excess of the most that can be gained.”⁴⁶

3. *The Purpose of the Violated Legal Obligation*

A third factor commonly weighed by courts considering de minimis is whether its application would materially frustrate the purpose of the legal obligation in question. As noted by the Supreme Court in *Wisconsin Department of Revenue v. William Wrigley, Jr., Co.*, “[w]hether a particular activity is a *de minimis* deviation from a prescribed standard must, of course, be determined with reference to the purpose of the standard.”⁴⁷ For

42. *Harris v. Time, Inc.*, 191 Cal. App. 3d 449, 458 (Ct. App. 1987). It is worth noting that this case was a class action, a fact that further demonstrates the importance of adjudication costs as a de minimis factor, since presumably the court thought they outweighed the potential benefit to all of the members of the class.

43. *City of Bozeman ex rel Dept. of Transp. of Mont. v. Vaniman*, 898 P.2d 1208, 1211 (Mont. 1995).

44. *Raymon v. Alvord Indep. Sch. Dist.*, 639 F.2d 257, 257 (5th Cir. 1981).

45. Frederick G. McKean, Jr., *De Minimis Non Curat Lex*, 75 U. PA. L. REV. 429, 429-30 (1926-27).

46. Veech & Moon, *supra* note 4, at 553.

47. 505 U.S. 214, 232 (1992).

example, in *Alcan Aluminum Corp. v. United States*,⁴⁸ the Federal Circuit used this rationale to reverse a U.S. Customs Service decision imposing an unfavorable import duty on an ingot shipped by the plaintiff from Canada. Noting that the purpose of the relevant statute was to prevent non-Canadian goods from being shipped to the US through Canada, the court held that application of the higher duty was improper where less than 1% of the content of the ingot originated outside Canada.⁴⁹

In conjunction with consideration of purpose, some courts consider the practical effects of failure to apply *de minimis*. Where strict application of the right or law in question would yield especially “stark”⁵⁰ results that do not seem justifiable given the trivial violation involved, a *de minimis* ruling is more likely. Here, too, *Alcan Aluminum* provides a good example. Rather than place a higher import duty on the 99% of ingot that qualified for a lower duty, the court noted that “[a]pplication of *de minimis* is particularly important in cases such as the one at hand, where stark, all-or-nothing operation of the statutory language would have results contrary to its underlying purposes.”⁵¹ Another example is *Fellows v. Martin*, a case in which a court refused to permit the forfeit of a 99-year lease and a \$9,900 deposit over failure to make a timely payment of \$25.01.⁵²

4. *Effect on the Legal Rights of Third Parties*

The fourth *de minimis* factor is generally used to justify denial of the defense. When adjudication of the relevant dispute would have a significant effect on the legal rights of third parties, courts may decide to adjudicate, even if the matter at hand, considered alone, would qualify for *de minimis* treatment. Courts use this rationale most often in cases debating the constitutionality of a law⁵³ or an important issue of statutory interpretation.⁵⁴ For example, one court refused the *de minimis* defense for a citi-

48. 165 F.3d 898 (Fed. Cir. 1999).

49. *Id.* at 903-04.

50. *William Wrigley, Jr.*, 505 U.S. at 231.

51. *Alcan Aluminum*, 165 F.3d at 903; *see also William Wrigley, Jr.*, 505 U.S. at 231; *Former Employees of Barry Callebaut v. Herman*, 177 F. Supp. 2d 1304, 1311-12 (Ct. Int'l Trade 2001).

52. 584 A.2d 458, 464 (Conn. 1991).

53. *Schwartz v. Essex County Bd. of Taxation*, 28 A.2d 482, 484 (N.J. 1942) (“An attack upon the constitutionality of a legislative act is never unimportant, and the standing of one otherwise qualified to question the legislation is not to be determined by the mere matter of dollars and cents involved.”).

54. *Ballin v. L.A. County Fair*, 43 Cal. App. 2d Supp. 884, 885-87 (App. Dep't Super. Ct. 1941).

zen's lawsuit against an allegedly illegal tax, even though the tax's effect on the plaintiff would have been minimal.⁵⁵

A more obvious application of the same principle occurs in cases where the plaintiff represents the interests of third parties. For example, at least one court has refused to apply de minimis to a stockholder's derivative action on behalf of a corporation despite the fact that the shareholder instigating the suit owned only a few shares of stock.⁵⁶ Similarly, de minimis does not usually apply to class action lawsuits, even if the interest of the lead plaintiff alone is minimal.⁵⁷

5. *Intent*

Finally, in evaluating de minimis claims, the courts often consider the intent of the accused wrongdoer. Some courts state that intentionally wrongful conduct should not be condoned under any circumstances—that the morally culpable actor does not deserve de minimis. For example, the Seventh Circuit has stated that de minimis “is not intended for definite losses, however small, inflicted by definite wrongs.”⁵⁸ In a somewhat more limited fashion, an early commentator asserted that de minimis “is inapplicable to the positive and wrongful invasion of another's property or person.”⁵⁹

Notwithstanding this moralistic reasoning, courts often depart from the principle that an intentional wrongdoer cannot access the de minimis defense.⁶⁰ This makes sense: a trivial legal violation does not automatically become nontrivial if intentional. Nevertheless, courts do commonly consider the intent of the wrongdoer, not as an absolute bar to de minimis, but as one of one of several de minimis factors.⁶¹ The reason, however, may have more to do with utilitarian considerations than with moral culpability. Failure to hold people responsible for their intentional wrongs, no matter how minor, may lead to more such wrongs, and that the collective effect of these wrongs could be significant.⁶² The intent of the wrongdoer,

55. *Jenney v. Assessors of Mattapoisett*, 76 N.E.2d 126, 129 (Mass. 1947).

56. *Smith v. Bradlee*, 37 N.Y.S.2d 512, 519 (Sup. Ct. 1942).

57. *Nemerofsky*, *supra* note 7, at 333-34. *But see Harris v. Time, Inc.*, 191 Cal. App. 3d 449, 458-60 (Ct. App. 1987).

58. *Hessel v. O'Hearn*, 977 F.2d 299, 304 (7th Cir. 1992).

59. *McKean*, *supra* note 45, at 430.

60. *See, e.g., State v. Smith*, 480 A.2d 236, 237, 240-41 (N.J. Super. Ct. 1984) (dismissing a charge of shoplifting three pieces of bubblegum as de minimis).

61. *See Veech & Moon*, *supra* note 4, at 554-56.

62. Deterrence aside, it is also possible that society obtains greater utility from punishing one who intentionally does wrong than from punishing one who is negligent.

therefore, relates to *de minimis* primarily because application of the maxim may result in more legal violations, not because intentional legal violations are morally wrong.

C. A Theory of *De Minimis*

It may seem curious that *de minimis* exists at all, given that one might not expect trivial violations to reach courts in the first place. After all, the cost to the prospective prosecutor or plaintiff of litigating a trivial case will often overwhelm the potential benefits if the case is won.⁶³ There are several possible reasons such cases are still pursued. First and foremost, the party bringing the action may have a different conception of harm than does the state. For example, a lawsuit over a minor breach of contract may occur due to hurt feelings even if the amount in controversy is small.⁶⁴ Second, the costs incurred by the prospective plaintiff never equal the total costs of adjudication. A case that might be worth bringing from an individual perspective may not be worth bringing from a social perspective. Third, plaintiffs may act irrationally or may be uninformed. Regardless of the reason, *de minimis*'s long legal history suggests that many trivial cases do reach the courts, and that courts need a way to deal with them. A cohesive theory of the application of *de minimis* will be helpful in this regard.

The analysis in Section II.B began to define the parameters of *de minimis*; however, it revealed little about when and why the maxim should apply. Put another way, the *de minimis* factors described in the last section are more descriptive than prescriptive. Unfortunately, the scholarship on *de minimis* leaves off at this unsatisfying point.⁶⁵ In some ways, this result is not surprising: extrapolating a cohesive theory from the many *de minimis* rationales and fact patterns seems a formidable task. Fortunately, there is another way to approach the problem. Rather than try to build a theory from the case law, this section builds a theoretical framework out of vari-

However, this retributive value is nearly impossible to calculate, and is unlikely to be significant with regard to trifling legal violations.

63. The discussion above focuses on cases in which a private party is bringing suit. The analysis is a bit different when the state is the prosecuting party. In theory, the state should undertake the same analysis as would a court applying *de minimis*, and thus not prosecute cases that would qualify for the defense. However, there are a number of reasons why this might not happen, including: (i) the fact that prosecutors do not pay litigation costs from their own pockets, (ii) a prosecutor's desire for a law-and-order reputation for use in a later election, and (iii) an honest difference of opinion concerning what qualifies as trifling.

64. As will be demonstrated below, this factor is likely to play an especially important role in copyright. See *infra* notes 189–191 and accompanying text.

65. See *supra* notes 17–19 and accompanying text.

ous descriptions of the purpose of de minimis. This framework is then compared with de minimis case law, and found to explain many of the justifications provided therein.

Courts and scholars have described the purpose of the de minimis defense in several different ways. The Seventh Circuit says it is intended “to place outside the scope of legal relief the sorts of intangible injuries . . . that must be accepted as the price of living in society,”⁶⁶ while another court emphasizes the interests of “judicial economy.”⁶⁷ Veech and Moon call the maxim “an interpretive tool to inject reason into technical rules of law and to round-off the sharp corners of our legal structure,”⁶⁸ while another early scholar suggests that without de minimis, the legal system “would be unnecessarily irksome and tedious, and beget a marked tendency to delay justice”⁶⁹ While the language differs, each of these descriptions shares one fundamental insight: there are times when the social costs of applying black-letter law to a particular legal violation outweigh the benefits. De minimis provides a safety valve that permits courts to dismiss cases fitting this description.

Some may argue that courts should not be in the business of determining when laws should and should not be enforced. So long as a legislative pronouncement is clear—and constitutional—the job of the courts is to enforce the law, not decide whether to enforce it. Anything else, one might argue, invites judicial favoritism and inconsistency. However, given the long pedigree of de minimis,⁷⁰ and given the Supreme Court’s proclamation that it is to be read into all laws absent explicit instruction to the contrary,⁷¹ one can argue that lawmakers have implicitly agreed to courts’ de minimis activism, at least in cases where the law in question does not specifically address the issue. Further, the fact that there may be some drawbacks to judicial discretion does not mean it is never justified. It is clear that there are cases in which courts should exercise enforcement discretion, where the costs of adjudication clearly outweigh the benefits. It is not tenable to argue, for example, that it is in society’s best interest to adjudicate a dispute about trivial changes to a child’s grade-point average.⁷²

66. *Swick v. City of Chicago*, 11 F.3d 85, 87 (7th Cir. 1993).

67. *City of Bozeman ex rel Dept. of Transp. v. Vaniman*, 898 P.2d 1208, 1211 (Mont. 1995).

68. Veech & Moon, *supra* note 4, at 543-44.

69. McKean, *supra* note 45, at 429.

70. *See supra* notes 8-11 and accompanying text.

71. *Wis. Dept. of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 231 (1992).

72. *See Raymon v. Alvord Indep. Sch. Dist.*, 639 F.2d 257, 258 (5th Cir. 1981).

Thus, the real question is not so much whether *de minimis* is justifiable, but when it is justified. Answering this question involves two levels of analysis. First, given the wide discretion courts have in deciding whether to apply *de minimis* to a particular set of facts, it makes sense to limit the *de minimis* defense to those cases in which the dangers of favoritism and inconsistency are lowest. The name of the maxim suggests the most effective way to minimize these risks. Since “*de minimis*” means “trifling,” the maxim should apply only to cases in which the violation in question is in fact trifling. By definition, a trifling violation is one in which the damage done, whether to the state or to a private individual, is insignificant. When a violation is trifling, it is clear that a court’s application of the maxim will produce no significant injustice, even in cases where such application is inconsistent with other decisions or the result of favoritism.

When deciding whether a harm is trifling, however, courts should consider only the harms that the rule in question is designed to prevent. Harms that are unrelated to the purpose of the rule, such as wounded pride, should not enter the analysis. These harms would not be compensable in any case, even if *de minimis* were not applied. Regardless of the level of harm perceived by the party bringing a legal action, society is prepared only to consider those harms addressed in its laws. *De minimis* analysis must recognize this fact.

Second, once it is clear that the relevant violation qualifies as trifling, courts need to decide whether to apply *de minimis*. The key question here should be whether the social costs of adjudication outweigh the social benefits. As the various formulations of *de minimis*’s purpose indicate, the maxim fundamentally concerns what is in society’s best interest. The fact that use of *de minimis* may not be in the interest of the party bringing the suit is not relevant at this stage of analysis; as noted above, so long as the relevant harm is trifling, the damage will not be great.

In the simplest cases, this cost/benefit question is often easy to answer: the marginal addition to court costs alone will often outweigh the direct benefit of fully adjudicating a trivial dispute. In many other cases, however, one must also consider indirect benefits of adjudication. Will failure to apply the law lead to more lawbreaking, and, if so, will the collective effect of this lawbreaking be more than trifling? Will adjudication of the merits resolve an important question of law, and thereby provide a significant external social benefit? These and similar questions demonstrate why a trifling harm alone is insufficient to justify application of *de minimis*. Given *de minimis*’ function—the dismissal of cases not worth adjudicat-

ing⁷³—it would make little sense to use the maxim in cases that are worth adjudicating from a societal standpoint, even if they cannot be justified by the size of the individual legal harm in question.

Admittedly, there is considerable subjectivity inherent in each of these two steps. The definition of “trifling” is open to debate,⁷⁴ though case law and common sense combine to set a high bar. Similarly, both defining and measuring social harms and benefits will often be a challenge. Nevertheless, as described above,⁷⁵ the potential benefits of a de minimis defense are significant, and the potential harms are mitigated by the requirement that the individual harm be trifling. Further, some of the uncertainty engendered by this subjectivity is defensible. Those who might intentionally violate a legal rule if they knew de minimis would apply are less likely to do so if unsure of its application.

To be sure, no court has explicitly adopted anything like the two-step test proposed above. As the previous section explored in detail, de minimis adjudication consists of a hodgepodge of differing rationales. Nevertheless, the proposed test does a good job of explaining the factors commonly considered by courts applying de minimis. Most obviously, factors one and two from section II.B—the size of the harm and the costs of adjudication—are central to the proposed test. Neither of the steps in the proposed test can be accomplished without knowing the size of the harm, and the costs of adjudication are a main determinant of the second step. Factor three—the purpose of the standard that has been violated—is important to ensure that courts are measuring the correct harm when considering whether the harm is trifling. Finally, factors four and five are relevant to the second part of the proposed test. An adjudication that directly affects the rights of third parties has clear social benefit apart from its effect on the plaintiff. Similarly, failure to adjudicate an intentional violation may make both the plaintiff and third parties more likely to break the law in the future—a significant external social cost.

Moreover, the proposed test does a fair job of explaining the results of most de minimis cases. There is some room for argument here: the subjectivity of the test makes the “correct” decision debatable in many cases, and some courts may well have gotten things wrong.⁷⁶ Nevertheless, there are

73. See *supra* notes 66-69 and accompanying text.

74. See generally Nemerofsky, *supra* note 7.

75. See *supra* note 72 and accompanying text.

76. In particular, those cases in which de minimis was found because the amount in controversy was small relative to the total amount at stake (rather than small in an absolute sense) may have been incorrectly decided. See *supra* notes 34-36 and accompanying

few cases in which a court's failure to consider one of the elements of the proposed test clearly led it to the wrong conclusion. Rather, courts instinctively consider only those elements of the test most relevant to the facts at hand.

III. DE MINIMIS IN COPYRIGHT: A POSITIVE ANALYSIS

In summarizing de minimis jurisprudence, Part II avoided mention of copyright cases. This omission is not due to a dearth of such cases. Rather, de minimis has taken a different path in copyright, one that does not fit the theory of the last section. Courts have applied the maxim in three separate ways in copyright cases, a multiplicity of functions first summarized in the landmark case of *Ringgold v. Black Entertainment Television, Inc.*⁷⁷ First, de minimis often comprises a part of substantial similarity analysis: if only a de minimis amount of a work is copied, there is no substantial similarity, and therefore no copyright infringement. Second, courts have sometimes combined de minimis with fair use analysis. Third, courts have applied de minimis, albeit rarely, in the manner described in Part II—an independent defense to infringements of little importance (“classic de minimis”).

This Part III describes each of these three de minimis uses in detail. It argues that in each of the first two uses—de minimis as a part of substantial similarity and as a part of fair use—courts have failed to adequately distinguish the way in which they use the maxim. In particular, it is often unclear whether the court uses the maxim colloquially, as an adjective that could just as easily be replaced with “trivial” or “minimal”; in a formal legal manner, privileging uses that otherwise would not be privileged; or in a third manner that combines elements of the first two. In contrast, the third use of de minimis—classic de minimis—is theoretically clear, but rarely used. Indeed, there is some question whether classic de minimis exists at all in copyright.

A. De Minimis in Substantial Similarity

The first common use of de minimis in copyright is as part of substantial similarity analysis. To see how this works, some background will be helpful. One of the prerequisites to a prima facie case of copyright infringement is a demonstration that the copyrighted work was copied.⁷⁸ However, not all copying is actionable; there must be substantial similarity

text. It is the absolute size of the harm, and how this compares to the costs of adjudication, that is the relevant calculus.

77. 126 F.3d 70, 74-75 (2d Cir. 1997).

78. *Arnstein v. Porter*, 154 F.2d 464, 468-69 (2d Cir. 1946).

between the work of the plaintiff and that of the defendant.⁷⁹ Many courts⁸⁰ have distinguished two types of substantial similarity: comprehensive nonliteral similarity, in which the “fundamental essence or structure” is copied even if specific expression is not,⁸¹ and fragmented literal similarity, in which small bits of specific expression are copied but the overall structure is not.⁸² Courts often employ de minimis in instances of fragmented literal similarity, holding that substantial similarity is present only if the amount of literal expression copied is more than de minimis.⁸³ Put another way, de minimis, as used in these cases, is simply the opposite of substantial similarity: to say that a use is de minimis is to say that the allegedly infringing work is not substantially similar to the original.

One recent example of these principles in action is the Ninth Circuit case of *Newton v. Diamond*.⁸⁴ Diamond was the owner of a musical composition, three notes of which were sampled by the Beastie Boys. The court held that the copying of these three notes was de minimis, which meant that there was no substantial similarity and therefore no copyright infringement.⁸⁵ In keeping with standard substantial similarity analysis in cases of fragmented literal similarity, the court came to this decision by analyzing the importance of the sample to the plaintiff’s work, both quantitatively and qualitatively, with the ultimate aim of determining whether the average audience would recognize the appropriation.⁸⁶

A number of other courts have used de minimis in the same way. For example, the court in *Neal Publications v. F & W Publications, Inc.* found de minimis copying, and thus no substantial similarity, where the defendant copied a few words and phrases from the plaintiff’s human resources guide.⁸⁷ Comparable analyses led to different conclusions in *Epic Metals Corp. v. Condec, Inc.*, which held that copying two out of twelve photo-

79. 4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §13.03[A] (2005).

80. See, e.g., *Warner Bros. v. Am. Broad. Cos.*, 720 F.2d 231, 239-42 (2d Cir. 1983); *Werlin v. Reader’s Digest Ass’n*, 528 F. Supp. 451, 462 (S.D.N.Y. 1981).

81. NIMMER, *supra* note 79, §13.03[A][1].

82. *Id.* §13.03[A][2].

83. See, e.g., *Warner Bros.*, 720 F.2d at 242 (“[De minimis] allow[s] the literal copying of a small and usually insignificant portion of the plaintiff’s work.”).

84. 388 F.3d 1189 (9th Cir. 2004), *cert. denied*, 125 S. Ct. 2905 (2005).

85. *Id.* But see *Bridgeport Music, Inc. v. Dimension Films*, 401 F.3d 647, 658 (6th Cir. 2004) (holding that there is no de minimis amount of copying of musical recordings).

86. *Newton*, 388 F.3d at 1195-96.

87. 307 F. Supp. 2d 928, 930-32 (N.D. Ohio 2004); see also *Werlin v. Reader’s Digest Ass’n*, 528 F. Supp. 451, 463-64 (S.D.N.Y. 1981) (finding that duplication of two sentences from plaintiff’s article is de minimis copying).

graphs from a brochure was not de minimis,⁸⁸ and *Compaq Computer Corp. v. Ergonome Inc.*, in which the court refused to grant summary judgment to the plaintiff because the trier of fact might have determined that copying a few phrases from a computer ergonomics handbook was de minimis.⁸⁹

This use of the maxim is problematic primarily because it employs an ambiguous concept of de minimis. In each of the cases described above, the court acts as if de minimis can privilege an activity that would otherwise not be permitted. A closer analysis, however, suggests that use of the term de minimis probably had little effect on the results. It has always been true that some small amount of fragmented literal similarity is insufficient to constitute substantial similarity, regardless of whether that small amount is called de minimis.⁹⁰ Indeed, the term “substantial similarity” clearly suggests that some amount of copying will not qualify. Accordingly, despite the courts’ implicit suggestions to the contrary, they seem to use de minimis in its colloquial sense in these cases, without formal legal effect.

There is another set of cases, however, in which use of de minimis has incorporated the notion of observability into substantial similarity determinations. To fully understand these cases, a bit of background is helpful. One of the touchstones of substantial similarity analysis is its focus on the amount of the plaintiff’s work taken, not on the prominence of the copied expression in the defendant’s work.⁹¹ For example, the *Newton v. Diamond* court found no substantial similarity because the three copied notes constituted a small portion of the plaintiff’s work, even though the copied notes were prominent in the defendant’s work.⁹² This makes theoretical sense, as the fundamental question one asks in substantial similarity analy-

88. 867 F. Supp. 1009, 1013 (M.D. Fla. 1994).

89. 137 F. Supp. 2d 768, 778-80 (S.D. Tex. 2001).

90. See, e.g., *Caddy-Imler Creations, Inc. v. Caddy*, 299 F.2d 79, 81-82 (9th Cir. 1962) (“[T]wo precisely similar sentences out of many hundreds, is not, in our view, an extensive reproduction of the exact terminology. . . . Nor can we term or classify such sentences so reproduced as important and vital part(s) of the two compositions”) (quotation marks omitted); *W. Publ’g Co. v. Edward Thompson Co.*, 169 F. 833, 861 (E.D.N.Y. 1909) (“In addition to copying, it must be shown that this has been done to an unfair extent.”); *NIMMER*, *supra* note 79, §13.03 (“It is clear that slight or trivial similarities are not substantial and are therefore noninfringing.”).

91. See, e.g., *Newton*, 388 F.3d at 1195; *NIMMER*, *supra* note 79, §13.03[A][2] (“The question in each case is whether the similarity relates to matter that constitutes a substantial portion of plaintiff’s work – not whether such material constitutes a substantial portion of defendant’s work.”).

92. *Newton*, 388 F.3d at 1195-96.

sis is whether there is copying, not whether use of the copied work is sufficiently damaging. As the *Newton* court noted, a “rule that measured the significance of the copied segment in the defendant’s work would allow an unscrupulous defendant to copy large or qualitatively significant portions of another’s work and escape liability by burying them beneath non-infringing material in the defendant’s own work”⁹³

A recent set of cases, beginning with *Ringgold*, appears to have moved away from this rule, at least in the context of visual works. The plaintiff in *Ringgold* filed suit because her artwork was visible in the background of several scenes in the defendant’s television program.⁹⁴ It was clear that the entire work was copied, which would normally be sufficient for a finding of substantial similarity. However, the *Ringgold* court held that “[i]n cases involving visual works, like the pending one, the quantitative component of substantial similarity also concerns the observability of the copied work – the length of time the copied work is observable in the allegedly infringing work and such factors as focus, lighting, camera angles, and prominence.”⁹⁵

Thus, in *Ringgold*, use of de minimis altered substantial similarity analysis by calling for consideration of the use of the copied work, not just the amount copied.⁹⁶ This practice was a clear break from the past. A district court in the same circuit had come to the opposite conclusion in nearly identical circumstances the year before the *Ringgold* decision.⁹⁷

The *Ringgold* court went on to decide that the defendant’s use of the plaintiff’s work was not de minimis,⁹⁸ but other cases using the *Ringgold* test have come to the opposite conclusion. In *Sandoval v. New Line Cinema Corp.*, for example, the Second Circuit found that the plaintiff’s photographs, which appeared in the background of the film *Seven*, were sufficiently inconspicuous for de minimis to apply.⁹⁹ Similarly, the Sixth Cir-

93. *Id.* at 1195.

94. *Ringgold v. Black Entm’t Television, Inc.*, 126 F.3d 70 (2d Cir. 1997).

95. *Id.* at 75.

96. It may be argued that the change the *Ringgold* court made to substantial similarity was independent of its use of de minimis. However, the fact that de minimis analysis traditionally focuses on the harm done, and that this is exactly the effect that *Ringgold* holding had on substantial similarity analysis, suggests that the change wrought in that case was influenced by de minimis.

97. *Woods v. Universal City Studios, Inc.*, 920 F. Supp. 62, 65 (S.D.N.Y. 1996) (holding, in the substantial similarity context, that whether “an infringement is de minimis is determined by the amount taken without authorization from the infringed work, and not by the characteristics of the infringing work”).

98. *Ringgold*, 126 F.3d at 76-77.

99. 147 F.3d 215, 218 (2d Cir. 1998).

cuit in *Gordon v. Nextel Communications* determined that the defendant's use of the plaintiff's dental illustration in its infomercial was sufficiently fleeting and out of focus to qualify for de minimis treatment.¹⁰⁰ In both of these cases the court made its de minimis determination, and therefore its substantial similarity determination, almost entirely on the basis of the observability of the plaintiff's work in the defendant's work rather than on the amount of the defendant's work that was taken.

To some degree, and in some circumstances, it may make sense to consider the observability of the plaintiff's work in the defendant's work. If the plaintiff's work is so blurry or obscured that it is unrecognizable, one might argue that the defendant has not "copied" the plaintiff's work at all. However, factors such as the length of time that the defendant's work displays the plaintiff's work, or the relative size of the plaintiff's work when displayed, are an awkward fit for substantial similarity analysis. These considerations are relevant mainly to the question of how much harm the copying does, not whether copying has occurred at all.

Accordingly, unlike the cases discussed at the beginning of this section, in the *Ringgold* line of cases de minimis appears to have independent legal effect. It introduces a new element to substantial similarity: the traditional de minimis focus on the amount of harm done. Without this new element there is substantial similarity when an entire work is copied. With it, substantial similarity merges with classic de minimis.

In *Bridgeport Music, Inc. v. Dimension Films*, the Sixth Circuit recently evinced yet another view: neither de minimis nor substantial similarity is relevant to some types of infringement analyses.¹⁰¹ In *Bridgeport*, the defendant copied two seconds of the plaintiff's sound recording for a rap song.¹⁰² The district court, using an analysis similar to that in the first set of cases above,¹⁰³ determined that the use was de minimis, and, therefore, that there was no substantial similarity and no infringement. The Sixth Circuit reversed, ruling that neither de minimis nor substantial similarity has any place in the analysis of infringement of a sound recording. The court justified this curious result in several ways, including reference to the statutory language,¹⁰⁴ the need for a bright-line rule,¹⁰⁵ the fact that the defendant would be unjustly enriched if it did not pay,¹⁰⁶ and the exis-

100. 345 F.3d 922, 924-25 (6th Cir. 2003).

101. 401 F.3d 647, 658 (6th Cir. 2004).

102. *Id.* at 653.

103. *See supra* notes 84-89 and accompanying text.

104. *Bridgeport Music*, 401 F.3d at 658.

105. *Id.*

106. *Id.*

tence of a market for sample licenses.¹⁰⁷ The court reiterated these conclusions in a rehearing of the case.¹⁰⁸

The *Bridgeport* decision represents a landmark change: the court eliminated substantial similarity, a longstanding staple of infringement analysis,¹⁰⁹ from the requirements for infringement of a sound recording. Further, most of the justifications used by the court could apply to other types of copyrighted works.¹¹⁰ While the court took pains to note that its analysis applied only to sound recordings,¹¹¹ its logic largely belies this claim. A full exploration of the wisdom of eliminating the substantial similarity requirement is beyond the scope of this Article, but others have expressed alarm at this change, and it is not clear how likely it is to spread outside of the Sixth Circuit.¹¹²

The *Bridgeport* court's views on de minimis are less clear. Obviously, elimination of substantial similarity also means elimination of de minimis as a part of substantial similarity analysis. Yet the court felt it necessary to specifically negate the possibility of either "de minimis or substantial similarity analysis."¹¹³ Why? It is difficult to know for certain, but the reason may stem from confusion regarding what role de minimis plays with respect to substantial similarity analysis. Is it a separate defense, a colloquial expression, or some amalgam of the two? The court does not address this issue.

In sum, the principal feature of de minimis in substantial similarity analysis is a lack of theoretical clarity. In some cases it acts as a helpful way of expressing substantial similarity decisions without having any actual effect on those decisions. In other cases de minimis acts more like an independent defense, with legal effect separate from the factors generally

107. *Id.* at 660-61.

108. *See* *Bridgeport Music, Inc. v. Dimension Films*, 410 F.3d 792, 801-04 (6th Cir. 2004).

109. *See* NIMMER, *supra* note 79, §13.03[A] ("[S]ubstantial similarity between the plaintiff's and defendant's works is an essential element of actionable copying.").

110. It may be argued that one of the justifications—the relevant statutory language—is different for sound recordings. While it is true that 17 U.S.C. § 114 (the clause the court relied upon) applies only to sound recordings, 17 U.S.C. § 106, which applies to all copyrighted works, is equally unambiguous. *See* 17 U.S.C. §§ 106, 114 (2000). Further, as noted above in *supra* note 17 and accompanying text, the Supreme Court has specifically held that de minimis should be read into all statutes absent contrary indication. It takes real creativity to argue that there is contrary indication in § 114 but not in § 106.

111. *Bridgeport Music, Inc. v. Dimension Films*, 401 F.3d 647, 655 (6th Cir. 2004).

112. *See, e.g., Recent Cases-Copyright Law-Sound Recording Act, Sixth Circuit Rejects De Minimis Defense to the Infringement of a Sound Recording Copyright*, 118 HARV. L. REV. 1355 (2005).

113. *Bridgeport Music*, 401 F.3d at 658.

considered in substantial similarity. Still another view holds that de minimis has no place in analysis of substantial similarity. The end result of this confusion is uncertainty in both the substantial similarity and the de minimis doctrines.

B. De Minimis As an Element of Fair Use

The second use of de minimis in copyright is as part of fair use analysis. Fair use is one of the most common, and one of the most controversial, defenses to copyright infringement. It is designed to privilege uses of copyrighted materials that further the purpose of copyright—the promotion of creativity.¹¹⁴ Thus, for example, fair use privileges the use of copyrighted works for criticism,¹¹⁵ scholarship,¹¹⁶ and parody¹¹⁷ because strict enforcement of copyright in these cases would inhibit creativity more than promote it. It is not always easy to know what should qualify for fair use, however. The relevant statute lists four factors for consideration in fair use decisions,¹¹⁸ but how a court should analyze and balance those factors is unclear.¹¹⁹ Further, courts are expressly permitted to consider any other factors deemed relevant.¹²⁰

A number of courts have used de minimis in conjunction with fair use,¹²¹ often (though not always) as part of analysis of the fourth fair use factor—the effect of the use on the market for, or value of, the original

114. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575 (1994). It should be noted that there remains some theoretical disagreement about whether this should be the only goal of fair use. See *infra* notes 239-242 and accompanying text.

115. 17 U.S.C. § 106.

116. *Id.*

117. See generally *Campbell*, 510 U.S. at 569 (describing the application of the fair use factors to privilege parodic use of copyrighted material).

118. These factors are:

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

17 U.S.C. § 107 (2000).

119. For a more complete discussion of this point, see *infra* notes 210-212 and accompanying text.

120. *Id.*; see also *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 560 (1985).

121. For purposes of clarity, please note that the cases described in this Section III.B explicitly incorporate de minimis in their fair use analyses. These cases should be distinguished from those in which fair use is used to privilege a trivial copyright violation without any mention of de minimis. The latter cases are discussed *infra* Section IV.C.

work.¹²² Unfortunately, there is considerable confusion regarding exactly what role the maxim should play. Indeed, this confusion is quite similar to that described above (in substantial similarity): some courts have used de minimis in fair use solely as a descriptive term, other courts suggest the maxim may have independent legal effect, and a third view holds that courts should not consider de minimis in fair use analysis.

The use of de minimis in fair use was thrust into the spotlight in the Supreme Court's opinion in *Sony Corp. of America v. Universal City Studios, Inc.* (hereinafter "*Betamax*").¹²³ One of the major issues considered in that case was whether VCR "time shifting," or recording a television program to watch later, was fair use.¹²⁴ In its consideration of the fourth fair use factor, the majority approvingly quoted a scholar describing "the partial marriage between the doctrine of fair use and the legal maxim *de minimis non curat lex*" in cases where little harm has been done to the copyright owner by use of his work.¹²⁵ Yet neither the majority opinion nor the source it quotes clearly denotes the role that de minimis should play in these decisions. Both texts could be read to suggest that de minimis can act as an independent defense to the infringement in question, or alternatively that de minimis merely plays an unspecified role within fair use analysis.

Cases since *Betamax* have done little to resolve this ambiguity. One recent example is a 1994 case from the Southern District of New York, *Amsinck v. Columbia Pictures Indus.*¹²⁶ The defendants in *Amsinck* produced a film in which the plaintiff's artwork was visible in the background of several scenes for a total of one minute and thirty-six seconds. Although the court ruled that no actionable copying had occurred,¹²⁷ it further noted that even if the plaintiff were able to make a case of prima facie copyright infringement the defendant's use would be a privileged fair use.¹²⁸ In its consideration of the fourth fair use factor, the court stated that "[i]n situations where the copyright owner suffers no demonstrable harm from the use of the work, fair use overlaps with the legal doctrine of de

122. 17 U.S.C. § 107.

123. 464 U.S. 417 (1984).

124. *Id.* at 447-56.

125. *Id.* at 451 n.34 (quoting Alan Latman, FAIR USE OF COPYRIGHTED WORKS (1958), reprinted in SUBCOMM. ON PATENTS, TRADEMARKS AND COPYRIGHTS OF THE S. COMM. ON THE JUDICIARY, 86th Cong., COPYRIGHT LAW REVISION 30 (1960) (included as Study No. 14)).

126. 862 F. Supp. 1044 (S.D.N.Y. 1994).

127. *Id.* at 1047-48.

128. *Id.* at 1050.

minimis, requiring a finding of no liability for infringement.”¹²⁹ Taken alone, this quote seems to indicate that de minimis may function as an independent basis for privileging the use. But the court did not act this way in practice: de minimis functioned merely as one of several factors considered in the court’s discussion of fair use,¹³⁰ and it is not clear how much of an effect it had on the final determination.

Other cases seem to lean in different directions regarding the role of de minimis, reflecting the confusion in this area. At one end of the spectrum stands an unpublished Sixth Circuit decision, *Mihalek v. Michigan*, in which the court considered whether making and retaining two photocopies of the plaintiff’s advertising plan was a copyright violation.¹³¹ Quoting *Betamax*, the court ruled that the activity in question could qualify as either fair use or as de minimis.¹³² Notably, the court’s discussion of de minimis was not limited to its consideration of one of the fair use factors.¹³³ Accordingly, *Mihalek* provides support for the proposition that de minimis retains independent legal authority, even when considered in conjunction with fair use.

A different approach was taken by a District Court in California in *Hustler Magazine, Inc. v. Moral Majority, Inc.*, a case that concerned the defendant’s distribution of the plaintiff’s ad parody for fundraising purposes.¹³⁴ As in the cases above, the court referred in its analysis to the *Betamax* language describing a “partial marriage” between de minimis and fair use.¹³⁵ Unlike *Mihalek*, the *Hustler* court used de minimis only in its colloquial sense, as a way of describing the effect of the use in question on the market for the original.¹³⁶ The Ninth Circuit later upheld the court’s decision, including its use of de minimis.¹³⁷

129. *Id.* at 1049.

130. *Id.* at 1048-50.

131. No. 92-1641, 1993 WL 460787 (6th Cir. Nov. 9, 1993) (unpublished table decision).

132. *Id.* at **3.

133. Indeed, the court specifically, and without qualification, states that the activity in question would “fall under the maxim *de minimis non curat lex.*” *Id.*

134. 606 F. Supp. 1526, 1530 (C.D. Cal. 1985), *affirmed by* 796 F.2d 1148 (9th Cir. 1986); *see also* L.A. Times v. Free Republic, 54 U.S.P.Q. 2d 1453, 1469-70 (C.D. Cal. 2000) (using de minimis colloquially as part of analysis of the fourth fair use factor).

135. *Hustler Magazine*, 606 F. Supp. at 1539.

136. *Id.* (“[A]ny effect [the use] might have on the marketability of back issues would be *de minimis* . . .”).

137. *Hustler Magazine, Inc. v. Moral Majority, Inc.*, 796 F.2d 1148 (9th Cir. 1986). For the court’s brief discussion of de minimis, *see id.* at 1156 (“We agree with the district court that the effect on the marketability of back issues of the entire magazine is *de minimis* . . .”).

A third view, best articulated by the Second Circuit in *Ringgold*, holds that de minimis should not play any role in fair use analysis. Taking its cue from the District Court decision, the *Ringgold* court noted that de minimis might inform the third fair use factor: the amount and substantiality of the portion of the copyrighted work that the defendant used.¹³⁸ “A defendant might contend, as the District Court concluded in this case, that the portion used was minimal and the use was so brief and indistinct as to tip the third fair use factor decisively against the plaintiff.”¹³⁹ Having described this approach, the court rejected it:

[T]he concept of *de minimis* . . . is an inappropriate one to be enlisted in fair use analysis. The third fair use factor concerns a quantitative continuum. Like all the fair use factors, it has no precise threshold below which the factor is accorded decisive significance.¹⁴⁰

Although limited to the third fair use factor, the *Ringgold* court’s criticism applies equally well to the use of de minimis in analysis of any other factor. Thus, the logic of the opinion suggests that de minimis should not apply at all in fair use.¹⁴¹

In sum, there are at least three theories of the role de minimis should play in fair use analysis. First, some courts appear to believe the maxim can be used as an alternative to fair use in cases where the damage done is trifling. Second, many courts use de minimis colloquially, as a way to help describe the court’s conclusion with respect to one of the fair use factors. Third, some believe that de minimis and fair use should not be mixed at all. As in substantial similarity, the net result of this inconsistency is confusion.

138. *Ringgold v. Black Entm’t Television, Inc.*, 126 F.3d 70, 75 (2d Cir. 1997). For those keeping score, the cases described so far have used de minimis in the third and fourth factors—one wonders why the first and second factors have been left out. While not necessarily an issue if the maxim is being used in its colloquial sense, this seems problematic for proponents of the idea that the doctrine should affect analysis of the factor in question.

139. *Id.*

140. *Id.* at 75-76.

141. It is worth noting that court seemed unsure of the role the maxim might play. The quotation above indicates that the court worried about de minimis affecting fair use analysis, which would not be a problem if the term were merely used colloquially. Thus the court assumes, and then criticizes, a use of de minimis somewhere between a colloquial use and an independent defense.

C. Classic De Minimis

One of the lessons of the previous two sections is that a number of courts have applied classic de minimis (de minimis as an independent defense) in fact if not always in name. The *Ringgold*, *Sandoval*, and *Gordon* decisions all used analyses closer to classic de minimis analysis than to traditional substantial similarity analysis.¹⁴² Similarly, the *Mihalek* and *Amsinck* decisions suggested that de minimis is available as an alternative to fair use in cases where the copyright holder suffers little harm.¹⁴³ None of these courts, however, clearly and forthrightly relied upon classic de minimis in its decision. So the question remains as to whether there a de minimis defense to copyright infringement.

At least one appeals court thinks the answer is yes. The Second Circuit describes classic de minimis in copyright as a doctrine that privileges prima facie copyright violations that are “so trivial that the law will not impose legal consequences.”¹⁴⁴ A more detailed description of the need for, and role of, classic de minimis in copyright was provided by the court in *On Davis v. Gap, Inc.*:

Most honest citizens in the modern world frequently engage, without hesitation, in trivial copying that, but for the *de minimis* doctrine, would technically constitute a violation of law. We do not hesitate to make a photocopy of a letter from a friend to show another friend, or of a favorite cartoon to post on the refrigerator. Parents in Central Park photograph their children perched on Jose de Creeft’s Alice in Wonderland sculpture. We record television programs aired while we are out, so as to watch them at a more convenient hour. Waiters at a restaurant sing “Happy Birthday” at a patron’s table. When we do such things, it is not that we are breaking the law but unlikely to be sued given the high cost of litigation. Because of the *de minimis* doctrine, in trivial instances of copying, we are in fact not breaking the law.¹⁴⁵

Despite its eloquent description of the role of classic de minimis, the *Davis* holding did not rely upon it. Rather, after considering the defense, the court ruled that use by a clothing store of copyrighted eyeglasses in an advertisement did not qualify.¹⁴⁶ The *Ringgold* court reached the same

142. See *supra* notes 95-100 and accompanying text.

143. See *supra* notes 126-133 and accompanying text.

144. *Ringgold*, 126 F.3d at 74.

145. 246 F.3d 152, 173 (2d Cir. 2001).

146. *Id.* This decision was based on a combination of factors including the fact that the eyeglasses were a “highly noticeable” part of the advertisement, and the viewer’s

conclusion with respect to its facts.¹⁴⁷ Indeed, despite the apparent utility of classic de minimis, there is only one prominent case that has clearly relied upon the maxim to dismiss a copyright infringement suit. It is another Second Circuit case, *Knickerbocker Toy Co. v. Azrak-Hamway International, Inc.*¹⁴⁸ The defendant in *Knickerbocker* used an illustration of the plaintiff's copyrighted product on some blister card packaging. The use was extremely limited, however: the blister card was only used inside the defendant's company, and the defendant claimed that it would have changed the illustration had the packaging ever been used publicly. The court ruled that "the copyright claim with respect to the blister card falls squarely within the principle of de minimis non curat lex,"¹⁴⁹ and affirmed dismissal of the claim on this basis.

Outside the holding itself, the *Knickerbocker* court gave little indication of its view of the limits of classic de minimis in copyright, and courts since *Knickerbocker* have "uniformly rejected the argument that [the *Knickerbocker* holding] can be expanded to apply to broader contexts."¹⁵⁰ This is not entirely surprising, as there is a limit to what can be considered trifling, and many defendants have made such arguments in the context of uses much more significant than that in *Knickerbocker*.¹⁵¹ It is strange, however, that no courts have followed the *Knickerbocker* holding under any circumstances. Neither have courts in other circuits adopted the Second Circuit's view of classic de minimis in copyright.

Thus, direct evidence for the viability of classic de minimis as a copyright defense consists of one Second Circuit holding, dicta in several other cases decided by the same court,¹⁵² and somewhat ambiguous dicta in a few cases applying fair use.¹⁵³ This must be weighed against evidence suggesting the contrary. While no court has explicitly rejected the exist-

likely impression that "the models posing in the ad have been outfitted from top to bottom, including eyewear, with Gap merchandise." *Id.*

147. *Ringgold*, 126 F.3d at 76-77.

148. 668 F.2d 699 (2d Cir. 1982).

149. *Id.* at 703.

150. Deborah F. Buckman, *Application of "De Minimis Non Curat Lex" to Copyright Infringement Claims*, 150 A.L.R. 661, §2(b) (1998-2004).

151. *See, e.g.,* Repp v. Webber, 914 F. Supp. 80, 83-84 (S.D.N.Y. 1996) (finding no de minimis where the gross receipts for the sale of products including the plaintiff's work totaled \$75.87); Nat'l Enquirer, Inc. v. News Group News, Ltd., 670 F. Supp. 962, 970 (S.D. Fla. 1987) (holding that eighty-five publicly-distributed copies of an infringing work was not comparable to the insignificant infringement in *Knickerbocker*).

152. *See also* Am. Geophysical Union v. Texaco, 60 F.3d 913, 916 (2d Cir. 1994) (suggesting that de minimis might apply to the copying of scholarly articles by an individual for personal research).

153. *See supra* notes 123-133 and accompanying text.

tence of classic de minimis in copyright,¹⁵⁴ numerous courts have failed to apply it to trivial copyright infringements. As one scholar puts it, “the overwhelming thrust of authority upholds liability even under circumstances in which the use of the copyrighted work is of minimal consequence.”¹⁵⁵ Examples include a case in which the Second Circuit refused to find de minimis with respect to the sale of twelve infringing plastic dolls,¹⁵⁶ another in which the court deemed \$75.87 in gross receipts from sales of infringing products actionable,¹⁵⁷ and a third in which the court failed to label the creation of an infringing production model of a crop sprayer de minimis even though the model was never sold.¹⁵⁸

These cases suffice to convince Professor Nimmer that, despite the *Knickerbocker* holding, classic de minimis is not a viable copyright defense.¹⁵⁹ This conclusion, however, is an overstatement; it is more accurate to say that the status of classic de minimis in copyright is unclear than to say the defense is invalid. After all, in all areas of law application of the maxim is left to the court’s discretion. Thus the fact that courts fail to use de minimis in some cases where it might apply cannot be taken as conclusive proof that the maxim could not be used. Further, the fact that other doctrinal methods, particularly fair use, are often used to privilege activity that might otherwise qualify for de minimis treatment may explain the dearth of de minimis cases.

Moreover, there is nothing specific to copyright that would make classic de minimis inapplicable. There is no black-letter rule or explicit “contrary indication”¹⁶⁰ to exempt copyright from the general statutory applicability of de minimis. While it may be argued that the existence of statutory damages in copyright¹⁶¹ amounts to an implicit Congressional contrary indication, many legal violations have minimum legal ramifications,

154. As described above, the *Bridgeport* decision comes closest. However, it seems likely that the court intended merely to forestall consideration of de minimis as applied in substantial similarity, and only with respect to sound recordings. See *infra* notes 101–113 and accompanying text.

155. NIMMER, *supra* note 79, § 8.01[G].

156. *Warner Bros. v. Dae Rim Trading, Inc.*, 877 F.2d 1120, 1126 (2d Cir. 1989).

157. *Repp v. Webber*, 914 F. Supp. 80, 83-84 (S.D.N.Y. 1996).

158. *Walker Mfg., Inc. v. Hoffmann, Inc.*, 261 F. Supp. 2d 1054, 1065-68 (N.D. Iowa 2003).

159. NIMMER, *supra* note 79, § 8.01[G].

160. See, e.g., *Wis. Dept. of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 231 (1992) (“[De minimis] is part of the established background of legal principles against which all enactments are adopted, and which all enactments (absent contrary indication) are deemed to accept.”).

161. 17 U.S.C. § 504(c). The minimum generally awardable is \$750, an amount that would likely be considered more than trifling in most circumstances.

a fact not generally viewed as a reason not to apply *de minimis*.¹⁶² Indeed, courts ruling in other areas are more likely, not less, to apply *de minimis* to a trivial violation when the ramifications of failure to do so are stark.¹⁶³ Further, as described below,¹⁶⁴ statutory damages have not stopped courts from privileging trivial copyright infringements using other doctrinal tools.

More broadly, there is nothing particular about intellectual property law that refutes *de minimis*. In trademark law the maxim has been used extensively in cases where evidence of consumer confusion is minimal.¹⁶⁵ Additionally, if somewhat more controversially, several courts have used *de minimis* to privilege minor patent infringements.¹⁶⁶ Finally, at least one court has suggested that *de minimis* could apply to right of publicity claims.¹⁶⁷ Further, it is worth noting that trivial violations are less likely in each of these areas than in copyright.¹⁶⁸

Theory aside, it is clear that the dearth of *de minimis* cases in copyright is, in large part, a self-perpetuating phenomenon. Given the judicial importance of precedent, courts considering trivial copyright violations are understandably reluctant to privilege such violations using a doctrine that other courts have not already used in similar circumstances.¹⁶⁹ The fact

162. For example, many criminal statutes have minimum punishments, but *de minimis* has been used to throw out trivial cases. *See, e.g.*, *State v. Smith*, 480 A.2d 236, 240 (N.J. Super. Ct. 1984) (holding that theft of three pieces of bubble gum was *de minimis*).

163. *See supra* notes 50-52 and accompanying text.

164. *See infra* notes 183-186 and accompanying text.

165. *See, e.g.*, *Savin Corp. v. Savin Group*, 391 F.3d 439, 459 (2d Cir. 2004) (finding that a single anecdote of consumer confusion is *de minimis*); *Thane Int'l, Inc. v. Trek Bicycle Corp.*, 305 F.3d 894, 902 (9th Cir. 2002).

166. *See, e.g.*, *Ling-Temo-Vought v. Kollsman Instrument Corp.*, 372 F.2d 263, 269-70 (2d Cir. 1967); *Medtronic Vascular v. Boston Scientific*, 348 F. Supp. 2d 316, 322 (D. Del. 2004). *But see Embrex, Inc. v. Service Eng'g Corp.*, 216 F.3d 1343, 1352-53 (Fed. Cir. 2000) (Rader, J., concurring); *Smithkline Beecham Corp. v. Apotex Corp.*, 247 F. Supp. 1011, 1051 (N.D. Ill. 2003) (“[W]hether there is a *de minimis* defense in patent law is an unsettled question.”).

167. *Prima v. Darden Rests., Inc.*, 78 F. Supp. 2d 337, 350-51 (D.N.J. 2000).

168. There are a number of reasons for this, but perhaps the most important is that copyright, by its nature, is regularly violated in trivial ways by the average citizen engaging in everyday life, a point described in detail in Section IV.B. This is not true of patent, trademark, right of publicity, or perhaps any other type of law.

169. This judicial conservatism, when combined with the great need to privilege trivial violations of copyright (a topic addressed at length in Section IV.B), makes clear why so many courts find it necessary to fit *de facto* classic *de minimis* cases within the confines of fair use or substantial similarity. It is both easier and safer to justify these decisions under the cover of doctrines commonly used to privilege other uses of copyrighted works.

that the best way to know what qualifies as *de minimis* is to look at other cases exacerbates the reluctance of courts to privilege uses as *de minimis*.¹⁷⁰ Part IV argues that this cycle needs to be broken, and provides guidelines for how to do so.

IV. DE MINIMIS IN COPYRIGHT: A NORMATIVE ANALYSIS

Part II formulated a theory of the role that *de minimis* plays in most areas of the law, and Part III explained how this role has become confused in copyright. Part IV attempts to resolve this confusion by defining the proper use of *de minimis* in copyright. It begins, in Section IV.A, with a call for clarity, arguing that courts can resolve many of the problems described in the last Part simply by being precise about the way in which they use *de minimis* in each case. This discussion precedes a two-part argument for expanded use of classic *de minimis*. Section IV.B shows why a defense for trivial infringements is essential in copyright, and Section IV.C argues that classic *de minimis* is often better-suited to play this role than is fair use. Finally, Section IV.D provides some practical and theoretical guidelines for these changes.

A. The Need for Clarity

The most important lesson of Part III is that use of *de minimis* in copyright is considerably confused. As noted therein, the confusion begins with the fact that courts have used *de minimis* at three different stages of analysis: in determining substantial similarity, as part of the fair use defense, and as a separate defense.¹⁷¹ It continues once the stage of analysis is chosen. In both substantial similarity and fair use, *de minimis* has appeared both colloquially and with independent legal effect, though how much effect is often unclear. The confusion may be even worse with respect to classic *de minimis*, with courts and commentators in disagreement about whether the defense exists at all.

There are many costs to this confusion, but three stand out. First, as described in Part II, *de minimis* serves an important purpose in the law, a purpose that cannot be effectively achieved in copyright so long as the aims and mechanisms of the maxim are unclear. Using other doctrines to privilege trivial copyright violations is likely to lead to problems of over- and under-inclusiveness, both because a lack of theoretical clarity makes it

170. *See supra* note 21.

171. Presumably, use of *de minimis* in one of these three analytical stages would not preclude use in either of the other two, raising the unfortunate prospect of an opinion that includes three separate uses of *de minimis*.

more difficult to discern when a violation should be privileged, and because it may be difficult to justify privileging some trivial violations under the precepts of another doctrine. Second, incorporation of de minimis into fair use and substantial similarity analyses adds uncertainty to those doctrines. The aims of de minimis are not identical to the aims of either fair use or substantial similarity, and under the current legal regime it is not clear what courts should do when these aims conflict. Finally, and more generally, lack of legal clarity makes it difficult for those subject to the law to conduct themselves so as to maximize their well-being, and may even contribute to a deterioration in political discourse.¹⁷² While uncertainty in legal rules may at times be justified by a countervailing benefit,¹⁷³ the current level of uncertainty in de minimis is clearly counterproductive.

Accordingly, one key to improving the function of de minimis in copyright is clarification. As in other areas of the law, de minimis can serve two functions: as a colloquial expression and as a separate defense. However, courts must be clear regarding which use they are making, and careful not to confuse the two. There is no room for “halfway de minimis,” something more than a colloquial expression but less than an independent defense. As the discussion of Part III showed, any such use yields confusion both in de minimis and in the doctrine with which it is applied. Further, there is no clear benefit to halfway de minimis, no use that it is both desirable to privilege and that could not otherwise be privileged either by the traditional precepts of the doctrine in question or by classic de minimis, properly construed.

In practice, then, courts should use the term de minimis in substantial similarity and fair use analyses only colloquially. As such, it should not materially affect the results of those analyses. It would be better still, though not absolutely necessary, if courts avoided use of the term de minimis altogether in these cases, as the potential for confusion is significant. By definition, other terms (such as “trivial” or “trifling”) could perform the same colloquial function.

172. See William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659, 1692-95 (1988).

173. Some of the uncertainty associated with the application of classic de minimis may be justified by the fact that it dissuades strategic actors from breaking legal rules exactly to the point they know will qualify for the defense. This justification does not apply to use of de minimis in fair use and substantial similarity analysis, however. For a more general review of the costs and benefits of uncertainty in legal rules, see Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE L.J. 557 (1992).

Regardless, analyses in cases like *Ringgold* and its progeny (in which *de minimis* changed substantial similarity analysis), and in cases like *Mihalek* and *Amsinck* (in which *de minimis* seemed to be an alternative to fair use analysis), need to be clarified. If courts desire to privilege a use based upon the triviality of the harm done, they should do so separately, using classic *de minimis*. If, on the other hand, classic *de minimis* cannot justify the use in question, it should not be privileged on the basis of its triviality. In either case, a better understanding of the proper role of classic *de minimis* in copyright is necessary. The remainder of this Article is devoted to addressing this issue.

B. The Need to Privilege Trivial Copyright Violations

Implementation of the clarifications suggested in the last section will require reinvigoration of classic *de minimis*. Courts will need a doctrinal tool to continue privileging some of the trivial uses permitted under the current legal regime (using *de minimis* as part of fair use or substantial similarity analysis). This need, however, is just the tip of the iceberg. This Section argues that copyright, more than perhaps any other area of the law, needs a clear legal method of privileging trivial violations, and that recent technological and legal developments are increasing this need.

Trivial *prima facie* violations of copyright are commonplace. This is, in large part, due to three particulars of copyright law. First, almost any type of work that is fixed in tangible form and that contains even a modicum of creativity is copyrightable.¹⁷⁴ Second, copyright attaches to such works automatically, without any need for registration or other formalities.¹⁷⁵ Third, the statutory rights of copyright owners are broad: any unauthorized duplication, display, or dissemination of a creative work is a *prima facie* copyright violation, as is the creation of a derivative work based on a copyrighted work.¹⁷⁶ Thus every photograph taken by a tourist that includes an advertisement, artwork, or newspaper is a *prima facie* copyright violation, as are most uses of that photograph.¹⁷⁷ Every teenager who makes a mix music tape for a friend, and every worker who photocopies an interesting article or cartoon is technically violating copyright. Even singing “Happy Birthday” at a restaurant is a *prima facie* copyright

174. 17 U.S.C. § 102(a).

175. *See generally* 17 U.S.C. § 408.

176. 17 U.S.C. § 106.

177. *See generally* Andrew Inesi, *Images of Public Places: Extending the Copyright Exemption for Pictorial Representations of Architectural Works to Other Copyrighted Works*, 13 J. INTELL. PROP. L. 61 (2005).

violation.¹⁷⁸ Indeed, absent fair use (which the next section discusses in detail), most people would violate copyright law in minor ways on a regular basis.¹⁷⁹

Clearly, it would not be in society's best interests to adjudicate all of these potential copyright disputes.¹⁸⁰ Fortunately, a number of factors have combined to prevent courts from being overrun with copyright litigation. First, and most obviously, trivial disputes do not usually make it to court. Litigation is expensive, and most copyright owners are unwilling to undertake this expense if the use in question has done them little harm.¹⁸¹ However, one should not exaggerate the importance of this factor. If it held true in all cases, there would be little need for classic *de minimis* in any area of the law.¹⁸² In addition, many common copyright violations, such as tourist snapshots, are private enough that copyright holders generally do not find out about them. Finally, there is always the possibility (though rarely the certainty) that fair use will apply to a trivial use, fear of which undoubtedly discourages many potential lawsuits.

Nevertheless, disputes over arguably trivial copyright violations have reached courts with increasing frequency. As detailed both above and below, courts have responded in at least five different ways: using *de minimis* in fair use analysis,¹⁸³ *de minimis* in substantial similarity analysis,¹⁸⁴ fair use alone,¹⁸⁵ *de minimis* alone,¹⁸⁶ or refusing dismissal on the theory

178. See Leval, *supra* note 3, at 1457-58.

179. See *On Davis v. Gap, Inc.*, 246 F.3d 152, 173 (2d Cir. 2001) ("Trivial copying is a significant part of modern life.").

180. A more formal model for when it might and might not be in society's best interest to adjudicate a seemingly trivial copyright dispute is provided *infra* Section II.C.

181. Judge Leval is a proponent of this explanation, calling disputes that would qualify for classic *de minimis* "[q]uestions that never need to be answered." Leval, *supra* note 3, at 1457; see also *On Davis*, 246 F.3d at 173 ("The *de minimis* doctrine is rarely discussed in copyright opinions because suits are rarely brought over trivial instances of copying."); *Ringgold v. Black Entm't Television, Inc.*, 126 F.3d 70, 74 (2d Cir. 1997) (calling the fact that classic *de minimis* is seldom applied in copyright cases understandable).

182. Indeed, as described in Part II, the fact that legal action is sometimes taken to stop seemingly trivial legal violations is not necessarily a sign of irrationality. Rather, it may spring from different conceptions of harm. For example, the copyright owner may feel that his dignity or artistic integrity has been harmed by the violation, harms that a court should not (and generally cannot accurately) take into account. Further, a copyright owner might rationally file suit in hopes of incentivizing others not to make use of his work (even if such uses are legally permissible). See *supra* notes 64 and 77 and accompanying text.

183. See *infra* Section III.B.

184. See *infra* Section III.A.

185. See *infra* notes 203-209 and accompanying text.

that copyright law mandates liability for even the most trivial violation.¹⁸⁷ The fact that so many courts are searching for a way to privilege trivial uses provides compelling evidence of the need to do so. Clearly, however, this multiplicity of approaches is problematic; a more comprehensive approach would provide greater clarity and consistency.

Now would be a good time to find this clarity, as the problems posed by minor copyright infringements are likely to get worse. Intellectual property owners increasingly seem to view their copyrights as they would physical property—an asset that no third party has any right to use.¹⁸⁸ Jessica Litman has argued that a fundamentally new conception of copyright is arising, one that permits copyright owners to “extract all the potential commercial value from works of authorship.”¹⁸⁹ This new attitude suggests a disconnect between the harm copyright owners perceive when their works are infringed and the actual incentive harm that society is willing to recognize. As noted above,¹⁹⁰ differing conceptions of harm are especially likely to lead to legal action over violations that, from the societal perspective, are trivial. This is exactly what is happening, as a number of copyright holders are now taking aggressive action to stop even the most innocuous uses of their copyrighted material.¹⁹¹

Further, there are several reasons to believe that technological change will make a clear defense for trivial copyright infringements even more valuable. First, and most obviously, new technologies are likely to increase the number of copyright infringements. Digital cameras, scanners, the digitization of content, and the internet make it easy and nearly costless to copy, distribute, and display copyrighted materials. As a result, more people are more easily able to violate copyright in more ways. Of course, one cannot classify all copyright infringements using new technologies as trivial. Mass-scale copying of copyrighted works certainly does not qualify. However, many of the infringements made possible by new technologies will fit at least some people’s notions of trivial. Exam-

186. *See supra* notes 146-149 and accompanying text.

187. *See supra* notes 155-158 and accompanying text.

188. This is a questionable assertion even with respect to physical property. For example, in the context of real property there are a number of limitations on the owner’s right to prevent others from using his property, including necessity, easements, and government regulations.

189. Jessica Litman, *War Stories*, 20 *CARDOZO ARTS & ENT. L.J.* 237, 345 (2002); *see also* LAWRENCE LESSIG, *THE FUTURE OF IDEAS*, 180-87 (2001); JESSICA LITMAN, *DIGITAL COPYRIGHT* 79-81 (2000) (describing changing conceptions of copyright).

190. *See supra* notes 63-64 and accompanying text.

191. *See* Chilling Effects, <http://www.chillingeffects.org> (last visited March 21, 2006) (providing numerous examples).

ples include posting vacation images that include copyrighted works to a personal website, e-mailing a digitized copy of a cartoon to a sibling, and perhaps even trading one or two copyrighted files with a friend over a P2P network.

Second, the nature of many of these technologies makes it easier for copyright owners to discover minor infringements. Infringing amateur content that would previously have been accessible only to the family and friends of the infringer is now often placed on the internet, where it can be located by the copyright owner. Further, new digital resource management technologies may soon make it possible for copyright holders to track all uses of their works.¹⁹² Clearly, copyright holders who know about infringements are more likely to take legal action to stop them than are those that do not.

Third, by lowering costs and increasing creative options, new technologies are increasing the importance of both amateur creative production and mix-and-match creativity.¹⁹³ Amateurs are now capable of producing creative works of professional quality,¹⁹⁴ and artists are increasingly incorporating third-party copyrighted works in their own works, from music sampling to appropriation art.¹⁹⁵ Each of these groups could benefit from a clear rule permitting trivial copyright infringements, because each is likely to value the additional creative possibilities such a rule would permit over the incremental incentive provided by protection from trivial infringements. (Indeed, amateurs have no need at all for the creative incentives provided by copyright.) Accordingly, privileging trivial copy-

192. See Pamela Samuelson, *DRM {And/Or/Vs.} the Law*, 46 COMMS. OF THE ACM 4, 42 (2003) (describing the power DRM can give copyright owners).

193. See LAWRENCE LESSIG, *FREE CULTURE* 100-107 (2004) (“We live in a ‘cut and paste’ culture enabled by technology.”); Yochai Benkler, *Freedom in the Commons: Toward a Political Economy of Information*, 52 DUKE L.J. 1245, 1246-47 (2003) (noting that decentralized, non-market production can now play a much more important role in the economy); Dan Hunter & F. Gregory Lastowka, *Amateur-to-Amateur*, 46 WM. & MARY L. REV. 951, 1019 (2004) (“[W]e are certain that decentralized amateur-to-amateur information practices are ascendant and will continue to grow in importance.”).

194. For example, *Tarnation*, an amateur film made for less than \$1,000, recently won a host of critic’s awards. See Charlotte Higgins, *\$200 Family Film is Festival Hit*, GUARDIAN (LONDON), May 18, 2004, at 6, available at http://www.guardian.co.uk/uk_news/story/0,3604,1219070,00.html; Internet Movie Database, <http://www.imdb.com/title/tt0390538/awards> (last visited Apr. 11, 2006).

195. Examples run the gamut from the small-scale sampling at issue in *Newton v. Diamond*, 388 F.3d 1189 (9th Cir. 2004), cert. denied, 125 S. Ct. 2905 (2005), to whole-scale artistic appropriation, such as that at issue in *Rogers v. Koons*, 960 F.2d 301 (2d Cir. 1992).

right infringements has the potential to significantly augment creativity and therefore effectuate the underlying purpose of copyright law

In response to the above, some may argue that new technologies make a defense for minor infringements less necessary, not more. This argument stems from market failure theory, which was first described in the copyright context by Wendy Gordon.¹⁹⁶ Gordon argued that fair use is justified when market imperfections, such as high transaction costs or externalities, prevent efficient uses of copyrighted works.¹⁹⁷ The Second Circuit expanded this argument to rule that fair use is not justified when transaction costs fall far enough, even if the use in question would previously have qualified.¹⁹⁸ One might extend the argument still further to suggest that new technologies, which often lower transaction costs, should make a defense for trivial infringements, whether fair use or *de minimis*, less necessary.

However, there are several reasons to reject this argument. First, the direct benefit to the infringer of a trivial infringement will often be quite small. Thus, in order to outweigh the transaction costs, the costs would need to drop to nearly zero—an unlikely event. Second, Gordon and others have emphasized the fact that transaction costs are not the only type of market failure.¹⁹⁹ Externalities can also lead to market failure and thus justify the employment of a copyright infringement defense. There is reason to believe that many trivial infringements, which are especially likely to be committed by amateurs, will have external cultural benefits.²⁰⁰ Finally, copyright's version of market failure theory assumes copyright as its base, and then asks when it is efficient to diverge from the copyright model. Another approach would be to assume no copyright as the base, and then ask when protection is efficient. Viewed this way, one would be hard pressed to argue that protection from trivial uses of copyrighted works provides any significant economic benefits.²⁰¹

196. Wendy Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors*, 82 COLUM. L. REV. 1600 (1982).

197. *Id.* at 1614-16.

198. *Am. Geophysical Union v. Texaco*, 60 F.3d 913, 930-31 (2d Cir. 1994).

199. Gordon, *supra* note 196, at 1630-35; *see also* Lydia Pallas Loren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTEL. PROP. L. 1, 48-53 (1997) (discussing the inability to internalize diffuse external benefits as a type of market failure).

200. *See, e.g.*, Benkler, *supra* note 193, at 1272-73 (discussing the positive effects of nonproprietary production on democracy, autonomy, and justice).

201. External effects of enforcement could change this calculus, as noted *supra* notes 53-62 and accompanying text and *infra* notes 263-264 and accompanying text.

C. De Minimis versus Fair Use

Even if one accepts the argument that copyright desperately needs a method of privileging trivial violations, disagreement may continue regarding which method is the right one. Although Part III demonstrated that combining de minimis with either fair use or substantial similarity does not solve the problem, there is another, more important alternative to classic de minimis. As demonstrated below, fair use alone (i.e., without any mention of de minimis)²⁰² can be, and has been, frequently used to privilege trivial copyright violations. This raises the question of whether de minimis is necessary when fair use can solve the problems of the last Section. This Section is devoted to providing an answer.

1. Theoretical Advantages of De Minimis

Copyright case law is rife with examples of fair use being used to privilege arguably trifling copyright infringements. The Supreme Court in *Betamax* ruled that time shifting—recording a television program for later viewing—was privileged fair use.²⁰³ The Ninth Circuit in *Sega v. Accolade* found that making temporary copies of computer programs was fair use if necessary to create an interoperable program,²⁰⁴ and in *Kelly v. Arriba Soft Corp.* held that fair use applies to the use of thumbnail images on the internet.²⁰⁵ Several courts have used fair use to privilege minor uses of copyrighted materials in the background of audiovisual works.²⁰⁶ Others have found fair use in the making of temporary photocopies of a book for research purposes,²⁰⁷ the use of a copyrighted photograph in a murder defense trial,²⁰⁸ and the copying of a political mailing list.²⁰⁹

One of the major reasons that courts can, and have, used fair use as a proxy for de minimis is its malleability. Scholars and courts have long opined about the inconsistency and uncertainty of fair use, which has been

202. This qualifier is intended to distinguish pure fair use cases from those that mix fair use and de minimis. The latter set of cases is discussed at length *supra* in Section III.B.

203. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 420-21 (1984).

204. 977 F.2d 1510, 1521-27 (9th Cir. 1992).

205. 280 F.3d 934, 943-44 (9th Cir. 2002).

206. *See, e.g.*, *Jackson v. Warner Bros.*, 993 F. Supp. 585 (E.D. Mich. 1997); *Sandoval v. New Line Cinema Corp.*, 973 F. Supp. 409 (S.D.N.Y. 1997).

207. *Duffy v. Penguin Books USA*, 4 F. Supp. 2d 268, 274-75 (S.D.N.Y. 1998).

208. *Kulik Photography v. Cochran*, 975 F. Supp. 812, 814 (E.D. Va. 1997).

209. *Nat'l Rifle Assn. v. Handgun Control Fed'n of Ohio*, 15 F.3d 559, 562 (6th Cir. 1994).

called “the most troublesome” doctrine in copyright.²¹⁰ Courts have interpreted each of the four statutory fair use factors in strikingly different ways, and there is no clear guidance regarding how to balance the four factors against one another. Further, the fair use statute explicitly permits consideration of factors other than the four statutory factors,²¹¹ but provides little guidance regarding what those other factors should be or how important they are. Therefore, courts are able to use fair use as a way to justify almost any refusal to apply copyright. Indeed, empirical evidence suggests that courts’ fair use analyses are driven by their ultimate fair use holdings, not vice-versa.²¹²

However, the fact that the fair use test is sufficiently malleable to cover cases that might otherwise qualify for classic *de minimis* does not mean that it should be used to do so. To understand why, some background is helpful. Copyright law is usually justified by the need to give authors adequate incentives to create copyrightable works.²¹³ This justification derives from the U.S. Constitution, which authorizes the creation of intellectual property rights to “promote the Progress of Science and useful Arts.”²¹⁴ Without copyright, the theory goes, creative works suffer from the possibility of being copied and sold by third parties at marginal cost. This practice could prevent creators from recouping their up-front creative costs, and it could dissuade them from creating more works. Ultimately,

210. *Dellar v. Samuel Goldwyn, Inc.*, 104 F.2d 661, 662 (2d Cir. 1939); *see also* *Time, Inc. v. Bernard Geis Assocs.*, 293 F. Supp. 130, 144 (S.D.N.Y. 1991) (calling fair use “so flexible as virtually to defy definition”); ROBERT COOTER & THOMAS ULEN, *LAW & ECONOMICS* 132 (4th ed. 2004) (noting that a “vague line, frequently litigated, divides fair and unfair unauthorized copying”); Jed Rubenfeld, *The Freedom of Imagination: Copyright’s Constitutionality*, 112 *YALE L.J.* 1, 16-17 (2002) (describing fair use as “routinely refer[red] to as ‘resistant to generalization,’ ‘unpredictable,’ and ‘subjective’”) (citations omitted).

211. 17 U.S.C. § 107.

212. *See generally* David Nimmer, “*Fairest of Them All*” and *Other Fairy Tales of Fair Use*, 66 *LAW & CONTEMP. PROBS.* 263 (2003).

213. *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 558 (1985) (“By establishing a marketable right to the use of one’s expression, copyright supplies the economic incentive to create and disseminate ideas”); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 450 (1984) (“The purpose of copyright is to create incentives for creative effort.”); *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (“The immediate effect of our copyright law is to secure a fair return for an ‘author’s’ creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good.”).

214. U.S. CONST. art. I, § 8, cl. 8.

the public could lose the benefits of new works.²¹⁵ Copyright solves this problem by granting creators temporary monopoly rights that allow them to recover their fixed creative costs, thus assuring a continued supply of new creative works. Put another way, copyright achieves its constitutional purpose by increasing artists' incentives to create.²¹⁶

Fair use is a safety valve intended to permit courts "to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster."²¹⁷ In other words, fair use is intended to further copyright's goal by permitting uses of copyrighted works that are likely to lead to a net increase in creativity.²¹⁸ Many of the prototypical examples of fair use, such as copying for purposes of criticism, news reporting, and scholarship,²¹⁹ provide evidence of this intent. In each case the use in question advances copyright's goal because the copied work is used to create a new work, whether a book review, a news report about an art show, or a scholarly study of a contemporary poet's works. A ruling of fair use in these circumstances is, in effect, a determination that the creative value of these new works outweighs any loss in creative incentives resulting from failure to enforce the copyright in the original work. The four fair use factors, and any other relevant consideration of fair use analysis, are (or should be) merely an analytical means to achieve this end.

The devil, though, is in the details. Even those who agree with the utilitarian calculus sketched out above (which, as detailed below, is not

215. See COOTER & ULEN, *supra* note 210, at 120-21; William M. Landes, *Copyright, Borrowed Images, and Appropriation Art: An Economic Approach*, 9 GEO. MASON LAW REV. 1, 5 (2000).

216. Nevertheless, it should be noted that Congress is given great deference by the courts regarding how best to achieve copyright's constitutional purpose. In one relatively recent case the Supreme Court found that Congress could rationally determine that factors other than creative incentives—such as adherence to an international copyright treaty—may promote the useful arts and sciences regardless of their effects on creative incentives. *Eldred v. Ashcroft*, 537 U.S. 186, 205-06 (2003).

217. *Stewart v. Abend*, 495 U.S. 207, 236 (1990) (quoting *Iowa State Univ. Research Found., Inc. v. Am. Broadcasting Cos.*, 621 F.2d 57, 60 (2d Cir. 1980)).

218. See *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575 (1994) ("From the infancy of copyright protection, some opportunity for fair use of copyrighted materials has been thought necessary to fulfill copyright's very purpose, 'to promote the Progress of Science and the useful Arts.'") (citation omitted); *Arica Inst., Inc. v. Palmer*, 970 F.2d 1067, 1077 (2d Cir. 1992) ("The 'fair use' exception applies where the Copyright Act's goal of encouraging creative and original work would be better served by allowing the use than by preventing it.").

219. These examples are prototypical because they are specifically listed in the statutory fair use section. 17 U.S.C. § 107.

everyone)²²⁰ disagree about its boundaries, and in particular about what should constitute promotion of creativity. Judge Leval takes perhaps the strictest view, suggesting that fair use should be limited to uses he calls “transformative,” which are uses that “must be productive and must use the quoted material in a different manner or for a different purpose from the original.”²²¹ Others take a broader view, both regarding what should be considered transformative (also sometimes called “productive”) and regarding the question of whether a work must be transformative to qualify for fair use.²²² For example, commentators have pointed out that teaching and research, which are listed in the preamble to the fair use statute as prototypical examples of fair use, are not transformative in the sense that they do not directly yield new works.²²³ Nevertheless, by strongly supporting access to creativity and the diffusion of knowledge, these uses could qualify as transformative or productive in a broader sense. The last time the Supreme Court addressed the issue, it adopted a toned-down version of Judge Leval’s proposal, noting that “[a]lthough such transformative use is not absolutely necessary for a finding of fair use . . . the goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works.”²²⁴

Fortunately, for current purposes it is not necessary to resolve the debate over what should qualify as transformative. Most scholars and courts can agree, at least, on the general rule that fair use is more appropriate when the use in question is transformative, however that term is defined. Therefore, while courts may disagree on whether a new work must be created for fair use to apply, all would agree that it should be more difficult

220. See *infra* notes 239-242 and accompanying text. The utilitarian version of copyright’s goal is, however, the dominant theory. See Lloyd Weinreb, *Fair’s Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137, 1150 (1990) (“There is broad agreement that a determination of fair use should depend largely, if not exclusively, on answers to two questions . . . which are drawn from utilitarian assumptions about the copyright scheme generally.”).

221. Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1116 (1990) (“If a quotation of copyrighted material reveals no transformative purpose, fair use should perhaps be rejected without further inquiry into the other factors.”).

222. See, e.g., Fisher, *supra* note 172, at 1743 (suggesting that whether a use is productive should be one of several factors courts consider in fair use determinations); Jeremy Kudon, *Form Over Function: Expanding the Transformative Use Test for Fair Use*, 80 B.U. L. REV. 579 (suggesting a functional use test in place of the current transformative use test); Loren, *supra* note 199, at 30-32.

223. Loren, *supra* note 199, at 30-31.

224. *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

for a non-transformative work to qualify,²²⁵ because few non-transformative uses clearly advance the purpose of fair use.²²⁶

Some courts, determined to privilege trivial copyright violations, seem to have lost sight of this purpose. *Betamax* is the most prominent example of this trend. The relevant portion of the holding in that case—that time shifting is not a violation of copyright—does nothing to advance even the broadest definition of copyright’s purpose. The act of time shifting neither creates a new work nor, in most cases, increases creative incentives in any significant way. Indeed, except in rare circumstances (such as educational programming), there are no traditionally-favored social benefits to time shifting.²²⁷ Furthermore, the negative incentive effects of the holding may have been more significant than the court allowed.²²⁸ In sum, the net effect of the time-shifting portion of the *Betamax* holding, if any, was to decrease total creativity, an effect diametrically opposed to the purpose of fair use.²²⁹

Another fair use decision that seems inconsistent with fair use’s purpose is *National Rifle Ass’n of America v. Handgun Control Federation of Ohio*, a Sixth Circuit case.²³⁰ The plaintiff in that case created a list of state representatives for a mailing to its members, which the defendant copied for its own political mailing. A copyright action ensued, and the court ruled the defendant’s actions to be fair use.²³¹ Like *Betamax*, this holding does not appear to promote the purpose of copyright in any sig-

225. *Id.*; see also Leval, *supra* note 221, at 1111 (“I believe the answer to the question of justification [for fair use] turns primarily on whether, and to what extent, the challenged use is *transformative*.”).

226. Leval, *supra* note 221, at 1116.

227. The pleasure VCR owners gain from watching entertainment at their leisure cannot count, or all copying could be argued to further copyright’s purpose by increasing the utility of the copier.

228. The court concludes that time shifting does little harm to copyright holders. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 449-50 (1984). But even a little harm is unjustifiable without a countervailing benefit. Further, there are reasons to doubt the court’s conception of harm. As noted by the dissent, some consumers were building libraries of recorded works, a practice that could have a detrimental effect on sales of those products. *Id.* at 458-59. Further, the ability of time-shifting consumers to skip advertisements could have a detrimental effect on sales of those advertisements. *Id.*

229. It should also be noted that, in retrospect, the net effect of the *Betamax* decision as a whole may have increased creative incentives, largely because the market for sales and rentals of creative works on tape (and later DVD) turned out to be quite large. This was not clear at the time of the *Betamax* decision, however. More importantly, the fact that video tape players increase creative incentives does not mean that time shifting does.

230. 15 F.3d 559 (6th Cir. 1994).

231. *Id.*

nificant way. Arguing that the defendant's mailing as a whole was a transformative use would be a stretch; the defendant's version of the list was a photocopy of the plaintiff's, even if it was sent in an envelope together with material drafted by the defendant. A fairer interpretation would hold the list alone to be the relevant unit of creativity. Thus, creativity was not promoted by the defendant's actions, nor was there any traditionally-favored educational benefit.

Despite the fact that the uses in *Betamax* and *National Rifle* did not further the purpose of fair use, each court found that all of the fair use factors justified its ruling.²³² However, an even-handed reading of the facts shows that their conclusions with respect to the first three factors are highly questionable.²³³ Perhaps sensing this, each court emphasized the fourth factor: the effect of the use on the market for, or value of, the copied work. The *Betamax* court analyzed this factor far more extensively than any other, concluding that fair use was proper because time shifting "has no demonstrable effect upon the market for, or the value of, the copyrighted work."²³⁴ The court in *National Rifle* was even clearer about its reliance on factor four, calling it the most important of the fair use factors.²³⁵

This emphasis on the size of the harm done to the plaintiff should sound familiar—it is the central focus of classic de minimis analysis. Indeed, not only could both the *Betamax* and *National Rifle* courts have achieved the same results using classic de minimis rather than fair use, but there is reason to believe de minimis would have been a much better choice.²³⁶ As the foregoing analysis suggests, de minimis is a closer theoretical fit for the issues presented in the two cases. It is specifically designed to privilege legal violations that do little or no harm, and the size of the harm was the primary reason given by both courts for their holdings. Fair use, on the other hand, is primarily intended to promote creativity, an aim neither *Betamax* nor *National Rifle* appears to further.

To generalize the point, de minimis is often a better theoretical fit than fair use for privileging trivial, non-transformative infringements because non-transformative uses generally do not promote the underlying purpose of fair use. Several factors may strengthen this conclusion, including the

232. *Id.*; *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 448-55 (1984).

233. *See infra* notes 255-256 and accompanying text.

234. *Betamax*, 464 U.S. at 450.

235. *Nat'l Rifle Assn.*, 15 F.3d at 561.

236. Judge Leval agrees that de minimis would have been a better doctrinal hook for the holding in *Betamax*. *See Leval, supra* note 3, at 1457 (1997).

copying of the entire original work, the commercial use of the allegedly infringing product, and a high level of creativity in the original work, as each of these factors militates against a fair use holding. In contrast, none of these factors has an important effect on de minimis analysis; so long as the use in question is trivial, the maxim can apply.

One could criticize this model in two significant ways. First, it may be argued that *any* limitation on copyright promotes creativity, and therefore the purpose of fair use, by increasing access to creative works. Access can promote creativity by providing aspiring creators with both the inspiration and the materials for future creative endeavors. Therefore, one might view fair use as warranted whenever the marginal creative value of access outweighs the marginal creative value of the increased incentives protection would provide. Since the marginal incentive value of preventing a trivial use will generally be close to zero, fair use will almost always be warranted.²³⁷ The *Betamax* court intimated just such an argument in its fair use analysis, noting that a technical infringement that does little harm “merely inhibit[s] access to ideas without a countervailing benefit.”²³⁸

This argument is powerful but flawed. First, it is exceedingly difficult to measure the creative value of access in a particular case. As noted above, courts and commentators have traditionally considered whether a new work is transformative (or productive) as a proxy for the creative value of a new work. One possible reason is that fair use analysis would become even more unwieldy if the generic notion of access were added to the mix. Further, the question of incentives versus access is the fundamental question addressed by Congress in its copyright legislation. Despite the open-endedness of fair use analysis, courts should be chary of reopening that question to an excessive degree absent Congressional invitation. Unlike most of the other factors considered by courts in fair use, there is no direct indication that Congress intended for the perceived value of access to play a prominent role in fair use analysis. Finally, and most importantly, a focus on the creative value of a trivial use misses the point. Both the creative value of the use and the value of prohibiting the use will be vanishingly small in most cases. It makes sense to privilege trivial uses

237. Viewed another way, this mode of analysis diminishes the importance of the transformative nature (or lack thereof) of the infringing work. Transformative works are considered a better fit for fair use specifically because it is assumed that transformative works are those most likely to promote creativity. If all infringing works promote creativity, the difference between transformative and non-transformative uses becomes one of degree, not kind.

238. *Betamax*, 464 U.S. at 450-51.

because they are not worth considering, not because a complex test suggests that they may provide a trivial benefit to aggregate creativity.

The second challenge to the model presented above is more fundamental, and was best described by Professor Lloyd Weinreb.²³⁹ While it is clear that one purpose of copyright (and therefore fair use) is promotion of creativity, Weinreb argues that this need not be the only goal.²⁴⁰ He believes it is proper for a court to consider custom and community notions of fairness in fair use decisions, regardless of the effect of these considerations on total creativity.²⁴¹ Applying this notion to trivial infringements, Weinreb might argue that both custom and fairness favor fair use. Accordingly, fair use is a good theoretical fit for privileging trivial infringements, and the advantages of *de minimis* recede.

There are at least two reasons to reject this approach, however. First, it seems to be a recipe for uncertainty. Fair use is already ambiguous enough without giving courts *carte blanche* to decide what fits their conceptions of fairness. Weinreb, anticipating this complaint, suggests that community standards of fairness may be better defined than some of the elements currently considered in fair use.²⁴² Yet even if this debatable assertion is true, the response should be an attempt to fix the current test with the current goals, not abandonment of those goals (and, arguably, any meaningful limits on courts' fair use discretion). Second, abstract notions of fairness do not necessarily cut in favor of privileging trivial infringements. Many would consider it unfair to take another's intellectual property, especially for a non-transformative use, without permission or payment. Yet, as argued in Section IV.B, it may nevertheless make sense to privilege some such uses. *De minimis* is the best way to do that.

2. *Practical Advantages of De Minimis*

Whether or not there are theoretical problems with applying fair use to a given trivial infringement, there remain practical reasons to favor classic *de minimis*. Foremost among these is ease of analysis. As described at length in the next section, *de minimis* analysis in the copyright context will usually boil down to a simple question about the size of the harm: if trifling, *de minimis* can apply. Compare this to fair use, with its four non-

239. See Weinreb, *supra* note 220; see also Michael J. Madison, *A Pattern-Oriented Approach to Fair Use*, 45 WM. & MARY L. REV. 1525 (2004) (arguing that fair use decisions are based on case law patterns).

240. Weinreb, *supra* note 220, at 1141.

241. *Id.* at 1150-52.

242. *Id.* at 1153.

exclusive factors and the numerous interpretations thereof. All else equal, a simple analysis is preferable to a complex one for two reasons.

First, the simplicity of de minimis would enable courts to spend less time and money adjudicating the case, an advantage that is especially welcome in the trivial cases to which de minimis applies. Several case examples will help to illuminate the point. In *Italian Book Corp. v. American Broadcasting Cos.*, a music publisher sued a television broadcaster for copyright infringement.²⁴³ The suit was based on the airing of a news segment about a local parade at which the plaintiff's song played in the background. The court ruled that fair use applied, but its analysis was cursory. Rather than balancing the fair use factors, or focusing on the fact that the segment was news (a traditionally-favored fair use category), the court emphasized the minimal effect of the use on the value of the plaintiff's work.²⁴⁴ The court largely ignored other possible lines of analysis, including the first three fair use factors. A similar analysis yielded fair use in *Fleming v. Miles*, in which a graphic artist was sued for including in her portfolio a copy of artwork that included elements created by a third party.²⁴⁵ The court in *Kulik Photography v. Cochran* evinced an even greater disregard for the four factors, summarily concluding that use of a copyrighted photograph in a televised trial was fair use.²⁴⁶

In a sense, these cases were correctly decided. The uses in question, unlike those in *Betamax* and *National Rifle*, seem close to those for which fair use was originally intended. Yet none of the three courts was willing to engage in a full fair use analysis to support its holding. Given the limitations on courts' time and resources, there are strong practical reasons to favor this simplified approach. Supreme Court precedent, however, does not permit fair use shortcuts: the deciding court must consider and balance all of the fair use factors before it makes a decision.²⁴⁷ Indeed, at least one plaintiff has used a court's failure to fully consider all of the fair use factors as the basis for an appeal.²⁴⁸

Classic de minimis avoids this problem by permitting courts to dispense with the complexity of fair use analysis when copyright violations

243. 458 F. Supp. 65 (S.D.N.Y. 1978).

244. *Id.* at 70.

245. 181 F. Supp. 1143, 1152-53 (D. Or. 2001).

246. 975 F. Supp. 812, 814 (E.D. Va. 1997) (suggesting disregard for four factors in dictum).

247. *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 578 (1994) ("All [of the fair use factors] are to be explored, and the results weighed together, in light of the purposes of copyright.").

248. *See* *Bond v. Blum*, 317 F.3d 385, 392 (4th Cir. 2003).

are trivial. Further, the fact that courts in cases like *Fleming* and *Italian Book* rely so heavily upon the fourth fair use factor strongly suggests that one can classify the uses at issue in those cases as trivial. Indeed, the analyses in those cases are already closer to de minimis analysis than to traditional fair use analysis. Accordingly, courts applying de minimis to cases like these would not necessarily have to change their legal reasoning. They would just have to stop calling that reasoning fair use.

A second, related, practical advantage of de minimis over fair use is the relative ease with which a de minimis decision can be justified (assuming de minimis is accepted as a viable defense). Given the ambiguity of fair use, and the number of factors involved, it is easy to make reasonable arguments on both sides in all but the most obvious cases. De minimis, on the other hand, should be less controversial in most cases; the main question is what qualifies as trivial. While there certainly will be some disagreement over that question, one would be hard-pressed to find any incentive harm at all for many types of copyright violations.²⁴⁹

An example of the difficulty courts sometimes have justifying fair use holdings may be found in *Belmore v. City Pages, Inc.*²⁵⁰ City Pages was a local newspaper that reprinted an allegedly racist story that had originally appeared in a police publication; the author of the story sued City Pages for copyright infringement.²⁵¹ In its fair use analysis, the court concluded that two of the four fair use factors militated against fair use, since the story was copied in its entirety and was clearly creative.²⁵² Further, the court's conclusion that the first factor favored fair use was arguable: it concluded that the transformative nature of the use outweighed its commerciality.²⁵³ Thus the court forced itself to rely heavily on the fourth factor, the harm done, to justify its fair use holding. Put another way, the court found fair use even though only one of four factors clearly pointed in that direction.²⁵⁴

Betamax and *National Rifle*, each described in detail above, provide similar examples. Even if one takes the position that there is no theoretical problem with application of fair use in those cases, the courts' four-factor analyses were questionable. In *Betamax*, a less creative analysis of the fac-

249. See *infra* Section IV.B.

250. 880 F. Supp. 673 (D. Minn. 1995).

251. *Id.* at 675.

252. *Id.* at 677-80.

253. *Id.* at 677-78.

254. *Id.* It is also worth noting that Professor Nimmer, in his brief analysis of the case, suggested that each of the first three fair use factors inclined against fair use. Nimmer, *supra* note 212, at 269.

tors suggests that two clearly militate against fair use, and that the other two are ambiguous.²⁵⁵ A neutral analysis of the *National Rifle* opinion comes to a similar conclusion.²⁵⁶ More broadly, Professor Nimmer recently showed five cases between 1995 and 2001 in which courts ruled a use fair despite the fact that the first three factors, under a neutral analysis, inclined against fair use.²⁵⁷

Clearly, these results are difficult to justify. What is the purpose of the fair use factors if not to help drive the holding? A court's opinion, and the legal analysis therein, should clarify the reasoning behind a holding, ideally convincing the neutral observer of the correctness of the holding. Many of these opinions do the opposite: they either bend the fair use factors to suit the court's ultimate conclusion,²⁵⁸ or ignore the factors that do not support that conclusion. Courts should not have to play this game to justify conclusions that are, for the most part, eminently reasonable. Rather, they should use classic de minimis to reach those same conclusions.

3. Summary

Classic de minimis holds three significant advantages over fair use. First, fair use is a bad theoretical fit for some trivial violations. Second, de minimis analysis is much easier than fair use analysis, a significant advantage when dealing with matters of trivial importance. Third, a de minimis determination will often be more easily defended than a fair use determination. This is not to say that de minimis is a better fit than fair use for all trivial copyright violations.²⁵⁹ Rather, de minimis and fair use are separate tools with separate goals. While there is considerable overlap between the two, fair use should not do all the work. Courts should be able to avail themselves of either fair use or de minimis, as circumstances dictate. This approach will ensure that courts can privilege those uses that should be

255. Although most time shifting is noncommercial, it is also non-transformative, suggesting that factor one could go either way. Television programs are highly creative works of a type generally given deference under factor two. That the entire work is usually taken suggests that factor three militates against fair use. Factor four, which the court said favored fair use, is arguable, as discussed *supra* note 228.

256. The main difference in analysis between *Betamax* and *National Rifle* is probably factor two—the nature of the copyrighted work. *Compare* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 496 (1984) with Nat'l Rifle Assn. of Am. v. Handgun Control Fed'n of Ohio, 15 F.3d 559, 562 (6th Cir. 1994). The works at issue in *Betamax* were highly creative, while that in *National Rifle* was less so.

257. Nimmer, *supra* note 212, at 269-277.

258. *Id.* at 281.

259. In particular, fair use may be the better route for privileging uses that are both transformative and of questionable triviality.

privileged, while simultaneously saving judicial resources and preventing fair use from drifting too far from its theoretical moorings.

D. Mechanics of Application

Upon combination of the past few sections, it becomes apparent that the use of *de minimis* in copyright should be fundamentally reconsidered. Two steps should be taken to maximize the maxim's utility and minimize confusion. First, as described in Section IV.A, courts must be clear about the way in which they use the maxim. Second, courts should reinvigorate classic *de minimis*. As in other areas of the law, classic *de minimis* can play an important role in copyright, permitting courts to throw out claims not worth adjudicating. Further, it is better designed for this purpose than are the doctrinal alternatives, most notably fair use.

With the need for, and role of, classic *de minimis* established, it is time to turn to the mechanics of its application. Particularly, it is time to define in more detail how and when classic *de minimis* should apply in copyright. Fortunately, there is a model for the way things should be done: the use of *de minimis* in other areas of the law. The following paragraphs apply the *de minimis* framework described in Section II.C to the copyright context. In addition to providing a roadmap for the application of classic *de minimis*, the discussion demonstrates that there are no theoretical roadblocks to such application. Indeed, classic *de minimis* is well-designed to address some of the excesses of copyright.

Section II.C argued that application of classic *de minimis* should comprise a two-step process. First, the court must determine that the harm in question, considered alone, is trifling. While this determination is inherently subjective, there is one important control: the harm should be measured solely by reference to the purpose of the rule in question. In copyright this means the relevant harm is the decrease in creative incentives wrought by the infringement in question.²⁶⁰ Other harms—such as a copyright owner's anger at a loss of control over the work—are generally irrelevant.²⁶¹ Clearly, numerous copyright violations will fit this triviality crite-

260. Moreover, there are at least two reasons to believe that copyright's purpose militates in favor of *de minimis*, at least in some cases. First, copyright is limited in time and scope in part because there is value in wide access to creative works. *De minimis* would increase this access. Second, and relatedly, in some cases failure to enforce copyright could increase the number of creative works by providing other creators with more raw materials for their creativity.

261. For an explanation of why this is so, see *supra* text between notes 72-73. If and to the extent that a court reasonably believes that copyright law is intended to address other harms (as where statutory "moral rights" are implicated), these harms can and should be taken into account by the model presented above.

tion. As discussed above, most copyright infringements have no effect whatsoever on creative incentives.²⁶²

In cases where the court deems the individual harm to be trivial, the analysis can move to the next step. Step 2 is a balancing test that compares the social costs and benefits of using *de minimis*. One must consider each side of this equation broadly in an attempt to determine whether external considerations counsel against application of the maxim, even if the individual harm is trivial. The maxim should apply only where benefits exceed costs. While courts could, in theory, consider a number of factors in this balance, Section II.B lists some of the most important: the size of the direct harm done by the infringement, the direct costs of adjudication, the intent of the statute in question, the effect of adjudication on third parties, and intent of the accused infringer.

The first three factors are more easily analyzed than the last two. Pursuant to step 1, the size of the harm will always be trifling. The direct costs of adjudication, on the other hand, will always be significant in the copyright context—copyright lawsuits, like most lawsuits, are not cheap. Finally, the purpose of the statute is useful primarily to ensure that the correct harm is being measured, and thus is more relevant to step 1 than to step 2. Accordingly, cases in which only these factors are relevant will always qualify for *de minimis*: infringement costs deemed trivial in step 1 will be outweighed by adjudication costs in step 2.

Things become more interesting in cases where the indirect benefits of adjudication are relevant. In particular, if adjudication on the merits would have an important effect on third parties, *de minimis* may not be justified. However, there are several reasons to believe that this is unlikely in copyright. First, while there may be social value in consistent enforcement of certain fundamental rights, copyright clearly does not belong in the same category as, for example, the rights of free speech and due process. Indeed, enforcement of copyright is already limited in numerous ways.²⁶³ Second, important questions of statutory interpretation will seldom arise in the *de minimis* context (and if they do the court can always decline to apply *de minimis*). Third, unlike a stockholder derivative action or a class action lawsuit, plaintiffs in copyright suits rarely represent interests other than their own.

The final factor, intent of the accused infringer, is more difficult to analyze. One may argue that the act of enforcement has the important ex-

262. See *infra* Section IV.B.

263. Examples include fair use, the limited length of the copyright term, and the first sale doctrine.

ternal effect of convincing other potential infringers to abide by the law, and that the collective damage done by infringements resulting from failure to enforce copyright would be more than trivial. This is a specialized version of an issue often considered in conjunction with the fourth fair use factor: whether the harm in question would be significant if widespread.²⁶⁴

While intent could play a role in some de minimis decisions, this issue is unlikely to play a significant role in most cases for several reasons. The uncertainty of the maxim—de minimis determinations are left to the judge's discretion and it is unclear what level of infringing activity will qualify—makes it unpredictable to potential infringers.²⁶⁵ Further, given the fact that other doctrines (particularly fair use) are currently stretched to privilege many of the uses that would otherwise qualify for de minimis, any effect on other potential infringers is doubtful. Finally, many trivial uses would remain trivial even if widespread, as a number of courts analyzing the fourth fair use factor have concluded.

Accordingly, more often than not, copyright de minimis decisions boil down to a question of whether the size of the infringement harm is small enough to qualify as trifling. If so, the use is de minimis, since adjudication costs will outweigh any benefit deriving from adjudication. If not, the use is not de minimis.

Admittedly, determination of what qualifies as trifling is subjective. However, one might argue that copyright violations can be split into two categories: those that almost certainly have no effect on creative incentives (as noted above, most infringements probably fit this description), and those that affect creative incentives. The best way to reduce subjectivity is to use de minimis only for infringements in the former category. While this practice will not completely eliminate subjectivity, it is better than the alternative. De minimis is significantly less subjective and confusing than the mix of rationales currently used to privilege some trivial copyright violations.

One final note seems appropriate. At first blush, the suggestions made in this Article may seem to require radical change. In fact, courts could implement them fairly easily. Current case law is not so much wrong as it is confusing. The suggestions made herein would not change many holdings, only the reasoning used to achieve those holdings. Thus it would not be necessary to overrule many decisions. In addition, reinvigoration of classic de minimis would not require creating a new doctrine, either judi-

264. See, e.g., *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 590 (1994).

265. Of course this would hold true in all contexts where de minimis might apply, not just in copyright.

cially or statutorily. Classic *de minimis* has been around for hundreds of years, the Supreme Court has specifically noted that it applies to statutory law, and no legal authority has expressly denied its applicability to copyright. Courts simply need to start using it.

V. CONCLUSION

The legal maxim of *de minimis non curat lex* has been both misused and underused in copyright. Courts misuse it by confusing the colloquial use of the term (as a synonym for “trifling”) with the formal legal use of the term (as a defense to infringement). This confusion has been most prominent in substantial similarity analysis, and it also occurs in fair use. *De minimis* is underused in that courts have avoided using it in its classic form, as an independent defense to copyright infringement. Instead, courts have relied upon several different methods to privilege minor infringements, most prominently fair use. However, none of these methods is an ideal vehicle for this purpose, and their numerosity leads to confusion.

Failure to use *de minimis* effectively in copyright is problematic for a number of reasons. First, some courts may feel compelled to adjudicate disputes even when it is clear that such adjudication is not in society’s best interests. Second, use of substantial similarity and fair use to privilege trivial infringements has distorted those doctrines. Third, these problems are likely to get worse as new technologies and attitudes increase the likelihood of legal disputes over trivial infringements.

Fortunately, there is a simple solution to these problems. Courts should take care to use the term “*de minimis*” clearly, either as a colloquial expression or as a formal defense, but never as something between the two. This distinction means the term should only be used colloquially in substantial similarity and fair use analyses, or, even better, not at all. Additionally, courts should reinvigorate the use of classic *de minimis* in copyright. Only classic *de minimis* will permit courts to address the legal challenges posed by trivial copyright violations without distorting other areas of copyright.

INTRODUCTORY NOTE TO BRIEF OF *AMICUS CURIAE* IN *EBAY V. MERCExchange*

By Robert P. Merges

The following brief was prepared for the Supreme Court in the case of *eBay v. MercExchange*, No. 05-130, on behalf of Yahoo!, Inc. In the *eBay* case, the Federal Circuit had applied its “general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.”¹ In a unanimous opinion on May 15, 2006, the Supreme Court vacated the Federal Circuit decision in that case, resolving it in favor of the position advocated in the Yahoo! brief.² In its opinion, the Supreme Court said:

We hold only that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.³

The “traditional principles” the Court mentioned include primarily the conventional four-factor test for determining whether to grant an injunction, which the Court described earlier in the opinion:

A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.⁴

The brief that follows describes the application of these principles in cases involving non-producing, non-research and development (R&D) performing patent holders (often referred to as “patent trolls”). The majority opinion of the Supreme Court took no position directly on the complex

1. *MercExchange, L.L.C. v. eBay Inc.*, 401 F.3d 1323, 1339 (Fed. Cir. 2005).

2. *eBay Inc. v. MercExchange, L.L.C.*, No. 05-130 (U.S. May 15, 2006), *available at* <http://www.supremecourtus.gov/opinions/05pdf/05-130.pdf>.

3. *Id.* slip op. at 5.

4. *Id.* slip op. at 2.

issue of injunctions in cases involving patent trolls. It did say, however, in rejecting the sweeping no-injunction holding of the district court⁵ that:

[S]ome patent holders, such as university researchers or self-made inventors, might reasonably prefer to license their patents, rather than undertake efforts to secure the financing necessary to bring their works to market themselves. Such patent holders may be able to satisfy the traditional four-factor test⁶

The reference to patentees who might license in place of “secur[ing] the financing necessary to bring their works to market” may prove to be an important phrase in the opinion. It could be read to mean that injunctions will be more readily available when a non-producing patentee had a viable product idea or new technology, one that could have formed the basis of a real market. At the same time, it implies that patent holders whose patents could never have formed the basis of a viable market, and whose only business is to sell (freedom from) legal rights in markets developed *by others*, will no longer be favored. At a minimum, the passage suggests an emphasis on the motives and business plans of patentees seeking injunctions—an important factor discussed at length in the brief that follows.

In addition, Justice Kennedy, in his concurring opinion that was joined by three other Justices, explicitly refers to the threat posed by patent trolls. He begins his analysis by stating: “An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.”⁷ The Kennedy concurrence goes on to describe why patent trolls may often not deserve injunctions:

When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.⁸

We call attention to these features of the opinion because we believe the brief that follows fleshes out many of these issues in some detail. As a consequence, it may prove helpful to lower courts as they apply the *eBay* opinion in future cases involving patentees with no real interest in product development or continuing R&D.

5. See *MercExchange, L.L.C. v. eBay Inc.*, 275 F. Supp. 2d 695 (E.D.Va. 2003).

6. *eBay*, No. 05-130, slip op. at 4.

7. *Id.* slip op. at 2 (Kennedy, J., concurring).

8. *Id.* (Kennedy, J., concurring).

No. 05-130

IN THE

Supreme Court of the United States

EBAY INC.
Petitioner,
v.

MERCExchange, L.L.C.
Respondent.

**On Writ of Certiorari
to the United States Court of Appeals
for the Federal Circuit**

**BRIEF OF AMICUS CURIAE YAHOO! INC.
IN SUPPORT OF PETITIONER**

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QUESTIONS PRESENTED

The question presented by petitioner is whether the Federal Circuit erred in setting forth a general rule in patent cases that a district court must, absent exceptional circumstances, issue a permanent injunction after a finding of infringement.

This Court directed the parties to address whether it should reconsider its precedents, including *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405 (1908), on when it is appropriate to grant an injunction against a patent infringer.

INTEREST OF AMICUS CURIAE¹

Yahoo! Inc. (“Yahoo!”) provides services to more than 411 million individuals each month worldwide and operates the world’s most popular Internet destination. The company is a leading innovator in the computer and Internet sector, holds a wide array of patents relating to Internet communication, and also licenses a variety of technology patents both to and from third parties. From time to time, Yahoo! finds it necessary to enforce its own patent rights as well as to defend itself against allegations that it infringed a third party’s patent. Accordingly, Yahoo!’s interest is in an efficient patent system that fairly rewards innovation.

Innovation and efficiency will not be advanced by the rule announced by the Federal Circuit in this case, under which permanent injunctions must always issue upon a finding of patent infringement absent a danger to public health or safety. Although permanent injunctions are generally warranted upon a finding of infringement, “patent trolls”—entities whose primary purpose is to tax rather than engage in innovation—should not be allowed to use automatic injunctions to extract settlements greatly exceeding the true economic value of their patents from legitimate companies. This Court should make clear that the lower courts have discretion under 35 U.S.C. § 283 to prevent patent trolls from abusing the patent system in this manner.

SUMMARY OF ARGUMENT

Patent law rewards innovation by providing an important incentive—the right to exclude—so that inventors will risk investing time and money

1. Counsel for both parties have consented to the filing of this brief, and their consents have been filed with the Clerk of this Court. No counsel for any party authored this brief in whole or in part, and no person or entity, other than the named *amicus curiae* and its counsel, contributed monetarily to the preparation or submission of this brief.

in the hope of developing new products and processes that will benefit consumers. In many cases, it is appropriate to respond to a finding of patent infringement by granting a permanent injunction to a patent holder.

But “patent trolls”—entities whose primary purpose is to prey on innovators who actually produce societally valuable products—abuse the patent system by obtaining patents for the purpose of coercing settlements from such innovators. Issuing trolls automatic injunctions upon a finding of infringement allows them to extort settlements that vastly exceed the true economic value of their patents and imposes enormous social costs, particularly in the computer and Internet industries. Indeed, the rule adopted in the decision under review creates an enormous incentive for trolls to generate court-clogging, inefficient litigation that disrupts the ongoing operations of genuine innovators.

The decision under review should be reversed because it prevents trial courts from exercising their equity jurisdiction to rein in patent trolls. The Court should make clear that Congress in fact specifically intended trial court judges to possess and exercise that authority. Indeed, the essence of the equitable power expressly reserved by Section 283 is the ability to look through legal niceties to ensure a just and socially efficient result, as courts often do in patent cases.

Distinguishing a patent troll from a party that ought to be awarded an injunction is not always easy. This Court should provide the lower courts specific guidance regarding relevant factors to consider to aid in the exercise of their equitable discretion. The ultimate question is whether future innovation will be encouraged by strict enforcement of the patent. Accordingly, a particularly important factor in determining whether a patent holder may be a troll is the fundamental nature of the business entity. As noted above, patent law should permit innovators to realize the economic value of their inventions as an incentive to further innovation. But trolls lie outside of that purpose because they exist primarily to tax, not engage in, innovation. More specifically, trolls acquire patents and engage in behaviors to increase the *settlement* value of those patents without adding anything of *societal* value.

A second inquiry for trial courts addressing the propriety of an injunction is therefore whether the patent holder engaged in strategic “troll-like” behavior in order to ambush a legitimate business with its patent. For example, even while operating within the letter of permissible PTO practice, trolls may manipulate those processes to delay patent issuance and thereby set a “trap” for claimed infringement. Alternatively, trolls may delay invoking the patent, knowing that the value of the infringing use to the infringer will increase during the delay. The precise facts that will allow

lower courts to detect such abuses of patent processes will vary, of course, but the nature of equity jurisdiction is to allow the courts to assess the totality of the circumstances in order to seek a just and socially rational result.

In short, while trial courts should examine these and any other factors bearing on the equities, patent-monetization entities that have engaged in strategic “troll-like” behavior should not be entitled to injunctions. Indeed, entities established for purposes of patent monetization should be entitled to no more than reasonable damages under Section 284 even when they have *not* engaged in troll-like abuses. A contrary rule would provide undesirable incentives for trolls to seek settlements in excess of the true economic value of their patents while doing nothing to promote innovation.

Reversing the Federal Circuit’s decision and providing the lower courts with guidance concerning the factors that should be used to determine whether to grant an injunction does not require this Court to overturn *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405 (1908). Although the Court in *Continental Paper Bag* correctly held that a patent holder was entitled to an injunction even where it did not use its patent to manufacture products, the Court also recognized that there could be cases where “a court of equity might be justified in withholding relief by injunction.” *Id.* at 430. As described more fully in Section III of this brief, availability of injunctions should turn largely on whether the patentee engages in research and development and should discourage entities whose sole business is patent litigation. Under the standard we propose, the plaintiff in *Continental Paper Bag* was not a patent troll and therefore was entitled to an injunction.

The standard we are suggesting will not work a radical change in the operation of the patent system. While troll-initiated litigation is growing rapidly, most patent cases still involve traditional research- or product-oriented patent holders.

In the case at bar, the Court should hold that lower courts may decline to issue an injunction in appropriate cases, and remand for determination in accordance with the factors set out in this brief.

ARGUMENT

I. A RULE MAKING THE ISSUANCE OF AN INJUNCTION VIRTUALLY AUTOMATIC UPON A FINDING OF PATENT INFRINGEMENT PERMITS PATENT TROLLS TO ABUSE THE PATENT SYSTEM.

While some may argue for a severe rollback of patent rights to stop the recent problem of “patent trolls,” in our view no fundamental change in patent protections is warranted at this time. The founders of this country, this Court, and Congress have long recognized that strong patent protection promotes innovation and benefits the nation’s economy and consumers. As this Court explained:

The stated objective of the Constitution in granting the power to Congress to legislate in the area of intellectual property is to ‘promote the Progress of Science and useful Arts.’ The patent laws promote this progress by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development. The productive effort thereby fostered will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens.

Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974) (citing U.S. CONST. art I, § 8, cl. 8.). Indeed, most commentators agree that strong patent protection generally leads to demonstrably positive results and that an injunction is in most cases the economically appropriate remedy for infringement.²

A. Trolls Can Use the Patent System To Ambush Computer and Internet Companies.

The enormous complexity of the computer and Internet sector has, however, given rise to a “new breed of entrepreneurs” known as “patent

2. See, e.g., Robert P. Merges, *Of Property Rules, Coase and Intellectual Property*, 94 Columbia L. Rev. 2655, 2655 (1994) (“[P]roperty rules can and do work effectively in many situations involving [intellectual property rights.]”); Stephen A. Merrill, *et al.* eds., National Research Council, *A Patent System for the 21st Century*, at 21-25 (2004) (describing changes in U.S. patent policy over last 20 years); Federal Trade Comm’n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* 1:18-23 (2003) (same).

trolls.”³ These entities do not innovate, but rather seek to acquire broad and nebulous patent claims that arguably encompass existing technologies relied on by companies with deep pockets. By acquiring these claims and threatening or pursuing litigation, the patent trolls seek and often receive economic settlements from genuine innovators and producers that greatly exceed the true economic value of the patents in question. The key weapon wielded by the patent trolls is the threat of a permanent injunction that can “hold up” the sale of a complex product that may incorporate literally thousands of non-infringing patented processes. *See To Promote Innovation* 3:39-41, 3:51-55.

As the Federal Trade Commission recently explained, innovation in the computer and Internet industry is often incremental and cumulative, and the pace of change is rapid.⁴ The net result is that each marketable product in this industry may incorporate—often in an incidental, tangential, and sometimes unintentional way—hundreds or even thousands of patented processes. This is commonly described as a “patent thicket”: “a dense web of overlapping intellectual property rights that a company must hack its way through in order to actually commercialize new technology.” Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, in *INNOVATION POLICY AND THE ECONOMY* 119, 120-21 (Adam Jaffee *et al.* eds., 2001); *see also To Promote Innovation* 2:27-31, 3:2, 34-35, 52-53.

The patent thicket and other well-recognized inefficiencies in the current patent system provide the raw material for patent trolls’ machinations. As an initial matter, far too many low quality patents issue, as the district

3. Jeremiah Chan & Matthew Fawcett, *Footsteps of the Patent Troll*, 10 No. 1 Intell. Prop. L. Bull 1 (2005); *see also* William M. Bulkeley, “*Court Play: Aggressive Patent Litigants Pose Growing Threat to Big Business*,” Wall St. J., Sept. 14, 2005, at A1; James Kanter, “*Ownership of Ideas Is High-Stakes Game*,” Int’l Herald Trib., Oct. 3, 2005, at 1.

4. *To Promote Innovation* 3:34-37 (discussing computer hardware), 44-46 (computer software and Internet). Notably, the FTC has contrasted Internet and computer innovation with discoveries in the pharmaceutical industry, where most innovation involves discrete discoveries—such as a “new chemical entit[y]” (NCE)—rather than incremental improvements on existing discoveries. *Id.* 3:4-6. This difference in industry structure—rather than any disagreement about the importance of rewarding and protecting genuine innovation—explains why the pharmaceutical companies generally support the wholly mechanical enforcement of patent holders’ rights. These companies do not face the problems, described below, that arise when “patent trolls” seek settlements based on alleged infringement by one of *many* patents incorporated in a single computer or Internet product. As explained below, the narrow exception to the general permanent injunction rule that Yahoo! proposes will not adversely impact the intellectual property rights of pharmaceutical companies.

court in this case noted.⁵ The PTO approves between 85 to 97 percent of the applications it receives. C. Quillen and O. Webster, *Continuing Patent Applications and Performance of the U.S. Patent Office*, 11 Fed. Cir. Bar J. 1, 1-21 (2001). After a careful review of the available evidence, a blue-ribbon panel of the National Research Council recently concluded that “[t]here are several reasons to suspect that more issued patents are deviating from . . . desirable standards of . . . non-obviousness and that this problem is more pronounced in fast-moving areas of technology newly subject to patenting.” *A Patent System for the 21st Century* 51. The panel emphasized that the number of patent examiners at the PTO has not kept pace with the explosion in the number and complexity of patent applications. *Id.*

In addition, savvy patent practitioners have become skilled at manipulating the PTO’s procedures to create “submarine patents,” whose existence is hidden until a company with deep pockets has sunk irreversible investment into arguably infringing technology.⁶ As the FTC explains the practice, the patent troll frequently “allows its application to languish in the PTO while watching another company make substantial investments in a technology or product that will infringe the yet-to-be-issued patent.” *Id.* Then, “[o]nce the other company’s sunk costs are large, the patent applicant obtains the patent, asserts infringement, and ‘holds up’ the other company, demanding supra-competitive royalties for a license to the ‘submarine patent.’” *Id.*⁷

5. Pet. App. 57a-58a; see also Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 Berkeley Tech. L.J. 577, 589 (1999) (“There are persistent reports that patents in the software area, and perhaps especially, patents for ‘business methods’ implemented in software, are of extremely poor quality,” and routinely “overlook clearly anticipating prior art.”).

6. *To Promote Innovation* 1:26. The term “patent troll” connotes unfair surprise: “[A] troll hides under bridges, metaphorically speaking, waiting for companies to produce and market products, that is, to approach and cross the bridge. The ugly, evil troll then leaps up and demands a huge toll, that is, a licensing fee settling actual or threatened patent litigation, litigation that could result in an injunction halting the product line.” Donald S. Chisum, *Reforming Patent Law Reform*, 4 J. MARSHALL REV. INTELL. PROP. L. 336, 340 (2005); see also *id.* at 348 (criticizing the Federal Circuit’s decision in this case on the ground that “injunctions to protect property rights are not automatic and [should] take into account equitable factors”).

7. To address this problem, Congress amended the Patent Act in 1999 to require publication of patent applications within eighteen months of filing. Applicants can avoid this requirement, however, by filing for patent protection only in the United States, 35 U.S.C. § 122, and patent trolls frequently do because the additional delay is often worth

To compound the problem, no computer or Internet company can be confident that its product will not ultimately be found by a court to infringe existing patents, even if it engages in an extensive patent search that may substantially delay release of a product and cost millions of dollars. *Footsteps of the Patent Troll*, 10 No. 1 *Intell. Prop. L. Bull.* at 3-4; *To Promote Innovation* 3:53-54, 3:39-40. This is true both because of the sheer number of patents in this area and also because “the metes and bounds of software patent claims are often ambiguous” until *after* the patent is construed by a district or appeals court. *Id.* 3:52. Indeed, the degree of *ex ante* uncertainty is underscored by the fact that a staggering 50 percent of district court patent determinations are overturned at the appellate level. *A Patent System for the 21st Century* 62; *see also id.* at 66 (noting that the average period between patent application and a final ruling on validity is 12.26 years). Moreover, because willful infringement carries a penalty of treble damages, many companies are wary of conducting exhaustive patent searches for fear of later having that fact used against them in an infringement action.⁸

In short, computer or Internet companies conducting their businesses honestly and carefully may find themselves accused of infringing low-quality or hard-to-discover patents. By then, a company may have already invested significant amounts in product development that make it very expensive to redesign and redeploy a new product line to avoid the alleged infringement, even though the *ex ante* costs of doing so would have been quite small. *To Promote Innovation* 2:28-29. As the Federal Circuit acknowledged in another case, once a producer has made such investments, the threat of an injunction obliges the producer to

pay [the patent holder] as much as it would cost to shift to a non-infringing product, an amount, given investment in infringing systems, perhaps far more than a reasonable royalty [as determined pre-investment]. These incentives . . . encourage patentees to adopt a strategy of ambush rather than providing fair notice.

Odetics, Inc. v. Storage Technology Corp., 185 F.3d 1259, 1273 (Fed. Cir. 1999) (case involving patent holder who unreasonably delayed bringing patent enforcement suit). In other words, injunctive relief enables patent trolls to extort settlements greatly in excess of the true economic value of

the cost of foregoing foreign intellectual property protection. Note, *The Disclosure Function Of The Patent System (Or Lack Thereof)*, 118 *Harv. L. Rev.* 2007, 2024 (2005).

8. *See generally The Disclosure Function*, 118 *Harv. L. Rev.* at 2017-23 (“Given the prevalence of willful infringement verdicts in patent suits, innovators are exposed to significant financial risk whenever they search through the patent records.”).

their patents. Under 35 U.S.C. § 284, patent holders are entitled to the generous remedy of “damages adequate to compensate for the infringement but in no event less than a reasonable royalty”—*not* to the much higher payoff they can obtain with the aid of an injunction.

B. Issuing Injunctions to Trolls Harms Productive Firms.

Patent troll tactics are unappealing to true innovators. As a general matter, legitimate computer and Internet companies engage in “defensive patenting” as a way to negotiate the “patent thicket.” *To Promote Innovation* 2:26-27, 3:35-36, 52. In other words, a company will patent a wide range of novel, non-obvious, and useful ideas relating to its products even though it knows that not all those ideas will ultimately be incorporated into its products. These patents help to preserve the company’s “freedom to operate” by acknowledging the possibility that, in the future, the company *may* need to use the patented technologies. *Id.* 3:33. In addition, such legitimate industry participants know that they will end up both *holding* patents used by their rivals and *using* patents held by their rivals. In this situation, sometimes described as “mutually assured destruction,” each side has a strong incentive to decline to enforce their patents in return for mutual forbearance. *Id.* 2:30-32, 3:37-39, 52. In some cases, these arrangements may be codified in formal “cross licensing” agreements, possibly involving a negotiated monetary exchange if one company’s patent holdings are more valuable than another’s. *Id.* 3:37-41, 52.

But cross-licensing arrangements and the threat of “mutually assured destruction” do not dissuade patent trolls from asserting unreasonable demands because they are “non-practicing entities.” *Id.* 2:31-32, 3:38-39. “Faced with a competitor, [a] company could assert its own patent portfolio and reach a reasonable cross-licensing arrangement. But a troll does not need a license and therefore is uninterested in cross-licensing.” Chisum, *Reforming Patent Law Reform*, 4 J. Marshall Rev. Intell. Prop. L. 340.

Unfortunately, even companies with excellent legal defenses have strong incentives to settle with patent trolls asserting low-quality patents. One “industry rule of thumb” is that it costs \$1.5 million to defend a typical case and \$4 million to defend a damage claim of over \$25 million. Wendy Schacht and John Thomas, Congressional Research Service, *Patent Reform: Innovation Issues* 7-8 (Library of Congress 2005) (noting that one large technology company has an annual patent defense budget of nearly \$100 million). To compound the problem, under current law, plaintiffs are permitted to bring infringement cases in any federal district court with personal jurisdiction over the alleged infringer, which allows patent

trolls to shop for courts they consider likely to view their claims favorably. 28 U.S.C. § 1400(b). Accordingly, many companies accept offers from patent trolls to pay license fees, even for dubious patent claims, rather than risk trial. Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. L. Rev. 1495, 1517 (2001) (acknowledging that companies will find it rational to pay off patent trolls holding dubious claims).

Taken together, these features of the current patent system enable patent trolls to take particular advantage of software and Internet firms. As noted above, the existence of the patent thicket and the problem of low quality patents make it especially easy for trolls to acquire patents that arguably cover one of the hundreds or thousands of processes incorporated in a single high technology product. The troll waits until a company with deep pockets makes irreversible investments in the arguably infringing technology. The troll may even revise the terms of the patent (through a patent “reissuance” or “continuation”) in light of the target’s investment in order to strengthen the infringement claim. The troll then uses the threat of an injunction shutting down production to demand a significant share of the total profit associated with the product.

This gamesmanship results in no social benefit and a great deal of harm. First, trolls clog the legal system with complex and bitterly contested litigation. When successful, the trolls also extract large cash settlements from their victims, the companies that actually produce products of social value. Not only are these costs (as well as legal defense fees) eventually passed on to consumers—leading to economic deadweight loss—but in addition “innovation may suffer because some companies will ‘refrain from introducing certain products for fear of hold-up.’” *To Promote Innovation* 3:41 (citing *Navigating the Patent Thicket* at 126; Peter Grindley & David J. Teece, *Managing Intellectual Capital: Licensing and Cross-Licensing in Semiconductors and Electronics*, 39 Cal. Mgmt. Rev. 8, 20 (1997)).

II. TRIAL COURTS HAVE EQUITABLE POWER TO DENY INJUNCTIONS TO PATENT TROLLS.

As other briefs set forth in greater detail, the Federal Circuit’s holding is inconsistent with Section 283. That provision states that trial courts “*may grant* injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable” (emphasis added). The statute could hardly be more clear that courts likewise *may deny* injunctions when “principles of equity” support that result.

A. Courts Have Traditionally Barred Uses of the Patent System that Are Contrary to the Public Interest.

The Federal Circuit was obliged to acknowledge that the courts have denied injunctions to “protect public health,” Pet. App. 26a, but suggested that such circumstances represent the lone limitation on a patentee’s general “right to exclude,” *id.* at 27a. That suggestion is wholly unsubstantiated. While it is true that some early cases denied injunctions based on a threat to public health or safety, *see, e.g., City of Milwaukee v. Activated Sludge*, 69 F.2d 577, 593 (7th Cir. 1934); *Vitamin Technologists, Inc. v. Wisconsin Alumni Research Found., Inc.*, 146 F.2d 941, 944-45 (9th Cir. 1945), that justification for withholding injunctive relief has never been exclusive.

To the contrary, in the years before patent appeals were directed exclusively to the Federal Circuit, appellate courts repeatedly upheld the denial of permanent injunctions in patent cases for other reasons. For example, in *Nerney v. New York, N.H. & H.R. Co.*, 83 F.2d 409, 411 (2d Cir. 1936), the court denied a permanent injunction to a railroad company where it was “recognized that the only real advantage to a plaintiff in granting the injunction would be to strengthen its position in negotiating a settlement.” And in *Foster v. American Machine & Foundry Co.* 492 F.2d 1317, 1324 (2d Cir. 1974) (some citations omitted), the court denied a permanent injunction to a manufacturer because

[a]n injunction to protect a patent against infringement, like any other injunction, is an equitable remedy to be determined by the circumstances. 35 U.S.C. § 283. It is not intended as a club to be wielded by a patentee to enhance his negotiating stance. Here, as the District Court noted, the [defendant] manufactures a product; the [plaintiff] does not. In the assessment of relative equities, the court could properly conclude that to impose irreparable hardship on the infringer by injunction, without any concomitant benefit to the patentee, would be inequitable.

More broadly, it is the nature of equity that new situations and even categories of situations will arise as patent practice evolves. As this Court has frequently observed, the essence of the courts’ equitable power is the ability to look through legal niceties to ensure a just result. *See, e.g., Young v. Higbee Co.*, 324 U.S. 204, 209 (1945) (“Equity looks to the substance and not merely to the form.”). This has led the Court to well-known decisions such as *Morton Salt Co. v. G. S. Suppiger Co.*, in which it applied equitable principles to deny patent protection to a company using its patent to restrain trade. 314 U.S. 488, 494 (1942) (“The patentee, like

these other holders of an exclusive privilege granted in the furtherance of a public policy, may not claim protection of his grant by the courts where it is being used to subvert that policy.”⁹

Of particular importance, this Court has previously invoked its equitable authority to impose limits on a patentee’s ability to employ unfair surprise to extort money from genuine innovators who had reasonably relied on the protections of the patent system. In *Woodbridge v. United States*, 263 U.S. 50 (1923), and *Webster Electric Co. v. Splitdorf Electrical Co.*, 264 U.S. 463 (1924), the Court developed the equitable doctrine of “prosecution laches.” This doctrine prevents parties from benefiting from unreasonable lassitude in seeking issuance of a patent, particularly where the patent holder mounted a strategy of “designed delay” to amend its application in order to generate infringement claims against products created in the intervening period. 263 U.S. at 56, 51-53. Significantly, the Federal Circuit recently reaffirmed and applied the prosecution laches doctrine to patent claims by a notorious businessman—Jerome H. Lemelson—who largely invented the field of patent trolling. See *Symbol Techs. Inc. v. Lemelson Med. Educ. & Research Found.*, 277 F.3d 1361 (Fed. Cir. 2002) & 422 F.3d 1378 (Fed. Cir. 2005); Michelle Armond, *Introducing the Defense of Independent Invention to Motions for Preliminary Injunctions in Patent Infringement Lawsuits*, 91 Calif. L. Rev. 117, 117-120 (2003) (describing Lemelson’s tactics).

Similarly, this Court has recognized the equitable defense of laches where a patent holder has unreasonably delayed bringing a suit for patent infringement. See, e.g., *Lane & Bodley Co. v. Locke*, 150 U.S. 193 (1893); *Wollensak v. Reiher*, 115 U.S. 96 (1885). The Federal Circuit routinely applies this rule to prevent damage recovery for the pre-complaint period, *A.C. Aukerman Co. v. R.L. Chaides Const. Co.*, 960 F.2d 1020, 1028-39 (Fed. Cir. 1992) (en banc), and has even made clear that a patent holder

9. This Court has issued other patent decisions applying equitable principles to prevent savvy parties from subverting the larger purposes of the law. See, e.g., *Edward Miller & Co. v. Bridgeport Brass Co.*, 104 U.S. 350 (1882) (significantly limiting the then-common practice of “reissuing” patents—often based on flimsy assertions that the original application contained a mistake—to prevent harm to parties that had relied on the patent’s original specification); *Boyden Power-Brake Co. v. Westinghouse*, 170 U.S. 537, 568 (1898) (finding noninfringement notwithstanding that the product at issue met all the patent claim limitations, because it was “so far changed [in] principle” that it should not, in fairness, be subject to the claim in question). The *Boyden* holding, now known as the “reverse doctrine of equivalents,” has been explained by commentators as facilitating follow-on inventors’ ability to make improvements to the original design. See generally Robert Merges, *Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents*, 62 Tenn. L. Rev. 75 (1994).

cannot seek a permanent injunction under Section 283 for infringing goods produced during a laches period, *Odetics*, 185 F.3d at 1273 (“[A]llowing a patentee who commits laches to enjoin nonetheless the further use of a pre-complaint product will, in many cases, allow the patentee to recover royalties [through the threat of hold up] that laches specifically prevents.”).

As the Federal Circuit has indicated, however, a finding of laches is a severe ruling reserved for only the most “egregious cases” of delay in prosecution, *Lemelson*, 422 F.3d at 1385, and a presumption of ordinary laches arises only if the patent holder has waited more than six years since he or she knew or should have known of the alleged infringement, *A.C. Aukerman*, 960 F.2d at 1028. Laches is, in other words, a blunt instrument. As a practical matter, while it may detect and punish the most “egregious” troll misconduct, it does little to address patentee behavior (in connection with a valid patent) that is “merely” reprehensible. In our view, that is precisely what the lower court discretion inherent in Section 283 can accomplish. By recognizing that the holder of a valid patent may be entitled to not “less than a reasonable royalty” while at the same time denying questionable actors the leverage to extort far larger sums using an injunction, courts of equity can continue to ensure strong patent protection while eliminating the windfall gains that motivate trolls’ behavior.

B. This Court Should Not Overrule *Continental Paper Bag*.

Recognizing the lower courts’ equitable powers under Section 283 is fully consistent with this Court’s ruling in *Continental Paper Bag*. In that case, Continental infringed a patent on a process for making paper bags held by Eastern Paper Bag Company. The Court affirmed the award of an injunction to Eastern, indicating that patents generally confer upon the inventor a “right to exclude” and that an injunction will usually be the appropriate remedy upon a finding of an infringement. 210 U.S. at 425. But the Court ended its decision by specifically stating that there could be cases where “a court of equity might be justified in withholding relief by injunction.” *Id.* at 430.

The main issue in *Continental Paper Bag* was whether the Eastern Paper Bag Company had *unreasonably* failed to use its patent. Continental argued to this Court that the issue “is not that of the simple nonuse of a patent, but a long and unreasonable nonuse of it.” 210 U.S. at 427. The Court rejected Continental’s argument, finding that Eastern’s explanation for nonuse—that it did not use the patent because it did not want to replace its existing machinery with more expensive equipment, *id.* at 429—was reasonable.

In our view, an injunction was warranted in *Continental Paper Bag*. Eastern was a true innovator that had not delayed in obtaining its patent or taken any other step suggesting that its intent was to spring the patent on Continental merely to obtain a settlement in excess of a reasonable royalty. Accordingly, it would be entirely appropriate for a trial court today to exercise its equitable authority to grant an injunction in analogous circumstances. As discussed above, computer and Internet innovators frequently obtain patents that they do not currently use and may never use. Indeed, in recent years this practice has become a business necessity helping innovators to navigate the patent thicket while avoiding expensive litigation. In short, *Continental Paper Bag* correctly held that simple nonuse does not warrant the denial of an injunction.

III. THIS COURT SHOULD PROVIDE SPECIFIC GUIDANCE TO HELP LOWER COURTS IDENTIFY AND DISCOURAGE PATENT TROLLS.

As set forth above, this Court's holding in *Continental Paper Bag* indicates both that: (1) an injunction will usually be the appropriate remedy upon a finding of infringement *and* (2) there may be cases in which the lower courts may properly withhold an injunction in the exercise of their equitable jurisdiction under Section 283.

In accordance with our discussion of troll behavior (*see supra* Section I), determining whether a particular patent holder should be awarded an injunction demands a fact-specific inquiry that cannot be reduced to a rigid checklist. But two factors are most important in distinguishing patent holders entitled to an injunction from patent trolls that are not. The first is the nature of the entity. If it is an entity organized for the purpose of investing in litigation rather than innovation, a remedy at law is more than adequate to compensate any legitimate claims it might have. The second is whether the entity engaged in any strategic troll-like behavior designed to increase disproportionately the settlement value of its claim. If such an entity set a trap for a productive firm, it should not be entitled to an injunction.

1. The Business Purposes of the Patent Holder. A particularly important factor in determining whether a patent holder may be a troll is the fundamental nature of the business entity. As discussed above, among the purposes of patent law is to allow innovators to realize the economic value of their inventions as an incentive to further innovation. Trolls lie outside of that purpose because they exist primarily to tax innovation rather than engage in it. Their *raison d'être* is to acquire patents and then engage in

behaviors that will increase the *settlement* value of those patents without adding anything of *societal* value.

Plainly, a legitimate company that *does* produce something of social value and holds patents related to its products and processes (or markets it seeks to enter) cannot be considered a troll. This describes the majority of patent holders engaged in patent litigation; for them, the standard we are suggesting will have no impact. Similarly, a legitimate research and development company that recoups its investment by licensing the results of its research is not a troll. This remains true regardless of whether such legitimate product- or research-oriented companies find it useful to create a separate subsidiary, affiliate, or other related entity to hold and enforce its patents. This inquiry should focus not on the narrow corporate entity holding the patents, but on the question of whether that company is part of an overall organization producing something of value or is merely an entity established for purposes of patent monetization through litigation. Entities of the latter type present an asymmetrical threat to potential defendants—unlike legitimate producers, patent trolls have no potentially infringing products of their own, and therefore no incentive to engage in the formal and informal cross-licensing agreements that resolve many claims of infringement without litigation.

Awarding an *automatic* injunction to an entity focused on monetizing patents through litigation would permit it to negotiate a settlement substantially in excess of the true economic value of the infringed patent by enabling it to threaten to shut down the production of socially useful products even where it would suffer no irreparable harm. This point was the key to the approach adopted by the Second Circuit in *Nerney* and *Foster*, where it declined to award injunctions to parties merely to strengthen their settlement position. *Nerney*, 83 F.2d at 411; *Foster*, 492 F.2d at 1324. Moreover, the Federal Circuit has carefully interpreted Section 284, which authorizes damages, to ensure that patent holders receive relief that is proportionate to the contribution of their invention to the overall economic value of the end product. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1549-51 (Fed. Cir. 1995). If, in contrast, patent holders receive payments that greatly exceed that amount, they will have incentives to invest disproportionate social resources in “troll-like” behaviors to increase the settlement value of their patents.

A remedy at law should generally be adequate to compensate the legitimate interests of an entity focused on monetizing patents through litigation. Under Section 284, they are entitled to an amount equal to a reasonable royalty upon a finding of infringement. Permitting such an award, while denying the opportunity to extort an additional amount, achieves an

equitable result. At the same time, the courts should continue to award injunctions to legitimate companies producing socially valuable products to continue to encourage innovation consistent with the underlying principles of patent law.

2. *Strategic “Troll-Like” Behavior.* A second factor for trial courts to consider is whether the patent holder engaged in strategic “troll-like” behavior in order to ambush a legitimate business with its patent. For example, even while operating within the letter of permissible PTO practice, trolls may manipulate those processes to delay patent issuance for the purpose of setting a “trap” for claimed infringement. Important indicators of this technique include (a) an abnormally long time to publicize the claim, (b) a series of continuations and amendments that reflect post-application developments by firms that develop actual products, and (c) other actions by the patent holder, possibly involving other patents, confirming that the focus of its business is extracting settlements based on dubious patent infringement claims.

Trial courts also should consider whether the patent holder engaged in other forms of delay or abuse—for example, in invoking the patent—knowing that the value of the infringing use to the infringer would increase during the delay. Frequently, trolls deliberately wait until *after* the target company makes large and irreversible investments in a particular technology before springing the patent trap. The precise facts that allow lower courts to “smoke out” such abusers of the patent system will vary, of course, from case to case—but the nature of equity jurisdiction is to allow lower courts to assess the totality of the circumstances in order to seek a just and socially rational result. As this Court has explained, “[u]ndoubtedly ‘equity does not demand that its suitors shall have led blameless lives,’ but additional considerations must be taken into account where maintenance of the suit concerns the public interest as well as the private interests of suitors.” *Morton Salt*, 314 U.S. at 493 (internal citations omitted).

In sum, we propose two factors for courts to consider in weighing the equities: (1) the business purpose of the patent holder; and (2) strategic “troll-like” behavior. We believe these factors preserve the judiciary’s equitable jurisdiction while maintaining a strong patent system that protects true innovators.

IV. CONCLUSION

The decision of the Federal Circuit should be reversed. However, this Court need not, and should not, reverse its decision in *Continental Paper Bag*. On remand, the courts below should exercise their equitable authority under Section 283 to grant or deny an injunction consistent with the guidance provided by this Court.

Respectfully submitted,

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