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P2P and the Future of Private Copying

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INTRODUCTION

2003 was the year of recording industry litigation. For the first time, the industry filed lawsuits against individual end-users whom the industry suspected of illegally trading music. In April, for example, the major record labels filed high-profile lawsuits against four college students who ran file-sharing engines that allowed fellow students to share files and download copyrighted songs.[1] In September, the Recording Industry Association of American (RIAA), the trade group that represents the five major labels and other smaller member companies, launched full-fledge battles against individuals suspected of swapping music without authorization via peer-to-peer ("P2P") networks, such as Grokster, iMesh, KaZaA, and Morpheus. Hundreds of lawsuits were filed,[2] thousands of subpoenas were issued,[3] and a countless number of people—innocent or otherwise—received the trade group's notorious cease-and-desist letters and take-down notices.[4]

These strong-armed tactics have alienated many of the industry's customers and political supporters.[5] The industry's strategy also has backfired by driving pirates underground, forcing file-sharers to use proxy servers, offshore and mirror Web sites, and encrypted P2P systems.[6] Digital piracy remains rampant today, and billions of music files are traded every month.[7]

Since the beginning of the P2P file sharing controversy, commentators have discussed extensively the radical expansion of copyright law,[8] the industry's controversial enforcement

[1] Frank Ahrens, *4 Students Sued over Music Sites*, WASH. POST, Apr. 4, 2003, at E1; Jon Healey, *Students Hit with Song Piracy Lawsuits*, L.A. TIMES, Apr. 4, 2003, at 1.

[2] Amy Harmon, *The Price of Music: The Overview*, N.Y. TIMES, Sept. 9, 2003, at A1 [hereinafter Harmon, *The Price of Music*].

[3] Benny Evangelista, *Firm Sleuths out Illegal File Sharers*, SAN FRAN. CHRON., July 21, 2003, at E1.

[4] Declan McCullagh, *RIAA Apologizes for Erroneous Letters*, CNET NEWS.COM, *at* http://news.com.com/2100-1025-1001319.html (May 13, 2003); *see also* Declan McCullagh, *RIAA Apologizes for Threatening Letter*, CNET NEWS.COM, *at* http://news.com.com/2100-1025_3-1001095.html (May 12, 2003).

[5] *See* Peter K. Yu, *The Copyright Divide*, 25 CARDOZO L. REV. 331, 442-43 (2003).

[6] *Id*. at 443.

[7] *See generally* Peter K. Yu, *The Escalating Copyright Wars*, 32 HOFSTRA L. REV. 907 (2004).

[8] *See, e.g.*, LAWRENCE LESSIG, THE FUTURE OF IDEAS: THE FATE OF THE COMMONS IN A CONNECTED WORLD (2001) (lamenting how the recent expansion of intellectual property laws have stifled creativity and innovation); JESSICA LITMAN, DIGITAL COPYRIGHT (2001) (detailing the expansion of copyright laws in the past two centuries); SIVA VAIDHYANATHAN, COPYRIGHTS AND COPYWRONGS: THE RISE OF INTELLECTUAL PROPERTY AND HOW IT THREATENS CREATIVITY (2001) [hereinafter VAIDHYANATHAN, COPYRIGHTS AND COPYWRONGS] (describing how the increasing corporate control over the use of software, digital music, images, films, books and academic materials has steered copyright law away from its original design to promote creativity and cultural vibrancy); James Boyle,

tactics,[9] the need for new legislative and business models,[10] the changing social norms,[11] and the evolving interplay of politics and market conditions.[12] Although these discussions have examined in detail the many aspects of the P2P file sharing controversy, none of them focuses on the big picture and explains how these issues fit within the larger debate.

Using a holistic approach, this Article takes on the ambitious task of bringing together existing scholarship while offering some thoughts on the future of private copying. This Article does not seek to offer any new theory or model, which could become obsolete quickly, or even immediately, as digital and P2P technologies advance. Rather, the Article provides guidelines as to how policymakers can craft the "ultimate solution" to the unauthorized copying problem.

Part I of this Article traces the developments of copyright law in 2003. Since the emergence of the Internet and new communications technologies, the recording industry has employed five different strategies to alleviate the threat created by digital technology: lobbying, litigation, self-help, education, and licensing. Although the industry has used a combination of these strategies in the past few years, the industry focused primarily on litigation and licensing in 2003. Part I details the industry's enforcement tactics in that year and the various legal setbacks the industry suffered at the end of the year. This Part also discusses the new 99¢ song business

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The Public Domain: The Second Enclosure Movement and the Construction of the Public Domain, 66 LAW & CONTEMP. PROB. 33 (2003) [hereinafter Boyle, *The Public Domain*] (describing the recent expansion of intellectual property laws as "the second enclosure movement").

[9] *See, e.g.*, Sonia K. Katyal, *The New Surveillance*, 54 CASE W. RES. L. REV. 297 (2004).

[10] *See, e.g.*, COMM. ON INTELLECTUAL PROP. RIGHTS AND THE EMERGING INFO. INFRASTRUCTURE, NATIONAL RESEARCH COUNCIL, THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE 79-86 (2000) [hereinafter DIGITAL DILEMMA] (discussing the business models and technological protection mechanisms that can be used to address the digital piracy problem); PETER ECKERSLEY, VIRTUAL MARKETS FOR VIRTUAL GOODS: AN ALTERNATIVE COOPERATION OF DIGITAL COPYRIGHT (2003) (proposing to establish a system that distributes rewards based on a virtual market), *available at* http://www.cs.mu.oz.au/~pde/writing/virtualmarkets.pdf; ELECTRONIC FRONTIER FOUNDATION, A BETTER WAY FORWARD: VOLUNTARY COLLECTIVE LICENSING OF MUSIC FILE SHARING (2004) [hereinafter EFF WHITE PAPER] (recommending that the recording industry adopt a voluntary collective licensing model similar to the one used by radio stations today), *available at* http://www.eff.org/share/collective_lic_wp.pdf; WILLIAM W. FISHER, PROMISES TO KEEP ch. 6 (Stanford University Press, forthcoming 2004) (proposing to set up a governmentally administered system that rewards copyright holders for commercial and noncommercial uses), *manuscript available at* http://cyber.law.harvard.edu/people/tfisher/PTKChapter6.pdf; John Perry Barlow, *The Economy of Ideas*, WIRED, Mar. 1994, at 84 (discussing the obsolescence of intellectual property law in the digital world), *available at* http://www.wired.com/wired/archive/2.03/economy.ideas.html; Esther Dyson, *Intellectual Value*, WIRED, July 1995, at 136 (contending that it will be more efficient to distribute content free-of-charge and charge for follow-up services instead), *available at* http://www.wired.com/wired/archive/3.07/dyson.html; Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. CHI. L. REV. 263 (2002) (proposing to impose statutory levies on Internet service subscriptions and the sales of computer, audio, and video equipment); Jessica Litman, *Sharing and Stealing*, 1 U. OTTAWA L. & TECH. JOURNAL (forthcoming 2004) (offering a proposal that combines blanket fees or levies, digital rights management, and an opt-out mechanism that allows copyright holders to withhold music from the system); Lydia Pallas Loren, *Untangling the Web of Music Copyrights*, 53 CASE W. RES. L. REV. 673 (2003) (proposing to revamp the copyright system by embracing the doctrine of derivative work independence and by consolidating all exclusive rights under existing copyright law into a single "right to commercially exploit" copyrighted expressions); Glynn S. Lunney, Jr., *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA. L. REV. 813 (2001) (discussing the benefit of private file sharing and contending that a levy-based approach would be preferable to a strong encryption-based approach if the harm of private copying were to be addressed); Neil W. Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1 (2003) [hereinafter Netanel, *Noncommercial Use Levy*] (offering a blueprint for the establishment of a "noncommercial use levy"); Diane Leenheer Zimmerman, *Authorship Without Ownership: Reconsidering Incentives in a Digital Age*, 52 DePaul L. Rev. 1121 (2003) [hereinafter Zimmerman, *Authorship Without Ownership*] (discussing the Street Performer Protocol).

[11] *See, e.g.*, Lior Jacob Strahilevitz, *Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks*, 89 VA. L. REV. 505 (2003) (discussing the change of social norms in light of the proliferation of file-sharing technologies).

[12] *See, e.g.*, DEBORA J. HALBERT, INTELLECTUAL PROPERTY IN THE INFORMATION AGE: THE POLITICS OF EXPANDING OWNERSHIP RIGHTS 79 (1999); G. Prem Premkumar, *Alternative Distribution Strategies for Digital Music*, COMM. ACM, Sept. 2003, at 89 (discussing possible distribution strategies for digital music and their implications for the political interplay of consumers, artists and songwriters, record companies, and retailers).

model facilitated by Apple Computer's iTunes Music Store, Roxio's Napster 2.0, and other music subscription services.

Part II focuses on the aftermath of the 2003 P2P file-sharing wars and outlines challenges the entertainment industry will face in the next few years. Part II.A discusses challenges the recording industry will face within the United States, namely the proliferation of new P2P technologies, the increasingly transnational nature of the copyright wars, the decreasing support the industry receives from its customers and political allies, and the counterattacks and setbacks the industry will suffer as a result of its aggressive tactics. Part II.B highlights challenges the industry will face at the global level, including the heightened tension between the United States and less developed countries, the repeated criticism of the United States' hypocritical position in the international copyright arena, and the potential distraction caused by increased public attention on international piracy. Part II.C explores the spread of the P2P file-sharing wars to other industries, such as the publishing, television, and motion picture industries. This Part argues that, although the copyright wars are likely to spread, these industries, in particular the motion picture industry, might adopt less confrontational strategies due to their differing industry structures and the various lessons they have learned from the recording industry.

Part III brings together the many proposals commentators have put forward to address the unauthorized copying problem. Instead of focusing on each proposal, this Part categorizes the proposals based on their underlying models and enforcement techniques and highlights the benefits and limitations of each of these proposals. This Part critically evaluates eight categories of proposals: (1) mass licensing, (2) compulsory licensing, (3) voluntary collective licensing, (4) voluntary contribution, (5) technological protection, (6) copyright law revision, (7) dispute resolution proceeding, and (8) alternative compensation. Acknowledging the short-term and interim nature of each of these proposals, this Part contends that policymakers need to adopt a range of solutions—both short-term and long-term—if they are to address the unauthorized copying problem.

Part IV challenges policymakers and commentators to step outside their mental boundaries to rethink the P2P file sharing debate. In the fashion of thought experiments, this Part compares the digital copyright wars to (1) a self-preservation battle between humans and machines, (2) an imaginary World War III, and (3) the conquest of Generation Y. By using these comparisons, this Part demonstrates that policymakers should not focus on legal solutions alone. Instead, they should pay more attention to the market, architecture, and social norms, which play equally important roles in crafting the "ultimate solution" to the unauthorized copying problem. This Article concludes by offering some guidelines as to how policymakers should craft this solution.

I. THE 2003 COPYRIGHT WARS

In 1999, the recording industry was growing at an annual rate of over six percent, totaling $14.6 billion in business.[13] Since the emergence of Napster and P2P file sharing, however, record sales have plunged by more than six percent in 2001 and nearly nine percent in 2002.[14]

[13] Jefferson Graham et al., *Hammering Away at Piracy*, USA TODAY, Sept. 11, 2003, at 1D.

[14] Greg Kot, *Music Industry Chooses to Bite Hand That Feeds It*, CHI. TRIB., June 29, 2003, at C10. *But see* FELIX OBERHOLZER & KOLEMAN STRUMPF, THE EFFECT OF FILE SHARING ON RECORD SALES: AN EMPIRICAL ANALYSIS (2004) (showing that file sharing has

While the sharp decline in record sales slowed down in the final months of 2003, the industry lost record sales by another eight percent in the past year.[15] To protect against losses, the industry has employed five different strategies: lobbying, litigation, self-help, education, and licensing.[16] Although the industry has used a combination of these strategies, it focused primarily on litigation and licensing in 2003. (One arguably can include education if one agrees with RIAA President Cary Sherman's statement that "lawsuits are a very potent form of education"[17]).

2003 started off with a ruling favoring the recording industry. In January 2003, the United States District Court for the Central District of California ruled that KaZaA's parent, Sharman Networks, could be sued for copyright infringement in the United States.[18] Headquartered in Australia and incorporated in the South Pacific tax haven of Vanuatu, Sharman Networks claimed that the company did not have substantial contacts with California and thus should not be subject to the court's jurisdiction.[19] The court emphatically rejected this argument. As the court observed: "there is little question that Sharman has knowingly and purposefully availed itself of the privilege of doing business in California. . . . [G]iven that Sharman's [KaZaA] software has been downloaded more than 143 million times, it would be mere cavil to deny that Sharman engages in a significant amount of contact with California residents."[20] The court also found that Sharman was "at least constructively aware" of the many agreements the company entered into with users authorizing and limiting use of the KaZaA software.[21] Noting that "many, if not most, music and video copyrights are owned by California-based companies,"[22] the court allowed the plaintiff copyright holders to proceed with the lawsuit.

A couple of weeks later, the RIAA obtained another favorable ruling, this time before the United States District Court for the District of Columbia.[23] At issue in *RIAA v. Verizon Internet Services* ("*Verizon I*") was a subpoena the RIAA served on Verizon in July 2002 to obtain the identity of a subscriber who allegedly had made more than 600 copyrighted songs available for downloading over the Internet using the KaZaA software. Verizon refused to comply with the subpoena and responded by challenging it before the district court. According to Verizon, the RIAA's subpoena was related to materials transmitted over, rather than stored on, its network,

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only had a limited effect on record sales), *available at* http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf; SIVA VAIDHYANATHAN, THE ANARCHIST IN THE LIBRARY: HOW THE CLASH BETWEEN FREEDOM AND CONTROL IS HACKING THE REAL WORLD AND CRASHING THE SYSTEM 44 (2004) [hereinafter VAIDHYANATHAN, THE ANARCHIST IN THE LIBRARY] (noting that "[record] sales and revenues in 2003 were comparable to 1997, suggesting that the massive sales increase in 1998, 1999, and 2000 may be the anomaly"). As Professor Vaidhyanathan questioned:

> Does each downloaded song equal a lost sale? I am not convinced. I would not consider buying ninety-nine out of one hundred songs I download. Many of them are garbled, low-quality recordings. Some are partial files. Some turn out to be lame songs. Mostly, I download songs to see if I want to buy them. I also get songs I can't buy, for example, out-of-print stuff from cult bands like Too Much Joy or rare live cuts of "Jersey Girl" sung by Bruce Springsteen and Tom Waits.

Id. at 41-42.

[15] Rafer Guzman, *A Classic Case of Making Music for the Masses*, ORLANDO SENTINEL, Apr. 18, 2004, at F7 (reporting about the decline of overall dollar sales based on research from the NPD Group).

[16] *See generally* Yu, *The Escalating Copyright Wars*, *supra* note 7.

[17] Benny Evangelista, *Online Music Finally Starts to Rock 'n' roll*, SAN FRAN. CHRON., Dec. 29, 2003, at E1.

[18] *See* MGM Studios, Inc. v. Grokster, Ltd., 243 F. Supp. 2d 1073 (C.D. Cal. 2003), *aff'd*, 2004 U.S. App. LEXIS 17471 (9th Cir. Aug. 19, 2004); *see also* Declan McCullagh, *Judge: Kazaa Can Be Sued in U.S.*, CNET NEWS.COM, *at* http://news.com.com/2100-1023-980274.html (Jan. 10, 2003).

[19] *MGM Studios*, 243 F. Supp. 2d at 1079.

[20] *Id*. at 1087 (footnote omitted).

[21] *Id*.

[22] *Id*. at 1089.

[23] RIAA v. Verizon Internet Services, 240 F. Supp. 2d 24 (D.D.C.), *rev'd*, 351 F.3d 1229 (D.C. Cir. 2003).

and the DMCA does not authorize the issuance of a subpoena to an Internet service provider acting solely as a conduit for communicating content determined by others.[24] Verizon lost the case and appealed the decision to the United States Court of Appeals for the District of Columbia.[25]

While *Verizon* was on appeal, the major record labels, in April 2003, filed high-profile lawsuits against four college students—two at Princeton University and one each at Michigan Technological University and Rensselaer Polytechnic Institute.[26] These lawsuits alleged that the students had infringed upon the plaintiffs' copyrights by running file-sharing engines that facilitated others on campus to share and download copyrighted songs. The companies asked the courts for permanent injunctions to shut down the networks. Taking advantage of the maximum penalty afforded by the 1976 Copyright Act,[27] the plaintiffs also sought billions of dollars in damages, even though the defendants were only college students who did not obtain any commercial gains.

Although the lawsuits had raised public awareness of the illegality of online file trading, the recording industry soon found itself confronted with bad publicity and harsh criticism. In less than a month, the labels settled with the teenagers.[28] Under the settlements, the student defendants promised to pay the record companies damages that ranged from $12,000 to $17,500 in installments spread over two or more years. The teenagers did not admit any wrongdoing, but they agreed not to infringe or support infringement of copyrights owned by the record companies.

These settlements were particularly important, as they "mark[ed] the first time the record companies have recovered money from individuals in the United States accused of piracy on file-sharing networks."[29] Some commentators believed that the settlement amounts were "high enough to catch the attention of file swappers."[30] Others, however, claimed that the settlements would backfire on the industry by alienating its customers while conceding that the fines would intimidate file-swappers.[31]

Ironically, the settlements did not turn out to be what the industry had expected. Within six weeks of the settlement, one defendant, Jesse Jordan, raised his entire $12,000 fine over the

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[24] *Id*. at 32.

[25] *See* discussion *infra* notes 105-113.

[26] Ahrens, *4 Students Sued over Music Sites*, *supra* note 1; Healey, *Students Hit with Song Piracy Lawsuits*, *supra* note 1. Although *Verizon* allowed the recording industry to serve subpoenas on Internet service providers, the record companies did not use the subpoena process to obtain identities of these four students. As the *Washington Post* reported, "the networks named in the lawsuits are internal college networks, known as local area networks, or LANs, and are not seen by the RIAA software. Instead, the RIAA discovered them by reading college newspapers, in which the LANs are discussed." Ahrens, *4 Students Sued over Music Sites*, *supra* note 1. As the RIAA noted in its complaints, the four defendants were chosen "because the RIAA found their sites to be among the most active, enabling thousands of songs to be freely shared." *Id*.

[27] *See* 17 U.S.C. § 504(c)(2) (2000) (stipulating that "the court in its discretion may increase the award of statutory damages to a sum of not more than $150,000" in willful infringement cases).

[28] Jon Healey & P.J. Huffstutter, *4 Pay Steep Price for Free Music*, L.A. TIMES, May 2, 2003, at 1.

[29] *Id*.

[30] Matt Oppenheim, senior vice president of business and legal affairs for the RIAA, said the settlements were "the right amount given the situation," although they were well below what the record companies had asked for. *Id.* Another copyright attorney added, "I'd personally think twice about doing something that would cost me $12,000 to $17,500 to avoid spending 12 to 15 bucks on the occasional CD." *Id*.

[31] According to Howard Ende, attorney for defendant Daniel Peng, "This case had very little to do with [the defendant] and everything to do with the recording industry's attempt to intimidate individual end-users around the country and college students in particular. They looked to instill fear, but instead they got fear and loathing." *Id*.

Internet.[32] In fact, he raised $5.67 more than what he needed for the settlement.[33] In the meantime, another student, Daniel Peng, was working his way to complete a similar feat. As of December 2003, he had raised more than two-thirds of his $15,000 settlement.[34]

Notwithstanding these settlements and public backlashes, the recording industry was adamant in its enforcement approach and had since sent out a countless number of cease-and-desist letters and take-down notices. Using "bots," spiders, and other computer software, the RIAA scours the Internet, looking for what it believes to be illegally traded songs. Although these automated web-crawlers have been helpful and have drastically reduced the costs of policing copyrights, they also have resulted in false positives that cause the industry public embarrassment.

For example, in May 2003, the RIAA issued an erroneous take-down notice to Speakeasy, a national broadband provider, alleging that one of the provider's subscriber sites had illegally "offer[ed] approximately 0 sound files for download."[35] According to the notice, many of the files on the Web site "contain recordings owned by [the RIAA's] member companies, including songs by such artists as Creed."[36] Interestingly, the subscriber's FTP site was not devoted to Creed or other musicians. Rather, it focused on the Commodore Amiga computer and collected "demo" files used to show off the graphic capabilities of Amiga computers, which were superior to competitive models in the 1980s.

That week, the RIAA—to be more precise, its automated web-crawlers—also confused Peter Usher, a retired astronomy and astrophysics professor at Pennsylvania State University, with Usher Raymond, the best-selling rhythm-and-blues performer.[37] Stored on the University's departmental server was a directory named "usher" that contained an *a cappella* song in MP3 format. The song was sung by an astronomer group, *The Chromatics*, about the Swift gamma ray satellite that Penn State helped to design. The song did not win any Grammy or platinum records; yet, it attracted the industry's attention—and "protection." The RIAA later withdrew, and apologized for, the faulty notice. The trade group also offered to send Professor Usher an Usher CD and T-shirt "in appreciation of his understanding."[38]

According to the RIAA, the trade group had sent out dozens of faulty copyright infringement notices that week; these notices were attributed to a temporary worker who failed to confirm the files before sending out the take-down notices.[39] While it is understandable that automated devices and temporary employees may make mistakes, the current copyright regime does not sufficiently protect innocent users against faulty and irresponsibly sent take-down notices. Under the DMCA, a copyright holder can send a "takedown" notice to an Internet service provider requesting that the alleged infringing material be removed.[40] If the copyright

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[32] Jefferson Graham, *Fined Student Gets Donations to Tune of $12K*, USA TODAY, June 25, 2003, at 4D.
[33] CHICAGO TRIBUNE, July 7, 2003, at 40.
[34] *See* Daniel Peng's Legal Fees and $15,000 RIAA Settlement, *at* http://arbornet.org/~danpeng/ (Feb. 25, 2004).
[35] McCullagh, *RIAA Apologizes for Erroneous Letters*, *supra* note 4.
[36] *Id*.
[37] *Complaint from Recording Industry Almost Closes Down a Penn State Astronomy Server*, CHRON. HIGHER EDUC., May 23, 2003, at 27 [hereinafter *Complaint from Recording Industry*]; *see also* Editorial, *Close Loophole in Copyright Law*, ATLANTA J.-CONST., June 6, 2003, at 18A.
[38] McCullagh, *RIAA Apologizes for Threatening Letter*, *supra* note 4.
[39] *Id*.
[40] *See* 17 U.S.C. §512(c) (2000).

holder "knowingly materially misrepresents" information in the take-down notice, the copyright holder will be liable for damages and attorney's fees.[41] However, if the copyright holder has a good-faith belief that works stored on the system infringed upon its copyrighted work, those affected by the faulty notices will have no legal recourse for compensation. Drafted before the emergence of P2P networks, this take-down provision was primarily designed to balance the interests of copyright holders and Internet service providers. Because the DMCA did not take into account extensive private copying by individual end-users, it failed to include any safeguard to protect these individuals against overreaching by copyright holders and their overzealous representatives.

The Penn State incident illustrates well the chilling effect of the take-down provision. The RIAA sent the take-down notice to the University during the final examination period. Upon receiving the notice, the central computing office of the Penn State campus notified the astronomy and astrophysics department that the office would shut down the department's Internet connection unless the department removed the infringing material within forty-eight hours.[42] Fortunately, the technical staff in the department was able to locate Professor Usher's *a cappella* song and successfully convinced the central computing office not to shut down the server's connection.

Had the connection been shut down, there would have been many dire consequences. Innocent students would have been unable to complete their final examinations and term assignments. Research would have been stopped (at least temporarily), and grant applications would have been delayed. Some cutting-edge projects might even have had to be abandoned due to missing deadlines. This parade of horribles, of course, can go on. Unfortunately, in each of these scenarios, the DMCA would not have provided any legal redress unless the victims could show that the RIAA had "knowingly materially misrepresent[ed]" information contained in the take-down notice. At best, each victim would get a public apology, a formal personalized letter, a CD, and maybe a T-shirt with an image of their favorite *mainstream* musician or band.

Slightly more than a week after the RIAA filed lawsuits against the college students, the recording industry won a second lawsuit against Verizon in April 2003.[43] While Verizon was challenging the first subpoena, the RIAA served a second subpoena on the provider. This time, Verizon contended that the district court lacked Article III jurisdiction to issue a subpoena without a pending federal "case or controversy."[44] Verizon also maintained that the DMCA's subpoena provision violated the First Amendment rights of the Internet user, as the statute lacks sufficient safeguards to protect the user's ability to speak and associate anonymously.[45]

The district court again rejected Verizon's arguments. The court held that the DMCA's subpoena provision permits a copyright holder to send a subpoena to an Internet service provider, ordering it to turn over information about subscribers whom the industry accuses of illegally trading music. As the court explained:

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[41] *Id*. § 512(f).
[42] *Complaint from Recording Industry*, *supra* note 37.
[43] RIAA v. Verizon Internet Services, 257 F. Supp. 2d 244 (D.D.C.), *rev'd*, 351 F.3d 1229 (D.C. Cir. 2003) [hereinafter *Verizon II*].
[44] *Verizon II*, 257 F. Supp. 2d at 247-48.
[45] *Id*.

> § 512(h) [the subpoena provision] does not place the Article III branch in a role inconsistent with that accorded to it under the Constitution. To the extent that the power of the judiciary is even implicated by the issuance of a subpoena under § 512(h), which assigns only a ministerial function to the clerk of the court, there are abundant analogues both in the criminal and civil contexts for judicial action in the absence of a pending federal case or controversy, including the close parallel of Rule 27. And whatever authority is granted under § 512(h) presents neither a danger of encroachment nor some other threat to the institutional integrity and independence of the judiciary.[46]

The court also rejected Verizon's First Amendment argument. As the court noted:

> [T]here is no First Amendment defense to copyright violations. The "Supreme Court . . . has made it unmistakably clear that the First Amendment does not shield copyright infringement." In other words, "the First Amendment is not a license to trammel on legally recognized rights in intellectual property." Indeed, copyrights serve as important incentives to encourage and protect expression: "the Framers intended copyright itself to be the engine of free expression." "By establishing a marketable right to the use of one's expression, copyright supplies the economic incentive to create and disseminate ideas."[47]

The court also found that the DMCA has provided sufficient safeguards.[48]

Taking advantage of the subpoena power granted under the DMCA and the precedent set by the *Verizon* cases, the RIAA launched a mass litigation campaign against file-swappers who made large numbers of songs available on P2P networks.[49] By mid-July, the industry had sent out 871 federal subpoenas, with roughly 75 new subpoenas approved every day.[50]

In September, the RIAA filed 261 lawsuits against individuals who downloaded music illegally via P2P networks.[51] Unlike what the industry did in April, it offered both carrots and sticks this time. Along with the lawsuits came a new amnesty program that allows individuals to avoid lawsuits from the RIAA if they remove all illegal music files from their computers and promise not to download music illegally again by signing an affidavit.[52]

On its surface, the amnesty program is quite attractive and creative. In reality, it represents another ineffective, costly, and disturbing attempt by the recording industry to fight the copyright wars. The most egregious offenders are unlikely to participate in the program, as many of them neither believe what they are doing is illegal nor feel guilty about what they have done. The RIAA will end up with a list of only mild, and perhaps occasional, offenders, of which the industry has limited interest.

Moreover, the amnesty program will only protect the participants from lawsuits filed by the RIAA. It will not protect them from lawsuits filed by other equally powerful industries, such as the motion picture or software industries. The amnesty program also will not protect

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[46] *Id*. at 256-57 (footnote omitted).

[47] *Id*. at 260 (quoting Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 568 (1985); *In re* Capital Cities/ABC, Inc., 918 F.2d 140, 143 (11th Cir. 1990); Eldred v. Ashcroft, 123 S. Ct. 769, 788 (2003)).

[48] *Id*. at 260-64.

[49] *See* Jefferson Graham, *Swap Songs? You May Be on Record Industry's Hit List*, USA TODAY, July 22, 2003, at 1D.

[50] *See Hundreds of Subpoenas in Net Piracy*, SEATTLE TIMES, July 19, 2003, at A8.

[51] Harmon, *The Price of Music*, *supra* note 2.

[52] Information about the RIAA's Clean Slate Program is available at http://www.musicunited.org/. *See generally* Peter K. Yu, *Music Industry Hits Wrong Note Against Piracy*, DETROIT NEWS, Sept. 14, 2003, at 13A (criticizing the Clean Slate Program).

individuals from federal prosecutors, music publishers, and independent labels not represented by the RIAA.[53]

Even worse, from the file traders' perspectives, the participants will have admitted their illegal file-trading activities by signing the affidavits. If they commit any future infringement—regardless of how serious and intentional the offense is—the affidavits will provide evidence of willful infringement.[54] The affidavits also will create a blacklist of habitual offenders that the recording industry is likely to monitor.[55] After all, as demonstrated by the industry's recent embarrassing encounters with Speakeasy and Professor Usher, the industry has been using automated web-crawlers to track potential offenders. It therefore would be no surprise if the industry paid additional attention to these habitual offenders.

Finally, the promises made by the participants are broad, and arguably broader than what copyright law prohibits.[56] By signing the affidavits, the participants therefore might have contractually given up valuable rights that are available under existing law. Concerned about the problems created by the "amnesty" program, a California resident filed a lawsuit on behalf of the general public of his state, asking the RIAA to shut down its amnesty program and inform the public that its offer was "false and misleading."[57] (In April 2004, the trade group finally announced the discontinuation of this controversial program in a document filed to dismiss this lawsuit. The group claimed that "the program is no longer necessary or appropriate" in light of the increased public awareness about the illegality of online file trading since the group launched the individual lawsuits and the amnesty program.[58])

From the industry's perspective, the many lawsuits the industry filed against individual file swappers were needed, but costly—in financial, political, and public relations terms. For example, the September lawsuits had created difficult cases with sympathetic defendants and wrongfully sued victims. One of the lawsuits targeted a 71-year-old grandfather whose grandchildren downloaded music via P2P networks.[59] Another targeted a 12-year-old honor student living in public housing, whose parent had paid $29.99 for the KaZaA software and might not be able to distinguish the difference between KaZaA and PressPlay (or other legal music subscription services).[60] A third lawsuit, which the industry subsequently dropped,[61]

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[53] *See* Electronic Frontier Foundation, *Why the RIAA's "Amnesty" Offer Is a Sham*, *at* http://www.eff.org/share/amnesty.php (last visited Mar. 15, 2003).

[54] *See* Bill Holland, *File Traders May Be Eligible for Amnesty*, BILLBOARD, Sept. 13, 2003, at 8 (stating that "[t]hose who renege on their promise [made in the affidavit] could be referred to the Department of Justice for willful copyright infringement"); *Record Labels to Offer Amnesty Program*, SAN DIEGO UNION-TRIB., Sept. 6, 2003, at C3 (stating that "Internet users who continue to copy music online after signing the affidavit could face possible criminal charges for willful copyright infringement").

[55] *See* Benny Evangelista, *RIAA to Offer File Sharers Amnesty*, SAN FRAN. CHRON., Sept. 6, 2003, at B1 (stating that it remains unclear as to "what steps the RIAA would take to monitor and enforce the amnesty agreements").

[56] *Record Labels to Offer Amnesty Program*, *supra* note 54 (quoting Gigi Sohn, president of Public Knowledge, as expressing concern "that people may give up rights they may have, such as the right to limited sharing").

[57] Jon Healey, *RIAA Sued over Amnesty Program*, L.A. TIMES, Sept. 10, 2003, at C3.

[58] *See* Matt Hines, *RIAA Drops Amnesty Program*, CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5195301.html (April 20, 2004).

[59] Chris Gaither, *Group Sues 261 over Music-Sharing*, BOSTON GLOBE, Sept. 9, 2003, at A1 (reporting about the RIAA's lawsuit against a 71-year-old man, who told the Associated Press that his teen-aged grandchildren must have downloaded songs during visits to his home).

[60] Tim Arango et al., *Music-Thief Kid Sings Sorry Song*, N.Y. POST, Sept. 10, 2003, at 21. The RIAA eventually settled with the teenager for $2000. John Borland, *RIAA Settles with 12-year-old Girl*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5073717.html (Sept. 9, 2003).

[61] *See* John Borland, *RIAA's Case of Mistaken Identity?*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5081469.html (Sept. 24, 2003).

targeted a 66-year-old Boston woman who was accused of offering hardcore rap songs for download, but whose computer could not run the file-swapping software she was accused of using.[62]

The lawsuits also raised concerns among congressional representatives, especially after their constituents had been sued. In September 2003, Senator Norm Coleman of Minnesota called for congressional hearings to investigate the recording industry's enforcement tactics.[63] In response to Senator Coleman's harsh criticism, the RIAA modified its enforcement policy. Although the industry continued with its mass litigation campaign, it announced that it would begin notifying suspected pirates before suing them. This new policy benefited both the industry and prospective defendants as it "g[a]ve the industry an opportunity to drop cases that might be based on mistaken identity or might generate bad publicity because the defendant seem[ed] particularly sympathetic . . . [while allowing] the industry to contact the prospective defendants privately, without having to file legal papers."[64]

In early October, the RIAA threatened to sue another 204 file-sharers, more than half of whom had approached industry lawyers for settlements.[65] On Halloween Day, the industry followed up these threats by filing eighty lawsuits around the country.[66] A month later, the RIAA filed forty-one more lawsuits while indicating that the association planned to warn another ninety file-sharers that they might be sued.[67] In sum, the RIAA had filed three rounds of lawsuits targeting 382 individuals in 2003.

So far, the RIAA had only targeted egregious offenders. Those named in the lawsuits had distributed on average more than one thousand copyrighted songs via P2P networks. Given the amount of music swapped and downloaded, these individuals were unlikely to become the industry's customers. Even if they were purchasing CDs, it was unlikely that they would purchase CDs from mainstream artists distributed by the major labels. Moreover, as studies have shown, a small percentage of P2P file sharers were responsible for a large percentage of all the music files shared.[68] By targeting egregious offenders, the industry therefore seek to significantly alleviate the unauthorized copying problem.

Since the industry launched its mass litigation campaign, it has repeatedly compared unauthorized copying to theft and file-sharers to shoplifters. Unfortunately, the industry's rhetoric was far from correct. First, copyright law is not as clear and well settled as laws against theft and shoplifting. Copyright law is "notoriously complex and subtle."[69] It includes many

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[62] John Schwartz, *Record Industry Warns 204 Before Suing on Swapping*, N.Y. TIMES, Oct. 18, 2003, at C1.

[63] Amy Harmon, *In Court, Verizon Challenges Music Industry's Subpoenas*, N.Y. TIMES, Sept. 17, 2003, at C2 [hereinafter Harmon, *Verizon Challenges Music Industry's Subpoenas*] (reporting that Senator Coleman had scheduled a congressional hearing to privacy issues as well as the broader effect of technology on copyright enforcement). As Senator Coleman noted: "If you're taking someone else's property, that's wrong, that's stealing. But in this country we don't cut off people's hands when they steal. One question I have is whether the penalty here fits the crime." Amy Harmon, *Efforts to Stop Music Swapping Draw More Fire*, N.Y. TIMES, Aug. 1, 2003, at C1.

[64] Schwartz, *supra* note 62.

[65] *See id*.

[66] *Record Industry Files 80 More Lawsuits*, N.Y. TIMES, Oct. 31, 2003, at C6.

[67] *Music Industry Files More Suits*, N.Y. TIMES, Dec. 4, 2003, at C9.

[68] *See* Eytan Adar & Bernardo A. Huberman, *Free Riding on Gnutella*, FIRST MONDAY, Oct. 2000, *at* http://firstmonday.org/issues/issue5_10/adar/index.html (citing a study by researchers at Xerox's Palo Alto Research Center showing that the top twenty percent of Gnutella users were responsible for ninety-eight percent of all the files shared), *quoted in* at Peter S. Menell, *Envisioning Copyright Law's Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 161 (2002).

[69] Menell, *supra* note 68, at 67-68.

"muddy" rules, such as the idea-expression dichotomy, the fair use privilege, the first sale doctrine, and various statutory exemptions that allow for limited sharing of copyrighted works.[70] Indeed, the RIAA and civil liberties groups have significant disagreements over the extent of legitimate private copying.[71]

Second, because of the nonrivalrous nature of intellectual property, the loss of copyrighted works does not necessarily deprive owners of their use. While each copy of the record arguably could be translated into royalties and profits, the public has less sympathy for the industry when artists repeatedly complain about their not receiving royalties from their record companies.[72] The industry's image also was hurt by the widely-held belief that the recording industry overcharges consumers by collusive pricing[73] and the public jealously of the lavish lifestyles of rich and popular artists.

While the industry was busy filing lawsuits and planning new enforcement strategies, a new business model took off. In late April, Apple Computer unveiled a new online music service, the iTunes Music Store, offering low-priced music downloads from the five major record labels.[74] The store offered individual songs for 99¢ and most albums for $9.99. Since the opening of the store, Apple has sold more than 30 million songs in 2003,[75] including some silent tracks.[76] Six months later, Apple further extended iPods and the iTunes music service to

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[70] *See* Dan L. Burk, *Muddy Rules for Cyberspace*, 21 CARDOZO L. REV. 121 (1999).

[71] As the RIAA wrote on its Web site:

> First, for your personal use, you can make analog copies of music. For instance, you can make analog cassette tape recordings of music from another analog cassette, or from a CD, or from the radio, or basically from any source. Essentially, all copying onto analog media is generally allowed.
>
> Second, again for your personal use, you can make some digital copies of music, depending on the type of digital recorder used. For example, digitally copying music is generally allowed with minidisc recorders, DAT recorders, digital cassette tape recorders, and some (but not all) compact disc recorders (or CD-R recorders). As a general rule for CD-Rs, if the CD-R recorder is a stand-alone machine designed to copy primarily audio, rather than data or video, then the copying is allowed. If the CD-R recorder is a computer component, or a computer peripheral device designed to be a multipurpose recorder (in other words, if it will record data and video, as well as audio), then copying is not allowed.

DIGITAL DILEMMA, *supra* note 10, at 47.

[72] Artist Courtney Love said it best in the Digital Hollywood Conference in New York in May 2000:

> What is piracy? Piracy is the act of stealing an artist's work without any intention of paying for it. I'm not talking about Napster-type software. I'm talking about major label recording contracts. . . . Although I've never met anyone at a record company who 'believed in the Internet,' they've all been trying to cover their asses by securing everyone's digital rights. Not that they know what to do with them. Go to a major label-owned band site. Give me a dollar for every time you see an annoying 'under construction' sign. I used to pester Geffen (when it was a label) to do a better job. I was totally ignored for two years, until I got my band name back. The Goo Goo Dolls are struggling to gain control of their domain name from Warner Bros., who claim they own the name because they set up a shitty promotional Web site for the band.

JOHN ALDERMAN, SONIC BOOM: NAPSTER, MP3, AND THE NEW PIONEERS OF MUSIC 126 (2001). The unedited transcript is available at http://www.goteamfrog.org/gotohell/gthvol4/fall2000/swindlefall2000.html. *See generally* FREDRIC DANNEN, HIT MEN (1991) for a portrayal of the inner workings of the music industry. As Professor Paul Goldstein noted:

> Public respect for the rights of entertainment companies cannot be separated from the public's perception of the respect these companies pay to the rights of the authors and artists who are the source of their products. Users who may not give a moment's thought to ripping off an anonymous corporation can be expected to think twice if the victim of their predation has a human face.

Paul GOLDSTEIN, COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX 216 (rev. ed. 2003).

[73] Benny Evangelista, *$143 million Settlement in CD Price-fixing Suit*, SAN. FRAN CHRON., Oct. 1, 2002, at B1 (reporting that the five major labels and three national retail chains "have agreed to pay $143 million in refunds or free CDs to settle a price-fixing lawsuit by California and 39 other states").

[74] Laurie J. Flynn, *Apple Offers Music Downloads with Unique Pricing*, N.Y. TIMES, Apr. 29, 2003, at C2.

[75] Frank Ahrens, *Music Fans Find Online Jukebox Half-Empty*, WASH. POST, Jan. 19, 2004, at A1.

[76] *See* Ina Fried, *Paying for the Sound of Silence*, SAN FRAN. CHRON., Feb. 6, 2004, at B1 (noting that "[a]mong the hundreds of thousands of downloadable songs for sale at Apple's online music store are at least nine tracks of silence"). As the *San Francisco Chronicle* reported:

> Apple treats the silent songs just like any piece of music. The silent tracks sell for the same 99 cents, feature free 30-second previews and are all wrapped in Apple's usual digital-rights management software to prevent unauthorized copying.

Windows users.[77] Given their popularity, iTunes were expectedly voted the "Product of the Year" by *Fortune* Magazine and the "Invention of the Year" by *Time* Magazine.[78]

In October 2003, Roxio relaunched Napster as a subscription-based service, featuring music from the major record labels.[79] Napster 2.0 is very different from the old Napster, which the industry sued out of existence. A mix between PressPlay and the iTunes Music Store, the new Napster offers 99¢ downloads of single songs to anyone who downloads the free software. The service also gives those who pay a monthly subscription fee of less than $10 access to an unlimited number of music streams and "tethered" downloads that expire when they stop subscribing to the service. To compete with Apple, Napster also entered into agreements with Samsung to co-market the Samsung Napster player and with Gateway Computers to preload the Napster software on selected PCs.[80]

A month later, Napster announced a deal with Pennsylvania State University to provide students with campus-wide subscriptions to the service.[81] Funded by information technology fees paid by Penn State students, the service provides students with access to unlimited streams of music and "tethered" downloads.[82] From the industry's standpoint, the service provides an exciting opportunity; it offers a legal alternative to Grokster, iMesh, KaZaA, Morpheus, and other allegedly illegal file-sharing networks while at the same time helping students develop habits that the industry hopes will continue after the students graduate.[83] By the end of the year, Apple's success with iTunes has attracted competition by brick-and-mortar companies. Shortly before Christmas, Wal-Mart, the self-proclaimed low-price leader, offered 88¢ downloads, undercutting by 11¢ the price of songs offered by Apple and other fee-based Web download sites.[84]

Although it is too early to evaluate iTunes's new business model, customers seem to be generally satisfied with the service.[85] As one customer praised the service, "It's solved all my problems. It's so fast, and there's no guilt, no recriminations."[86] By using legitimate services, customers also save time and avoid those annoying decoy files, spywares, viruses, and computer

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. . . .

Apple said most of the songs are there because the artists wanted silence to be part of the albums and because the recording industry provided the songs to Apple as sellable tracks.

Id.

[77] John Borland & Ina Fried, *Apple Launches iTunes for Windows*, CNET NEWS.COM, *at* http://news.com.com/2100-1041-5092414.html (Oct. 16, 2003); John Markoff, *With Flair, Apple Extends Its Reach into Online Music*, N.Y. TIMES, Oct. 17, 2003, at C1.

[78] Peter Lewis, *Product of The Year*, FORTUNE, Dec. 22, 2003, at 188; Chris Taylor, *The 99¢ Solution*, TIME MAG., Nov. 17, 2003, at 66.

[79] John Borland, *Napster Launches, Minus the Revolution*, CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5088838.html (Oct. 9, 2003).

[80] *Id*.

[81] John Borland, *Napster to Give Students Music*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5103557.html (Nov. 6, 2003); *see also* John Borland, *Colleges Explore Legal Net Music Setups*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5059030.html (Aug. 1, 2003).

[82] If a student wants to keep a permanent download or burn the song to a CD, the student can pay 99¢ for the song.

[83] *See* discussion *infra* Part IV.C.

[84] Chris Cobbs, *File Swapping Goes Corporate*, ORLANDO SENTINEL, Jan. 11, 2004, at H1.

[85] *But see* Chris Ayres, *Apple Acts After Battery of iPod Complaints*, TIMES (London), Jan. 12, 2004, at 9 (discussing iPods' battery problems); Rene A. Guzman, *Apple's Portable iPod Rotten to Some*, SAN ANTONIO EXPRESS-NEWS, Feb. 20, 2004, at 1F (discussing the class action lawsuits filed against Apple Computer alleging that the company misrepresented the battery life of its iPod).

[86] Amy Harmon, *In Fight over Online Music, Industry Now Offers a Carrot*, N.Y. TIMES, June 8, 2003, § 1, at 1.

crashes that often come with illegal downloads.[87] Nevertheless, there remain questions as to whether the purchased songs are resaleable[88] and whether the delivery format is secure.[89]

Although the industry received several favorable rulings and benefited from the new iTunes business model, it also suffered several major setbacks during the year. A day after the RIAA won the second *Verizon* decision in April 2003, the industry obtained an unfavorable ruling in *MGM Studios, Inc. v. Grokster, Ltd.*[90] In *Grokster*, the United States District Court for the Central District of California ruled that Grokster and Morpheus/Music City, two P2P networks, were not liable for the unauthorized copies made by individual end-users. Noting a "seminal distinction between Napster and Grokster/StreamCast,"[91] the court found "substantial noninfringing uses for Defendants' software—e.g., distributing movie trailers, free songs or other non-copyrighted works; using the software in countries where it is legal; or sharing the works of Shakespeare."[92] As the court explained:

> While Defendants, like Sony or Xerox, may know that their products will be used illegally by some (or even many) users, and may provide support services and refinements that indirectly support such use, liability for contributory infringement does not lie "merely because peer-to-peer file-sharing technology may be used to infringe plaintiffs' copyrights."[93]

The court also maintained that the defendants had no obligation to "police" the networks, as such obligation "arises only where a defendant has the 'right and ability' to supervise the infringing conduct."[94] Unlike Napster, the distributors of Grokster and Morpheus do not have control over who uses the networks or what is shared through them. Thus, the court was unwilling to impose the additional burden on the defendants.

The recording industry appealed to the United States Court of Appeals for the Ninth Circuit. To the industry's disappointment, the appellate court recently affirmed the lower court's decision.[95] As the court explained:

> The introduction of new technology is always disruptive to old markets, and particularly to those copyright owners whose works are sold through well-established distribution mechanisms. Yet, history has shown that time and market forces often provide equilibrium in balancing interests, whether the new technology be a player piano, a copier, a tape recorder, a

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[87] *See* Yu, *The Copyright Divide*, *supra* note 5, at 432-33 (discussing the frustration in locating what one wants in illegal Web sites); *see also* DIGITAL DILEMMA, *supra* note 10, at 80-81.

[88] *See, e.g.*, Ina Fried & Evan Hansen, *Apple: Reselling iTunes Songs 'Impractical,'* CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5072842.html (Sept. 8, 2003) (stating that "Apple's position is that it is impractical, though perhaps within someone's rights, to sell music purchased online"); Alorie Gilbert, *iTunes Auction Treads Murky Legal Ground*, CNET NEWS.COM, *at* http://news.com.com/2100-1025_3-5071108.html (Sept. 3, 2003) (discussing the legal and technical challenges concerning the resale of iTunes through Internet auctions); Evan Hansen, *Apple Customer Resells iTunes Song*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5074086.html (Sept. 10, 2003) (reporting a customer's successful resale of online song he purchased from Apple Computer's iTunes Music Store).

[89] *See, e.g.*, John Borland, *Program Points Way to iTunes DRM Hack*, CNET NEWS.COM, Nov. 24, 2003, *at* http://news.com.com/2100-1027-5111426.html (discussing a program that "served as a demonstration of how to evade, if not exactly break, the anticopying technology wrapped around the songs sold by Apple in its iTunes store").

[90] 259 F. Supp. 2d 1029 (C.D. Cal. 2003).

[91] *Id.* at 1041.

[92] *Id*. at 1035.

[93] *Id*. at 1043.

[94] *Id*. at 1045.

[95] MGM Studios, Inc. v. Grokster, Ltd., No. 03-55894, 2004 U.S. App. LEXIS 17471 (9th Cir. Aug. 19, 2004); *see also* John Borland, *Judges Rule File-Sharing Software Legal*, CNET NEWS.COM, *at* http://news.com.com/2100-1032_3-5316570.html (Aug.19, 2004).

> video recorder, a personal computer, a karaoke machine, or an MP3 player. Thus, it is prudent for courts to exercise caution before restructuring liability theories for the purpose of addressing specific market abuses, despite their apparent present magnitude.[96]

Following the lower court, the Ninth Circuit distinguished Grokster and StreamCast Networks from Napster in terms of their relationships with users. As Judge Thomas wrote in the unanimous decision, "[i]n the context of this case, the software design is of great import."[97] The appellate court also found it important that the networks were capable of substantial noninfringing uses, such as "significantly reducing the distribution costs of public domain and permissively shared art and speech, as well as reducing the centralized control of that distribution."[98]

Just before 2003 ended, the recording industry received three other major unfavorable rulings, both within the United States and without. In early December, the Copyright Board of Canada released a decision stating that downloading files via P2P technologies is legal under Canadian law.[99] To compensate artists and copyright holders, the board imposed a tariff of up to $25 on portable MP3 players,[100] thus putting the device in the same category as audiotapes and blank CDs. Although the Copyright Board's decision is not binding on Canadian courts, this decision is likely to receive serious consideration.

Indeed, a Canadian federal court recently rejected the request of Canadian record labels for authorization to identify alleged file-sharers in *BMG Canada Inc. v. Doe*.[101] As the court noted, the recent Canadian Supreme Court decision of *CCH Canada Ltd v. Law Society of Canada* established that setting up facilities to allow copying does not amount to *authorizing* infringement.[102] The court therefore did not find any "real difference between a library that places a photocopy machine in a room full of copyrighted material and a computer user that places a personal copy on a shared directory linked to a P2P service."[103] According to the court:

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[96] *Grokster*, 2004 U.S. App. LEXIS 17471, at *32; *see also* Peter K. Yu, *Innovation Gains Edge in Music, Movie Battle*, DETROIT NEWS, Aug. 29, 2004, at 15A (discussing *Grokster*).

[97] *Grokster*, 2004 U.S. App. LEXIS 17471, at *19.

[98] *Id*. at *23. To illustrate the substantial noninfringing use, the Ninth Circuit used the popular band Wilco:

> One striking example provided by the Software Distributors is the popular band Wilco, whose record company had declined to release one of its albums on the basis that it had no commercial potential. Wilco repurchased the work from the record company and made the album available for free downloading, both from its own web-site and through the software user networks. The result sparked widespread interest and, as a result, Wilco received another recording contract.

Id. at *16.

[99] COPYRIGHT BOARD OF CANADA, PRIVATE COPYING 2003-2004, at 22 (2003) (stating that "[a]ll private copying is now exempt, subject to a corresponding right of remuneration"), *available at* http://www.cb-cda.gc.ca/decisions/c12122003-b.pdf.

[100] *Id*.

[101] No. T-292-04 (Can. Mar 31, 2004), *available at* http://www.fct-cf.gc.ca/bulletins/whatsnew/T-292-04.pdf. *See generally* John Borland, *Judge: File Sharing Legal in Canada*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5182641.html (Mar. 31, 2004).

[102] *BMG Canada Inc.* ¶ 27 (quoting CCH Canada Ltd v. Law Society of Canada, [2004] S.C.C. 13). As Chief Justice McLachlin wrote:

> "Authorize" means to "sanction, approve and countenance." Countenance in the context of authorizing copyright infringement must be understood in its strongest dictionary meaning, namely, "give approval to, sanction, permit, favour, encourage." Authorization is a question of fact that depends on the circumstances of each particular case and can be inferred from acts that are less than direct and positive, including a sufficient degree of indifference. However, a person does not authorize infringement by authorizing the mere use of equipment that could be used to infringe copyright. Courts should presume that a person who authorizes an activity does so only so far as it is in accordance with the law. This presumption may be rebutted if it is shown that a certain relationship or degree of control existed between the alleged authorizer and the persons who committed the copyright infringement.

CCH Canada Ltd v. Law Society of Canada, [2004] S.C.C. 13.

[103] *BMG Canada Inc.* ¶ 27.

> In either case the preconditions to copying and infringement are set up but the element of authorization is missing. . . . The mere fact of placing a copy on a shared directory in a computer where that copy can be accessed via a P2P service does not amount to distribution. Before it constitutes distribution, there must be a positive act by the owner of the shared directory, such as sending out the copies or advertising that they are available for copying. No such evidence was presented by the plaintiffs in this case.[104]

In mid-December, the United States Court of Appeals for the District of Columbia Circuit overruled the lower court's decisions in the *Verizon* cases,[105] which required Internet service providers to turn over subscriber information to copyright holders without a pending lawsuit. As the appellate court maintained, "the overall structure of § 512 [the subpoena provision] clearly establish[es that the statute] . . . does not authorize the issuance of a subpoena to an ISP acting as a mere conduit for the transmission of information sent by others."[106] The D.C. Circuit also pointed out that "P2P software was 'not even a glimmer in anyone's eye when the DMCA was enacted' . . . [and that] Congress had no reason to foresee the application of § 512(h) to P2P file sharing, nor did they draft the DMCA broadly enough to reach the new technology when it came along."[107] Thus, copyright holders cannot use the DMCA to force Internet service providers to turn over subscriber information without filing a lawsuit. Nevertheless, the court ended the opinion by acknowledging the industry's concern and suggested that copyright holders might seek Congress's assistance to address their economic plight. As the court wrote:

> We are not unsympathetic either to the RIAA's concern regarding the widespread infringement of its members' copyrights, or to the need for legal tools to protect those rights. It is not the province of the courts, however, to rewrite the DMCA in order to make it fit a new and unforseen [sic] internet architecture, no matter how damaging that development has been to the music industry or threatens being to the motion picture and software industries. The plight of copyright holders must be addressed in the first instance by the Congress; only the "Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology."[108]

Immediately after the decision, the industry claimed that the decision would make the process more intrusive, because it prevents the RIAA from contacting potential lawsuit targets for settlement before filing a lawsuit.[109] The industry might be right, but it is cold comfort to individual file-sharers if their contacts with the RIAA would only result in expensive settlements that wipe away their savings or force them into bankruptcy. In fact, the *Verizon* ruling is likely to benefit file-sharers in three ways. First, although the decision did not determine whether it is legal to upload or download music, it slows down the industry's mass litigation campaign.

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[104] *Id*. ¶¶ 27-28.

[105] 351 F.3d 1229 (D.C. Cir. 2003).

[106] *Id*. at 1236. As the court explained:

> This argument borders upon the silly. The details of this argument need not burden the Federal Reporter, for the specific provisions of § 512(h), which we have just rehearsed, make clear that however broadly "[internet] service provider" is defined in § 512(k)(1)(B), a subpoena may issue to an ISP only under the prescribed conditions regarding notification. Define all the world as an ISP if you like, the validity of a § 512(h) subpoena still depends upon the copyright holder having given the ISP, however defined, a notification effective under § 512(c)(3)(A). And as we have seen, any notice to an ISP concerning its activity as a mere conduit does not satisfy the condition of § 512(c)(3)(A)(iii) and is therefore ineffective.

Id.

[107] *Id*. at 1238.

[108] *Id*.

[109] *See* John Borland, *Court: RIAA Lawsuit Strategy Illegal*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5129687.html (Dec. 19, 2003).

Instead of suing file-sharers *en masse*, the industry now has to file John Doe actions against *each* individual file-sharer suspected of illegally trading music.[110] The process therefore will become more expensive, labor-intensive, and time-consuming, and the industry will have to be more selective on whom to sue. Second, the decision forced the industry to sue file-sharers without the benefit of weeding out sympathetic defendants (such as the 12-year-old honor student living in public housing) or false positives (such as the 66-year-old Boston woman whose computer cannot run the file-swapping software she was accused of using). Even worse, the decision might generate public relations disasters should the industry sue the daughter or son of a record label executive or a close relative of a senator or house representative.[111] Finally, the new "John Doe" process will be more protective of privacy and other constitutional rights, as it will prevent Internet service providers from disclosing subscriber information without a pending lawsuit.

The RIAA is currently considering appealing the decision by requesting an *en banc* hearing before the D.C. Circuit. However, since *Verizon* was a unanimous decision written by none other than Chief Judge Douglas Ginsburg, a reputable jurist in the Circuit, the industry is unlikely to prevail.[112] Thus, the RIAA eventually might have to petition the United States Supreme Court to hear the case—either in lieu of their *en banc* request or after they have lost at the *en banc* level.[113] Even if the RIAA loses at the Supreme Court level, it can still rectify the problem by lobbying Congress to clarify the law, making the DMCA applicable to P2P networks. Given the fact that the industry has simultaneously pursued lobbying and litigation in the past, it would be no surprise if the industry lobbied Congress hard for changes to the DMCA while preparing its appeal of the decision.

Just before Christmas, the industry received its final blow in a country thousands of miles away from the United States. On December 24, an appellate court in Norway affirmed the lower court's decision that Jon Johansen, the Norwegian teenaged programmer, did not violate the Norwegian Criminal Code[114] by co-writing the DeCSS program, which circumvented the copy-protection technology used by the U.S. motion picture industry.[115] This decision was

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[110] Katie Dean, *One File Swapper, One Lawsuit, Wired News*, *at* http://www.wired.com/news/digiwood/0,1412,62576,00.html (Mar. 08, 2004) (reporting a ruling in Philadelphia that required the RIAA to file separate lawsuit for each defendant, rather than bundling all the defendants in a single lawsuit); *Florida Court Sends RIAA Away*, WIRED NEWS, http://www.wired.com/news/digiwood/0,1412,62915,00.html (Apr. 1, 2004) (reporting a similar ruling in Orlando). For discussion of John Doe lawsuits, see RIAA v. Verizon Internet Services, 240 F. Supp. 2d 24, 39-41 (D.D.C.), *rev'd*, 351 F.3d 1229 (D.C. Cir. 2003).

[111] Declan McCullagh, *FAQ: How the Decision Will Affect File Swappers*, CNET NEWS.COM, *at* http://news.com.com/2100-1028-5130033.html (Dec. 19, 2003).

[112] *Cf. id.*

[113] The RIAA can petition the United States Supreme Court to hear the case if it fails at the *en banc* level or it can skip the en banc request.

[114] The Code punishes "any person who by breaking a protective device or in a similar manner, unlawfully obtains access to data or programs which are stored or transferred by electronic or other technical means." Declan McCullagh, *Teen on Trial in DVD Hacking Case*, CNET NEWS.COM, *at* http://news.com.com/2100-1025-976687.html (Dec. 9, 2002); *see also* Jon Bing, *A Legal Perspective on the Norwegian DeCSS Case*, *at* http://www.eff.org/IP/DRM/DeCSS_prosecutions/Johansen_DeCSS_case/20000125_bing_johansen_case_summary.html (Jan. 25, 2000) (stating that "[i]t is . . . unsettled whether the Criminal Code sect 145(2) can apply to a situation where someone breaks a code or other security measure in order to access material on a device of which that person is the owner").

[115] Evan Hansen, *Will DVD Acquittal Mean Tougher Copyright Laws?*, CNET NEWS.COM, *at* http://news.com.com/2100-1025-5133152.html (Dec. 24, 2003). For discussion of the DeCSS Program, see Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294, 311 (S.D.N.Y. 2000).

subsequently reinforced by a California Court of Appeals decision that reversed an earlier order enjoining the publication of the DeCSS program on the Internet.[116]

On the whole, 2003 was a turbulent year for the recording industry. The year started with considerable fanfare when the industry successfully pursued KaZaA in U.S. courts while launching high-profile, unprecedented lawsuits against college students who offered copyrighted music for others to download. The year ended, however, with the industry singing the blues with four unfavorable court decisions. 2003 was a year of trials and tribulations for the recording industry, and the RIAA had its fair share of successes and failures.

II. THE FUTURE P2P FILE-SHARING WARS

As the P2P file sharing problem grows and spreads to other industries, such as the publishing, television, and motion picture industries, the copyright wars are likely to escalate. This Part first discusses the challenges confronting the recording industry at the domestic and international levels. Domestically, the industry will have to deal with a proliferation of new P2P technologies, the increasingly transnational nature of the copyright wars, the decreasing support the industry receives from its customers and political allies, and the counterattacks and setbacks the industry will suffer due to its aggressive tactics. Internationally, the industry's increasing push for stronger intellectual property protection abroad will heighten the tension between the United States and less developed countries, invite criticism of the United States' hypocritical position in the international copyright arena, and create distraction caused by increased public attention on international piracy. Part II concludes by exploring the spread of the P2P file-sharing wars to other industries, such as the publishing, television, and motion picture industries. This Part argues that, although the copyright wars are likely to spread, these industries, in particular the motion picture industry, might adopt less confrontational strategies due to their differing industry structures and the various lessons they have learned from the recording industry.

A. *Domestic Challenges*

1. Proliferation of New P2P Technologies

Unlike MP3.com and Napster, all of the new P2P technologies, such as Grokster, iMesh, KaZaA, and Morpheus, do not have centralized servers.[117] Instead, they allow users to transfer files from one location to another while accommodating the users' needs to employ different hardware and software. As a result, enforcement is likely to become difficult. There will be no "deep pocket" to sue, no chokepoint to target, no intermediary to attach liability to, no emergency lever to pull, and no human face to blame.

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[116] DVD Copy Control Association Inc. v. Bunner, 10 Cal. Rptr. 3d 185 (Ct. App. 2004); *see also* Evan Hansen, *Court: DeCSS Ban Violated Free Speech*, CNET NEWS.COM, *at* http://news.com.com/2100-1026-5166887.html (Feb. 27, 2004). As the court explained: "The preliminary injunction . . . burdens more speech than necessary to protect DVD CCA's property interest and was an unlawful prior restraint upon Bunner's right to free speech." *Id*. at *28. In *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001), eight major movie studios successfully enjoined the hacker magazine *2600: The Hacker Quarterly* from posting the DeCSS program and related hyperlinks, citing the anticircumvention provision of the DMCA. As a result of the reversal in *DVD Copy Control Association Inc. v. Bunner*, *Corley* remains the only precedent in which copyright holders successfully enjoined third parties from disseminating information concerning how to circumvent encryption technology used to protect copyrighted works.

[117] See generally Gene Kan, *Gnutella*, *in* PEER-TO-PEER: HARNESSING THE POWER OF DISRUPTIVE TECHNOLOGIES 94 (Andy Oram ed., 2001) [hereinafter PEER-TO-PEER], for a discussion of Gnutella-based engines.

Even worse, the industry's strong-armed tactics will threaten to drive pirates underground, forcing file-sharers to turn to proxy servers, offshore and mirror Web sites, and encrypted P2P systems.[118] Indeed, a large variety of anonymizing technologies already exist. For instance, Freenet software allows file-swappers to encrypt download requests by passing them from one computer to another without disclosing how and where the user obtains the files.[119] Programs like Red Rover, Publius, and Free Haven provide attractive alternatives for file-sharers to avoid censorship and recrimination by remaining anonymous.[120] If the industry drove all the pirates to these anonymous networks, its enforcement efforts would be futile and ultimately would backfire on the constituents the trade group was charged to protect—record companies, musicians, artists, songwriters, engineers, producers, retailers, and truck drivers.

2. Transnational Nature of the Future Copyright Wars

The future P2P file-sharing wars are likely to be transnational by nature. Most of the existing networks already involve parties resided in foreign countries. KaZaA provides an illustrative example. Developed by young Estonia programmers working for a Dutch company, the software now belongs to an Australian company incorporated in the Pacific island nation of Vanuatu.[121] Although courts have allowed record companies and movie studios to proceed with the lawsuit in the United States against Sharman Networks—KaZaA's parent company—the multinational involvement has made the litigation process difficult.[122] Instead of relying on domestic enforcement, copyright holders now have to rethink their enforcement and litigation strategies from a global perspective. For example, in February 2004, the industry applied for an Anton Pilar order in an Australian court.[123] Thanks to this order, the industry successfully raided Sharman Network's Australian offices and the homes of the company's key corporate executives.

In fact, if copyright holders had to litigate in foreign fora, they might have to deal with problems commonly associated with transnational litigation. These problems are not unique to copyright or file sharing; yet, they present serious challenges for copyright holders.

In transnational litigation, jurisdictional and conflict of law issues are likely to arise.[124] Moreover, some foreign judges, in particular those trained in civil law countries, might interpret laws differently,[125] especially in areas where fundamental philosophical differences exist. These

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[118] *See* Saul Hansell, *Crackdown on Copyright Abuse May Send Music Traders into Software Underground*, N.Y. TIMES, Sept. 15, 2003, at C1.

[119] See generally Adam Langley, *Freenet*, *in* PEER-TO-PEER, *supra* note 117, at 123, for a discussion of Freenet software.

[120] *See generally* Alan Brown, *Red Rover*, *in* PEER-TO-PEER, *supra* note 117, at 133 (describing Red Rover); Marc Waldman et al., *Publius*, *in* PEER-TO-PEER, *supra* note 117, at 145 (describing Publius); Roger Dingledine, *Free Haven*, *in* PEER-TO-PEER, *supra* note 117, at 159 (describing Free Haven).

[121] Ariana Eunjung Cha, *File Swapper Eluding Pursuers*, WASH. POST, Dec. 21, 2002, at A1.

[122] *See, e.g.*, MGM Studios, Inc. v. Grokster, Ltd., 243 F. Supp. 2d 1073 (C.D. Cal. 2003), *aff'd*, 2004 U.S. App. LEXIS 17471 (9th Cir. Aug. 19, 2004) (rejecting the defendant's claim that the company did not have substantial contacts with California and thus should not be subject to the court's jurisdiction).

[123] James Pearce, *Piracy Fighters Raid Offices of Sharman, Others*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5154506.html (Feb. 6, 2004). An Anton Pilar order allows copyright holders to enter premises to search for and seize infringing material without alerting the target through court proceedings.

[124] Cha, *supra* note 121. *But see In Web Disputes, U.S. Law Rules the World*, TORONTO STAR, Feb. 24, 2003, at D1 (noting that U.S. laws were applied in most Internet disputes).

[125] *See generally* George C. Christie, *Some Key Jurisprudential Issues of the Twenty-first Century*, 8 TUL. J. INT'L & COMP. L. 217, 218-23 (2000) (discussing the different approaches to judicial interpretation by common law and civil law judges). Professor Christie attributed the differences between the American and European model of statutory interpretation to the U.S. system of government. As he explained:

judges also might come to different conclusions even though they apply identical laws,[126] as judges sometimes have to apply law by reference to national market conditions, social contexts, and local practices.[127]

> The United States does not have a parliamentary system of government. The executive cannot control the legislative process. More often than not, in recent times, the same political party has not controlled the executive and the two co-equal branches of the American legislature. Even when the Presidency, the House of Representatives, and the Senate have been controlled by the same party, the lack of strong centralized parties, along the European model, has meant that the executive branch has not been able to control the legislative process to the same extent that its European counterparts normally can. Although there is a legislative drafting service available to help representatives and senators draft legislation, much legislation is not subjected to that professional screening. Indeed, many important elements of legislation are inserted as amendments in an ad hoc manner. In operation, the whole American system functions as a device for forcing compromises at every step in the legislative process, with the result that there are many compromises. What the United States Supreme Court may be doing is respecting the compromise-seeking nature of the legislative process. The almost obsessive search of U.S. courts for congressional intent as revealed in the committee reports and debates of Congress clearly reflects an appreciation of the fact that legislation is the product of compromise, and that the courts exist to make those compromises effective. In so doing, the courts, with good reason, presuppose that the American public accepts the fact that government in a democracy is government by compromise, and that this public applauds the courts' attempts to facilitate the compromises reached in the legislative forum. In short, the ideal legislature as conceived in American political theory is one committed to compromise, and not one always seeking to give voice to the highest standards of rationality and to further the most noble aspirations of the society for which it legislates.

Christie, *supra*, at 222-23.

[126] *See* COMMISSION ON INTELLECTUAL PROPERTY RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY: REPORT OF THE COMMISSION ON INTELLECTUAL PROPERTY RIGHTS 114 (2003) (noting that "it is not uncommon for different courts in Europe, even when applying identical law, to come to different conclusions on whether a patent is or is not obvious"); Graeme B. Dinwoodie, *International Intellectual Property Litigation: A Vehicle for Resurgent Comparativist Thought*, 49 AM. J. COMP. L. 429, 436 (2001) [hereinafter Dinwoodie, *International Intellectual Property Litigation*] (noting that "even identical rules of law may lead to different results when applied in different social contexts by different tribunals"); *see also* Christie, *supra* note 125, at 217 (noting that "the decisions in concrete legal cases will be influenced as much by what we believe to be the proper method for deciding legal disputes as by the views that we entertain on the merits of the controversies before us").

[127] As Professor Dinwoodie elaborated:

> For example, the meaning of a word or other symbol claimed as a trademark may vary from one country to another because of both linguistic denotation and social connotation, and thus the application of the same trademark rule may generate a different result because the word or symbol operates as a trademark in only some of those countries. Numerous intellectual property concepts reflect underlying determinations of the appropriate balance between ensuring competition and stimulating innovation; but different competitive climates may subsist in different national markets, warranting a different balance and thus divergent interpretation of the (supposedly harmonized) concept in question. Whether an unauthorized use of a copyrighted work is fair use may in part depend upon whether a market for such uses is "traditional, reasonable, or likely to develop," which in turn may hinge on nationally distinct social practices and technological capabilities. Consumers in different national markets, subjected to different marketing practices, may be confused by the use of an allegedly similar trademark in different circumstances.

Dinwoodie, *International Intellectual Property Litigation*, *supra* note 126, at 436-37. Professor George Fletcher provided an insightful analysis of how American and foreign judges conceive fairness differently:

> A slightly different mode of linguistic influence comes to light in the way Americans and other English-speaking peoples talk about fairness. We have coined the phrases "fair play" and "fair trial" and have bequeathed them to the Western world—both in law and in daily speech. Many of our neighboring cultures simply adopt the word "fair" into their vocabularies as an untranslatable American idea. Thus you can hear Germans and Israelis using the American word "fair" as though it were their own. Others like the French try in vain to translate the notion of fairness as equitable or just but these and other cognates in other Romance languages overlook the procedural bedrock of fair dealing.
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> Americans learn the notion of fair play as soon as they begin playing with other children. Enter any kindergarten and watch children playing with a single ball or Lego set. Sooner or later one of them will complain that another is not sharing, that he or she is "not fair." The charge of unfairness is a tool that children quickly learn to protect their interests. Not sharing is paradigmatic unfairness. So is not playing by the rules.
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> The best explanation for this faith in fairness lies in our cultural roots. To appreciate the uniqueness of English-language culture, we need only pause to reflect upon the sporting metaphors that abound in everyday speech. A fair competition is one in which the playing field is level, the dice are not loaded, the deck not stacked. Fairness consists of playing by even-handed rules. Neither side hits below the belt. No one hides the ball. You don't sandbag the opposition by passing on the first round and then raising your opponent's bet. In a fair competition, both sides retain an equal chance of winning. And the winning side should gain the upper hand without cheating, without playing dirty, without hitting the other when he or she is down. These idioms pervade the English language. No other European language relies so heavily on sporting metaphors to carry on the business of the day. This is a striking feature of English and American culture. We cannot think about human relations without thinking about sports and the idiom of fair play and foul play. This is not true in French, German, Russian, Italian, or any other major language or culture of the West. This correlation provides powerful evidence of the strong link between culture and language.

Because of these complications, the lawsuits might result in different outcomes that perhaps are unexpected from the industry's perspective. For example, a Dutch appellate court overruled a lower court's decision that held KaZaA liable for copyright infringement committed by users of its software.[128] Two Norwegian courts ruled that Jon Johansen did not violate criminal law by co-writing a program that circumvented the copy-protection technology used by the U.S. motion picture industry.[129] Russian cryptographer Dmitry Sklyarov was greeted with a hero's welcome when he returned to Moscow after being jailed in the United States.[130]

Even worse for copyright holders, some foreign countries do not have a sophisticated legal system or a strong respect for the rule of law. China is the predominant example in legal literature; until recently, its courts were of limited effectiveness. Even today, the courts still suffer from many legacy problems, including the limited independence of the judiciary, the intertwining relationship between courts and the Chinese Communist Party, the court's vulnerability to outside influence, judges' susceptibility to bribery and corruption, underfunding, abuse of government officials, and local protectionism.[131]

Oftentimes, there is a shortage of lawyers, in particular intellectual property lawyers, in these countries. As a result, foreign firms have great difficult in obtaining competent legal advice and protection.[132] Moreover, local conditions and customs, such as the strong emphasis on personal connections (*guanxi*) in commercial dealings in China, might make copyright holders reluctant to sue local companies, especially when they intend to continue doing business in the country.[133] Thus, despite their wishes, lawsuits in these countries might be difficult, complicated, and at times undesirable.

3. The Industry's Increased Political Alienation

As the industry continues to pursue individual file-sharers, it is likely to face harsh criticism from commentators, civil liberties organizations, and the public. Since the MP3.com and Napster battles, the public has increasingly viewed copyright law with disdain. The situation worsened after the United States Supreme Court upheld the Sonny Bono Copyright Term

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George P. Fletcher, *Comparative Law as a Subversive Discipline*, 46 AM. J. COMP. L. 683, 699-700 (1998).

[128] John Borland, *Ruling Bolsters File-Traders' Prospects*, CNET NEWS.COM, *at* http://news.com.com/2100-1023-870396.html (Mar. 28, 2002).

[129] Hansen, *Will DVD Acquittal Mean Tougher Copyright Laws?*, *supra* note 115.

[130] Lawrence M. Walsh, *Judge Favors Finger Tapping*, INFO. SECURITY, Feb. 2002, at 20. As Sklyarov boastfully told reporters, "Someone once said that no single person can win a legal case against the U.S. government." *Id*. (quoting Sklyarov).

[131] *See* Peter K. Yu, *From Pirates to Partners: Protecting Intellectual Property in China in the Twenty-first Century*, 50 AM. U. L. REV. 131, 217-18 (2000) [hereinafter Yu, *From Pirates to Partners*] (discussing the weaknesses of Chinese courts). For discussions of the development of the rule of law and Chinese courts in China, see, for example, RONALD C. BROWN, UNDERSTANDING CHINESE COURT AND LEGAL PROCESS: LAW WITH CHINESE CHARACTERISTICS (1997); CHINA'S LEGAL REFORMS (Stanley Lubman ed., 1996); DOMESTIC LAW REFORMS IN POST-MAO CHINA (Pitman B. Potter ed., 1994); RONALD C. KEITH, CHINA'S STRUGGLE FOR THE RULE OF LAW (1994); THE LIMITS OF THE RULE OF LAW IN CHINA (Karen G. Turner et al. eds., 2000); MURRAY SCOTT TANNER, THE POLITICS OF LAWMAKING IN POST-MAO CHINA: INSTITUTIONS, PROCESSES AND DEMOCRATIC PROSPECTS (1999); Stanley B. Lubman, *Studying Contemporary Chinese Law: Limits, Possibilities, and Strategy*, 39 AM. J. COMP. L. 293 (1991).

[132] *See* Peter K. Yu, *The Harmonization Game: What Basketball Can Teach About Intellectual Property and International Trade*, 26 FORDHAM INT'L L.J. 218, 240 (2003).

[133] *See* Yu, *From Pirates to Partners*, *supra* note 131, at 210 (discussing the importance of *guanxi* to conducting business in China); Gregory S. Kolton, Comment, *Copyright Law and the People's Courts in the People's Republic of China: A Review and Critique of China's Intellectual Property Courts*, 17 U. PA. J. INT'L ECON. L. 415, 451 (1996) (contending that "it may be difficult for foreign firms which plan to continue doing business in China to sue because doing so may wreck their 'guanxi'—personal contacts or favors—that are integral for doing business in the PRC").

Extension Act in *Eldred v. Ashcroft* in January 2003.[134] Immediately after the decision, strong, bitter reactions emerged from supporters of the public domain movement. Many lamented the Court's selling out to private corporations, while the more radical few advocated the use of civil disobedience as a counteracting strategy.[135] Even Mickey Mouse, the protagonist of the copyright term extension drama, could not help but give an interview blasting his owner in an interview:

> For almost 70 years, I've only been allowed to do what the Disney people say I can do. Sometimes someone comes up with a new idea, and I think to myself, "Great! Here's a chance to stretch myself!" But of course they won't let me leave the reservation. If I do, they send out their lawyers to bring me home. . . . Do you have *any idea* what it's like to have to greet kids at Disneyland every single day, always smiling, never slipping off for a cigarette?[136]

To make things worse, the RIAA's recent lawsuits have alienated many of its customers. Although many of those file-sharers the industry has sued will not buy any CDs, or at least CDs from the major record labels, the industry's aggressive tactics have antagonized many CD-buying music lovers, who did not use P2P networks, but were appalled by the lawsuits the industry filed against their children, friends, acquaintances, and relatives. As defendant Jesse Jordan's father, who owns thousands of records and CDs, declared: "[The RIAA] ha[s] sued one of their most avid customers. The RIAA says that they wanted to teach these kids and their families a lesson. The lesson we learned is that we will never, ever buy another product from any of those companies again. That's the lesson we're going to tell everyone."[137]

Even more disturbing, the industry has sued virtually everybody in its desperate attempt to protect itself against digital piracy.[138] In the past few years, the industry has sued, or threatened to sue, telecommunications service providers,[139] consumer electronics developers,[140]

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[134] 123 S. Ct. 769 (2003). For discussion of the *Eldred* decision, see Marci Hamilton, *Now That the Supreme Court Has Declined to Limit Copyright Duration, Those Who Want to Shorten the Term Need to Look at Other Options, Including Constitutional Amendment*, FINDLAW'S WRIT: LEGAL COMMENTARY, *at* http://writ.news.findlaw.com/hamilton/20030213.html (Feb. 13, 2003); Peter K. Yu, *Four Remaining Questions on Copyright Law After* Eldred, GIGALAW.COM, *at* http://www.gigalaw.com/articles/2003/yu-2003-02.html (Feb. 2003); Peter K. Yu, *Mickey Mouse, Peter Pan, and the Tall Tale of Copyright Harmonization*, IP L. & BUS., Apr. 2003, at 24.

[135] As Professor Glynn Lunney noted:

> Broader copyright protection benefits a concentrated, well-organized constituency, copyright owners, at the expense of a dispersed group, consumers generally. Therefore copyright owners will have a decided advantage in the political battle over copyright's proper scope. This advantage is evident in the radical expansion in copyright protection that has occurred over the past two hundred years. Furthermore, although the Constitution entrusts the judicial branch with the responsibility for policing copyright's boundaries, courts have largely abdicated that role. As a result, civil disobedience may offer the only effective means for ordinary consumers to express their political discontent with copyright's excessive scope.

Lunney, *supra* note 10, at 869-70; *see also* Lord Macaulay, Speech Delivered in the House of Commons (Feb. 5, 1841), *reprinted in* Extending Mickey's Life: *Eldred v. Ashcroft* and the Copyright Term Extension Debate (Peter K. Yu ed., forthcoming 2004) (cautioning that an ill-advised copyright law eventually would be "repealed by piratical booksellers"). *But see* Siva Vaidhyanathan, *After the Copyright Smackdown: What Next?*, Salon.com (Jan. 17, 2003), *at* http://www.salon.com/tech/feature/2003/01/17/copyright/print.html (discouraging acts of civil disobedience by noting that "[w]hile disobedience might be more fun, the power of civil discourse remains" in the post-*Eldred* era).

[136] Jesse Walker, *Mickey Mouse Clubbed*, REASON, Jan. 17, 2003, *available at* http://reason.com/links/links011703.shtml.

[137] Healey & Huffstutter, *supra* note 28.

[138] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 7-8 (noting that the P2P file-sharing wars represent "the copyright industries' increasingly brazen—some say desperate—attempts to shut down P2P file-swapping networks, disable P2P technology, and shift the costs of control onto third parties, including telecommunications companies, consumer electronics manufacturers, corporate employers, universities, new media entrepreneurs, and the taxpayers"); Yu, *The Escalating Copyright Wars*, *supra* note 7 (noting that the RIAA's "war on piracy has now become a war against the whole world").

[139] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 12 (discussing the recording industry's conflict with telecommunications companies); *see also* RIAA v. Verizon Internet Services, 351 F.3d 1229 (D.C. Cir. 2003) (lawsuit against Verizon).

new media entrepreneurs,[141] corporate employers,[142] universities,[143] lawyers,[144] college researchers,[145] hackers and cryptographers,[146] and students.[147] By doing so, the industry has shifted enforcement costs to taxpayers.[148] Instead of bringing file-swappers into the fold, the industry now has alienated everybody, treating allies and enemies alike.

As a result of its ill-advised tactics, the industry has become increasingly isolated on Capitol Hill. Although Congress has been protective of the industry in the past, its support for the industry has drastically declined, especially after the industry began suing its constituents. In mid-September, for example, the United States Senate convened a hearing to examine the industry's enforcement tactics and the privacy problems associated with the DMCA's subpoena process.[149] Instead of telling Congress what his industry needed, RIAA President Cary Sherman was forced to defend the RIAA's actions and tactics.

Indeed, shortly before the hearing, Kansas Senator Sam Brownback, chair of the Commerce Committee, introduced a bill to repeal the DMCA's controversial subpoena provision. As he explained:

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[140] *See, e.g.*, RIAA v. Diamond Multimedia Systems, Inc., 180 F.3d 1072 (9th Cir. 1999) (lawsuit to enjoin the manufacture and distribution of the Rio portable MP3 player); MGM Studios, Inc. v. Grokster, Ltd., 243 F. Supp. 2d 1073 (C.D. Cal. 2003), *aff'd*, 2004 U.S. App. LEXIS 17471 (9th Cir. Aug. 19, 2004) (lawsuit against Grokster and Morpheus for contributory and vicarious copyright infringement).

[141] *See, e.g.*, TeeVee Toons v. MP3.com, Inc., 134 F. Supp. 2d 546 (S.D.N.Y. 2001) (lawsuit against MP3.com); UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d 349 (S.D.N.Y. 2000) (lawsuit against MP3.com); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001) (lawsuit against Napster); Paramount Pictures Corp. v. Replay TV, Inc., No. CV 01-9358, 2002 WL 1301268 (C.D. Cal. Apr. 26, 2002) (lawsuit concerning the illegality of Replay TV).

[142] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 16 (discussing the recording industry's conflict with corporate employers).

[143] Benny Evangelista, *Metallica Suit Rocks Napster*, SAN FRAN. CHRONICLE, Apr. 14, 2000, at B3 (discussing the lawsuit Metallica filed against the University of Southern California, Indiana University, Yale University, and other educational institutions).

[144] *See* Sonia K. Katyal, *A Legal Malpractice Claim by MP3.com*, FINDLAW'S WRIT: LEGAL COMMENTARY, Feb. 7, 2002, *at* http://writ.news.findlaw.com/commentary/20020207_katyal.html (discussing the malpractice lawsuit MP3.com filed against its former attorney after Vivendi Universal acquired the company).

[145] Yu, *The Copyright Divide*, *supra* note 5, at 395 (discussing the RIAA's threat of lawsuit against Professor Edward Felten of Princeton University).

[146] As Professor Joseph Liu noted:

> The [recording industry's lawsuits], along with the criticisms of the encryption research exemption, have led to a good deal of concern within the encryption research community. In particular, a number of encryption researchers have refused to publish their research results in response to concerns about DMCA liability. For example, the Dutch cryptographer Niels Ferguson declined to publish the results of research he had conducted regarding High Bandwidth Digital Content Protection, a system used by Intel to encrypt video. Ferguson, an independent cryptography consultant, indicated that he had found weaknesses in that system, but decided not to publish the results and removed all references to this research from his website for fear of DMCA liability. Other researchers have similarly indicated that they have withheld or declined to publish their research results out of the same concern.
>
> Professional associations and conferences have also modified their practices in response to the fear of DMCA liability. Some encryption researchers have suggested boycotting encryption research conferences held in the United States. Some conference organizers have decided to hold their conferences outside the U.S., in order to minimize concerns about liability. In addition, in November 2001, the Institute of Electrical and Electronics Engineers (IEEE), a major publisher of computer science journals, began requiring that all authors indemnify the IEEE for DMCA liability resulting from the publication of their research in the journal. The IEEE later withdrew this requirement in response to widespread objections.

Joseph P. Liu, *The DMCA and the Regulation of Scientific Research*, 18 BERKELEY TECH. L.J. 501, 515 (2003); *see also* Peter K. Yu, *Chilling Effect*, IP L. & BUS., Mar. 2004, at 27 (discussing how the DMCA has undermined cybersecurity and cryptology).

[147] *See* discussion *supra* Part I (discussing the RIAA's mass litigation campaign).

[148] *See* DIGITAL DILEMMA, *supra* note 10, at 312 (noting that the increased reliance on the police and courts to punish those who hack around copy-protection technology would shift enforcement costs to the public at large, "although some of the increased costs in enforcement may be borne by the antipiracy efforts of the various information industry associations"); Netanel, *Noncommercial Use Levy*, *supra* note 10, at 7-8 (discussing the shift of enforcement costs to taxpayers as a result of increased federal criminal prosecutions of individual file-sharers).

[149] Harmon, *Verizon Challenges Music Industry's Subpoenas*, *supra* note 63 (reporting that Senator Coleman had scheduled a congressional hearing to privacy issues as well as the broader effect of technology on copyright enforcement).

> I support strong protections of intellectual property, and I will stand on my record in support of property rights against any challenge. But I cannot in good conscience support any tool such as the DMCA information subpoena that can be used by pornographers, and potentially even more distasteful actors, to collect the identifying information of Americans, especially our children.[150]

Senator Brownback's concern was understandable, as gay porn producer Titan Media attempted to use copyright law to rid the Internet of its copyrighted works, which are frequently swapped on P2P networks.[151] Indeed, anybody who has written a letter, composed an e-mail, or sung a song can become a copyright holder. By claiming copyright infringement, snoops and stalkers therefore can freely exploit the DMCA subpoena process to obtain their targets' personal information.

The industry also is losing support from the computer and consumer electronics industries. When the recording industry pushed for its digital agenda in the mid-1990s, it received substantial support from these two industries. At that time, they supported the enactment of the DMCA and collaborated with the recording industry on the Secure Digital Music Initiative.[152] However, they soon became concerned that increased copyright protection would stifle innovation and development of new technology. They have since expressed regret and disappointment over the development and interpretation of the DMCA.[153]

The concerns of these industries are understandable. From an economic standpoint, copyright law creates a limited monopoly that allows copyright holders to charge consumers economic rents without making any additional investment.[154] Being forced to pay supracompetitive prices for copyrighted products, consumers therefore have fewer resources to invest in new technology and other products. As a result, technology developers will not have adequate incentives to innovate, while copyright holders will have very little incentives to make improvement unless those improvements will allow them to make even more profits (and collect more economic rents).

Even worse, copyright holders might lobby Congress hard to protect their royalty streams and lock up political gains. By controlling access to critical content, incumbent media industries also might try to slow down development of competing new technologies. For example, as Mark Nadel pointed out,

> the film industry tried to stymie television by denying broadcasters access to films, both in television's early years and when the broadcasters tried to experiment with pay-TV. In turn, broadcasters constrained cable television systems' access to broadcast programming, and cable programmers tried to deny satellite companies access to cable networks. Similar

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[150] Declan McCullagh, *In DMCA War, a Fight over Privacy*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5078609.html (Sept. 18, 2003).

[151] *See id.*; *see also* John Schwartz, *File-swapping Is New Route for Internet Pornography*, N.Y. TIMES, July 28, 2001, at C1 (reporting the popularity of trading pornography over P2P networks).

[152] *See* Menell, *supra* note 68, at 163-78 (discussing the deepening conflict between the content and technology sectors). The Secure Digital Music Initiative (SDMI) is an association of electronic companies that were involved in designing copy-protection technologies that protect copyrighted works against unauthorized access.

[153] *DRM Foes Turn Aside Hollywood Peace Gestures*, WASH. INTERNET DAILY, Aug. 5, 2002.

[154] RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 304 (Aspen 5th ed 1998) (discussing how copyright holders "appropriate much of the consumer surplus").

> defensive industry responses today appear to be hindering the rollout of broadband, digital video recorders, and Internet distribution technologies.[155]

In recent years, the copyright industries have repeatedly emphasized the need for uniform proprietary standards.[156] To strengthen control of copyrighted works, the industries have lobbied Congress repeatedly to switch from an existing standard to a new and more protected format. Recent examples include the Serial Copy Management System mandated by the Audio Home Recordings Act of 1992,[157] the Secure Digital Music Initiative,[158] the abandoned Hollings bill,[159] and the motion picture industry's request for the placement of broadcast flags in digital broadcasts.[160] If these standards were adopted, they might even prevent U.S. technology companies from competing with their counterparts in Asia and Europe, which are not subject to similar constraints unless they intend to import the concerned technology into the U.S. market. Indeed, the district court in *MGM Studios, Inc. v. Grokster, Ltd.* cited "using the software in countries where it is legal" as one of the noninfringing uses for P2P software.[161]

As the interests of the computer, consumer electronics, and recording industries diverge, there might be a point where the computer and consumer electronics industries find it too costly to support the recording industry. If these industries were to flex their political muscles, the recording industry might have awakened a sleeping giant. After all, these industries are many times more powerful economically than the recording and motion picture industries combined. As Professor Susan Crawford noted:

> Despite the recent slump, . . . activity in the consumer electronics market directly or indirectly impacts ten percent of U.S. economic activity (GDP)—producing nearly $950 billion in commerce yearly. Revenues for consumer electronics products are expected to total a record $99.5 billion in 2003, marking a 3.5 percent increase over 2002. The information technology industry (computer hardware, software, and services) was the engine of economic growth in the 1990s. While IT-producing industries represent only 7% of all U.S. businesses, they accounted for roughly 28% of overall real economic growth between 1996-2000. IT's share of GDP rose from 3.2% in 1990 to 4.9% at the peak in 2000, and still accounts for 4.2%. These numbers overshadow the revenues of the movie and video industry over the same period. While it is important to ensure the proper functioning of the copyright system, it is fair to ask whether shifting encryption and design costs to the information technology industry, and constraining this industry's ability to innovate, makes sense.[162]

4. Counterattacks and Setbacks

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[155] Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, 19 BERKELEY TECH. L.J. 785, 808-09 (2004) (footnotes omitted).

[156] *See* DIGITAL DILEMMA, *supra* note 10, at 93 (stating that "control of a standard, particularly a proprietary standard, puts some degree of control over publishing into the hands of the standard owners"); *see also* Jane C. Ginsburg, *Copyright and Control Over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613, 1645 (2001) [hereinafter Ginsburg, *Copyright and Control*] (contending that copyright holders are likely to persuade consumers to switch to a new access- and copy-protected format).

[157] 17 U.S.C. 1002(c) (2000). The Serial Copy Management System provides copyright and generation status information and prevents the recording devices from producing a chain of perfect digital copies through "serial copying."

[158] *See* discussion *supra* Part I.

[159] Consumer Broadband and Digital Television Promotion Act, S. 2048, 107th Cong. (2002) (enabling the FCC to mandate a security standard that is protective of digital content for all digital media devices).

[160] *See generally* Susan P. Crawford, *The Biology of the Broadcast Flag*, 25 HASTINGS COMM. & ENT. L.J. 603 (2004) (discussing the broadcast flag controversy).

[161] 259 F. Supp. 2d 1029, 1035 (C.D. Cal. 2003).

[162] Crawford, *supra* note 160, at 635.

As the industry continues its fight against individual file-sharers, it is likely to suffer counterattacks launched by civil liberties organizations and Internet service providers. In September 2003, the American Civil Liberties Union responded to the industry's mass litigation campaign by filing a lawsuit against the RIAA. The lawsuit claimed that the trade group's subpoena suffered from "procedural deficiencies" and violated the due process and free expression guarantees in the United States Constitution.[163] A month later, Charter Communications filed a lawsuit challenging the RIAA's subpoenas before the United States District Court for the Eastern District of Missouri.[164] Charter Communications hoped that the district court would reach a decision different from those reached by the *Verizon* courts (which the D.C. Circuit subsequently overturned). In mid-November, SBC Communications also filed a lawsuit challenging the legality of RIAA's subpoena, contending that the process was unconstitutional because the RIAA had yet to file a lawsuit.[165]

While each of these lawsuits might be insignificant compared to the many lawsuits the RIAA file against individual file-sharers, these lawsuits collectively might create a multiplier effect that makes the industry's litigation campaign very expensive and time-consuming. After all, the plaintiffs of these lawsuits, telecommunications providers and civil liberties organizations, are all repeat players.[166] They therefore will carefully select cases that create obstacles to the industry's enforcements efforts.

In fact, some courts might be sympathetic toward individual file-sharers who downloaded music for noncommercial purposes. Others might be concerned about the privacy intrusions associated with the industry's lawsuits and enforcement tactics. In February 2004, for example, the United States District Court for the Eastern District of Pennsylvania required that the RIAA file separate lawsuits for each defendant, rather than bundling all the defendants in a single lawsuit.[167] In early April, the United States District Court for the Middle District of Florida made a similar ruling.[168] As the industry continues its pursuit of individual file-sharers, these unfavorable rulings are likely to increase.

B. *International Challenges*

1. Heightened Tension Between the United States and Less Developed Countries

As described in the previous section, the future copyright wars are likely to be transnational by nature. Given the lower copyright protection offered in countries abroad, developers of new P2P networks might consider relocating to foreign countries.[169] Indeed,

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[163] Declan McCullagh, *ACLU Takes Aim at Record Labels*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5083800.html (Sept. 29, 2003). As the ACLU noted: "The consequences from this lack of procedural protections are far from trivial. In addition to being deprived of one's constitutional rights, there is nothing to stop a vindictive business or individual from claiming copyright to acquire the identity of critics." *Id.*

[164] Stefanie Olsen, *Charter Files Suit Against RIAA*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5087304.html (Oct. 6, 2003).

[165] John Borland, *SBC Challenges RIAA over Subpoenas*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5110296.html (Nov. 20, 2003).

[166] For an excellent discussion of the differences between "one-shot" and repeat players in the litigation world, see Marc Galanter, *Why The "Haves" Come Out Ahead: Speculations on the Limits of Legal Change*, 9 L. & SOC'Y REV. 95, 97-114 (1974).

[167] Dean, *One File Swapper, One Lawsuit*, *supra* note 110; *see also* Katie Dean, *New Flurry of RIAA Lawsuits*, WIRED NEWS, *at* http://www.wired.com/news/digiwood/0,1412,62318,00.html (Feb. 17, 2004).

[168] *Florida Court Sends RIAA Away*, WIRED NEWS, http://www.wired.com/news/digiwood/0,1412,62915,00.html (Apr. 1, 2004).

[169] *See* discussion *supra* Part II.A.2.

during the height of the Napster litigation, Hank Barry, Napster's then-acting CEO, was asked jokingly if he had considered moving his embattled operations offshore to a country less respectful of copyright.[170] Despite his negative response, Napster was ultimately acquired by the German media conglomerate Bertlesmann, which then sold the company to Roxio, a manufacturer of CD- and DVD-copying software.[171]

To eliminate pirate havens abroad, the recording industry has worked very closely with its foreign counterparts, encouraging foreign copyright holders and trade associations to follow its lead. In the beginning of 2004, the British Phonographic Industry declared that legal action in the United Kingdom was "increasingly likely" given the increase in illegal copying and distribution of unauthorized music files over the Internet.[172] The International Federation of the Phonographic Industry (IFPI), the RIAA's counterpart in Europe, also indicated its intention to target illegitimate Web sites and consumers using those sites.[173] In March 2004, the IFPI finally unleashed its first wave of international lawsuits against file-sharers in Canada, Denmark, Germany, and Italy.[174]

In addition, the recording industry heavily lobbies the U.S. government to strengthen intellectual property protection abroad through international treaties and free trade agreements. In November 2003, for example, lawmakers established an anti-international piracy caucus in Congress to induce foreign countries to enforce copyright laws and stop sales of imitation CDs, DVDs, books, software, and video games.[175] The caucus also seeks to influence trade agreements with foreign countries, educate other congressional members, and demonstrate new technologies that reduce piracy.[176] To strengthen collaboration, lawmakers and industry leaders also formed the Entertainment Industry Coalition for Free Trade.[177]

Unfortunately, the United States did not fare well in international trade fora in 2003. In October, the World Trade Organization ministerial meeting ended prematurely in Cancun, after member countries failed to reach a consensus over issues concerning investment, competition policy, government procurement, and trade facilitation.[178] A month later, the United States was forced to table many difficult and sensitive issues in its negotiation over the Free Trade Area of the Americas,[179] which sought to extend the North American Free Trade Agreement ("NAFTA") to all of the countries in North and South America except Cuba.

As a result of these international setbacks, U.S. trade officials have shifted their focus to bilateral, plurilateral, and regional arrangements. As United States Trade Representative Robert

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[170] *See* GOLDSTEIN, *supra* note 72, at 210.
[171] See generally ALL THE RAVE: THE RISE AND FALL OF SHAWN FANNING'S NAPSTER (2003) for a recent history of Napster.
[172] Chris Ayres, *Why the Suits Are Calling the Tune*, TIMES (London), Jan. 26, 2004, at 2.
[173] Dan Milmo, *MediaGuardian: Clampdown on Music Piracy*, GUARDIAN (London), Jan. 23, 2004, at 25.
[174] Mark Landler. *Fight Against Illegal File Sharing Is Moving Overseas*, N.Y. TIMES, March 31, 2004, at W1.
[175] *Internet Piracy Not to Be Overlooked by Antipiracy Caucus*, WASH. INTERNET DAILY, Oct. 22, 2003.
[176] *See* Adam Jones, *New Caucus To Fight International Intellectual Piracy*, COX NEWS SERVICE, Oct. 21, 2003.
[177] Bill Holland, *The Hill Did Little with Music*, BILLBOARD, Dec. 20, 2003.
[178] Elizabeth Becker, *Poorer Countries Pull Out of Talks Over World*, N.Y. TIMES, Sept. 15, 2003, at A1; Editorial, *The Cancun Failure*, N.Y. TIMES, Sept. 16, 2003, at A24.
[179] Paul Blustein, *Free Trade Area of Americas May Be Limited*, WASH. POST, Nov. 19, 2003, at E1; Simon Romero, *Trade Talks in Miami End Early*, N.Y. TIMES, Nov. 21, 2003, at C1; *see also* Editorial, *Free Trade, à la Carte*, N.Y. TIMES, Nov. 22, 2003, at A14; Peter K. Yu, *Globaphobia: Why the Arguments Against the FTAA Were Flawed*, CNN.COM, *at* http://www.cnn.com/2003/LAW/11/25/findlaw.analysis.yu.ftaa (Nov. 25, 2003) (discussing criticisms of the Free Trade Area of the Americas).

Zoellick declared, it is important to distinguish the can-do countries from the won't-do.[180] Using a "divide and conquer" strategy, U.S. trade officials now seeks to find solutions that undermine the efforts by Brazil, India, and the Group of 21 to establish a united negotiating front for less developed countries.

As of this writing, the United States has free trade agreements with Chile, Israel, Jordan, and Singapore[181] (in addition to NAFTA,[182] which the United States signed with Canada and Mexico in 1992). Congressional votes are now pending on the free trade agreement with Australia and the Central American Free Trade Agreement with Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.[183] The U.S. government also has initiated trade talks with Botswana, Lesotho, Morocco, Namibia, South Africa, and Swaziland while planning to hold talks with Bahrain and Thailand.[184]

On their face, bilateral and regional arrangements are not bad, as long as they are not coercive by nature.[185] Harmonization does not work all the time. Nor does it work for every country, every sector, and every citizen. In fact, bilateral and regional arrangements at times are effective in addressing local concerns and circumstances.[186] Such agreements will facilitate gradual inclusion of participating countries into the global economy. Interjurisdictional competition in trade rules also will encourage countries to try out new ideas, which in turn will improve the quality and diversity of available legal and regulatory solutions.[187]

Nevertheless, intellectual property agreements can create tension among foreign countries, especially if the recording industry and U.S. policymakers do not recognize the changing geo-politico-economic landscape. When less developed countries signed on to the WTO Agreements a decade ago, they were divided and unclear as to what they wanted. Some of the issues involved in the Agreements—such as intellectual property rights—were relatively new, and arguably of low priority, to these countries.[188] These days, however, less developed countries have become more vigilant, organized, and sophisticated. Led by such heavyweights as Brazil and India and supported by a sleeping trading giant—China[189]—these countries now

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[180] *See* Robert Zoellick, *US Commitment to Transparent Global Trade Negotiations Must Be Reciprocated by Others*, FIN. TIMES, Oct. 3, 2003, at 20; *see also* Becker, *Poorer Countries Pull Out of Talks Over World*, *supra* note 178; Simon Romero, *Frustrated, U.S. Will Seek Bilateral Trade Pacts*, N.Y. TIMES, Nov. 19, 2003, at C2.

[181] David Armstrong, *It Takes a Global Village*, SAN FRAN. CHRON., Feb. 26, 2004, at B1.

[182] North American Free Trade Agreement, Can.-Mex.-U.S., Dec. 17, 1992, 32 I.L.M. 289 (1992).

[183] Armstrong, *supra* note 181.

[184] *Id*.

[185] *See* Peter K. Yu, *Toward a Nonzero-sum Approach to Resolving Global Intellectual Property Disputes: What We Can Learn from Mediators, Business Strategists, and International Relations Theorists*, 70 U. CIN. L. REV. 569, 573-82 (2002) [hereinafter Yu, *Toward a Nonzero-sum Approach*] (discussing and criticizing the coercive approach); *see also* Yu, *The Copyright Divide*, *supra* note 5, at 436-44 (discussing the limitation of coercion).

[186] *See* John F. Duffy, *Harmony and Diversity in Global Patent Law*, 17 BERKELEY TECH. L.J. 685, 703-06 (2002) (discussing how legal variation permits each jurisdiction to match its laws to the unique tastes and preferences of its population).

[187] *See id*. at 707-09 (discussing interjurisdictional competition and legal experimentation).

[188] For background on the history of the TRIPs Agreement, see generally DANIEL GERVAIS, THE TRIPS AGREEMENT: DRAFTING HISTORY AND ANALYSIS (2d ed. 2003); MICHAEL P. RYAN, KNOWLEDGE DIPLOMACY: GLOBAL COMPETITION AND THE POLITICS OF INTELLECTUAL PROPERTY (1998); Frederick M. Abbott, *The WTO TRIPS Agreement and Global Economic Development*, *in* PUBLIC POLICY AND GLOBAL TECHNOLOGICAL INTEGRATION 39 (Frederick M. Abbott & David J. Gerber eds., 1997); A. Jane Bradley, *Intellectual Property Rights, Investment and Trade in Services in the Uruguay Round: Laying the Foundation*, 23 STAN. J. INT'L L. 57 (1987).

[189] China became the 143rd member of the WTO on December 11, 2001. For discussions of China's entry into the WTO, see generally GORDON G. CHANG, THE COMING COLLAPSE OF CHINA (2001); NICHOLAS R. LARDY, INTEGRATING CHINA INTO THE GLOBAL ECONOMY (2002); SUPACHAI PANITCHPAKDI & MARK CLIFFORD, CHINA AND THE WTO: CHANGING CHINA, CHANGING WORLD TRADE (2002); Symposium, *China and the WTO: Progress, Perils, and Prospects*, 17 COLUM. J. ASIAN L. 1 (2003).

have a better sense of what they want.[190] They begin to understand the importance of intellectual property bargains and are willing to take a more aggressive collective stance.

Contrary to what commentators have argued, this changing stance of less developed countries actually will benefit the United States, and will result in a more harmonized international trading system. It is always more efficient and effective to negotiate with a group of players who know what they want than with those who do not.[191] It is therefore no surprise that some corporate management provides strategic planning to help labor unions get organized. An organized union not only will know the preferences of its members better, but also will help speed up the negotiation process and lead to an outcome that is more satisfactory to both sides.[192]

As cognitive psychologists have taught us, decisionmakers have a tendency to devalue proposals offered by their adversaries even though they will accept identical proposals from their allies or neutral parties.[193] Given the suspicion and frustration less developed countries have developed in Seattle, Cancun, and Miami, it will be no surprise if these countries devalue proposals submitted by the United States, which they perceive as their adversaries. Even worse, because less developed countries believe they received a bad bargain in the Uruguay Round and were forced to adopt trade legislation that ignored their needs and interests, policymakers from these countries would be particularly cautious with proposals introduced by the United States. Thus, the U.S. government is likely to face staunch resistance, or even opposition, when it negotiates bilateral treaties that seek to offer stronger intellectual property protection, which apparently is troublesome to many less developed countries given their backward state of development.[194]

2. Criticism of the United States' Hypocritical Position in the International Copyright Arena

Through international trade agreements, the United States successfully pushed on foreign countries many intellectual property provisions that are controversial on U.S. soil. For example, the United States has pushed Chile and Singapore to adopt the controversial provisions of the DMCA in their free trade agreements.[195] Likewise, even though the American public has heavily criticized the recent copyright term extension, the U.S. government included the extension in free

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[190] For discussion of the position taken by less developed countries and the Group of 21, see, for example, Editorial, *Lessons from the Cancun Debacle*, BUS. TIMES SINGAPORE, Sept. 16, 2003; David Greising & Andrew Martin, *U.S. to Pursue Regional, Individual Trade Talks*, CHI. TRIB., Sept. 17, 2003, at C1; *Hopes Dashed for Poor at WTO*, TORONTO STAR, Sept. 18, 2003, at P2.

[191] *See* Yu, *Toward a Nonzero-sum Approach*, *supra* note 185, at 603 (discussing the strategic partnership between management and a labor union).

[192] *See* STEPHEN M. DENT, PARTNERING INTELLIGENCE: CREATING VALUE FOR YOUR BUSINESS BY BUILDING STRONG ALLIANCES 132 (1999).

[193] *Reactive Devaluation* refers to the tendency to "devalue a proposal received from someone perceived as an adversary, even if the identical offer would have been acceptable when suggested by a neutral or an ally." ROBERT H. MNOOKIN ET AL., BEYOND WINNING: NEGOTIATING TO CREATE VALUE IN DEALS AND DISPUTES 165 (2000); *see id*. at 165-66 (discussing reactive devaluation); *see also* Yu, *Toward a Nonzero-sum Approach*, *supra* note 185, at 594 & n. 155 (discussing cognitive barriers in negotiation).

[194] As Professor Peter Jaszi noted:

> There is a good deal of suspicion of the whole IP package the U.S. is pushing in the [Free Trade Area of the Americas] and also bilateral trade agreements. What I think will be borne out is that there is an increasing sense within that community that the U.S. has a very strong protectionist agenda and that may not be in every case the best approach for countries at different stages of development.

Hansen, *Will DVD Acquittal Mean Tougher Copyright Laws?*, *supra* note 115.

[195] *Capitol Hill*, WASH. INTERNET DAILY, June 19, 2003.

trade agreements with Singapore and Australia.[196] Small countries like the Dominican Republic also have expressed willingness to accept the United States' demands for stronger copyright protection in exchange for other trade benefits and concessions.[197] These reactions were understandable. As Professor Michael Geist explained:

> Developing countries such as the Dominican Republic view the inclusion of stronger copyright protections as a costless choice. For those countries, the harm that may result from excessive copyright controls pales in comparison to more fundamental development concerns and they are therefore willing to surrender copyright policy decisions in return for tangible benefits in other trade areas.
>
> Developed countries such as Australia may recognize the importance of a balanced copyright policy to both their cultural and economic policies, but they are increasingly willing to treat intellectual property as little more than a bargaining chip as part of broader negotiation. Since most trade deals are judged by an analysis of the bottom-line, economic benefits that result from the agreement, and since quantifying the negative impact of excessive copyright controls is difficult, the policy implications of including copyright within trade agreements is often dismissed as inconsequential.[198]

Ultimately, the increasing push for stronger intellectual property protection abroad and the United States' hypocritical position in the international copyright arena will hurt the United States. First, the bad publicity and local resistance created by the agreements will reduce the appeal of U.S. intellectual property laws, or even American-style legal and economic reforms in general.[199] So far, intellectual property laws have appealed to leaders of less developed countries, because they are associated with new jobs; foreign investments; tax revenues; technology transfer; and development of local artists, inventors, and indigenous industries.[200] Policymakers and commentators at times have attributed the prosperous U.S. entertainment, computer, pharmaceutical, and biotechnology industries to strong intellectual property laws. However, this perception might change if the laws the United States forced upon them through the trade agreements turn out to stifle innovation and threaten the survival of local establishments.

Eventually, the agreements will reduce the United States' hard-earned soft power by making American ideas and concepts less appealing. As Professor Robert Keohane and Dean Joseph Nye explained, soft power allows a country to transform the preferences of other countries by appealing to ideas and culture, rather than by military means.[201] This intangible

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[196] Emma Caine et al., *Copyright 'Harmony' Profits US Firms*, AUST. FIN. REV., Nov. 20, 2003, at 71; Eddie Lee, *Taking the Mickey Out of Innovation*, STRAITS TIMES (Sing.), Jan. 20, 2004.

[197] Michael Geist, *Why We Must Stand on Guard Over Copyright*, TORONTO STAR, Oct. 20, 2003, at D3.

[198] *Id*.

[199] As Professor Michael Geist wrote in an excellent column that called for caution in Canada:

> The reticence to adopt the WIPO [copyright] standard is understandable. Many believe the U.S. experience illustrates the dangers of adopting copyright protections that may ultimately stifle innovation. The Digital Millennium Copyright Act, the U.S. statute that implements the WIPO standard, has led to scholars declining to publish their research out of fear of lawsuits, hundreds of individual Internet users having their privacy rights ignored, and copyright law being strangely applied to garage door openers and computer printers.

Id.

[200] *See* Yu, *From Pirates to Partners*, *supra* note 131, at 192-93; Yu, *The Harmonization Game*, *supra* note 132, at 246-47.

[201] As Professor Keohane and Dean Nye explained:

> Soft power . . . is the ability to get desired outcomes because others want what you want; it is the ability to achieve desired outcomes through attraction rather than coercion. It works by convincing others to follow or getting them to agree to norms and institutions that produce the desired behavior. Soft power can rest on the appeal of one's ideas or culture or the ability to set the agenda through standards and institutions that shape the preferences of others. It depends largely on the persuasiveness of the free information that an actor seeks to transmit. If a state can make its power legitimate in the eyes of others and

power is particularly important in today's globalized world, as countries increasingly need to cooperate to resolve difficult crossborder problems, such as illicit drug trafficking, refugees and illegal immigration, environmental degradation, illegal arms sales, nuclear proliferation, terrorism, bribery, and corruption.

Second, the controversial intellectual property provisions in the trade agreements are likely to result in local discontent, which in turn will threaten the established relationships of local governments and businesses. To reduce the impact of these provisions, government leaders might relax enforcement or become cautious about the efforts they undertake to combat piracy. For example, in the 1980s, the South Korean government took very seriously the political threat made by college students who feared that the government's anti-piracy efforts would increase textbook prices.[202] In the early 1990s, Chinese leaders also acted very carefully when they signed intellectual property agreements with the United States so that the Chinese people would not perceive their leaders as bowing to U.S. pressure.[203] In Thailand, Prime Minister Prem Tinsulanond's administration was even ousted in a no-confidence vote in 1987 after his administration attempted to strengthen the country's copyright law.[204]

Third, the push for stronger intellectual property protection abroad might lead to unexpected outcomes that adversely affect the United States' economic interests. For example, despite the inclusion of stronger copyright protection in the U.S.-Vietnam free trade agreement, software companies, like Microsoft, did not receive the intended benefits. Instead of proprietary software, Vietnam now embraces open-source software as its solution to software piracy. Most recently, Vietnam announced its plan to require all state-owned companies and government ministries to use open-source software by 2005.[205] Other less developed countries might follow its lead.

Finally, despite the agreements, copyright holders might not receive protection their government negotiated on their behalves. There are no universally accepted intellectual property principles, and countries signing the bilateral or regional agreements might not agree with the United States on the extent of intellectual property protection. Unless U.S. negotiators are able to show government leaders why it is in their interest to adopt higher intellectual property standards, it is unlikely that local government leaders will be willing to accept the agreements—or, more importantly, to commit scarce resources to support implementation and enforcement of those agreements.

> establish international institutions that encourage others to define their interests in compatible ways, it may not need to expend as many of its costly traditional economic or military resources.

ROBERT O. KEOHANE & JOSEPH S. NYE, POWER AND INTERDEPENDENCE 220 (3d ed. 2001). *See generally* JOSEPH S. NYE, JR., SOFT POWER: THE MEANS TO SUCCESS IN WORLD POLITICS (2004). *See also id.* at 55 ("Perceived hypocrisy is particularly corrosive of power that is based on proclaimed values. Those who scorn or despise us for hypocrisy are less likely to want to help us achieve our policy objectives."); JOSEPH S. NYE, JR., THE PARADOX OF AMERICAN POWER: WHY THE WORLD'S ONLY SUPERPOWER CAN'T GO IT ALONE, at xvi (2002) (noting the increasing importance of soft power).

[202] RYAN, *supra* note 188, at 75.

[203] As one commentator noted, the careful approach taken by Chinese leaders "goes some way towards explaining much of the brinkmanship which has characterised the negotiations between China and the United States on [intellectual property] issue." Robert Burrell, *A Case Study in Cultural Imperialism: The Imposition of Copyright on China by the West*, *in* INTELLECTUAL PROPERTY AND ETHICS 207 (Lionel Bently & Spyros M. Maniatis eds., 1998); *see also* SUSAN K. SELL, POWER AND IDEAS: NORTH-SOUTH POLITICS OF INTELLECTUAL PROPERTY AND ANTITRUST 215 (1998) (noting that if the leaders of these countries "succumb to U.S. pressure, they are subject to criticisms of selling out sovereignty to foreign interests").

[204] *See* SELL, *supra* note 203, at 192.

[205] Lee, *Taking the Mickey Out of Innovation*, *supra* note 196.

Indeed, negotiators from other countries have become increasingly skeptical of the U.S. position after other countries successfully challenged U.S. laws before the Dispute Settlement Body of the WTO. Most recently, for example, the European Union successfully challenged section 110(5) of the U.S. Copyright Act,[206] which exempted from royalties U.S. restaurants, bars, and retail stores using "homestyle" audio and video equipment to play broadcast music.[207] In another WTO panel decision, the European Union effectively curtailed the ability of the United States Trade Representative to impose sanctions under section 301 of the Trade Act of 1974, including sanctions on countries that provide inadequate intellectual property protection.[208]

If the industry is to lobby for an international—bilateral or multilateral—regime that targets digital piracy, it needs to take into account both the United States' international treaty obligations and the domestic controversies concerning intellectual property laws. In fact, many commentators already recognized these needs by including discussion of the United States' international treaty obligations in their proposals.[209]

3. Distraction Caused by Increased Public Attention on International Piracy

As the P2P file sharing problem grows, some policymakers, industry executives, and the public media might divert public attention to piracy in foreign countries. For example, they might discuss how the unauthorized copying problem in the United States is miniscule when compared to piracy problems abroad.[210] They also might emphasize the textbook[211] or software piracy problems in Africa, Asia, and South America.[212] As *Star Wars* producer Rick McCallum put it, the drive to protect copyrighted works needs to be "as concentrated an international event as the war on terrorism."[213] Thus, the public debate might focus primarily on piracy in foreign countries while ignoring the threats created by P2P file sharing in the United States and the privacy intrusions associated with the industry's controversial enforcement tactics.

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[206] 17 U.S.C. § 110(5)(B) (2000).

[207] United States—Section 110(5) of the U.S. Copyright Act: Report of the Panel, WT/DS/160/R (June 15, 2000), *available at* http://www.wto.org/english/tratop_e/dispu_e/1234da.pdf. The European Union contended that the Fairness in Music Licensing Act and the homestyle exemption of the United States Copyright Act violated United States' obligations under the TRIPs Agreement. The United States defended that the exemption was valid under article 13 of the Agreement. Ultimately, the dispute settlement panel held for the European Union, maintaining that the FIMLA violated articles 11*bis*(1)(iii) and 11(1)(ii) of the Berne Convention as incorporated into the TRIPS Agreement. For excellent discussions of the dispute, see generally Graeme B. Dinwoodie, *The Development and Incorporation of International Norms in the Formation of Copyright Law*, 62 OHIO ST. L.J. 733 (2001); Laurence R. Helfer, *World Music on a U.S. Stage: A Berne/TRIPS and Economic Analysis of the Fairness in Music Licensing Act*, 80 B.U. L. REV. 93 (2000).

[208] United States—Sections 301-310 of the Trade Act of 1974, WTO Doc. WT/DS152/R (Dec. 22, 1999).

[209] *See* ECKERSLEY, *supra* note 10, at 49-53 (discussing the interaction between his virtual market proposal and the three-step test as enunciated in Article 13 of the TRIPs Agreement); FISHER, *supra* note 10 (contending that his proposal would require treaty modifications because it would not be limited to noncommercial uses); Litman, *Sharing and Stealing*, *supra* note 10 (contending that her proposal would comply with the United States' treaty obligations under the Berne Convention and the WIPO Copyright Treaty); Netanel, *Noncommercial Use Levy*, *supra* note 10 (maintaining that "there is a colorable argument that [his proposal] would comport with [U.S. obligations under intellectual property treaties], and in particular would fall within the scope of permissible limitations to copyright holder rights under Article 13 of TRIPS").

[210] *See, e.g.*, Mark Landler, *For Music Industry, U.S. Is Only the Tip of a Piracy Iceberg*, N.Y. TIMES, Sept. 26, 2003, at A1 (noting that "the recording industry's problems with the illegal online distribution of music in the United States pale beside the rampant piracy that goes on overseas").

[211] *See, e.g.*, Metin Munir, *A Tale of Thefts and Pirates*, FIN. TIMES, July 2, 2003, at 2.

[212] *See, e.g.*, INTERNATIONAL PLANNING & RESEARCH CORPORATION, EIGHTH ANNUAL BSA GLOBAL SOFTWARE PIRACY STUDY: TRENDS IN SOFTWARE PIRACY 1994-2002 (2003), *available at* http://global.bsa.org/globalstudy/2003_GSPS.pdf.

[213] Lynden Barber, *Net Raiders Zap Film-makers*, AUSTRALIAN, Nov. 15, 2002, at 5, *quoted in* Matt Jackson, *Harmony or Discord? The Pressure Toward Conformity in International Copyright*, 43 IDEA 607 (2003).

To some extent, this strategy resembles the tactics used by the first Bush administration. At that time, the international trade deficit was high, and the administration was having difficulty explaining the growing deficit.[214] Instead of discussing domestic problems and looking for a solution within the country, policymakers and the public media focused on countries with which the United States had trade deficits, such as China, Japan, Korea and Taiwan.[215] Although the United States threatened to impose sanctions on these countries, the administration ultimately abandoned its threats.

If policymakers and industry executives were to divert attention to international piracy, they would make the same mistake as the first Bush administration. Although it is true that there is a very serious international piracy problem, it is important that policymakers and industry executives do not confuse apples with oranges. Piracy abroad is important, but piracy within is equally important. No matter how serious the international piracy problem becomes, the domestic piracy problem remains a serious threat to the copyright industries. Until the industries are able to reduce domestic piracy, their sales are unlikely to increase, as U.S. businesses tend to focus on the domestic, rather than foreign, market.

Moreover, international piracy has been a longstanding problem. From nineteenth-century piracy in Belgium, Holland, and the United States to unauthorized private copying over P2P networks today, copyright holders had made many futile attempts to eradicate piracy.[216] Although the copyright industries had lobbied their governments heavily for international agreements,[217] bilateral treaties,[218] and unilateral sanctions,[219] international piracy remains a major problem. If copyright holders were to devote the majority of their resources to international piracy, they might end up consuming a substantial amount of resources on a more difficult war. By doing so, they eventually will end up with digital threats coming from both within the United States and without.

C. *P2P File-sharing Wars in Other Industries*

Although the P2P file-sharing wars begin in the recording industry, they are likely to spread to other industries, such as the publishing, television, and motion picture industries, in the next few years.[220] Indeed, pirated books have already appeared, and are currently traded, on the Internet. Shortly after the fifth installment of the Harry Potter series, *Harry Potter and the Order*

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[214] *See* Yu, *From Pirates to Partners*, *supra* note 131, at 178 (discussing the U.S.-China trade deficit).

[215] *See generally* RYAN, *supra* note 188, at 67-89.

[216] *See generally* Yu, *The Copyright Divide*, *supra* note 5 (comparing piracy in nineteenth-century America, twentieth-century China, and twenty-first-century cyberspace).

[217] *See, e.g.*, 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 vol. 31, 33 I.L.M. 1197 (1994); Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1886, *as last revised in Paris*, July 24, 1971, 828 U.N.T.S. 221; International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, *adopted at Rome* Oct. 26, 1961, 496 U.N.T.S. 43; WIPO Copyright Treaty, *adopted* Dec. 20, 1996, WIPO Doc. CRNR/DC/94 (Dec. 23, 1996); WIPO Performances and Phonograms Treaty, *adopted* Dec. 20, 1996, WIPO Doc. CRNR/DC/95 (Dec. 23, 1996).

[218] *See, e.g.*, Memorandum of Understanding Between China (PRC) and the United States on the Protection of Intellectual Property, Jan. 17, 1992, P.R.C.-U.S., 34 I.L.M. 677 (1995); Agreement Regarding Intellectual Property Rights, Feb. 26, 1995, P.R.C.-U.S., 34 I.L.M. 881 (1995).

[219] *See* Kim Newby, *The Effectiveness of Special 301 in Creating Long Term Copyright Protection for U.S. Companies Overseas*, 21 SYRACUSE J. INT'L L. & COM. 29, 39 (1995) (discussing the United States' use of Special 301 actions on Taiwan, China, and Thailand); Yu, *From Pirates to Partners*, *supra* note 131, at 140-48 (discussing the United States' success in using § 301 sanctions to pressure China to reform its intellectual property regime).

[220] For discussion of why digital piracy begin in the recording industry, see DIGITAL DILEMMA, *supra* note 10, at 77-78.

of the Phoenix, was released, pirated versions of the book appeared on the Internet.[221] Although people generally consider electronic books difficult to read, e-books are attractive to experienced file-sharers because book files are smaller in size and therefore faster to download than most music or movie files. E-books also allow users to conduct searches, highlight issues, annotate texts, and undertake further research. Thus, some commentators have argued that the publishing industry may ultimately be the most vulnerable to digital piracy[222] and that such piracy would hurt writers the most, as they "rely far more completely on copyright royalties than do musicians or . . . film producers."[223]

Like books, movies and television programs will not be immune from widespread digital piracy, even though audiovisual files are larger in size and require more downloading time. Copies of feature films—though of a lower quality—have already appeared in P2P networks. Many of these films appeared soon after their box office releases, and in some cases even before the releases.[224] Likewise, episodes of prime time television series, like *The Sopranos*, *West Wing*, and *Sex and the City*, have appeared on the Internet before they were exported abroad or put on DVDs and videos.[225] With increased broadband deployment, higher bandwidths, and more advanced compression technologies, downloading of movies and television programs is likely to be as commonplace as music downloading. Indeed, the motion picture industry is already experimenting with online distribution by allowing Movielink and CinemaNow to offer legal movie downloads.[226] Unfortunately, due to heavy restrictions and unsatisfactory user experience, none of these services has taken off.

Ultimately, these industries, especially the motion picture industry, might respond to P2P file sharing differently, for two reasons. First, they might have learned from mistakes made by the recording industry. To be fair, the approach taken by the motion picture industry in the past decade was not that different from the one taken by the recording industry today. Fortunately for the motion picture industry, the low bandwidth and the long downloading time shielded the industry from widespread digital piracy (at least in the first few years of rampant online file trading). The protected formats used in videos and DVDs also have made it difficult for individuals to convert the copyrighted works to digital files that they can upload to and trade freely via the Internet.

Second, the unique structure of these industries protects themselves against widespread file sharing. As Professor Peter Menell explained in the case of the motion picture industry:

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[221] *See* Amy Harmon, *Harry Potter and the Internet Pirates*, N.Y. TIMES, July 14, 2003, at C1; Michael Pollitt, *Like Music, Books Have Now Fallen Prey to Internet Pirates Who Go to*, INDEPENDENT (London), July 30, 2003, at 11.

[222] As Professor Peter Menell pointed out:

> [U]ltimately the publishing industry may be the most vulnerable content industry to unauthorized reproduction and distribution because the content (text) will always be directly perceptible (and hence subject to copying, even if through scanning or re-typing). Furthermore, libraries have become interested in distributing eBooks through their websites. . . . Whereas music and audiovisual content can be encrypted in such a way that the user cannot see the content without authorization, the essence of books (the text) will always be available to the extent that the books are sold in hard copy form. Therefore, would-be copyists will be in a position to scan such content into digital form within hours of a book's release.

Menell, *supra* note 68, at 129-30.

[223] ECKERSLEY, *supra* note 10, at 17.

[224] *See, e.g.*, Jon Healey & Richard Verrier, *Latest Plot Twist for 'Star Wars': Attack of the Cloners*, L.A. TIMES, May 10, 2002, pt. 1, at 1 (reporting that the new "Star Wars" episode appeared on the Internet a week before the movie's release); Laura M. Holson, *Studios Moving to Block Piracy of Films Online*, N.Y. TIMES, Sept. 25, 2003, at A1 (reporting suggestion by industry analysts that "there could be as many as 500,000 copies of movies swapped daily").

[225] Brian Buchanan, *Move with the TV Times*, GUARDIAN (London), May 1, 2003, at 19.

[226] Jon Healey, *Piracy Fears Limit Film Downloads*, L.A. TIMES, Mar. 7, 2004, at C1.

> [The motion picture industry] continue[s] to hold tight controls over theatrical release, pay-per-view, and premium channel distribution. Such versioning strategies will continue to work into the digital future. Moreover, the video market is already built upon an encrypted format, which will hinder, although not entirely defeat, unauthorized distribution of films. Furthermore, competitive pricing of DVDs and the potential for directors' cuts (with previously unreleased scenes), behind-the-scenes footage, game and merchandising tie-ins, and other added features will keep many consumers within the legitimate market for content. . . . Ultimately, digital technology may significantly improve the film industry's delivery and revenue models.[227]

Most recently, record sales have rebounded, and the recording industry seems to have mounted a comeback. For the first time in the past three years, the continuous sharp decline of record sales has slowed down. A recent study by the Pew Internet and American Life Project showed that music downloads fell drastically by more than fifty percent,[228] while a private study commissioned by the recording industry showed that more than sixty percent, as compared to thirty-five percent prior to the lawsuits, now understand the illegality of online file trading.[229] Although one could easily attribute these recent developments to many other factors, such as an improving economy, a better selection of artists and albums,[230] and an increasing tendency to deny downloading activities,[231] recent developments are encouraging (although it remains troublesome to consider individual lawsuits an expedient protective strategy).

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[227] Menell, *supra* note 68, at 124-25; *see also* Crawford, *supra* note 160, at 607 (listing domestic and international box office, airline performances, pay-per-view, rental, home sale, satellite, premium and basic cable, over-the-air broadcast among the distribution windows for the motion picture industry).

[228] *See* PEW INTERNET & AMERICAN LIFE PROJECT, SHARP DECLINE IN MUSIC FILE SWAPPERS: DATA MEMO FROM PIP AND COMSCORE MEDIA METRIX (2004) (reporting a survey that showed that the percentage of music file downloaders had fallen to fourteen percent (about 18 million users) from twenty-nine percent (about 35 million) in spring 2003), *available at* http://www.pewinternet.org/reports/pdfs/PIP_File_Swapping_Memo_0104.pdf. *But see* Marguerite Reardon, *Oops! They're Swapping Again*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5142382.html (Jan. 16, 2004) (reporting survey by The NPD Group, an independent market research firm, that "peer-to-peer usage was up 14 percent in November 2003 from September").

[229] John Borland, *RIAA Embarks on New Round of Piracy Suits*, CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5144558.html (Jan. 21, 2004).

[230] As *The New York Times* reported:

> Artists who appeal to music-buying baby boomers—like Ms. [Nora] Jones; Mr. [Rod] Stewart; the former Doobie Brother, Michael McDonald; and the retro-crooner Harry Connick Jr.—continue to contribute a significant portion of overall sales. And Universal, for one, is hoping boomers flock to CD's due this year from Stevie Wonder and Elton John.
>
> The success of "Feels Like Home" by Ms. Jones, the follow-up to "Come Away with Me," her 2002 debut album, which sold eight million copies, bodes well for the industry, said Bruce Lundvall, the president and chief executive for jazz and classics at EMI Music, which owns the Blue Note label on which Ms. Jones records. Until recently, "there's been an awful lot of trash out there," Mr. Lundvall said, "and I think a lot of people are disenfranchised."
>
> While the music labels have tended to blame Internet music sharing and CD copying for the slump of the last three years, the industry's critics have cited high CD prices and substandard music as the real reasons that annual album sales fell to 687 million units by last year, down by almost 100 million units, or 12.5 percent, from 2000.

Chris Nelson, *CD Sales Rise, but Industry Is Too Wary to Party*, N.Y. TIMES, Feb. 23, 2004, at C1.

[231] As Professor Vaidhyanathan queried:

> Clearly the music industry has lost sales in the years since it killed off Napster. Is this lull a historical anomaly? Is it the result of alienating consumers? Is it the result of fewer titles for sale? Are compact discs overpriced? Do consumers have fewer marginal entertainment dollars to send to the recording companies, and do they have more entertainment options? If downloading is pervasive and detrimental to music sales, why aren't these companies doing worse than they are? Why does anyone who has a networked computer buy music at all?

VAIDHYANATHAN, THE ANARCHIST IN THE LIBRARY, *supra* note 14, at 42. The recent study by the Committee for Economic Development concurred:

> Other factors appear to be playing a part in recent revenue declines experienced by the music industry. The consolidation of ownership of radio outlets and the increasing importance of mass market retailers (as opposed to specialty stores), who have doubled their share of the market, has led to a smaller number of artists receiving air play and having their materials available to a mass audience. The industry significantly reduced the number of new releases from 38,900 in 1999 to between 27,000 and 31,000 in 2001—a 20%-25% drop. Cyclical changes in musical tastes also seem to have had an impact. Even prior to Napster, the industry was experiencing a substantial decline in 1995-2000 sales to 14-19 year-olds, traditionally its highest-

III. EIGHT MODEST PROPOSALS

> *For economic incentives to work appropriately, property rights must protect the rights of capital assets. . . . At present . . . severe economic damage [is being done] to the property rights of owners of copyrights in sound recordings and musical compositions . . . under present and emerging conditions, the industry simply has no out. . . . Unless something meaningful is done to respond to the . . . problem, the industry itself is at risk.*
>
> — Alan Greenspan[232]

Since the beginning of the P2P file sharing controversy, commentators have proposed many different solutions. Because they vary in detail, this Part does not focus on each of these solutions. Rather, it categorizes the solutions based on their underlying models and enforcement techniques. This Part critically evaluates eight categories of solutions: (1) mass licensing, (2) compulsory licensing, (3) voluntary collective licensing, (4) voluntary contribution, (5) technological protection, (6) copyright law revision, (7) dispute resolution proceeding, and (8) alternative compensation. This Part discusses the benefits and limitations of each category of proposals and contends that policymakers need to develop a range of solutions, as each solution will target only part of the unauthorized copying problem.

A. *Mass Licensing*

Since the opening of the iTunes Music Store, Apple Computer has sold more than 125 million songs.[233] A few months after Apple launched its music store, Buy.com, Musicmatch, Sony, and Microsoft all announced their intention to open similar stores.[234] Wal-mart also joined in near Christmas by offering songs for 88¢, undercutting by 11¢ the price of songs offered by Apple and other fee-based Web download sites.[235]

Meanwhile, Roxio relaunched Napster in October 2003 and subsequently entered into agreements with Pennsylvania State University and the University of Rochester to provide students with unlimited access to its service.[236] Since then, more than twenty colleges and universities have signed on to legal music download services, such as MusicNet, Napster and

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> spending group. In addition, during the boom years of the 1990s the industry continued to raise prices, with the average CD increasing in cost from approximately $12 to $15. This overall price increase may well have affected sales as the U.S. entered an economic downturn—undeed [sic], the industry has continued to raise prices in the 2000s. Another factor may have been fierce competition for the discretionary consumer entertainment dollar: DVD sales rose by 61% in 2002, and video games are competing directly for the attention of the crucial 14-19 year old purchaser.

COMMITTEE FOR ECONOMIC DEVELOPMENT, PROMOTING INNOVATION AND ECONOMIC GROWTH: THE SPECIAL PROBLEM OF DIGITAL INTELLECTUAL PROPERTY 29 (2004) (footnotes omitted), *available at* http://www.ced.org/docs/report/report_dcc.pdf.

[232] *Hearings on the Home Recording Act Before Subcomm. on Patents, Copyrights, and Trademarks of the S. Comm. on the Judiciary*, 99th Cong. (1983) (testimony of Alan Greenspan), *quoted in* STAN J. LIEBOWITZ, RE-THINKING THE NETWORK ECONOMY: THE TRUE FORCES THAT DRIVE THE DIGITAL MARKETPLACE 144 (2002).

[233] *Apple to Pay for Referrals to iTunes Site*, L.A. TIMES, Sept. 2, 2004, at C9.

[234] *See* John Borland, *Sony to Launch Net Music Service*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5071475.html (Sept. 4, 2003); John Borland & John G. Spooner, *MusicMatch, Dell to Launch Music Stores*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5082948.html (Sept. 26, 2003); Ina Fried & John Borland, *Microsoft Considering Music Store*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5055392.html (July 25, 2003); Sandeep Junnarkar, *Buy.com Founder Launches Music Service*, CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5051609.html (July 22, 2003).

[235] Cobbs, *supra* note 84.

[236] *See* Borland, *Napster to Give Students Music*, *supra* note 81 (reporting the Napster-Penn State deal); Press Release, University of Rochester, Napster to Provide Online Music Service to Students (Feb. 4, 2004) (reporting the Napster-Rochester deal), *available at* http://www.napster.com/press_releases/pr_040204.html [hereinafter University of Rochester Press Release].

Rhapsody.[237] As the new academic year begins, more colleges and universities are likely to adopt these services.

So far, iTunes have been popular, and the mass licensing model seems very attractive. However, like copy-protected CDs, iTunes have been hacked and traded without authorization.[238] The mass licensing model therefore comes with several challenges. First, unless record companies are willing to provide content, these services eventually might meet the same fate as other earlier and failed subscription-based services. While it is impressive that the iTunes Music Store offers more than 500,000 songs, this figure is only mediocre when one compares it with the millions, or even tens of millions, of songs traded in other P2P networks.[239]

In fact, record companies might not have the rights to release all the contents they want on the Internet.[240] For example, they might have only the copyright in the sound recordings, but not the underlying composition, even though they have the right to use the composition if they have paid for a statutory license. Alternatively, they might have the right to release the song as a CD or a cassette tape, but not in digital format.[241] As digital release involves various copyright rights in both the sound recording and the underlying composition, confusion over overlapping rights will make it difficult for record companies to clear rights for online releases.[242] In fact, as

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[237] *See* John Borland, *College P2P Use on the Decline?*, CNET NEWS.COM, *at* http://news.com.com/2100-1027_3-5322329.html (Aug. 24, 2004) (citing a report of the Joint Committee of the Higher Education and Entertainment Communities); Jefferson Graham, *Students Score Music Perks as Colleges Fight Piracy*, USA TODAY, Aug. 24, 2004, at 1A [hereinafter Graham, *Students Score Music Perks*] (reporting about arrangements universities and colleges made with the record industry for their students).

[238] *See* Lars Pasveer, *Hacker Takes Bite Out of Apple's iTunes*, CNET NEWS.COM, *at* http://news.com.com/2100-1002_3-5308337.html (Aug. 12, 2004) (reporting that Jon Johansen, the Norwegian programmer who circumvented the copy-protection technology used to protect DVDs, had revealed the public key that Apple AirPort Express uses to encrypt music sent between iTunes and a wireless base station).

[239] *See* EFF WHITE PAPER, *supra* note 10.

[240] As Professor Loren explained:

> Anytime a downstream user reproduces copies or distributes copies of a sound recording, or publicly performs that sound recording, or makes a derivative work of that sound recording, authorization from not only the sound recording copyright owner is needed, but authorization must be obtained from the musical work copyright owner as well. Unless one of the limitations on the rights granted to copyright owners applies, multiple clearances will be needed, particularly if the use involves more than one right. For example, in webcasting a sound recording, not only will the webcaster need to have authorization the public performance (for both the sound recording copyright and the musical work copyright), but the webcaster will also need to have authorization for the reproductions of both copyrighted works that are made in the process of webcasting.

Loren, *supra* note 10.

[241] *See* John Borland, *Beatles Catalog Headed for Digital Distribution?*, CNET NEWS.COM, *at* http://news.com.com//2100-1027_3-5228914.html (June 8, 2004) (reporting that The Beatles were exploring arrangement to sell its songs online).

[242] As Professor Litman explained:

> [I]n many if not most cases, it can be difficult and sometimes impossible to discover who the copyright owners of all of those rights are. One of the more disturbing revelations of the Napster litigation was that record companies insisted that they were unable to generate a list of the copyrighted works they claimed to own. (This is particularly disquieting because one would assume they kept records in order to send out those royalty checks they're supposed to be sending out, but apparently not.) Some of the problem, apparently, is record keeping, but not most of it. In addition to difficulties caused by lost or misfiled records, there is significant legal uncertainty about the ownership of rights to control digital exploitation of works that are subject to contracts contemplating conventional exploitation. Record companies, for example, have claimed to own all copyright rights in the recorded music they distribute under the work made for hire doctrine, but most experts agree that those claims are unpersuasive. . . . . *New York Times v. Tasini* and *Random House v. Rosetta Books* teach us that contractual assignments of copyright may not necessarily include the electronic rights. We'd have to examine the contracts to be sure. We might need to know whether the case would be coming up on the east coast or the west coast. We'd also need to see the contract between the composer and the music publisher for each song on the recording, and the contracts between each of the music publishers and the record company that recorded each song. Those contracts aren't publicly available. One suspects that a large number of them are no longer in anyone's file cabinets either. Bottom line: we don't know with any certainty who owns the digital rights in any number of recorded musical performances. That's why record companies have scrambled to settle cases when their ownership of sound recordings is actually put in issue.

Professor Mark Lemley pointed out, some of the confusion over these rights might not be resolved as a contract issue, but as a policy matter:

> [C]onsider the licensing of rights to musical works. ASCAP controls and licenses the right to publicly perform most musical compositions, while a different group (the publishers or record labels) generally controls the right to reproduce such works. These groups will likely fight vigorously over who has the right to license the network transmission of musical compositions (and to receive revenue from that transmission). *The answer cannot be found in the license agreement, nor is it likely to be found in some presumed "intent" of the parties. The question will have to be answered as a policy matter, by courts or by Congress.*[243]

In addition, record companies might not have the rights to release many songs currently available on P2P networks, such as those older, obscure ones that are no longer available in the market.[244] It is unclear as to who, if any, has the right to reissue these out-of-print songs. For example, the copyright in some of those songs might already have reverted back to music publishers or recording artists. Some record companies might have gone bankrupt. Some might have lost their master recordings. And an uncountable number of them might have misfiled, or even lost, their recording contracts. Of course, there are also those who would refuse to grant rights because they prefer projects with a wider audience and a larger profit margin. As a result, many of the songs available on the P2P networks might never be released.

Second, the many restrictions copyright holders place on licensed downloads make the switch to licensed services less desirable. For example, iTunes and Napster only offer "tethered" downloads that have limited use on selected computers. Even worse, these songs will expire when users stop their monthly subscriptions.[245] As the recent National Research Council study noted:

> Buy a book and you own it forever; pay for a service and when the period of service is over, you (typically) retain nothing. The increased use of licensing seems to diminish greatly the public access accorded through the first-sale rule. Consider libraries as an archetypal example. In the print world, a library's failure to renew a subscription or buy an updated version of a book has no effect on the availability to patrons of earlier volumes or editions. In the world of licensed information, ending a subscription to an electronic journal may mean the end of access to earlier volumes or editions, as well.[246]

Litman, *Sharing and Stealing*, *supra* note 10; *see also* N.Y. Times Co. v. Tasini, 533 U.S. 483 (2001) (holding that contractual assignments of copyright may not include electronic rights); Random House, Inc. v. Rosetta Books LLC, 150 F. Supp. 2d 613 (S.D.N.Y. 2001) (denying a request for preliminary injunction enjoining book company from selling e-books of novels whose authors had granted the plaintiff exclusive right to publish, print, and sell their copyrighted works "in book form"), *aff'd*, 283 F.3d 490 (2d Cir. 2002); John Schwartz, *Music-Sharing Service at M.I.T. Is Shut Down*, N.Y. TIMES, Nov. 3, 2003, at C13 (reporting that MIT shut down its groundbreaking Library Access to Music System because of confusion over licensed rights). *See generally* Mark A. Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547 (1997).

[243] Lemley, *supra* note 242, at 574.

[244] As one commentator wrote passionately:

> It wasn't just free instant access to big hits; it was that you could discover things that no radio would play, uncover songs from years old memories. If online music were shut down altogether there would be no more tracking down the song your mother used to sing to you, no more *Fat Albert* theme song, no more lost television live bootlegs from 1975, no more Jim Morison at a moment of unreleasable vulgarity jamming with Jimi Hendrix.

ALDERMAN, *supra* note 72, at 169; *see also* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 3 (contending that "P2P file sharing is not just downloading music and movies for free . . . [but] a vehicle for finding works that are otherwise not available, discovering new genres, making personalized compilations, and posting creative remixes, sequels, and modifications of popular works").

[245] *See* discussion *supra* Part I.

[246] DIGITAL DILEMMA, *supra* note 10, at 101.

Indeed, by converting the product into a service, the licensing model might take away protection afforded to consumers under existing copyright law, such as protection under the first sale doctrine. Moreover, problems will arise when consumers replace their computers or move music from one home entertainment system to another. Unless music contents are released without restrictions, consumers are unlikely to be satisfied and will eventually turn to black markets in the Darknet or use illegal means to relocate their legally purchased music files.[247]

Third, in times of budget crises for most public universities, it is unclear as to whether tuition monies should be allocated for entertainment. There is also a wide disagreement among students and administrators as to how the school should select a service and how much the school should pay for such a service. After all, a heavy metal fan will find unappealing a service that focuses primarily on classical and jazz music. Likewise, a fan of rap and hip-hop music will find unattractive a service that focuses largely on alternative rock. Until the service provides equally different types of music, there will be serious questions as to which service the school should subscribe to, how much the students should pay for it, and whether it would be fair to ask non-file-sharing students to subsidize their file-sharing counterparts.

This debate about allocating campus-wide computing resources for music downloads is not new. During the height of the Napster boom, many colleges and universities were concerned about the costs of computing resources used for music downloads and that such use would congest the network and interfere with the more appropriate uses by other students.[248] As an article in the Indiana University student newspaper put it, "Students attempting to hunker down to coursework should not have to be inconvenienced by a strain on the network."[249]

Eventually, some universities banned Napster, and many of those who did not were sued. In April 2000, the heavy metal rock band Metallica filed lawsuits against the University of Southern California, Indiana University, Yale University, as well as other educational institutions for violating copyright and racketeering laws by allowing students to use Napster to share music performed by the band.[250] Following the lawsuits, more than 200 colleges and universities banned the use of Napster over their networks, while others, like MIT, Princeton, and Stanford, refused to follow, citing concerns over free speech and academic freedom.[251]

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[247] Such black markets flourish in countries whose government maintains a stringent information control policy, such as China. *See* Peter K. Yu, *Piracy, Prejudice, and Perspectives: An Attempt to Use Shakespeare to Reconfigure the U.S.-China Intellectual Property Debate*, 19 B.U. INT'L L.J. 1, 28-32 (2001) (discussing China's censorship and information control policy). For discussions of regulation of media and audiovisual products in China, see generally Anna S.F. Lee, *The Censorship and Approval Process for Media Products in China*, *in* PROTECTING INTELLECTUAL PROPERTY RIGHTS IN CHINA 127 (Mary L. Riley ed., 1997); Mary L. Riley, *The Regulation of the Media in China*, *in* CHINESE INTELLECTUAL PROPERTY: LAW AND PRACTICE 355 (Mark A. Cohen et al. eds., 1999).

[248] As one commentator explained:

> Napster users eat up large and unbounded amounts of bandwidth. By default, when a Napster client is installed, it configures the host computer to serve MP3s to as many other Napster clients as possible. University users, who tend to have faster connections than most others, are particularly effective servers. In the process, however, they can generate enough traffic to saturate a network. It was this reason that Harvard University cited when deciding to allow Napster, yet limit its bandwidth use.

Roger Dingledine, *Accountability*, *in* PEER-TO-PEER, *supra* note 117, at 271, 271.

[249] ALDERMAN, *supra* note 72, at 112.

[250] Evangelista, *Metallica Suit Rocks Napster*, *supra* note 143.

[251] As James Bruce, vice president of MIT, wrote to Metallica's attorney, "MIT has had a long history of providing its faculty, staff, and students with uncensored access to the Internet and its vast array of resources. This policy is consistent with MIT's educational mission and our deeply held values of academic freedom." ALDERMAN, *supra* note 72, at 112.

Once music downloading is legitimized, questions about allocation of computing resources will resurface. As a result of this legitmization, the number of music downloaders will increase, and network congestion is likely to occur. Even worse, the service might attract those who otherwise would not download music because they believed such action was illegal.[252] Indeed, due to high bandwidth and reliable service, universities are likely to become targets—or supernodes—for file-sharing software.[253] Ultimately, students not only will have to pay for a campus-wide music service about which they have reservations, but also the cost of increased computing resources and higher bandwidth needed for music downloads unless the music downloading services provide alternative servers for downloading purposes.

B. *Compulsory Licensing*

To compensate copyright holders for the revenue losses created by private, noncommercial copying, commentators have proposed the imposition of "taxes," "levies," or "tariffs" on P2P goods and services. For example, Professor Raymond Ku proposed to impose statutory levies on Internet service subscriptions and the sales of computers and audio and video equipment.[254] Under his plan, the government will collect and distribute the proceeds based on aggregate Internet use to artists, as compared to copyright holders. Professor Glynn Lunney suggests that private sharing might be more appealing than is expected, as it would "enable consumers to recapture a portion of the excess incentives otherwise associated with the production of more popular, non-marginal works. . . [and thus] reduce the corrupting influence that excess incentives would otherwise exert on the authorship process."[255] Nevertheless, he contended that a levy-based approach would be more preferable to a strong encryption-based approach if the harm of private copying were to be addressed.

In a recent article, Professor Neil Netanel pushed the compulsory licensing model even further by offering a comprehensive blueprint for establishing a "noncommercial use levy" (NUL).[256] As he described the proposal:

> The levy . . . would be imposed on the sale of any consumer product or service whose value is substantially enhanced by P2P file sharing (as determined by a Copyright Office tribunal). Likely candidates include Internet access, P2P software and services, computer hardware, consumer electronic devices (such as CD burners, MP3 players, and digital video recorders) used to copy, store, transmit, or perform downloaded files, and storage media (like blank CDs) used with those devices. In return for imposing the NUL, the law would provide copyright immunity for individuals' noncommercial copying and distribution of any expressive content that the copyright owner has previously released to the public. Individuals' noncommercial adaptations and modifications of such content would also be

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[252] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 70.

[253] *See* Dingledine, *Accountability*, *supra* note 248, at 271 (noting that University users tend to be targeted in a P2P system because they tend to have faster connections than most others).

[254] *See* Ku, *supra* note 10, at 311-22.

[255] *See* Lunney, *supra* note 10, at 869. As Mark Nadel explained:

> [P]rotection against unauthorized copying provides dramatically disproportionate benefits to the most popular creations: it enables the publishers seeking to create blockbusters to finance enormous promotional campaigns, which drown out valuable, artistic creations that lack competitive marketing efforts. In this way, § 106 of the Copyright Act may actually serve to raise entry barriers for many new creations by diminishing expected profits for these economically marginal works.

Nadel, *supra* note 155, at 790.

[256] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10.

> noninfringing as long as the derivative creator clearly identifies the underlying work and indicates that it has been modified.[257]

Professor William Fisher offered a different proposal in his forthcoming book, *Promises to Keep*. In lieu of the NUL, Professor Fisher recommended a governmentally administered system that rewards copyright holders for both commercial and noncommercial uses.[258] As he outlined:

> A creator who wished to collect revenue when her song or film were heard or watched would register it with the Copyright Office. With registration would come a unique file name, which would be used to track transmissions of digital copies of the work. The government would raise, through taxes, sufficient money to compensate registrants for making their works available to the public. Using techniques pioneered by American and European performing rights organizations and television rating services, a government agency would estimate the frequency with which each song and film was heard or watched by consumers. Each registrant would then periodically be paid by the agency a share of the tax revenues proportional to the relative popularity of his or her creation. Once this system were in place, we would modify copyright law so as to eliminate most of the current prohibitions on unauthorized reproduction, distribution, adaptation, and performance of audio and video recordings. Music and films would thus be readily available, legally, for free.[259]

Whether you call these proposals taxes, levies, or tariffs, they all are derived from the compulsory licensing model, which has been used repeatedly in the past to settle copyright disputes over new media and technologies. Congress first introduced compulsory licenses after the United States Supreme Court declined to extend copyright protection to player piano rolls.[260] In 1909, Congress amended the copyright statute by granting compulsory licenses to enable record companies, artists, and others to produce and distribute "mechanical reproductions" of non-dramatic musical works.[261] Congress soon expanded this provision to include "covers" (musical works composed by somebody other than the performer and previously released by another recording artist), new media technologies, and distribution of sound recordings via digital transmission.[262] With the advent of the Internet, Congress amended the statute even further to include transmission of sound recordings by webcasters.[263]

In addition, Congress has used compulsory licensing to facilitate the development of new media technologies. When television was first developed, people relied on television antennae to pick up over-the-air signals. Those viewers who had weak antennae may receive no or very poor reception.[264] To remedy this deficiency, cable television emerged in the late 1960s, carrying television signals into individual homes. The cable industry soon won two major decisions before the United States Supreme Court, which found that cable system operators did not engage in the public performance of transmitted works.[265] Thanks to these decisions, cable retransmission became a major issue during the revision of the 1909 Copyright Act. The 1976

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[257] *Id*. at 4 (footnotes omitted).
[258] *See* FISHER, *supra* note 10, ch. 6.
[259] *Id*.
[260] *See* White-Smith Publishing Co. v. Apollo Co., 209 U.S. 1 (1908) (rejecting the extension of copyright to player piano rolls).
[261] *See* 17 U.S.C. § 115 (2000).
[262] *See id*. § 115(c)(3)(A).
[263] *See id*. § 114(d)(2).
[264] *See* JULIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY 423 (2002).
[265] Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390 (1968); Teleprompter Corp. v. Columbia Broadcasting System, Inc., 415 U.S. 394 (1974).

Copyright Act, which emerged out of the revision process, eventually balanced the interest of the copyright holders and cable operators by allowing the operators to retransmit over-the-air broadcast signals under limited conditions provided they compensate copyright holders by paying statutory royalties.[266] As satellite television became popular, Congress further extended compulsory licenses to cover satellite retransmission of television programming into private homes.[267]

In the 1980s, digital audio recording technology emerged. Because this technology allows consumers to reproduce unlimited copies of prerecorded music in near-perfect quality by converting the original recording into a series of 1's and 0's, it posed a substantial threat to the recording industry. In 1992, Congress responded to this new threat by enacting the Audio Home Recordings Act of 1992[268] ("AHRA"). Using the compulsory licensing model, the AHRA prohibits legal actions for copyright infringement based on the manufacture, importation, or distribution of digital audio equipment or media for private, noncommercial recording.[269] The provision immunizes consumers for the use of digital audio recording equipment or media for noncommercial, analog, or digital home audio taping. In return, the Act requires manufacturers and importers of digital hardware and blank digital media to pay compensatory royalties to copyright holders injured by the new technology.[270] The Act also mandates that all digital audio recording machines be equipped with a Serial Copy Management System,[271] which provides copyright and generation status information while preventing recording devices from producing a chain of perfect digital copies that could supplant factory copies. Although the AHRA was created to alleviate the digital threat, courts have found the statute inapplicable to P2P networks and audiovisual works.[272]

The United States is not the only country that incorporated the compulsory licensing system into its copyright law; compulsory licenses are popular in Canada, Germany, and many other European Countries, which impose taxes on blank recording media and equipment to compensate composers and authors whose works have been copied without authorization.[273] These countries also provide copyright holders with additional protection by imposing levies on portable MP3 players and P2P goods. For example, Germany imposes a tax of 7.50 Euros on

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[266] *See* 17 U.S.C. § 111.

[267] *See id.* § 119.

[268] Pub. L. No. 102-563, 106 Stat. 4247 (codified in scattered sections of 17 U.S.C.).

[269] *See* 17 U.S.C. § 1008 (2000).

[270] *See id.* § 1003.

[271] *Id.* § 1002(c).

[272] In re Aimster Copyright Litig., 252 F. Supp. 2d 634 (N.D. Ill. 2002) (issuing preliminary injunction against P2P service and holding that the AHRA does not immunize the service from making music files available for others to copy on the network).

[273] *See* P. BERNT HUGENHOLTZ ET AL., THE FUTURE OF LEVIES IN A DIGITAL ENVIRONMENT 10-31 (2003) (discussing the private copying levy provisions of the European Union), *available at* http://www.ivir.nl/publications/other/DRM&levies-report.pdf; Ysolde Gendreau, *Canada*, *in* 1 INTERNATIONAL COPYRIGHT LAW AND PRACTICE § 8[2][f][ii] (Paul E. Geller & Melville B. Nimmer eds., 2002) (discussing the private copying levy provisions of Canada). As the EC Information Society Directive stated:

> Member States may provide for exceptions or limitations to the reproduction right provided for in Article 2 . . . in respect of reproductions on any medium made by a natural person for private use and for ends that are neither directly nor indirectly commercial, on condition that the rightholders *receive fair compensation* which takes account of the application or non-application of technological measures referred to in Article 6 to the work or subject-matter concerned.

Directive 2001/29/EC of the European Parliament and of the Council on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society art. 5(2), 2001 O.J. (L 167) 10 [hereinafter EC Information Society Directive] (emphasis added); *see also* Peter K. Yu, *An Introduction to the EU Information Society Directive*, GIGALAW.COM, *at* http://www.gigalaw.com/articles/2001-all/yu-2001-11-all.html (Nov. 2001) (discussing the EC Information Society Directive).

PC-integrated CD burners,[274] while the Copyright Board of Canada imposes a levy of $15 on portable MP3 players with up to 10GB of non-removable memory and $25 on devices with more memory.[275]

In sum, compulsory licensing allows copyright holders to receive their well-deserved rewards while allowing the general public to have unrestricted access to copyrighted works for private, noncommercial use. The scheme also harmonizes U.S. copyright law with that of many foreign countries. As commentators have pointed out, the system even might "fund a broader spectrum of creators than under our current copyright system."[276]

Notwithstanding these benefits, the compulsory licensing model presents some challenges and concerns. First, it is not easy to determine how to divide the royalty pool. Commentators have suggested the use of such technologies as digital watermarking, digital sampling, metering software, and monitoring tools. However, our technology—at least at the current state—is far from reliable and accurate. Fans might be able to abuse the system by repeatedly downloading songs of their favorite musicians or bands or by inflating download counts using "ballot stuffing" programs[277] or mistaken identities.[278]

To make things more complicated, subsequent uses are sometimes more important than initial downloads, as many of the initial downloads are more correctly considered music sampling. A mechanical system that counts all downloads equally therefore might not reflect accurately the market value of many downloaded songs.[279] Until an effective digital monitoring system is developed,[280] the results are likely to be skewed, and the system might not compensate artists, songwriters, and copyright holders properly and proportionately.

Second, the levies might not generate sufficient funds to compensate artists, songwriters, and copyright holders, especially when playback devices become cheaper and their memory capacity becomes larger.[281] Consider, for example, a 1TB (or 1000 GB) MP3 player, which

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[274] *See* FISHER, *supra* note 10; *see also* Lunney, *supra* note 10, at 854; Netanel, *Noncommercial Use Levy*, *supra* note 10, at 32 & n.109 (discussing the Germany's levy provisions); *see also* HUGENHOLTZ ET AL., *supra* note 273, at 25-27 (discussing the extension of private levies to digital media and equipment). *See generally* Reinhold Kreile, *Collection and Distribution of the Statutory Remuneration for Private Copying with Respect to Recorders and Blank Cassettes in Germany*, 23 INT'L REV. INDUS. PROP. & COPYRIGHT L. 449 (1992).

[275] *See* COPYRIGHT BOARD OF CANADA, *supra* note 99, at 56.

[276] Netanel, *Noncommercial Use Levy*, *supra* note 10, at 34.

[277] *But see* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 55-57 (discussing why efforts to game the system are unlikely to undermine the integrity of his proposal).

[278] *But see* ECKERSLEY, *supra* note 10, at 13-14 (discussing precautionary measures against "identity rental").

[279] Professor Netanel designed his proposal so that it could distinguish subsequent uses from initial downloads. As he explained:

> Subsequent uses, which might entail viewing or listening to a work or copying it onto an MP3 player or other portable device, should be given greater weight than initial downloads. Metering such uses would more accurately reflect each work's value to users than merely counting the number of downloads or even the number of hard copy purchases. Certain types of works tend to be subject to more repeated viewing, reading, or listening than others, and such ongoing use is an important component of a work's value. In addition, it appears that users often download works from P2P networks merely to determine whether they like the work, not because the user knows that she values the work in advance of downloading.

Netanel, *Noncommercial Use Levy*, *supra* note 10, at 53 (footnotes omitted).

[280] Nevertheless, if the digital monitoring system is too sophisticated and does not include enough privacy safeguards, it might intrude upon the privacy of individual users. *See* FISHER, *supra* note 10 (discussing the privacy implications of his proposal); ECKERSLEY, *supra* note 10, at 54-55 (same); Netanel, *Noncommercial Use Levy*, *supra* note 10, at 55 (same).

[281] *See* Lunney, *supra* note 10, at 855 (noting that private copying levies received by the Society for Musical Performing Rights and Mechanical Reproduction Rights (GEMA), one of Germany's collective rights organizations, "amounted to roughly 2.6% of its total revenues both in 1998 and 1999" even though Germany has one of the most extensive private levy systems). *But see* Ku, *supra* note 10, at 313 (contending that "[a] 2 percent levy on these sales would yield approximately $1.3 billion for distribution to artists per year . . . [which] represents the projected revenues for the entire digital downloading market under copyright in 2002, or roughly $48,000 per new

enables most consumers to store their entire CD collections. How much levy can the law impose on the manufacturer of this device? If the levy is higher than what consumers can afford, say $10,000, very few people will buy the device, and the development of this technology will be stifled. However, if the levy is set at an affordable price, say $500, the levy is unlikely to sufficiently compensate artists, songwriters, and copyright holders. At most, they will collectively receive $500, assuming manufacturers will give away devices free-of-charge (which is very unlikely to happen unless the manufacturers are also copyright holders).

Third, a levy system might require low-volume users, such as those who rarely use P2P networks, to subsidize both copyright holders and high-volume users.[282] As Professor Jane Ginsburg put it, "From the user's point of view, 'all you can eat' is not necessarily the best formula, at least not for those whose diet of copyrighted works is modest."[283] By increasing monthly subscription fees, the levies also will make Internet service less affordable, thus threatening to slow down broadband deployment while widening the digital divide.[284]

Fourth, the levies might force consumers to switch to other products that do not bear the levy,[285] thus stifling innovation.[286] They also might facilitate the creation of gray markets in countries that do not impose similar levies,[287] as well as parallel imports when these cheaper gray

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release"); Netanel, *Noncommercial Use Levy*, *supra* note 10, at 60-67 (explaining why private copying levies would generate sufficient funds to satisfy copyright holders without imposing price increases that consumers deem unacceptable).

[282] *But see* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 67-74 (challenging the cross-subsidization argument and offering measures to reduce cross-subsidization). As Professor Netanel pointed out:

> The low-volume user subsidy problem is somewhat overstated, however. For one, many low-volume users will happily pay a surcharge for the possibility of unlimited file sharing even if they don't actually engage in much file sharing. After all, consumers regularly buy computers with far more memory and processing capacity than they actually use. . . . Further, imposing the levy will encourage some low-volume users to become high-volume users. If paying an extra $35 for a personal computer enables me legally to use it to trade music and video files, I will be more likely to use the computer for that purpose and I might find that I enjoy doing so.

Netanel, *Noncommercial Use Levy*, *supra* note 10, at 70; *see also* ECKERSLEY, *supra* note 10, at 15 (noting that "it is easy to overestimate the problematic nature of . . . cross-subsidies, since incentives to produce digital writing and music will (almost always) lead to the same works being available in physical form").

[283] Ginsburg, *Copyright and Control*, *supra* note 156, at 1644.

[284] The digital divide is the proverbial gap between those who have access to information technology and digital content and those who do not. For discussions of the digital divide, see generally THE DIGITAL DIVIDE: FACING A CRISIS OR CREATING A MYTH? (Benjamin M. Compaine ed., 2001); RANETA LAWSON MACK, THE DIGITAL DIVIDE: STANDING AT THE INTERSECTION OF RACE & TECHNOLOGY (2001); PIPPA NORRIS, DIGITAL DIVIDE: CIVIC ENGAGEMENT, INFORMATION POVERTY, AND THE INTERNET WORLDWIDE (2001); MARK WARSCHAUER, TECHNOLOGY AND SOCIAL INCLUSION: RETHINKING THE DIGITAL DIVIDE (2003); Peter K. Yu, *Bridging the Digital Divide: Equality in the Information Age*, 20 CARDOZO ARTS & ENT. L.J. 1 (2002); Peter K. Yu, *Digital Revolution Would Help Connect Detroit and Suburbs*, DETROIT NEWS, Mar. 17, 2004, at 11A.

[285] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 68.

[286] As Professor Lunney explained in economic terms:

> [A] levy discourages the creation and dissemination of new distribution technologies. With the introduction of innovative copying technology, a manufacturer is likely to enjoy some market power with the new technology, whether as a result of a patent or simple lead-time advantage. This market power offers the manufacturer the opportunity to earn rents on the new technology that serve in turn as the incentive for developing and producing the new technology. If a levy is imposed on such technology, the levy will increase the price of the technology to consumers, creating an artificial price increase and its resulting inefficiencies, as it would for existing technologies. The levy will also reduce the rents available to the manufacturer for introducing the new technology. With a levy, part of the rents otherwise available to the manufacturer will be collected through the levy and turned over to copyright owners. Reducing the rents available reduces, in turn, the manufacturer's incentive to innovate. Reduced incentives, together with an increased price to consumers for the new technology, are likely to slow the creation and introduction of new copying and distribution technologies.

Lunney, *supra* note 10, at 856-57.

[287] *See* Declan McCullagh, *Cyberpiracy North of the Border*, CNET NEWS.COM, *at* http://news.com.com/2008-1028-5097180.html (Oct. 27, 2003) (interviewing Professor Michael Geist about the gray market issue); *see also* Arthur J. Cockfield, *Designing Tax Policy for the Digital Biosphere: How the Internet Is Changing Tax Laws*, 34 CONN. L. REV. 333, 342 (noting that "information goods that attract taxation may shift to the lowest tax jurisdiction because it is almost costless to do so"). For discussion of gray-market goods, see generally Margreth Barrett, *The United States' Doctrine of Exhaustion: Parallel Imports of Patented Goods*, 27 N. KY. L. REV. 911

market goods were imported into the country. Thus, the levy system might hurt U.S. retailers while providing no benefits to artists, songwriters, and copyright holders.[288]

Finally, as many copyright holders and commentators have noted (and feared), the compulsory licensing model would create a licensing culture that assumes everything should be licensed.[289] Even worse for the rightsholders, by expressly authorizing private copying, a levy system might "move private copying from the margins into the mainstream, converting private copying from a minor annoyance into a major threat to copyright revenues."[290] Such a system also "would . . . limit the ability of copyright owners to price discriminate and otherwise price their works as they see fit."[291]

Under existing copyright law, copyright holders have the exclusive right to decide whether, when, how, and to whom they want to license their creative works.[292] Except for a few minor statutory exceptions, there is no requirement that copyright holders release their works against their wishes. If a copyright holder believes that it would make less profit by releasing a DVD version of her work along with a VHS version, she can always choose to release only one of the two formats.

However, with the levy system, the copyright holders will have no choice but to release the product in exchange for a statutorily set compulsory licensing fee. From the industry's perspective, such a system would set a bad precedent in the P2P context, as it would require copyright holders to conform their business plans to behavior that they believe is illegal and illegitimate. Indeed, the United States Court of Appeals for the Ninth Circuit was concerned about this type of precedent when it refused to impose a compulsory royalty payment scheme in lieu of an injunction in *A&M Records, Inc. v. Napster, Inc.*[293] As the court noted:

(2000); Carl Baudenbacher, *Trademark Law and Parallel Imports in a Globalized World—Recent Developments in Europe with Special Regard to the Legal Situation in the United States*, 22 FORDHAM INT'L L.J. 645 (1999); Shubha Ghosh, *An Economic Analysis of the Common Control Exception to Gray Market Exclusion*, 15 U. PA. J. INT'L BUS. L. 373 (1994); Seth Lipner, *Trademarked Goods and Their Gray Market Equivalents: Should Product Differences Result in the Barring of Unauthorized Goods from the U.S. Markets?*, 18 HOFSTRA L. REV. 1029 (1990).

[288] Nevertheless, unless the levy imposed on the P2P goods and services is prohibitively high, it is unlikely that many consumers will travel abroad primarily to avoid the levy. Moreover, most consumers will be concerned about the inconvenience and complication created by foreign Internet service providers, even though it is technically possible to subscribe to these services.

[289] *See* Evan P. Schultz, *Jane Says*, IP L. & BUS., June 2003, at 24 (interview with Prof. Jane Ginsburg, Columbia Law School) (expressing her concern that "a generalization of the levy technique could lead to an even greater feeling on consumers' parts that they're entitled to copy and "share" anything they want"). Professor Loren, however, noted that the sense of entitlement can go in the other direction:

> It may not be an exaggeration to say that the compulsory license is the root of the problem in the music industry. Because of the mechanical license and its statutorily provided royalty rate, there exists a sense of entitlement across the music publishing industry: musical work copyright owners are entitled to eight cents per "mechanical" copy of their work, regardless of the form that copy takes, the manner of the distribution, or the price charged for the distribution. After all, musical work copyright owners are not permitted to refuse to license these derivative works, so they darn well should be paid for any and all copies that are distributed.

Loren, *supra* note 10, at 710.

[290] Lunney, *supra* note 10, at 857.

[291] *Id*. at 857-58. As Professor Lunney explained:

> With a levy-based approach, responsibility for setting prices would no longer reside with copyright owners alone, subject only to the market; the government and equipment manufacturers would also play a central role. Whether set by statute or by negotiation with the manufacturers, copyright owners worry that the resulting levies will prove inadequate to compensate them for lost sales should private copying become widespread.

Id.

[292] *See* 17 U.S.C. § 106 (2000).

[293] 239 F.3d 1004 (9th Cir. 2001).

> Imposing a compulsory royalty payment schedule would give Napster an "easy out" of this case. If such royalties were imposed, Napster would avoid penalties for any future violation of an injunction, statutory copyright damages and any possible criminal penalties for continuing infringement. The royalty structure would also grant Napster the luxury of either choosing to continue and pay royalties or shut down. On the other hand, *the wronged parties would be forced to do business with a company that profits from the wrongful use of intellectual properties*. Plaintiffs would lose the power to control their intellectual property: they could not make a business decision not to license their property to Napster, and, in the event they planned to do business with Napster, compulsory royalties would take away the copyright holders' ability to negotiate the terms of any contractual arrangement.[294]

C. *Voluntary Collective Licensing*

In February 2004, the Electronic Frontier Foundation ("EFF") released a white paper, recommending that the recording industry adopt a voluntary collective licensing model similar to the one used by radio stations today.[295] The document outlined the proposal as follows:

> [T]he music industry forms a collecting society, which then offers file-sharing music fans the opportunity to "get legit" in exchange for a reasonable regular payment, say $5 per month. So long as they pay, the fans are free to keep doing what they are going to do anyway—share the music they love using whatever software they like on whatever computer platform they prefer—without fear of lawsuits. The money collected gets divided among rights-holders based on the popularity of their music.
>
> In exchange, file-sharing music fans will be free to download whatever they like, using whatever software works best for them. The more people share, the more money goes to rights-holders. The more competition in applications, the more rapid the innovation and improvement. The more freedom to fans to publish what they care about, the deeper the catalog.[296]

Before the EFF released its White Paper, Professor Daniel Gervais submitted a similar proposal to the Department of Canadian Heritage of the Canadian government.[297] Based on copyright models from Nordic countries, this proposal calls for an extended collective licensing system in which rightsholders opt out of a P2P licensing system while remaining inside on default.[298] As Professor Gervais explained:

> [T]he extended collective licence system . . . offers many benefits. Users gain peace of mind, as they sign a contract giving them unrestricted access to a CMO's repertoire apart from specified exclusions. In other words, they will not have to face a lawsuit from a rights holder who turns up after the contract is signed and was neither represented nor expressly excluded from the system. Rights holders have the advantage of better protection of their rights, and by presenting a united front they increase their clout in negotiations with users. Finally, non-represented rights holders also have their rights protected and can benefit from the

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[294] *Id*. at 1028-29 (emphasis added).
[295] EFF WHITE PAPER, *supra* note 10, at 10.
[296] *Id*.
[297] DANIEL GERVAIS, APPLICATION OF AN EXTENDED COLLECTIVE LICENSING REGIME IN CANADA: PRINCIPLES AND ISSUES RELATED TO IMPLEMENTATION (2003), *available at* http://www.canadianheritage.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/regime/regime_e.pdf.
[298] *Id*. at 5.

> remuneration they deserve, since their works are being used for the benefit of the general public.[299]

Both the EFF's and Professor Gervais's proposals are strongly supported by existing systems used by collective rights organizations, like ASCAP, BMI, and SESAC, and copyright clearinghouses.[300] By paying a flat fee, anybody can make a public performance of songs in the repertories of these organizations, which will collect the licensed fees and distribute the proceeds to their members. Although the Copyright Act does not stipulate the fees an organization can charge, ASCAP and BMI are subject to court-administered antitrust consent decrees that allow users to petition a judge for a binding determination of "reasonable fees" should the licensee and the organization disagree on the amount of the licensed fees.[301]

This model is attractive for two reasons. Fist, it allows consumers to determine whether they want to participate in the system. Given the industry's aggressive approach, most consumers are likely to participate in the system regardless of the volume and frequency of their file-sharing activities. After all, $5 per month is nothing when compared to the severe penalty imposed as a result of the industry's lawsuits and the increasingly high transaction costs due to spoofing and other technological protection measures.

Second, the model allows copyright holders to determine whether they want to participate in the regime. By doing so, it would allow copyright holders to decide whether, when, how, and to whom they want to license their creative works while reducing the chance of creating a copyright culture that assumes everything should be licensed. After all, acceptable norms and customary practice ultimately might define the scope of fair use.[302]

Nevertheless, the proposal eventually might become more expensive than what their proponents anticipated. Consider, for example, the Electronic Frontier Foundation's proposal. As P2P file sharing spread to other industries, these industries are likely to request for the establishment of a similar system to compensate for the damages online file trading inflicted upon them. As Professor Jane Ginsburg noted when she discussed the Bertlesmann-Napster proposal of a $4.95 monthly surcharge:

> Pricing the surcharge may be problematic . . . . For example, a proposed component of the Napster-Bertelsmann settlement would give Napster subscribers a license to copy anything from the Bertelsmann catalogue for $4.95 a month. But will it still be only $4.95 if other record producers join in? And what about other kinds of works potentially subject to file sharing, such as text, photographic images, and audiovisual works? What sum will seem reasonable to the consumer, yet generate enough return to make a blanket license fee appeal to an increasingly broad class of copyright owners?[303]

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[299] *Id.* at 44.

[300] *See* Loren, *supra* note 10, at 683-86 (discussing collective rights organizations).

[301] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 31; *see also* Michael A. Einhorn, *Intellectual Property and Antitrust: Music Performing Rights in Broadcasting*, 24 COLUM.-VLA J.L. & ARTS 349 (2001) (discussing ASCAP and BMI's antitrust consent decrees).

[302] *See generally* Lloyd L. Weinreb, *Fair's Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137, 1159-60 (1990) (stating that a use should be found to be fair if it is "within . . . accepted norms and customary practice"). *See also* Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 550 (1985) (suggesting that "the fair use doctrine was predicated on the author's implied consent to 'reasonable and customary' use when he released his work for public consumption").

[303] Ginsburg, *Copyright and Control*, *supra* note 156, at 1642-43.

Moreover, voluntary collective licenses might suffer from the many weaknesses associated with compulsory licenses,[304] including the difficulty in dividing the royalty pool; the lack of sufficient funds to compensate artists, songwriters, and copyright holders; the requirement that low-volume users subsidize copyright holders and high-volume users; and the creation of a culture that assumes everything should be licensed.

Being voluntary by nature, such a system also will encourage free riding behavior. There is no guarantee that most end-users will opt-in to this system. Instead, many of them may choose to stay outside, "borrowing" songs from their friends and strangers they meet on the Internet. Eventually, the system will break down. Thus, it remains contestable whether voluntary collective licenses will provide effective compensation to artists and songwriters injured by widespread unauthorized copying on the Internet.

D. *Voluntary Contribution*

Many commentators and industry executives believe "most consumers . . . will infringe copyrights at every opportunity unless they are dissuaded from doing so by the fear of punishment."[305] As economic theory has shown, consumers have a narrow view of self-interest and tend to maximize utility by free riding on others' efforts.[306] Because free riding ultimately will drive down prices and result in underproduction of copyrighted works, copyright is needed to generate incentives for authors to create and disseminate works of social value.

This conclusion, however, does not take into account the transaction costs incurred in file-sharing activities. Anybody who has tried to download music from pirated Web sites knows how time-consuming and frustrating it can be to locate what one wants.[307] Just think about the typos you have to make to find music you like, the "Host not responding" messages, or the slow connection speeds between the host and your computer! One might even get a different song because the uploader has used a disguised title, for whatever reason. To a teenager, it is not cool to get Back Street Boys when she wants to listen to 'N Sync, or Britney Spears when she wants to listen to Christina Aguilera. It would be even more disappointing to find Bach and Mozart when he wants to impress his friends with Pink and Outkast in a dance party (although some of his friends eventually may like Bach and Mozart).

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[304] *See* discussion *supra* Part III.B.

[305] Ann Bartow, *Electrifying Copyright Norms and Making Cyberspace More Like a Book*, 48 VILL. L. REV. 13, 18, 62 (2003).

[306] *See generally* Earl R. Brubaker, *Free Ride, Free Revelation, or Golden Rule?*, 18 J.L. & ECON. 147 (1975).

[307] As a recent study by the National Research Council described:

> The [noncommercial] service is terrible and the experience can be extraordinarily frustrating. Search engines can assist in finding songs by title, performer, and so on, but you have to know how to look: Can't find what you're looking for when you type in "Neil Young"? Try "Niel Young." In any collection, quality control is a problem; when the data are entered by thousands of individual amateurs, the problem is worse.
>
> When the links are found, the next question is, How long are you willing to keep trying, when receiving responses such as "Host not responding," "Could not login to FTP server; too many users—please try again later," and "Unable to find the directory or file; check the name and try again"? The computers containing the files are often personal machines that are both unreliable and overloaded.
>
> Even once connected, the speedy download times cited earlier are ideals that assume that both the computer on the other end and its connection to the Internet are up to the task. The real-world experience is often not so good: Creating a Web site with a few music files is easy; providing good service on a site with hundreds or thousands of songs is not: The hardware and software requirements are considerably more complex.

DIGITAL DILEMMA, *supra* note 10, at 80-81.

Moreover, people do give and share. They cooperate, make self-sacrifice, and provide charitable donations.[308] They also pay for products that are available free-of-charge, such as drinking water and copyrighted materials.[309] Over the years, economists and sociologists have identified many factors that lead individuals to contribute voluntarily to a public good. Examples include altruism, the "warm glow" effect,[310] long-term self-interest, reputation, and informal cooperation.[311] From time to time, we also notice that "people contribute to public television and radio, nonprofit theater groups, [public] museums, and a wide variety of other cultural activities that could probably not survive without their voluntary support, even though in those cases . . . they cannot exclude those who never pay a cent."[312]

Indeed, the Internet started when users networked their computers, offering information free-of-charge to other users with no firewalls, no technological protection measures, and no intellectual property protection.[313] Arguably, P2P technologies also started under the same principle.[314] As Gnutella's developer, the late Gene Kan, wrote:

> The basic premise underlying all peer-to-peer technologies is that individuals have something valuable to share. The gems may be computing power, network capacity, or information tucked away in files, databases, or other information repositories, but they are gems all the same. Successful peer-to-peer applications unlock those gems and share them with others in a way that makes sense in relation to the particular applications.[315]

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[308] *See* Lunney, *supra* note 10, at 859-60.

[309] The free versions of many of these products are not complete substitutes. For example, tap water is not a complete substitute for bottled water. Nevertheless, we should not ignore the free availability of many of these products in different form or under different packaging. Consider books for example. *The Digital Dilemma*, the National Research Council's recent study on digital copyright, is available free-of-charge at http://www.nap.edu/html/digital_dilemma/. Yet, it is available for purchase in both physical and pdf formats. Most recently, Professor Lawrence Lessig released his new book, *Free Culture*, under a creative commons license on its website, http://www.free-culture.cc. Yet, many people, including the Author and many of his colleagues, still purchased the book.

[310] "Warm-glow preferences mean that the act of contributing, independent of how much it increases group payoffs, increases a subject's utility by a fixed amount." Thomas R. Palfrey & Jeffrey E. Prisbrey, *Anomalous Behavior in Public Goods Experiments: How Much and Why?*, 87 AM. ECON. REV. 829, 830 (1997), *quoted in* Lunney, *supra* note 10, at 861 n.162.

[311] *See* Lunney, *supra* note 10, at 861.

[312] Zimmerman, *supra* note 10, at 1150.

[313] As Professor Litman explained:

> The most powerful engine driving this information space turns out not to be money—at least if we're focusing on generating and disseminating the content rather than constructing the pipes that it moves through. What seems to be driving the explosive growth in this information space is that people like to look things up, and they want to share. This information economy is largely a gift economy. The overwhelming majority of the information I'm talking about is initially posted by volunteers. Many of them are amateurs, motivated by enthusiasm for their topics, a desire to share, and, perhaps, an interest in attention and the benefits it may bring. When one is a volunteer, the time and effort one is willing to put into contributing to the information space can seem limitless. Volunteers move on, of course: they get bored, or broke, or caught up in other things, but there seems to be an inexhaustible supply of new volunteers to take their places, and, luckily, the new volunteers are able to build on earlier volunteers' foundations. I potentially know all of the information the other participants know. Their knowledge can be my knowledge with a few clicks of a mouse. In return, I make my knowledge available to anyone who happens by. Each of us can draw on the information stores of the others.

Litman, *Sharing and Stealing*, *supra* note 10 (footnote omitted); *id.* (noting that "[t]he information space that has grown up on the world wide web is largely the result of anarchic volunteerism").

[314] "One of Fanning's avowed aims was to circumvent the established channels of commercial CD distribution, offering garage bands and other new acts a ready, wired audience." GOLDSTEIN, *supra* note 72, at 165.

[315] Kan, *supra* note 117, at 122. One commentator described how Napster coordinates externalities in a way that encourages altruism:

> As long as Napster users are able to find the songs they want, they will continue to participate in the system, even if the people who download songs from them are not the same people they download songs from. And as long as even a small portion of the users accept this bargain, the system will grow, bringing in more users, who bring in more songs.

Clay Shirky, *Listening to Napster*, *in* PEER-TO-PEER, *supra* note 117, at 21, 33.

Commentators have discussed three possible models of voluntary contribution. The first is the "ransom model."[316] Science fiction author Stephen King experimented with this model by offering on the Internet his novella, *Riding the Bullet*,[317] and installments of a full-length novel, *The Plant*.[318] Instead of demanding money up front, he requested readers who downloaded his work pay him $1 (and subsequently $2) per installment and announced that he would not finish the work unless he received payments for at least three-quarters of the downloads.

When King released *Riding the Bullet*, more than 400,000 copies were downloaded in the first twenty-four hours.[319] Unfortunately, the book's copy-protection mechanism was soon cracked, and pirated copies appeared on the Internet. Free riders became abundant, and his novella and novel soon were uploaded on to the Internet for others to download free-of-charge. Even those who were willing to continue to pay him became concerned that he might not complete the work despite their contributions. In the end, King's fans were caught up in a threshold public goods game,[320] in which many people found deflection in their self-interest. By the time the fourth installment was released, less than half of the readers had paid for it.[321] King eventually announced to "temporarily suspend" the project and offered the sixth installment for free. He has yet to finish *The Plant*, and the ransom experiment was folded within less than a year.

Since King experimented with the ransom model, commentators have explored modified versions of this model. For example, Professor Raymond Ku suggested that musicians might improvise the ransom model by putting out teasers and free samples while withholding the full album or their tour until they have received sufficient rewards.[322] The Street Performer Protocol, as endorsed by Professor Diane Zimmerman, provides a mechanism through which authors set a release price for their works and release the works once consumers contribute sufficient funds to meet the asking price.[323] Open Culture pushes the ransom model even further by requiring authors to release the works subject to permanent free-use licenses once the asking price is met.[324] Nevertheless, the failure of King's experiment casts skepticism on the model, suggesting that it is risky and might be difficult to implement. The model also would put artists in an

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[316] *See* Ku, *supra* note 10, at 310.

[317] Evan Hansen, *Simon & Schuster Offers Net-only Stephen King Novel*, CNET NEWS.COM, *at* http://news.com.com/2100-1017_3-237756.html (Mar. 8, 2000).

[318] For discussion of Stephen King's experiment, see Ku, *supra* note 10, at 310; Litman, *Sharing and Stealing*, *supra* note 10; Zimmerman, *supra* note 10.

[319] Sandeep Junnarkar, *Horrors for Publishing Industry: King e-book Cracked*, CNET NEWS.COM, *at* http://news.com.com/2100-1023-238694.html (Mar. 31, 2000).

[320] As Professor Lunney described:

> In a threshold public goods game, individuals in a group must decide whether to contribute voluntarily to the provision of a public good. If enough contributions are made, the public good is provided. If not, the public good is not provided and individuals lose any contributions they have made. All individuals are better off if the public good is provided, but individuals who do not contribute are better off than those who do contribute whether the public good is provided or not.

Lunney, *supra* note 10, at 862.

[321] *See* Gwendolyn Mariano, *Stephen King Puts "The Plant" on Ice*, CNET NEWS.COM, *at* http://news.com.com/2100-1023-249133.html (Nov. 28, 2000).

[322] Ku, *supra* note 10, at 310.

[323] John Kelsey & Bruce Schneier, *The Street Performer Protocol and Digital Copyrights*, FIRST MONDAY, June 7, 1999, *at* http://www.firstmonday.dk/issues/issue4_6/kelsey/index.html.

[324] *See* Zimmerman, *supra* note 10, at 126. For details of how Open Culture operates, see generally OpenCulture, *Frequently Asked Questions*, *at* http://www.openculture.org/About/faq.html (last visited Apr. 6, 2004).

awkward position where they have to decide between reneging on their promises and forfeiting to earn an income.[325]

Tipping, which is commonplace today, is the second model of voluntary contribution. For example, file-sharing services like Espra and Snarfizilla allow users to tip artists while downloading their songs.[326] Contrary to what many believe and some commentators have argued in the P2P context, people do pay tips, and they tip handsomely when there is an established social norm for tipping. Estimates showed that consumers pay more than $20 billion of tips to waiters and others every year.[327]

Today, file-sharers trade billions of songs on the Internet per month. If individual file-sharers are willing to tip a penny per song—assuming our existing credit system would support such micropayments[328]—the model will yield hundreds of millions of dollars per year. This figure is considerable even compared to existing industry figures. Although the recording industry is presently worth tens of billions of dollars, the billion-dollar figure does not take into account the reduced costs the industry will save on CD manufacturing, shipping, storage, shelf space (and now enforcement and litigation) as a result of online distribution. As the user base and file-sharing network expands, the tipping model will become even more attractive.

Most recently, Magnatune provides a new, exciting business model by combining the tipping model with dynamic pricing (as exemplified by eBay and Priceline.com). Functioning like an on-demand radio station, the service allows users to listen to an album for free by streaming it over the Internet.[329] If the users want to burn the album on a CD, they have to buy it. Magnatune would display a "suggested price," but would allow users to pay as little as $5, or as much as they want. Interestingly, Magnatune received an average of $8.93, instead of $5, per CD.[330]

The Magnatune model might provide a solution that could salvage Stephen King's ransom model. The problem with King's experiment was that he expected every reader to pay him the same amount. By doing so, he ignored the reality that customers placed different values on his work. For example, some customers might be willing to pay $10 per chapter, while others are willing to pay only $1. (Obviously, some might prefer not to pay any money even if they are very interested in King's works.) Thus, if King uses the Magnatune model, he might be able to acquire three-quarters of the total expected revenues even though less than three-quarters of his readers pay their contributions.

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[325] As one commentator noted: "I think that whole motto of sort of nickel-and-diming people of this per chapter basis was a mistake. Every chapter was another test of whether people would pay the threshold that (King) determined. I thought it got in the way of the relationship between the writer and audience—it was too mercantile." *Id*. (quoting Forrester analyst Dan O'Brien).

[326] Ku, *supra* note 10, at 310 (discussing Espra and Snarfizilla); *see also* David Kushner, *Tipping for Tunes*, ROLLINGSTONE.COM, *at* http://www.rollingstone.com/news/newsarticle.asp?nid=13427 (Mar 7, 2001).

[327] *See* Nadel, *supra* note 155, at 839 (citing Dan Seligman, *Why Do You Leave Tips?*, FORBES, Dec. 14, 1998 at 138 (reporting the IRS's estimate that tips would amount to $15-18 billion in 1996); Ofer H. Azar, The Social Norm of Tipping: A Review (2002) (estimating the total amount of tips would reach $26 billion)).

[328] *See generally* Dingledine, *Accountability*, *supra* note 248, at 286-307 (discussing micropayment schemes as accountability measures in P2P systems).

[329] *See* Kevin Maney, *Apple's iTunes Might Not Be Only Answer to Ending Piracy*, USA TODAY, Jan. 21, 2004, at 3B.

[330] *Id*.; *see also* Lunney, *supra* note 10, at 863 (noting that economic studies and game theory research "have shown that voluntary contribution rates can reach the level necessary to ensure efficient production of a public good").

The final model is the honor code. This model is familiar to high school and college students, although cheating is prevalent despite the honor code.[331] This model can also be traced back in history. For example, Stephen King maintained that his model was derived from the "honor system" used by newspapers in New York City in the early twentieth century.[332] Likewise, in the eighteenth century, major publishing houses in the United States abided by the courtesy copyright system, in which each publishing house refrained from publishing editions of a foreign work if there was a pre-existing publishing agreement between the author and another publishing house.[333] Nevertheless, voluntary contributions have yet to yield any "meaningful remuneration" for authors and artists.[334]

E. *Technological Protection*

To protect against widespread piracy on the Internet, the entertainment industry has developed many copy-protection technologies, such as encryption, digital watermarking, and the use of trusted systems.[335] The industry also has explored the use of digital rights management-based business models that allow copyright holders to manage access while requiring consumers to pay for content usage.[336] Notwithstanding these self-help measures, the industry remains vulnerable. Although copy-protection technologies allow copyright holders to lock up creative works, these technologies lose their protective functions when they are decrypted. Even worse, once the decryption key is disclosed, the copyrighted work will become available not only to those "techies" who successfully broke the code, but also to unsophisticated users around the world.

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[331] *See, e.g.*, Kim Breen, *Public Schools Taking Interest in Honor Codes*, DALLAS MORNING NEWS, Jan. 18, 2004, at 1B; Susan C. Thomson, *Amid Wave if Cheating, Universities Push "Academic Integrity,"* ST. LOUIS POST-DISPATCH (Missouri), Feb. 8, 2004, at A7.

[332] Zimmerman, *Authorship Without Ownership*, *supra* note 10, at 1125.

[333] *See* VAIDHYANATHAN, COPYRIGHTS AND COPYWRONGS, *supra* note 8, at 52; Sam Ricketson, *The Birth of the Berne Union*, 11 COLUM.-VLA J.L. & ARTS 9, 13-14 (1986); Yu, *The Copyright Divide*, *supra* note 5, at 342. By virtue of the "courtesy copyright" system, some English authors, like Charles Dickens and Anthony Trollope, "received large sums in respect of the American sales of their works, although they did not enjoy protection under United States copyright law." Ricketson, *supra*, at 14. At that time, the United States had yet to offer copyright protection to foreign authors. *See generally* Yu, *The Copyright Divide*, *supra* note 5, at 336-53 (discussing copyright protection for foreign authors in the United States in the eighteenth and early nineteenth centuries). Unfortunately, the system soon became ineffective as competition grew and publication was no longer limited to major publishing houses. With the large number of cheap library editions published by smaller houses, the courtesy copyright system eventually collapsed. As Professor Vaidhyanathan described the cheap library edition:

> The paper was uniformly cheap and flimsy, the typesetting sloppy, and the format hard to read. Some of the earlier editions lacked covers to keep their costs low. But soon the cheap publishers realized that the spine was in many cases the most attractive—and most visible—part of a book. So by the 1880s, most of the cheap books libraries appeared in cloth bindings at a slightly higher price, but with the same cheap paper inside. Needless to say, none of these publishers were part of the eastern seaboard elite club of publishers who were led by Henry Holt [a leading publisher at the time]. So none of them conformed to the courtesy principle.

VAIDHYANATHAN, COPYRIGHTS AND COPYWRONGS, *supra* note 8, at 53.

[334] Netanel, *Noncommercial Use Levy*, *supra* note 10, at 76; *see also* Janet Kornblum, *Ain't Too Proud to Beg on the Net*, USA TODAY, Jan. 8, 2002, at 3D (noting that "tip jars aren't likely to replace ads or other revenue sources"). Ironically, two of the defendants sued by the RIAA in April 2003 have successfully used the Internet to raise money to pay for their settlements. *See* discussion *supra* Part I.

[335] *See generally* DIGITAL DILEMMA, *supra* note 10, at 153-76 (discussing technological protection).

[336] For a collection of articles discussing digital rights management, see generally Symposium, *The Law and Technology of Digital Rights Management*, 18 BERKELEY TECH. L.J. 487 (2003).

Unfortunately, there is no prefect encryption technology, and "strong encryption" techniques that a moderately skilled person cannot break do *not* exist in the real world.[337] As Professor Edward Felten explained:

> None of [the copy-protection technologies] prevent unauthorized distribution. All they do, at best, is make it more difficult, more time-consuming to copy things. [A good analogy is a] speed bump. You're not putting up a barrier to prevent copying but a speed bump that will frustrate people who want to copy illegally.[338]

To make things more difficult, technology developers have to struggle with the trade-offs between cost and effectiveness[339] and between protection and inconvenience.[340] If the copy-protection technology were too complicated, it would jeopardize the user experience and make content inaccessible. However, if the technology were too simple and easy to break, it would not offer sufficient protection for copyright holders. In light of this conundrum, "overly stringent protection is as bad as inadequate protection" in the commercial context, because revenues will be zero in either extreme.[341]

To prevent the public from breaking the copy-protection technology, copyright holders must constantly upgrade their technology. Such upgrading, unfortunately, would attract even more attention from hackers, who are just too eager to tinker with the latest technology. Eventually, the repeated encryption and decryption will create a vicious cycle in which the entertainment industry and the hacker community engage in an endless copy-protection arms race.[342] Instead of devoting resources to develop artists and improve products, the industry will

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[337] *See Competition, Innovation, and Public Policy in the Digital Age: Is the Marketplace Working to Protect Digital Creative Works?: Hearing Before the Senate Comm. on Judiciary*, 107th Cong. (2002) (testimony of Edward W. Felten, Associate Professor of Computer Science, Princeton University); *see also* P. Biddle et al., *The Darknet and the Future of Content Distribution* (noting that digital rights management systems "are doomed to failure"), *available at* http://crypto.stanford.edu/DRM2002/darknet5.doc (2002), *quoted in* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 10.

[338] *A "Speed Bump" vs. Music Copying*, BUS. WK., Jan. 9, 2002, *at* http://www.businessweek.com/bwdaily/dnflash/jan2002/nf2002019_7170.htm (interview with Professor Edward Felten of Princeton University), *quoted in* GOLDSTEIN, *supra* note 72, at 184. Although no encryption technology can protect perfectly, such technology does not necessarily need to be perfectly robust. As the recent National Research Council study observed:

> Most people are not technically knowledgeable enough to defeat even moderately sophisticated systems and, in any case, are law-abiding citizens rather than determined adversaries. TPSs [technical protection services] with what might be called "curb-high deterrence"—systems that can be circumvented by a knowledgeable person—are sufficient in many instances. They can deter the average user from engaging in illegal behavior and may deter those who may be ignorant about some aspects of the law by causing them to think carefully about the appropriateness of their copying. Simply put, TPSs can help to keep honest people honest.

DIGITAL DILEMMA, *supra* note 10, at 218.

[339] *See* DIGITAL DILEMMA, *supra* note 10, at 153 (noting "inherent trade-offs between the engineering design and implementation quality of a system on the one hand and the cost of building and deploying it on the other"); *id*. at 164 (stating that "a good mechanism is one that provides the degree of disincentive desired to discourage theft but remains inexpensive enough so that it doesn't greatly reduce consumer demand for the product").

[340] *See id*. at 154 (contending that "the quality and cost of a TPS [technical protection services] should be tailored to the values of and risks to the resources it helps protect").

[341] *Id*.

[342] As Professor Ku explained:

> [C]opy protection for digital content necessitates an expensive technological arms race . . . Given the difficulty of protecting digital works from copying, copyright holders will be forced constantly to spend significant resources developing technology just to keep the cat in the bag. These costs will in turn be passed on to the public, not to provide the public with access to new works, but for the sole purpose of limiting access. Given that hackers appear to be as adept, if not more so, at picking the locks of copyright protection as those trying to lock up digital works, the costs associated with a copy protection arms race would be unending.

Ku, *supra* note 10, at 319-20 (footnote omitted); *see also* Trotter Hardy, *Property (and Copyright) in Cyberspace*, 1996 U. CHI. LEGAL F. 217, 251 (discussing the "wasteful 'arms race' of technological-protection schemes, with each side increasing its spending to outperform the other's technology"); Peter K. Yu, *How the Motion Picture and Recording Industries Are Losing the Copyright War by*

have to invest their resources in developing encryption technology and preventing consumers from accessing copyrighted works. This strategy is counterproductive, as it will hurt artists, the entertainment industry, and ultimately consumers.

Moreover, the growing use of encryption technologies in copyrighted products has raised some consumer concerns.[343] An encrypted CD may not function the same way as a conventional CD.[344] Previously available functions, including those to which consumers may have a legal right under the fair use provision, therefore may no longer exist. Even worse for the consumers, an encrypted CD might not be playable on car stereos, some PCs, and old CD players, forcing consumers to buy new hardware they do not otherwise need or cannot afford. Thus, it is no surprise that the recording industry encountered a highly negative response—including a class-action lawsuit by two California consumers[345]—when Sony released Celine Dion's latest album as an encrypted CD.[346] As some consumer advocates noted, record companies need to label encrypted CDs properly to avoid confusion and to allow consumers to choose whether they want to purchase those CDs.

To strengthen protection, the industry has lobbied Congress hard for law that protects against the circumvention of copy-protection technologies, such as the DMCA. Since the enactment of the DMCA, the industry has used the statute repeatedly against circumventors. For example, the industry cited potential violation of the DMCA when it requested Professor Edward Felton to withdraw from a scientific conference his paper on how to break the copy-protection technologies designed by the Secure Digital Music Initiative.[347] Using the DMCA, eight major movie studios brought a lawsuit to enjoin a hacker magazine from including on its Web site hyperlinks to other Web sites that posted the code of the DeCSS program, which decrypts the encryption-based system used by the motion picture industry to protect DVDs.[348] In July 2001, Russian cryptographer Dmitry Sklyarov was arrested and charged with violating the DMCA in the United States for giving a presentation to a computer hacker convention on the software that removed security protection from Adobe e-books.[349] In October 2003, SunnComm, the

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Fighting Misdirected Battles, FINDLAW'S WRIT: LEGAL COMMENTARY, Aug. 15, 2002, *at* http://writ.news.findlaw.com/commentary/20020815_yu.html [hereinafter Yu, *How the Motion Picture and Recording Industries Are Losing*].

[343] *See* Yu, *How the Motion Picture and Recording Industries Are Losing*, *supra* note 342; Kevin Hunt, *Record Industry Opens Attack on Consumer Rights*, HARTFORD COURANT, May 23, 2002, at 21.

[344] For example, in January 2001, BMG experimented with encrypted CDs by partnering with Midbar, an Israeli firm, to release two albums using Midbar's Cactus Data Shield technology. That technology prevented CD owners from copying music with burners. After releasing about 100,000 CDs in the new format, BMG got so many returns that it eventually canceled the experiment and replaced the returns with nonprotected discs. *See* ALDERMAN, *supra* note 72, at 110.

[345] Jon Healey & Jeff Leeds, *Record Labels Grapple with CD Protection*, L.A. TIMES, Nov. 29, 2002, § 3, at 1 (reporting that "[t]wo California consumers . . . have filed a class-action lawsuit against the five major record companies, alleging that copy-protected CDs are defective products that shouldn't be allowed on the market").

[346] *See Celine Dion and the Copycats*, FIN. TIMES, July 19, 2002, at 11.

[347] *See* David P. Hamilton, *Digital-Copyright Law Faces New Fight*, WALL ST. J., June 7, 2001, at B10; *see also* Yu, *The Copyright Divide*, *supra* note 5, at 395 (discussing the RIAA's threat of lawsuit against Professor Edward Felten of Princeton University); Letter from Matthew J. Oppenheim, Senior Vice President—Business and Legal Affairs, Recording Industry Association of America to Professor Edward Felton [sic], Department of Computer Science, Princeton University (Apr. 9, 2001) (asserting that Professor Felten's disclosure of information that "would allow the defeat of [those technologies that were part of the Challenge] would violate both the spirit and terms of the Click-Through Agreement . . . [and] could subject [Professor Felten and his] research team to actions under the Digital Millennium Copyright Act"), *available at* http://www.eff.org/IP/DMCA/Felten_v_RIAA/20010409_riaa_sdmi_letter.html.

[348] *See* Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001); Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000); *see also* Yu, *The Copyright Divide*, *supra* note 5, at 395-97 (discussing *Reimerdes*).

[349] Jennifer Lee, *U.S. Arrests Russian Cryptographer as Copyright Violator*, N.Y. TIMES, July 18, 2001, at C8 (reporting Sklyarov's arrest); *see also* Symposium, *Implications of Enforcing the Digital Millennium Copyright Act: A Case Study, Focusing on* United States v. Sklyarov, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 805 (2002); Yu, *The Copyright Divide*, *supra* note 5, at 397 (discussing the

manufacturer of copy-protection technology used in BMG's CDs, threatened to sue a Princeton University computer science graduate student under the DMCA for posting a paper on his Web site explaining how to disarm SunnComm's technology by pushing the shift key when loading a CD into a computer.[350]

While it is understandable why the industry needs to use the DMCA's anticircumvention provision to keep hackers away from copyrighted content and to reduce the chance of having a wasteful arms race with the hacker community, it is also important to note the deleterious effects created by this ill-drafted provision. In its current form, the provision has been repeatedly misused to stifle innovation and competition in such products as printer-toner cartridges,[351] garage-door openers,[352] electronic pets,[353] and voting machines.[354] The statute also has upset the historical balance between copyright interests and access to information, thus raising serious concerns about free speech, privacy, academic freedom, learning, culture, and democratic discourse.[355]

In the past couple of years, the entertainment industry has added a new offensive strategy. Spoofing is a technique through which entertainment companies inserts fake copyrighted files into P2P networks.[356] By forcing file-sharers to sort out genuine music files from the decoy ones, the technique increases transaction costs substantially. Indeed, as decoy files are more difficult to detect than mislabeling, "the existence of large numbers of flawed copies [might]

Sklyarov incident). The charges against Sklyarov were later dropped in response to strong protests in the United States and in light of his agreement to testify for the United States government against his former employer, ElcomSoft. *See* David Frith, *A Promotion a Day Keeps Apple A-weigh*, CANBERRA TIMES (Austl.), Jan. 7, 2002, at A12 (reporting that Sklyarov was released in a deal that "saw him admit the facts of the case but not any illegal activity"). Subsequently, his Moscow-based employer, ElcomSoft, was prosecuted for illegally selling software that permitted users to circumvent security features in an electronic book. *See* Matt Richtel, *Russian Company Cleared of Illegal Software Sales*, N.Y. TIMES, Dec. 18, 2002, at C4. In December 2002, a federal jury acquitted ElcomSoft of all charges. *See id.*

[350] John Borland, *Student Faces Suit over Key to CD Locks*, CNET NEWS.COM, *at* http://news.com.com/2100-1025-5089168.html (Oct. 9, 2003). The company reacted by threatening to sue the student under the DMCA, claiming that the student's revelation of this obvious and well-documented limitation had cost the company millions of dollars. SunnComm eventually dropped the lawsuit. Declan McCullagh, *SunnComm Won't Sue Grad Student*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5089448.html (Oct. 10, 2003).

[351] *See* Lexmark Int'l, Inc. v. Static Control Components, Inc., 253 F. Supp. 2d 943 (E.D. Ky., 2003) (granting preliminary injunction to Lexmark, which claimed that its competitor copied the encrypted code used by computer chips in its cartridges to enable remanufactured cartridges to work with its printers); *see also* MARYBETH PETERS, RECOMMENDATION OF THE REGISTER OF COPYRIGHTS IN RM 2002-4, at 172-83 (2003) (suggesting that §1201(f) would exempt Static Control from violating the DMCA), *available at* http://www.copyright.gov/1201/docs/registers-recommendation.pdf; Frank Ahrens, *Caught by the Act*, WASH. POST, Nov. 12, 2003, at E1 (discussing the case). The case is current on appeal before the United States Court of Appeals for the Sixth Circuit.

[352] *See* Chamberlain Group, Inc. v. Skylink Techs., Inc., 292 F. Supp. 2d 1040 (N.D. Ill. 2003), *aff'd*, 2004 U.S. App. LEXIS 18513 (Fed. Cir. Aug. 31, 2004) (dismissing Chamberlain Group's lawsuit against its competitor for manufacturing a universal garage-door opener that works with Chamberlain's products); *see also* John Borland, *Judge Shuts Garage Opener Copyright Suit*, CNET NEWS.COM, *at* http://news.com.com/2100-1025-5107779.html (Nov. 14, 2003) (discussing the dismissal).

[353] Dave Wilson & Alex Pham, *Sony Dogs Aibo Enthusiast's Site*, L.A. TIMES, Nov. 1, 2001, pt. 3, at 1 (reporting about the threat of lawsuit by Sony against the owner of the Aibohack.com Web site for offering upgrades to software used in Sony's electronic pet dogs). By November 2001, the site was back up "with more cautions and legal mumbo jumbo." Gareth Cook, *High-Tech Pet Tricks*, BOSTON GLOBE (MAG.), Jan. 20, 2002, at 8.

[354] *See* John Schwartz, *File Sharing Pits Copyright Against Free Speech*, N.Y. TIMES, Nov. 3, 2003, at C1 (reporting about lawsuits filed by Diebold Election Systems against those who are posting on the Internet copies of the company's internal communications about the flaws in its electronic voting machines).

[355] For criticisms of the DMCA, see generally Liu, *supra* note 146; Lunney, *supra* note 10; David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673 (2000); Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 BERKELEY TECH. L.J. 519 (1999); Diane Leenheer Zimmerman, *Adrift in the Digital Millennium Copyright Act: The Sequel*, 26 U. DAYTON L. REV. 279 (2001); Yu, *The Escalating Copyright Wars*, *supra* note 7.

[356] *See, e.g.*, Paul Bond, *Mercenaries in P2P Tech War*, HOLLYWOOD REP., Oct. 22, 2003 (reporting that spoofing "appears to be gaining traction in the entertainment industry as a leading technology employed in the war on digital piracy"); Lev Grossman, *It's All Free!*, TIME, May 5, 2003, at 60 (reporting about the spoofing technique concerning Madonna's single, *American Life*).

quickly erode the trust that has developed on the file-swapping networks."[357] After all, who wants to "experience 30 minutes or an hour of frustration, if for a dollar or so you can have what you want easily, reliably, and quickly?"[358]

Unfortunately for the industry, the spoofing technique backfires in the Madonna case. Before Madonna released her new single, *American Life*, the label started circulating a spoofed version of the song on the Internet, featuring the singer saying "What the f___ do you think you're doing?"[359] In response to spoofing, a hacker took over the singer's Web site, Madonna.com, posting real, downloadable MP3s of every song on the album. Angry fans also responded by remixing Madonna's tirade with other songs.[360] Some Web sites even held contests for these remixes.

Nevertheless, spoofing can be effective, especially when copyright holders insert educational messages to remind file-sharers about their responsibility and how their actions can hurt artists and songwriters. Teenaged file-sharers might resist messages sent by the RIAA, but they might be more receptive to messages coming from their favorite musicians or bands. To these young fans, what messages are more important than a personal message from Justin Timberlake or Eminem telling them how hard he had worked to make his new album and why it is very important that they do not illegally trade music files with others?

F. *Copyright Law Revision*

Many commentators have noted the need for an overhaul of existing copyright law, which is long, wordy, complex, cumbersome, counterintuitive, and internally inconsistent.[361] As Professor Jessica Litman noted: "We can continue to write copyright laws that only copyright lawyers can decipher, and accept that only commercial and institutional actors will have good reason to comply with them, or we can contrive a legal structure that ordinary individuals can learn, understand and even regard as fair."[362]

In a recent article, Professor Lydia Loren proposed a two-step revision of the 1976 Copyright Act: "First, to facilitate downstream use of creative works, copyright law should embrace the doctrine of derivative work independence. Next, the six separate rights granted to copyright owners should be consolidated into one 'right to commercially exploit' the copyrighted expression."[363] As she explained, "[t]he process of tinkering at the margins each time a new technological development occurs has led to a cumbersome and complicated set of rules that creates significant obstacles to dissemination rather than facilitating such dissemination."[364] Thus, it is very important to start with a clean slate and examine the system afresh.

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[357] Strahilevitz, *supra* note 11, at 531; *see also* LIEBOWITZ, *supra* note 232, at 175-76 (discussing the economics of the use of "antifreeloading" tools in P2P networks).

[358] DIGITAL DILEMMA, *supra* note 10, at 81. As the study stated: "[I]n the digital age, content industries may mutate, at least in part, into service companies. The key product is not only the song; it is also the speed, reliability, and convenience of access to it." *Id.*

[359] Grossman, *supra* note 356.

[360] *See* Nik Bonopartis, *Firms Say the Swap Must Stop*, POUGHKEEPSIE J., July 16, 2003, at 1A.

[361] *See* Yu, *The Copyright Divide*, *supra* note 5, at 404.

[362] Jessica Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19, 39 (1996).

[363] Loren, *supra* note 10, at 703.

[364] *Id*. at 678-79.

In her article, Professor Loren discussed how the divisibility of rights in a single copyrighted work has encouraged "industry players [to] build[] up vested interests around different statutory rights and then caus[e] trouble when distribution technology changes and each industry player asserts a right to obtain royalties for the new methods of exploitation."[365] Thus, overlapping rights ultimately frustrate the goals of copyright laws and inhibit the healthy development of the recording industry:

> First, as a result of the dual layer of copyrights and the divided rights granted to each owner, there are too many vested industry players for downstream users to be able to efficiently obtain the authorizations needed for downstream use of recorded music. Second, the divisible yet overlapping rights granted to copyright owners leads to industry gridlock and problems with holdout behavior. Finally, the demands for payment from the downstream user by too many vested industry players, combined with industry consolidation, result in the price being too high to achieve the goal of copyright. In the words of economists, the music industry is full of market failures.[366]

Notwithstanding these structural defects, revising copyright law is easier said than done. The last revision of the Copyright Act started in the mid-1950s and took more than twenty years to complete.[367] Since then, Congress and the copyright industries have been reluctant to undertake any major revision of the copyright statute, even though Congress amended the statute many times. Even in the face of the digital challenge created by the Internet and new communications technologies, the Information Infrastructure Task Force under the Clinton administration agreed that the existing copyright regime would work perfectly in the digital context.[368] This conclusion is no surprise given the great difficulty in obtaining sustained support for a multi-year revision process, not to mention the proliferation of new communications technologies, stakeholders, and media entrepreneurs and the constant market changes as a result of this proliferation.

Today, the biggest problem with the copyright system is that the public interest is not adequately represented in the legislative process,[369] although the need to protect such interest has been repeatedly emphasized in academic circles and the public debate. The situation might change, however, as the computer and consumer electronics industries increasingly align their interests with those of the consuming public. Notwithstanding this change, copyright revision will remain difficult, as it will involve many stakeholders with many different interests.[370] For

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[365] *Id*. at 678.

[366] *Id*. at 698-99.

[367] For comprehensive discussions of the copyright law revision process, see generally LITMAN, DIGITAL COPYRIGHT, *supra* note 8; Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 CORNELL L. REV. 857 (1987).

[368] *See* INFO. INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS (1995).

[369] As the Commission on Intellectual Property Rights explained:

> Too often the interests of the "producer" dominate in the evolution of IP policy, and that of the ultimate consumer is neither heard nor heeded. So policy tends to be determined more by the interests of the commercial users of the system, than by an impartial conception of the greater public good. In IPR discussions between developed and developing countries, a similar imbalance exists. The trade ministries of developed nations are mainly influenced by producer interests who see the benefit to them of stronger IP protection in their export markets, while the consumer nations, mainly the developing countries, are less able to identify and represent their own interests against those of the developed nations.

COMM'N ON INTELLECTUAL PROP. RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY: REPORT OF THE COMMISSION ON INTELLECTUAL PROPERTY RIGHTS 7 (2003).

[370] As the recent National Research Council study explained:

> The debate over intellectual property includes almost everyone, from authors and publishers, to consumers (e.g., the reading, listening, and viewing public), to libraries and educational institutions, to governmental and standards bodies. Each of the

example, consumers expect free and easy access to use copyrighted materials without any restrictions. Publishers are eager to maintain their existing markets. Performers are concerned about their audiences and royalties. And distributors want to protect the continued use of their trucks, warehouses, and workers. It is virtually impossible to align all of these goals and interests. Even if parties were willing to settle for compromises, reaching these compromises would require a Herculean effort, not to mention the fact that many of these parties might leave the negotiation table unsatisfied.

To make things more complicated, any statutory change would upset existing contractual relationships, and it would take a substantial amount of time before such a change can influence contracting behavior.[371] Indeed, when Congress contemplated the enactment of the Digital Performance Right in Sound Recordings Act of 1995, it was reluctant to "upset[] the longstanding business and contractual relationships among record producers and performers, music composers and publishers and broadcasters".[372] As much as it wanted to revise the performance right regime in light of changes in the digital environment, Congress was concerned that the new statute would "rock the boat."

G. *Dispute Resolution Proceeding*

In a recent article, Professors Mark Lemley and Anthony Reese proposed to institute a new dispute resolution proceeding in copyright law. As they described:

> [One] way to reduce the cost of enforcement is to create some sort of quick, cheap dispute resolution system that enables copyright owners to get some limited relief against abusers of p2p systems and to deter others from such abuse. . . . Copyright owners could opt into this administrative dispute resolution system rather than going to court. The system could also be designed to improve precision relative to the essentially binary choice the courts face in indirect infringement cases today. We could design the system so that it is limited to "clear cases"—say uploading more than 50 files to a network in a 30-day period. We could also build in a defense for arguable fair uses, so that a user who could prove she was uploading only out-of-print works, was engaged in critical commentary, or was space-shifting CDs she already owns might have a defense.[373]

To a great extent, this proposal was inspired by the success of the Uniform Domain Name Dispute Resolution Policy[374] (UDRP). Introduced in October 1999, that policy set forth the terms and conditions related to a dispute between the registrant and a third party over the registration and use of a domain name. Under the UDRP, each registrant agrees to participate in a mandatory administrative proceeding when a third party complains to a dispute resolution service provider. The person bringing the case must then prove not only that the registrant's domain name is identical, or confusingly similar to a trademark, or service mark, in which the

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> stakeholders has a variety of concerns . . . that are at times aligned with those of other stakeholders, and at other times opposed. An individual stakeholder may also play multiple roles with various concerns. At different times, a single individual may be an author, reader, consumer, teacher, or shareholder in publishing or entertainment companies; a member of an editorial board; or an officer of a scholarly society that relies on publishing for revenue. The dominant concern will depend on the part played at the moment.

DIGITAL DILEMMA, *supra* note 10, at 51.

[371] *See* Loren, *supra* note 10, at 678.

[372] S. REP. NO. 104-128, at 13 (1995), *reprinted in* 1995 U.S.C.C.A.N. 356, 360.

[373] Mark A. Lemley & R. Anthony Reese, *Reducing Digital Copyright Infringement Without Restricting Innovation*, 56 STAN. L. REV. 1345, 1351-52 (2004).

[374] Uniform Domain Name Dispute Resolution Policy (August 26, 1999), *available at* http://www.icann.org/dndr/udrp/policy.htm.

complainant has rights, but also that the person who registered the domain has no rights to, or legitimate interests in, the domain name and the domain name has been registered and is being used in bad faith.

Since the UDRP entered into force in December 1999, thousands of cases have been filed, and the majority of these cases has been resolved satisfactorily and efficiently. Notwithstanding its simplicity and cost-effectiveness, the policy has been heavily criticized for its procedural weaknesses.[375] Among the criticisms are the selection and composition of the dispute resolution panel, the failure to provide adequate time for a domain name registrant to reply to a complaint, the failure to ensure that the registrant has received actual notice of the complaint, and the registrant's limited access to courts for review when the dispute resolution panel decides against a party. It is small that Professors Lemley and Reese suggested adjustments to the UDRP model in their proposal—for example, by selecting judges in a fair and balanced® way, instituting an administrative appeal process, and imposing sanctions on frivolous or bad-faith claims made by copyright owners.[376]

Notwithstanding these adjustments, the dispute resolution proceeding may raise more concerns and challenges than the UDRP. While the UDRP involves only the transfer of ownership of the domain name to the prevailing trademark holder without incurring any money damages or property losses from the losing domain name registrant, the new proceeding may result in "an award of money damages or . . . [the removal of] infringing material or the infringer . . . from the network."[377] Given the severity of these penalties, any procedural weaknesses inherent in the dispute resolution proceeding are likely to raise more concerns than those inherent in the UDRP. The denial of computer access to "repeat infringers," as proposed, also will raise serious issues concerning human rights and the digital divide, even though such a denial would also serve as a high deterrent to potential high-volume uploaders.

Moreover, the public may still consider the new proceeding unfair. Today, the public considers the RIAA's litigation unfair, largely because the industry's lawsuits target only a small group of file swappers even though a large number of people were swapping files. Although the proposal is willing to limit the proceeding to those who have uploaded more than 50 songs during a 30-day period,[378] i.e., the more egregious offenders, the proposal would remain suspect if a large number of people continue to trade more than 50 songs per month and the process can only target a small number of individuals. After all, trading a total of two songs a day to many different friends is fairly commonplace today, especially among teenagers and college students! Moreover, those who just met the administrative threshold of uploading fifty songs will have to face $12,500 in liability, even though most of the RIAA's current lawsuits have been settled for only thousands of dollars.

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[375] For criticisms of the UDRP, see generally Michael Geist, *Fair.Com?: An Examination of the Allegations of Systemic Unfairness in the ICANN UDRP*, 27 BROOK. J. INT'L L. 903 (2002); A. Michael Froomkin, *ICANN's "Uniform Dispute Resolution Policy"—Causes and (Partial) Cures*, 67 BROOK. L. REV. 605 (2002). *See also* Laurence R. Helfer & Graeme B. Dinwoodie, *Designing Non-national Systems: The Case of the Uniform Domain Name Dispute Resolution Policy*, 43 WM. & MARY L. REV. 141 (2001); A. Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 DUKE L.J. 17 (2000); MILTON MUELLER, ROUGH JUSTICE: AN ANALYSIS OF ICANN'S UNIFORM DISPUTE RESOLUTION POLICY (2003), *available at* http://www.acm.org/usacm/IG/roughjustice.pdf.

[376] Lemley & Reese, *supra* note 373, at 1412.

[377] *Id*.

[378] *Id*. at 1413.

Nevertheless, Professors Lemley and Reese believe the proposed system would be fairer to the alleged infringers if given enough notice and more beneficial to the copyright holders. As they explained:

> Such a system would permit low-cost enforcement of copyright law against direct infringers, reducing the need for content owners to sue facilitators. Relative to levies, a dispute resolution system would trade off some increase in cost for precision, targeting only those making illegal uses rather than all users of computers or p2p networks. It would be more fair than selective criminal or civil prosecution, because the burden of paying the penalty for infringement would fall more evenly on each wrongdoer, rather than imposing stark punishment on a few in order to serve society's interest in deterring the rest.[379]

H. *Alternative Compensation*

When the Internet became popular in the mid-1990s, many commentators questioned the viability of the existing copyright model in the digital world. In a widely-circulated article in *Wired* Magazine,[380] John Perry Barlow discussed how digitalization has made the existing intellectual property model obsolete and irrelevant. As he wrote:

> [T]he accumulated canon of copyright and patent law[] was developed to convey forms and methods of expression entirely different from the vaporous cargo it is now being asked to carry. It is leaking as much from within as from without.
>
> Legal efforts to keep the old boat floating are taking three forms: a frenzy of deck chair rearrangement, stern warnings to the passengers that if she goes down, they will face harsh criminal penalties, and serene, glassy-eyed denial.
>
> Intellectual property law cannot be patched, retrofitted, or expanded to contain digitized expression any more than real estate law might be revised to cover the allocation of broadcasting spectrum (which, in fact, rather resembles what is being attempted here). We will need to develop an entirely new set of methods as befits this entirely new set of circumstances.[381]

Thus, some commentators have called for the abolition of copyright in the digital world and the use of alternative schemes to compensate authors and artists. As commentators noted, online distribution has allowed artists to distribute music directly to consumers without any intermediary. Once digital content becomes unbundled, these commentators argued, artists might become better off in a copyright-less world, as the current system tends to reward popular, non-marginal works more than their market values.[382] After all, the manufacturing, marketing, and distribution costs are very high under the old brick-and-mortar business model, and the vast majority of artists do not receive any royalties from the sale of their music.[383]

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[379] *Id*. at 1352.

[380] Barlow, *supra* note 10.

[381] *Id*.; *see also* Ku, *supra* note 10, at 294 (contending that "the economics of digital technology renders copyright both unnecessary and inefficient"); *cf*. Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies and Computer Programs*, 84 HARV. L. REV. 281 (1970) (discussing how the economics of publishing may render copyright protection of published works unnecessary); Robert M. Hurt & Robert M. Schuchman, *The Economic Rationale of Copyright*, 56 AM. ECON. REV. PAPERS & PROCS. 42 (1966) (expressing skepticism about the economic rationale of copyright).

[382] Lunney, *supra* note 10, at 886.

[383] As Professor Ku explained:

> Unbundling the incentives for the creation and dissemination of music exposes the myth that copyright plays much of a role in encouraging the creation of music. The relative importance of copyright to creators and distributors is most evident when one considers the fact that even with copyright protection, the vast majority of musical artists do not earn any income in the form

So far, three alternative schemes have received substantial interest: (1) patronage model, (2) ancillary service model, and (3) home production model. Long before the copyright model was adopted, the patronage system supported creation of music and cultural works with funds from the Church, monarchs, and nobles.[384] Consider the famous music composer Johann Sebastian Bach, for example. As noted economist F.M. Scherer recounted in his new book, *Quarter Notes and Bank Notes*:

> Bach provides the archetype of how composers earned their living in the early eighteenth century. His entire adult life was spent as an employee—first as organist at churches in Arnstadt and Mühlhausen, then as organist and director of court music for the Duke of Weimar and prince of Köthen, and finally as cantor and director of music for the Thomasschule (School of St. Thomas) and four affiliated Leipzig churches. Like many employed composers of his time, he moonlighted in activities outside his main sphere of employment, dedicating compositions to hoped-for patrons, publishing (at his own expense) a few of his works, holding private lessons, inspecting new organs installed in other towns, and most importantly, between 1729 and 1741, directing an unofficial Leipzig orchestra, the Collegium Musicum, which charged admission for the concerts it regularly held in Zimmermann's coffee house during the winter and a coffee garden during the summer. Bach's Collegium Musicum association became important enough to lead Christoph Wolff . . . to conclude that "Toward the end of his life Bach came astonishingly close to the romantic ideal of the freelance artist."[385]

Although composers at that time sometimes "moonlighted" as freelance artists, "[i]t is reasonably well accepted that at the outset of the eighteenth century, most musicians creative enough to be composers were employed either by the nobility or by the church."[386] Whenever they needed support to compose new works, they always turned to their patrons. In the case of Bach, "his compositions for and direction of the Collegium remained secondary to his salaried church and school duties."[387]

The patronage model seems anachronistic today, and most countries no longer have monarchs or nobles to provide the needed support. However, we can still set up a reward system to provide authors with needed incentives. Indeed, many commentators have proposed the

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> of royalties from the sale of music. In fact, not only do musicians rarely earn royalties from the sale of CDs, they are often in debt to the recording industry for the costs of manufacturing, marketing, and distributing their music. Recording companies typically charge the artist for all the costs of production, marketing, promotion, and other expenses, including breakage—a holdover from when albums were made from vinyl. Even in today's digital world, in which the cost of digital distribution is nonexistent, some record labels have demanded that artists surrender even larger portions of their royalties for the cost of encoding the song to digital format, encryption, and digital delivery. As one report indicates, an artist must typically sell a million copies of a CD before she receives any royalties because record companies deduct the costs of production, marketing, promotion, and other expenses from the musician's royalties. Meanwhile, the same million copies will have earned the record company approximately $11 million in gross revenue and $4 million net. The income to most artists from performance and mechanical rights for songwriting and composing from the sale of music are similarly insignificant.

Ku, *supra* note 10, at 306-07 (footnotes omitted).

[384] *See generally* F.M. SCHERER, QUARTER NOTES AND BANK NOTES: THE ECONOMICS OF MUSIC COMPOSITION IN THE EIGHTEENTH AND NINETEENTH CENTURIES (2003) (examining the political, intellectual, and economic roots of the shift of music composers from the patronage system to a freelance market). See also Michael W. Carroll, *Whose Music Is It Anyway? How We Came to View Musical Expression as a Form of Property*, 72 U. CIN. L. REV. (forthcoming 2004) for a history of legal protection of musical works.

[385] SCHERER, *supra* note 384, at 3.

[386] *Id*. at 1.

[387] *Id*. at 3.

reinstitution of such a system.[388] This system, nevertheless, is likely to be problematic, as it tends to reward creation of works preferred by the social elites, rather than the public.[389]

The problems will be further intensified if government funding is involved. First and foremost, no government leaders will be excited about raising taxes. Given the fact that we have many more pressing concerns, it is very unlikely that the public would support an adequate allocation of government tax revenues for creative activities.[390] Indeed, it might be more efficient for the government to allocate resources to only those activities that the market is unlikely to reward or use those resources to facilitate greater information technology deployment.[391]

Moreover, as we learned from past experience, there is an inherent tension between freedom of expression and undue influence on government-funded works. Recent controversies in the United States include the Brooklyn Arts Museum case[392] and *National Endowment for the Arts v. Finley*.[393] As Professor Neil Netanel noted, in our democratic society where free speech and free press are paramount, "there remain substantial benefits to funding the creation and dissemination of many expressive works, and to funding them from sources other than state subsidy, corporate munificence, and party patronage."[394]

Alternatively, artists can use revenues from live concert performances, commercials, and movies to supplant royalties. As industry veteran Esther Dyson wrote insightfully in the *Wired* Magazine:

> Chief among the new rules is that "content is free." While not all content will be free, the new economic dynamic will operate as if it were. In the world of the Net, content (including software) will serve as advertising for services such as support, aggregation, filtering, assembly and integration of content modules, or training of customers in their use.

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[388] *See* ECKERSLEY, *supra* note 10 (proposing a reward system based on virtual markets). *But see* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 80-83 (criticizing the creation of government rewards). Most of the existing discussions of the reward system in legal literature focus on patents. *See, e.g.*, Michael Abramowicz, *Perfecting Patent Prizes*, 56 VAND. L. REV. 115 (2003); Steve P. Calandrillo, *An Economic Analysis of Property Rights in Information: Justifications and Problems of Exclusive Rights, Incentives to Generate Information, and the Alternative of a Government-run Reward System*, 9 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 301 (1998); Nancy Gallini & Suzanne Scotchmer, *Intellectual Property: When Is It the Best Incentive System?*, *in* INNOVATION POLICY AND THE ECONOMY 2 (Adam B. Jaffe et al. eds, 2002); Douglas Gary Lichtman, *Pricing Prozac: Why the Government Should Subsidize the Purchase of Patented Pharmaceuticals*, 11 HARV. J.L. & TECH. 123 (1997); Michael Polanvyi, *Patent Reform*, 11 REV. ECON. STUD. 61 (1944); Steven Shavell & Tanguy van Ypersele, *Rewards Versus Intellectual Property Rights*, 44 J.L. & ECON. 525 (2001).

[389] As Professor Marci Hamilton noted:

> If the class of creators were winnowed down to the rich and the government-sponsored, and the free market were thus to be replaced by a patronage system, the ability of art to speak to the American people would dwindle precipitously. Artistic works would cater to elites; classical music might survive, but rock and country would encounter grave difficulties.

Marci Hamilton, *Why Suing College Students for Illegal Music Downloading Is the Right Thing to Do*, FINDLAW'S WRIT: LEGAL COMMENTARY, Aug. 5, 2003, *at* http://writ.news.findlaw.com/hamilton/20030805.html.

[390] *See* FISHER, *supra* note 10; Netanel, *Noncommercial Use Levy*, *supra* note 10, at 81. *But see* ECKERSLEY, *supra* note 10, at 46 (arguing that the coincidence of interests between the public and key entertainment lobby groups might alleviate the natural tendency of governments to under-fund services).

[391] *See* Netanel, *Noncommercial Use Levy*, *supra* note 10, at 82.

[392] David Barstow, *Giuliani Ordered to Restore Funds for Art Museum*, N.Y. TIMES, Nov. 2, 1999, at A1; Ralph Blumenthal & Carol Vogel, *Museum Says Giuliani Knew of Show in July and Was Silent*, N.Y. TIMES, Oct. 5, 1999, at B1.

[393] 524 U.S. 569 (1998); *see also* Symposium, *Art, Distribution & the State: Perspectives on the National Endowment for the Arts*, 17 CARDOZO ARTS & ENT. L.J. 705 (1999). *See generally* Marci A. Hamilton, *Art Speech*, 49 VAND. L. REV. 73 (1996) (arguing that representative democracy demands means of challenging government and that art performs this function in a singular way).

[394] Netanel, *Noncommercial Use Levy*, *supra* note 10, at 76; *see also* Neil Weinstock Netanel, *The Commercial Mass Media's Continuing Fourth Estate Role*, *in* THE COMMODIFICATION OF INFORMATION 317 (Niva Elkin-Koren & Neil Weinstock Netanel eds., 2002).

> Intellectual property that can be copied easily likely will be copied. It will be copied so easily and efficiently that much of it will be distributed free in order to attract attention or create desire for follow-up services that can be charged for.[395]

This is indeed the model used by the band The Grateful Dead, who gave away their music by letting audiences tape their concert performances.[396] Likewise, artists in countries that have limited copyright protection have been supporting themselves by earning additional incomes through other professional ventures, such as movies, commercials, and endorsements. If musicians are half as entrepreneurial as director George Lucas, they also might earn secondary rights through merchandising or exploitation of their likenesses and on-stage persona.[397] Indeed, as recent examples demonstrated, "file trading can spur demand for live public performances, broadcasts, webcasts, merchandising, and commercial licensees [sic],"[398] as well as CDs, DVDs, and other musical products.[399]

Unfortunately, the ancillary service model tends to favor those artists and musicians who can sell performances and products. As a result, there is no guarantee that this model would create better music. In fact, this model might favor good-looking artists with limited music talents over those who have mediocre looks, but very strong music talents. In this era of blockbuster shows, the pop music audience might prefer perfection and entertainment to authenticity.[400] The ancillary service model therefore might give more rewards than it deserves

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[395] Dyson, *supra* note 10; *see also id*. (noting that "[t]he creator who writes off the costs of developing content immediately—as if it were valueless—is always going to win over the creator who can't figure out how to cover those costs").

[396] As The Grateful Dead's former lyricist John Perry Barlow wrote:

> [T]here is no question that the band I write [songs] for, the Grateful Dead, has increased its popularity enormously by giving them away. We have been letting people tape our concerts since the early seventies, but instead of reducing the demand for our product, we are now the largest concert draw in America, a fact that is at least in part attributable to the popularity generated by those tapes.
>
> True, I don't get any royalties on the millions of copies of my songs which have been extracted from concerts, but I see no reason to complain. The fact is, no one but the Grateful Dead can perform a Grateful Dead song, so if you want the experience and not its thin projection, you have to buy a ticket from us. In other words, our intellectual property protection derives from our being the only real-time source of it.

Barlow, *supra* note 10.

[397] *See* Ku, *supra* note 10, at 309-10 (citing George Lucas to illustrate how "secondary markets can be more lucrative [for the artist] than the right to reproduce and distribute content"); *see also* Peter K. Yu, Note, *Fictional Persona Test: Copyright Preemption in Human Audiovisual Characters*, 20 CARDOZO L. REV. 355, 356-57 (1998) (describing merchandising as "a multi-billion dollar business"). As Professor Raymond Ku pointed out:

> The vast majority of artists do not earn their income from the sale and distribution of music. Rather, they earn their income from the fame and publicity that go with the distribution of music. Ticket sales, T-shirt sales, and commercial endorsements are all a function of an artist's popularity. By facilitating the distribution of music, [P2P networks] and the Internet in general can be useful tools for increasing an artist's ability to earn revenue as a result of fame. This is especially beneficial to new or non-mainstream artists who are otherwise unable to capture the public's attention through more traditional media.

Ku, *supra* note 10, at 311.

[398] Netanel, *Noncommercial Use Levy*, *supra* note 10, at 49.

[399] *See* DIGITAL DILEMMA, *supra* note 10, at 79; *cf.* OBERHOLZER & STRUMPF, *supra* note 14 (showing that file sharing has only had a limited effect on record sales).

[400] When interviewed about Beyoncé's partial lip-synched performance in the 2003 MTV Video Music Awards, in which she began her performance by descending head first from the ceiling, an audience member responded, "Tell me, who can sing hanging on a harness upside-down? I'd rather her not ruin my favorite song and just put on a good show." Chris Nelson, *Lip-Synching Gets Real*, N.Y. TIMES, Feb. 1, 2004, § 2, at 1. Interestingly, lip-synching began as a result of union regulations. As historian Marc Weingarten explained:

> No one could quite figure out what sort of royalties singers deserved for a live TV performance, so in the early days they just faked it. Later, the practice continued out of sheer expediency. On "American Bandstand" and most variety shows of the 1960's, vocals and instrumentals were all faked; Keith Moon, the drummer for the Who, famously registered his contempt for the custom by flubbing his part on the Smothers Brothers' show.

Id. (quoting MARC WEINGARTEN STATION TO STATION: THE SECRET HISTORY OF ROCK 'N' ROLL ON TELEVISION (2000)).

to lip-synched performances, pre-recorded sounds, and high-tech tricks that correct artists' vocal errors.

The final model is home production. Indeed, digital technology and the Internet have enabled every artist and musician to become a composer, sound engineer, producer, publisher, and distributor (or even critic). Such technology also has greatly improved the quality of the copyrighted work. Using computer game engines, for example, users can now make their own feature *machinima* movies without the need to buy any costly equipment, rent spectacular locations, or hire glamorous actors.[401] By doing so, users also can determine how they want to distribute the movie and whether they want to release it for free.

However, not everybody is satisfied with the quality of home production. While it is debatable whether one needs to spend hundreds of millions of dollars to produce a song, or a movie, it is uncontestable that home-made music and movies would not satisfy all of the existing public demand. In fact, a multi-million-dollar venture like *The Lord of the Rings* might be a good idea, as it received both box office success and wide international acclaim.[402]

In sum, there are many alternative models, and these models provide insightful ways to address the unauthorized copying problem. Nevertheless, commentators and copyright holders remain skeptical of these untested models and would rather not rock the boat, as our culture is supported by copyrighted works and thus has an intertwining relationship with the existing copyright system. Until we have a better model to protect copyrights, the prevalent wisdom is to maintain the status quo, rather than to implement new, untested ideas. As Fritz Machlup remarked famously regarding the patent system:

> If we did not have a patent system, it would be irresponsible, on the basis of our present knowledge of its economic consequences to recommend instituting one. But since we have had a patent system for a long time, it would be irresponsible, on the basis of our present knowledge, to recommend abolishing it.[403]

I. *Summary: The Need for a Range of Solutions*

Each of the above solutions has its benefits and limitations, and each of them targets only part of the unauthorized copying problem. Thus, it might be wise for policymakers to adopt a combination of these proposals, rather than a single one, to alleviate the unauthorized copying

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[401] *See* Matthew Mirapaul, *Computer Games as the Tools for Digital Filmmakers*, N.Y. TIMES, July 22, 2002, at E2. As *The New York Times* described:

> A digital Walt Disney who wants to make a machinima film will start with a game engine, the software that generates the virtual 3-D environment in which a game like Quake II is played. This is not unusual because some game developers have made parts of their software publicly accessible, allowing players to modify a game. For instance, one might put a terrorist's head on an opponent's body.
>
> But machinima directors go a step further, discarding the game's out-of-the-box elements in favor of their own characters, scenery, story line and dialogue. What remains is the game's underlying animation technology, which is really a stage on which an alien Amberson or a cartoon cat person could cavort. More than one person can use the same virtual space simultaneously, each one guiding his character through a scene while speaking its lines. A designated cinematographer chooses camera angles, adjusts the lighting and records the action.

Id.

[402] Sharon Waxman, *'Lord of the Rings' Dominates the Oscars*, N.Y. TIMES, Mar. 1, 2004, at E1 (reporting that the *Lord of the Rings* "has taken in a billion dollars at the box office" while taking the Oscars for best picture, best director, film editing, art direction, visual effects, makeup, sound mixing, costume design, best adapted screenplay, best original score, and best original song).

[403] FRITZ MACHLUP, AN ECONOMIC REVIEW OF THE PATENT SYSTEM, STUDY NO. 15 OF THE SUBCOMM. ON PATENTS TRADEMARK AND COPYRIGHT OF THE S. COMM. ON THE JUDICIARY 80 (1958).

problem. For example, some European countries combine the compulsory licensing model with the alternative compensation model by setting aside a certain percentage of the levy funds for specified social and cultural purposes and nurturing new authors.[404] In a recent article, Professor Jessica Litman also combined three of the above proposals to form her own:

> I suggest that we should try to build a music space that resembles the current digital information space in the ubiquity of music it contains and the ease with which music may be shared, and that we should devise a combination of blanket fees or levies designed to compensate the creators of the music we exchange. In order to achieve the breadth and diversity of music, and the community of consumers who enjoy it, that has evolved in the Internet information space, we will need to rely on consumer-to-consumer dissemination as well as licensed downloads or streams. If we as consumers want to pay for the music we exchange, we need some form of blanket fee or levy to enable us to do so. Because some creators and copyright owners find the idea of consumer-to-consumer dissemination unacceptable, I suggest that we devise a way to allow them to withhold their music from the system. To discourage them from electing that option, I believe we should optimize the legal infrastructure for sharing. I've drawn the details of that infrastructure with an eye toward recapturing some of the lost advantages of notice and indivisibility.[405]

While Professor Litman's proposal encourages copyright holders to participate in the system, it also allows them to choose what they want. In particular, the proposal includes an opt-out mechanism that allows copyright holders to utilize digital rights management to "exclude their works from the network and enable consumers to quickly and painlessly verify that those works may not lawfully be shared."[406] As Professor Litman explained, not everybody wants to participate in a consumer-to-consumer model, and the Copyright Act grants copyright holders the right to withhold their works from distribution in a manner they find inefficient, inexpedient, and unacceptable. It is therefore important that the solution, or solutions, policymakers select allow record companies to determine whether they want to participate or withhold their music from the system.[407]

There is simply no panacea for the unauthorized copying problem. If the industry is to reduce the threat created by P2P technologies, the industry must understand each of the above models and think hard about how best to apply them in light of its needs, goals, and interests. The industry also must take into account the decentralized nature of P2P networks, the evolving technology, and the ever-changing market structure. Instead of offering one solution, policymakers should consider a range of solutions. As Professor David Post put it passionately: "The invisible hand may have many deficiencies, but the one thing that it does best—far better than any alternative of which I am aware—is to place before members of the public a diverse set of offerings in response to the diverse needs and preferences of that public."[408]

The "ultimate" solution—or, to be more precise, the ultimate set of solutions—to the unauthorized copying problem is likely to include the following characteristics. First, the solution will include both short-term and long-term measures. Some of the above proposals are

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[404] *See* Lunney, *supra* note 10, at 915.

[405] Litman, *Stealing and Sharing*, *supra* note 10.

[406] *Id*.

[407] *Id*. (noting the importance that the system "adopt[s] a legal architecture that encourages but does not compel copyright owners to make their works available for widespread sharing over digital networks").

[408] David G. Post, *What Larry Doesn't Get: Code, Law, and Liberty in Cyberspace*, 52 STAN. L. REV. 1439, 1440, 1454 (2000) [hereinafter Post, *What Larry Doesn't Get*].

short-term by nature and are unlikely to result in any change of social norms in the digital copyright world. Nevertheless, these proposals are important, because they will pave the way for measures that require more time, effort, and resources, such as public education and market development. If the industry is to stem digital piracy, it must implement both short-term and long-term measures.

Second, many of the proposals are only temporary, and these "interim fixes" might become obsolete as technology evolves. The industry therefore must be prepared to migrate from one regime to another, or even adjust to living with many different regimes at the same time. As Professor Lawrence Lessig cautioned us in his new book, *Free Culture*:

> Policy makers should not make policy on the basis of technology in transition. They should make policy on the basis of where the technology is going. The question should not be, how should the law regulate sharing in this world? The question should be, what law will we require when the network becomes the network it is clearly becoming? That network is one in which every machine with electricity is essentially on the Net; where everywhere you are—except maybe the desert or the Rockies—you can instantaneously be connected to the Internet. Imagine the Internet as ubiquitous as the best cell-phone service, where with the flip of a device, you are connected.
>
> . . . .
>
> The "problem" with file sharing—to the extent there is a real problem—is a problem that will increasingly disappear as it becomes easier to connect to the Internet. And thus it is an extraordinary mistake for policy makers today to be "solving" this problem in light of a technology that will be gone tomorrow. The question should not be how to regulate the Internet to eliminate file sharing (the Net will evolve that problem away). The question instead should be how to assure that artists get paid, during this transition between twentieth-century models for doing business and twenty-first-century technologies.[409]

As technologies advance, P2P technology might not be as important and threatening. While P2P technologies require computers, M2M (mobile-to-mobile) technologies require only cellular telephones, which are far more widely available than computers, especially in less developed countries. Moreover, technologies that allow individuals to transfer copyrighted works from one entertainment system to another system are likely to become widely available in the near future. If policymakers focus only on today's technologies, they will always be behind the technology and can only play catch-up. This catch-up game becomes even more problematic if one takes into account the drastically different paces between technological development and the legal drafting process.

Thus, it is no surprise that the European Union included some flexibility in the Directive 2001/29/EC of the European Parliament and of the Council on the Harmonisation of Certain Aspects of Copyright and Related Rights in the Information Society, which took into account the interim nature of legislative solutions and the possibility of multiple solutions. Article 5.2(b) of

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[409] LAWRENCE LESSIG, FREE CULTURE 297-99 (2004). In an earlier article written in the early days of the Internet, Professor Lessig made a similar point, which Justice Souter found helpful in *Denver Area Educational Telecommunications Consortium, Inc. v. FCC*, 518 U.S. 727, 777 (1996) (Souter J., concurring) (quoting Lawrence Lessig. *The Path of Cyberlaw*, 104 YALE L.J. 1743, 1754 (1995)). As Professor Lessig wrote:

> [I]f we had to decide today, say, just what the First Amendment should mean in cyberspace, my sense is that we would get it fundamentally wrong. . . . A prudent Court would let these issues evolve, long into this revolution, until the nature of the beast became a bit more defined. If there is sanction to intervene, then it is simply to assure that the revolution continue, not to assure that every step conforms with the First Amendment as now understood.

Lessig. *The Path of Cyberlaw*, *supra*, at 1745, 1754.

the Directive stipulated specifically that the calculation of the amount of fair compensation must take into account both "application [and] non-application of technological measures."[410] As Professor Bernt Hugenholtz and his colleagues explained, "This provision suggests a gradual phasing-out of levies on digital media or equipment, as digital rights management systems enable content owners to control private copying, and set conditions of private use, at their discretion."[411]

Third, in crafting the solution, the industry must take into account the Internet's structural resistance and networked feature. The Internet architecture can constrain illegal activities, but it also can make otherwise legal activities difficult, costly, or even impossible. For example, a proposal that imposes bandwidth levies based on usage volume might not necessarily reduce the cross-subsidization problem associated with compulsory or voluntary collective licenses.[412] Instead, it might create distortionary effects that favor the consumption of low-bandwidth media, such as text files, over high-bandwidth media, such as music or movie files.[413] Such a proposal also would force those who share home-made movies with their friends to subsidize—and at times subsidize heavily—those downloading copyrighted songs and movies.

Policymakers should also consider the changing social norms in the digital copyright world and create solutions that meet the needs of consumers—oftentimes, the need for them to conduct activities they have been conducting in real space. As one would recall, "Napster . . . was created . . . to solve the problem faced by Shawn Fanning's roommate. The technological solutions had a purpose—someone had actually requested it."[414] Napster was attractive, because it was created as a market solution to a real problem. It responded to the market, rather than chasing it!

Moreover, consumers might be willing to pay more money if the product or service is more satisfactory and if it allows consumers to conduct activities they otherwise would be able to under the current regime. As Professor Stan Liebowitz illustrated:

> Assume that each and every purchaser of a compact disc makes a single audio-cassette copy to play in their automobile. No one makes copies from borrowed CDs. Assume further that this copying, although illegal, is unstoppable. . . . . Since each original CD will have a copy made from it, and since it is reasonable to infer that the consumers of originals place some value on the ability to make a copy, each consumer's willingness to pay for the original CD is higher than it would otherwise be. The copyright owner can capture some of this additional value by charging a higher price for the CD. This is the basic idea behind indirect appropriability. The logic here is the same as it would be for any durable good that can be

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[410] EC Information Society Directive, *supra* note 273, art. 5.2(b).
[411] HUGENHOLTZ ET AL., *supra* note 273, at ii.
[412] See discussion *supra* Part III.A for a discussion of the cross-subsidization problem.
[413] *See* ECKERSLEY, *supra* note 10, at 15.
[414] As one commentator explained:

> People wanted something like Napster—so Fanning did his best to come up with the goods. It is a rare example of supply matching demand in technology, which is why Napster simply cannot be ignored. Usually supply comes first and then its creators wonder why the general public isn't smart enough to understand its potential. Suppliers often whine that the public doesn't understand their product or service and "needs educating" but at the end of the day the public will buy only those things that improve the quality of their lives, or save them time or money.

TREVOR MERRIDEN, IRRESISTIBLE FORCES: THE BUSINESS LEGACY OF NAPSTER & THE GROWTH OF THE UNDERGROUND INTERNET 170 (2001).

> resold into another market. If automobiles could be resold, for example, the price that consumers would be willing to pay for new autos would undoubtedly fall.[415]

Shortly before the dot-com crash, a few visionary, and ironically now-defunct, companies put forward some exciting ideas about services that were well tailored to consumer needs. For example, musicmaker.com allowed users to create their own custom-made compilation CDs by selecting tracks from different artists.[416] After selection, the company would manufacture the custom-made CDs and ship them to their customers. Hithive.com allowed customers to invite up to twenty-five of their friends to listen to selected recordings for a limited time while preventing users from distributing copies.[417] And Mojo Nation required users to contribute resources to the community to earn Mojo, the currency used in file-sharing transactions.[418] By doing so, the service induced accountability and responsibility while ridding the network of freeloaders.

Today, the recording industry is trying very hard to reinvent itself. Unlike a few years ago, consumers now have many more choices. Instead of a prix-fixe menu, consumers can now select from both a prix-fixe and an à la carte menu.[419] Eventually, however, they will demand "all you can eat,"[420] or even a potluck. Even though the recording industry lately has shifted from the album model to the singles model, it has yet to fully embrace the licensing model by putting together reasonably-priced tailor-made subscription packages that meet the needs of its customers. Until the industry satisfies consumer needs, illegal online file trading—whether through existing P2P networks or the underground Darknet—is likely to continue.

IV. RETHINKING THE UNAUTHORIZED COPYING PROBLEM

Since the emergence of the Internet and new communications technologies, commentators have devised many new frameworks to rethink regulation of cyberspace and recent expansion of intellectual property rights. For example, David Johnson and Professor David Post proposed a new framework that allowed Internet users to create new laws and institutions best suited to their needs and customs.[421] Professor Lawrence Lessig emphasized the regulatory power of code and explained how the Internet's architecture can affect the enjoyment of our freedom and fundamental rights in the ethereal space.[422] Professor James Boyle alerted us to the increasing privatization of the public domain and called for a new politics of intellectual property.[423]

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[415] LIEBOWITZ, *supra* note 232, at 151 (footnote omitted).

[416] *See* MERRIDEN, *supra* note 414, at 114.

[417] *See id*.

[418] *See id*. at 138-39 (describing Mojo Nation).

[419] As Hillary Rosen, former chairman of the RIAA, noted:

> I used to say that the record business was like a soft-drink company that sold its products in nothing but 64-ounce bottles, because our product was principally the full-length album. Well, thanks to electronic distribution through multiple types of networks with varied business models, we now have the equivalent of cans and six-packs and fountain drinks. Consumers can buy digital music à la carte or sign up for subscription services offering unlimited downloads, and they can take their tunes with them wherever they go.

Hillary Rosen, *Why the Industry Loves Tech*, BUSINESS 2.0, May 2003, *quoted in* COMMITTEE FOR ECONOMIC DEVELOPMENT, *supra* note 231, at 70.

[420] Shirky, *supra* note 315, at 33 (discussing the all-you-can-eat model).

[421] *See* David R. Johnson & David G. Post, *Law and Borders—The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996).

[422] *See* LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (Basic Books 1999).

[423] *See* James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87 (1997); *see also* Boyle, *The Public Domain*, *supra* note 8.

Very few commentators, however, have come up with ideas about how to rethink the unauthorized copying problem. Thus, this Part presents three thought experiments that compare the ongoing P2P file-sharing wars to (1) a self-preservation battle between humans and machines, (2) an imaginary World War III, and (3) the conquest of Generation Y. These experiments and comparisons seek to remind readers that law is only a partial solution to the unauthorized copying problem; instead, policymakers also need to focus on the market, architecture, and social norms, which play equally important roles in crafting the "ultimate solution" to the unauthorized copying problem.

As Professor Lessig noted in *Code and Other Laws of Cyberspace*, the interplay of these four factors affects human behavior in cyberspace.[424] As he explained:

> The[se] constraints are distinct, yet they are plainly interdependent. Each can support or oppose the others. Technologies can undermine norms and laws; they can also support them. Some constraints make others possible; others make some impossible. Constraints work together, though they function differently and the effect of each is distinct. Norms constrain through the stigma that a community imposes; markets constrain through the price that they exact; architectures constrain through the physical burdens they impose; and law constrains through the punishment it threatens.[425]

In the P2P context, each of these constraints exerts its influence, and each of them plays an equally important role (see fig. 1). None of them, however, is dispositive. Sometimes the law is more influential, while at other times the architecture takes control. Thus, it is very important that policymakers and commentators take a holistic perspective of the P2P file sharing controversy, considering all four constraints together. Hopefully, by doing so, they will be able to develop new solutions that target the crux of the unauthorized copying problem.

[424] *See* LESSIG, CODE, *supra* note 422, at 86-89.
[425] *Id*. at 88.

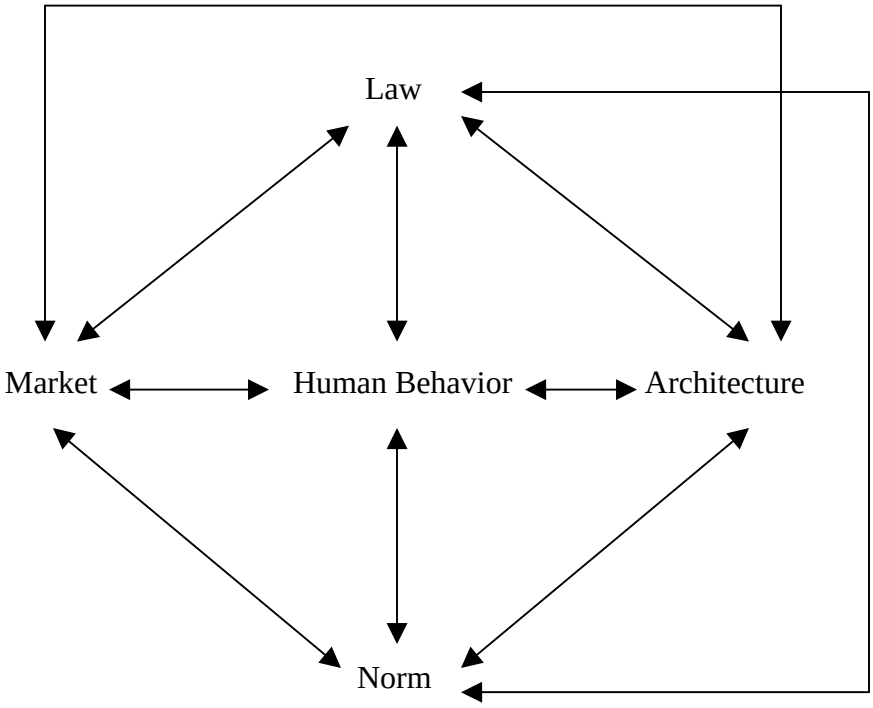

Fig. 1 Constraints on Behavior in Cyberspace

A. *Battle Between Humans and Machines*

The P2P file-sharing wars resemble a self-preservation battle between humans and machines. Today, computers, digital technology, and file-sharing networks are disrupting the existing distribution model, threatening to take away hundreds of thousands of human jobs.[426] Through the Internet and P2P technologies, music can now be distributed directly from artists to consumers. Intermediaries are no longer needed, and factories, warehouses, delivery trucks, and record stores have become largely redundant.[427] To protect machines from taking over jobs, the entertainment industry must engage in one final battle; this battle might not be popular among technophiles, but it is important for human survival. After all, humans might not be able to get these jobs back once machines take them over.

This picture, to some extent, reflects the woes and mindset of the entertainment industry. However, it does not reflect a complete picture. True, humans are losing jobs to machines. Yet, the digital revolution has created many new ones. This revolutionary process is what Joseph Schumpeter described as "creative destruction"[428]—a revolutionary process through which the

[426] *See* Simon Beavis, *Record Firms Threaten Big Employers with Action to Combat Piracy*, INDEPENDENT (London), Jan. 21, 2003, at 19 (reporting that the head of the International Federation of the Phonographic Industry (IFPI) had indicated that music piracy had threatened 600,000 jobs in the European music industry).

[427] It is no surprise that Tower Records filed for bankruptcy in February 2004. *See* Janny Scott, *Big Music Retailer Is Seeking Bankruptcy Protection*, N.Y. TIMES, Feb. 10, 2004, at C1 (reporting Tower Records' filing for Chapter 11 bankruptcy protection).

[428] JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 81 (Harper Collins 1975). As Professor Ku explained:

> [Creative destruction] "strikes not at the margins of the profits and the outputs of existing firms but at their foundations and their lives." In this process of creative destruction, digital technology and the Internet strike at the foundation of copyright and

old economic structure is destroyed while the foundations of a new structure are being built simultaneously. As Professor Schumpeter declared in his seminal work, *Capitalism, Socialism, and Democracy*:

> Capitalism . . . is by nature a form or method of economic change and not only never is but never can be stationary. And this evolutionary character of the capitalist process is not merely due to the fact that economic life goes on in a social and natural environment which changes and by its change alters the data of economic action; this fact is important and these changes (wars, revolutions and so on) often condition industrial change, but they are not its prime movers. Nor is this evolutionary character due to a quasi-automatic increase in population and capital or to the vagaries of monetary systems, of which exactly the same thing holds true. The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers, goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates.[429]

One perhaps might still remember Jack Valenti's widely-cited, yet incorrect prediction that the videocassette recorder "is to the American film producer and the American public as the Boston Strangler is to the woman alone."[430] Videocassettes not only have not strangled the motion picture industry, but transformed it by bringing new revenues and business opportunities.[431] P2P networks might do the same. Instead of strangling the entertainment industry and threatening the creation of copyrighted works, these networks might open new markets, create new niches and products, and attract new audiences.[432]

Every time a new technology emerges, it is inevitable that some jobs will be lost. In the past century, we have seen hundreds of thousands of jobs disappear in the automobile, coal, rubber, and steel industries. Consider the steel industry, for example.[433] Today, the industry faces serious competition from manufacturers in Europe, Asia, and South America.[434] Cost-

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> the industries built upon copyright by eliminating the need for firms to distribute copyrighted works and for exclusive property rights to support creation.

Id. at 269 (quoting SCHUMPETER, *supra*) (footnote omitted).

[429] *Id*. at 82-83.

[430] *Hearings Before the Subcomm. on Courts, Civil Liberties, and the Administration of Justice of the House Comm. on the Judiciary*, 97th Cong. (1982) (testimony of Jack Valenti, President of the MPAA).

[431] Copyright holders are always paranoid about the threat of new technologies:

> In 17th century England, the emergence of lending libraries was seen as the death knell of book stores; in the 20th century, photocopying was seen as the end of the publishing business, and videotape the end of the movie business. Yet in each case, the new development produced a new market far larger than the impact it had on the existing market. Lending libraries gave inexpensive access to books that were too expensive to purchase, thereby helping to make literacy widespread and vastly increasing the sale of books. Similarly, the ability to photocopy makes the printed material in a library more valuable to consumers, while videotapes have significantly increased viewing of movies. But the original market in each case was also transformed, in some cases bringing a new cast of players and a new power structure.

DIGITAL DILEMMA, *supra* note 10, at 78-79 (citations omitted).

[432] As the recent National Research Council study explained:

> Some suggest that the ability to download music will increase sales by providing easy purchase and delivery 24 hours a day, opening up new marketing opportunities and new niches. For example, the low overhead of electronic distribution may allow artists themselves to distribute free promotional recordings of individual live performances, while record companies continue to focus on more polished works for mass release. Digital information may also help create a new form of product, as consumers' music collections become enormously more personalizable (e.g., the ability to create personalized albums that combine individual tracks from multiple performers).

Id. at 79.

[433] *See generally* PHILIPPE LEGRAIN, OPEN WORLD: THE TRUTH ABOUT GLOBALIZATION 26-31 (2002) (describing the woes of the U.S. steel industry).

[434] In March 2002, the Bush Administration imposed tariffs of up to thirty percent on steel imported from Europe, Asia, and South America to provide short-term relief to struggling American steel makers. David E. Sanger, *Bush Puts Tariffs of as Much as 30% on Steel Imports*, N.Y. TIMES, Mar. 6, 2002, at A1. A year later, the WTO Dispute Settlement Panel declared that the tariffs violated the WTO Agreement on Safeguards. United States—Definitive Safeguard Measures on Imports of Certain Steel Products—Final Reports of

saving technology and new blast furnaces also reduce the demand for steel workers. With less than an eighth of the original workforce, steel manufacturers can now produce almost as much steel as they did thirty years ago.[435] As a result, employees had to be laid off, families were torn apart, and others had to relocate to look for new jobs. Some of the less fortunate ones even became homeless and were forced to survive on welfare benefits.

Transition is never easy and always painful. Nevertheless, no matter how painful it is, there is no legal entitlement to an old business model or jobs. As science fiction writer Robert Heinlein wrote insightfully in *Life-Line*, his first short story:

> There has grown up in the minds of certain groups in this country the notion that because a man or a corporation has made a profit out of the public for a number of years, the government and the courts are charged with the duty of guaranteeing such profit in the future, even in the face of changing circumstances and contrary public interest. This strange doctrine is not supported by statute nor common law. Neither individuals nor corporations have any right to come into court and ask that the clock of history be stopped, or turned back, for their private benefit.[436]

Today, online distribution and P2P file sharing have facilitated a new distribution model. It is time that the entertainment industry recognizes this change and takes advantage of its potential. As history has taught us, business models are meant to be replaced, and industries have disappeared. At the turn of the twentieth century, the Dow Jones Industrial Average, which many consider the symbol of American wealth and prosperity,[437] was comprised of Amalgamated Copper, American Sugar, Tennessee Coal & Iron, U.S. Rubber, and U.S. Steel, among others.[438] Today, the index features 3M, Boeing, Coca-Cola, Disney, Hewlett-Packard, IBM, Intel, McDonald's, and Microsoft.[439]

The key to success is not how a firm, or an industry, protects its existing business model, but how it adapts that model to new conditions and technological environments. As Professor Schumpeter noted:

> Every piece of business strategy acquires its true significance only against the background of [the creative destruction] process and within the situation created by it. It must be seen in its role in the perennial gale of creative destruction; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull.[440]

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the Panel, WT/DS248/R, WT/DS249/R, WT/DS251/R, WT/DS252/R, WT/DS253/R, WT/DS254/R, WT/DS258/R, WT/DS259/R (Nov. 17, 2003), *available at* http://docsonline.wto.org/DDFDocuments/t/WT/DS/248R-00.doc. The Bush administration finally removed the tariffs in December 2003. Richard W. Stevenson & Elizabeth Becker, *After 21 Months, Bush Lifts Tariff on Steel Imports*, N.Y. TIMES, Dec. 5, 2003, at A1.

[435] *See* LEGRAIN, *supra* note 433, at 29.

[436] ROBERT A. HEINLEIN, LIFE-LINE (1939), *quoted in* ALDERMAN, *supra* note 72, at 131.

[437] As one columnist noted: "The Dow Jones industrial average has always been the great financial symbol of U.S. business and manufacturing. The Dow was American business; if the business of America was business, then the companies that made up the Dow Jones industrial average were what American business was all about." Bob Greene, *A Mouse Replaces Men of Steel*, CHI. TRIB., May 20, 1991, at 1C; *see also* J. Thomas McCarthy, *Intellectual Property—America's Overlooked Export*, 20 U. DAYTON L. REV. 809 (1995) (discussing Greene's observation).

[438] Dow Jones Industrial Average History 3, *at* http://www.djindexes.com/downloads/DJIA_Hist_Comp.pdf (last visited Feb. 7, 2004).

[439] *Id*. at 14.

[440] SCHUMPETER, *supra* note 428, at 83-84.

The entertainment industry could have taken advantage of the online distribution model a few years ago when Napster first gained popularity. It missed its first opportunities; yet, it is not too late to change. Intermediaries are not entirely redundant in the digital world. Due to scarcity of time[441] and the capital-intensive nature of many of these services, intermediaries—especially trusted ones—have a renewed significance in the information age. For example, many users will not have time to slog through a morass of undifferentiated poetic musings, home movies, and garage band recordings. They therefore will need intermediaries, such as entertainment companies, to screen works for them.

Moreover, P2P networks do not affect every sector of the entertainment industry. As *The New York Times* observed in the music context:

> Many specialty stores have carved out niches that cannot be duplicated online, selling rare records or used discs. Some cater to die-hard collectors, often free-spending men with free weekends who consider the novel "High Fidelity"—about love and lists in a London record store—to be nonfiction and about them. Others sell the kind of ethnic tunes the big stores condescendingly call "World Music" but which they just call down-home music.[442]

B. *Imaginary World War III*

The second comparison involves an imaginary nuclear attack on decentralized U.S. military bases during the Cold War era. It is virtually impossible to pinpoint the origin of what we now call the Internet. While the development of the network, especially its funding, has been traced back to the need for maintaining communications between strategic military and political sites in the event of a nuclear war, other commentators have explained at length why the nuclear war had nothing to do with the origin of the network.[443] Regardless of its origin, the Internet has

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[441] As Professor Jack Balkin explained:

> All communications media produce too much information. So in that sense, all media have a problem of scarcity. But the scarcity is not a scarcity of bandwidth. It is a scarcity of audience. There is only so much time for individuals to assimilate information. And not only is there too much information, some of it is positively undesirable. As a result, all media give rise to filtering by their audience, or, more importantly, by people to whom the audience delegates the task of filtering.

J.M. Balkin, *Media Filters, the V-chip, and the Foundations of Broadcast Regulation*, 45 DUKE L.J. 1131, 1148 (1996); *see also* GOLDSTEIN, *supra* note 72, at 214 (stating that "time will be the scarcest resource in the digital future"); Dyson, *supra* note 10 (noting that "[i]n the end, the only unfungible, unreplicable value in the new economy will be people's presence, time, and attention"); Herbert A. Simon, *Designing Organizations for an Information-Rich World*, *in* COMPUTERS, COMMUNICATIONS, AND THE PUBLIC INTEREST 37, 40-41 (Martin Greenberger ed., 1971) (stating that "a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it").

[442] David Gonzalez, *Jazz, Classical, and Endless Blues*, N.Y. TIMES, Feb. 26, 2004, at B1.

[443] As the authoritative *A Brief History of the Internet* recounted:

> The first recorded description of the social interactions that could be enabled through networking was a series of memos written by J.C.R. Licklider of MIT in August 1962 discussing his "Galactic Network" concept. He envisioned a globally interconnected set of computers through which everyone could quickly access data and programs from any site. In spirit, the concept was very much like the Internet of today. Licklider was the first head of the computer research program at DARPA [Defense Advanced Research Projects Agency], starting in October 1962. While at DARPA he convinced his successors at DARPA, Ivan Sutherland, Bob Taylor, and MIT researcher Lawrence G. Roberts, of the importance of this networking concept.
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> In late 1966 Roberts went to DARPA to develop the computer network concept and quickly put together his plan for the "ARPANET", publishing it in 1967. At the conference where he presented the paper, there was also a paper on a packet network concept from the UK by Donald Davies and Roger Scantlebury of NPL [National Physical Laboratory]. Scantlebury told Roberts about the NPL work as well as that of Paul Baran and others at RAND. The RAND group had written a paper on packet switching networks for secure voice in the military in 1964. It happened that the work at MIT (1961-1967), at RAND (1962-1965), and at NPL (1964-1967) had all proceeded in parallel without any of the researchers knowing about the other work.

a unique architecture: it is "rudderless, decentralized, and transnational,"[444] and its packet-switching feature has made government regulation difficult.[445]

If the entertainment industry is to succeed, it must develop a new war strategy that takes into account the network's decentralized nature and other unique features. So far, the industry has explored the use of computer software to launch viral attacks on P2P networks. One might still remember Congressman Howard Berman's now-abandoned Peer to Peer Piracy Prevention Act, which, if enacted, would have allowed movie studios and record companies to hack into personal computers and P2P networks when these companies suspected infringing materials were being circulated.[446] One also might recall Senator Orrin Hatch's shocking remark that "he favor[ed] developing new technology to remotely destroy the computers of people who illegally download music from the Internet."[447] While it is too early to evaluate these abandoned strategies, commentators and civil liberties groups have already expressed concerns about their intrusion on privacy and constitutional rights.[448]

These strategies also might backfire on the entertainment industry, as most consumers of entertainment products are also creators and copyright holders. It is very hard to imagine how welcoming entertainment companies would be when their competitors and customers snoop on their networks looking for infringing materials. It is also unlikely that Congress would be able to enact a statute that protects major entertainment companies while discriminating against individual copyright holders and small media entrepreneurs.

More recently, the entertainment industry has used spoofing to fight digital piracy.[449] As Professor Lior Strahilevitz explained, P2P technologies are "charismatic codes" that have made the file-sharing community appear to individual users far more cooperative than it really is.[450]

Barry M. Leiner et al., *A Brief History of the Internet*, *at* http://www.isoc.org/internet/history/brief.shtml (Aug. 4, 2000) (footnote omitted). For interesting discussion of the origins of the Internet, see generally TIM BERNERS-LEE, WEAVING THE WEB: THE ORIGINAL DESIGN AND ULTIMATE DESTINY OF THE WORLD WIDE WEB (2000); KATIE HAFNER & MATTHEW LYON, WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET (1998); JOHN NAUGHTON, A BRIEF HISTORY OF THE FUTURE: FROM RADIO DAYS TO INTERNET YEARS IN A LIFETIME (2000); Leiner et al., *supra*.

[444] Neil Weinstock Netanel, *Cyberspace 2.0*, 79 TEX. L. REV. 447, 448 (2000).

[445] As Professor Michael Froomkin explained:

> Three technologies underlie the Internet's resistance to control. First, the Internet is a *packet switching network*, which makes it difficult for anyone, even a government, to block or monitor information flows originating from large numbers of users. Second, users have access to powerful military-grade cryptography that can, if used properly, make messages unreadable to anyone but the intended recipient. Third, and resulting from the first two, users of the Internet have access to powerful anonymizing tools. Together, these three technologies mean that anonymous communication is within reach of anyone with access to a personal computer and a link to the Internet unless a government practices very strict access control, devotes vast resources to monitoring, or can persuade its population (whether by liability rules or criminal law) to avoid using these tools.

A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage*, *in* BORDERS IN CYBERSPACE: INFORMATION POLICY AND THE GLOBAL INFORMATION INFRASTRUCTURE 129, 129-30 (Brian Kahin & Charles Nesson ed., 1997) (footnote omitted).

[446] Peer to Peer Piracy Prevention Act, H.R. 5211, 107th Cong. (2002); *see also* Rep. Howard L. Berman, *The Truth About the Peer to Peer Piracy Prevention Act: Why Copyright Owner Self-help Must Be Part of the P2P Piracy Solution*, FINDLAW'S WRIT: LEGAL COMMENTARY, *at* http://writ.news.findlaw.com/commentary/20021001_berman.html (Oct. 1, 2002) (explaining the need for the legislation); Julie Hilden, *Going After Individuals for Copyright Violations: The New Bill That Would Grant Copyright Owners a "License to Hack" Peer-to-Peer Networks*, FINDLAW'S WRIT: LEGAL COMMENTARY, *at* http://writ.news.findlaw.com/hilden/20020820.html (Aug. 20, 2002) (criticizing the legislation).

[447] Ted Bridis, *Senator Favors Really Punishing Music Thieves*, CHI. TRIB., June 18, 2003, at 2C. As Senator Hatch reasoned, damaging someone's computer "may be the only way you can teach somebody about copyrights." *Id*.; *see also* Dwight Silverman, *Senator's 'Extreme' Cure for Piracy Is Unconstitutional*, HOUS. CHRON., June 21, 2003, Business Sec., at 1.

[448] *See* Sonia K. Katyal, *A War on CD Piracy, a War on Our Rights*, L.A. TIMES, June 27, 2003, at 17.

[449] *See* discussion *supra* Part III.D.

[450] Strahilevitz, *supra* note 11, at 509. As Professor Strahilevitz explained:

> Because of the way the networks are structured, the actions of those who share content are quite visible, while the actions of those who do not share content are virtually invisible. Particularly if a user is searching for content by an especially popular

Thus, by uploading decoy files onto the networks, the industry might be able to undermine cooperation and prompt users to blame each other for spoofed files and wasted downloading time.[451] By magnifying noncooperative behavior and creating "a norm of free-riding,"[452] the industry also might induce file-sharers to eschew further cooperation and, instead, to undertake noncooperative behavior that makes P2P networks undesirable.[453]

Alternatively, the industry might contain the network and halt the interchange of copyrighted contents by erecting fences, roadblocks, and speed bumps. No matter how much information wants to be free, it "does not flow in a vacuum, but in political space that is already occupied."[454] Legal regimes, norms, and rules therefore can determine what sorts of communities will thrive in cyberspace, how information will diffuse from one individual to another, and who can participate in the New Economy.

Moreover, just as information wants to be free, it "also wants to be expensive." When commentators cite the phrase "information wants to be free," they often forget about this tension and ignore the second line of the passage, which reads:

> Information wants to be free. Information also wants to be expensive.
> Information wants to be free because it has become so cheap to distribute, copy, and recombine—too cheap to meter. It wants to be expensive because it can be immeasurably valuable to the recipient. That tension will not go away. It leads to endless wrenching debate about price, copyright, 'intellectual property,' and the moral rightness of casual distribution, because each round of new devices makes the tension worse, not better.[455]

Code is law,[456] and it can define the contours of the space in which human behavior occurs and the conditions under which such behavior is conducted. By regulating codes,

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> artist, she will have no trouble locating scores of other users who have made that artist's work available. Users who share no files, on the other hand, do not appear in response to user searches. Therefore, other users generally will have a very difficult time perceiving non-sharers' participation in the networks. The architecture of the networks is such that although many users on the networks do not share, the networks create an appearance that sharing is the norm.

Id. at 550-51.

[451] *Id*. at 510.

[452] *Id*. at 509.

[453] *Id*. at 591. As Professor Strahilevitz explained:

> Given the open-source nature of the Gnutella applications for file-swapping, the record labels are free to create "patches" (or updates) to existing versions of Gnutella. The recording industry might find it worthwhile to develop and distribute software patches that expose users to the many free-riders on Gnutella and magnify the actions of those free-riders. For example, the program might prominently identify free-riders and those sharing very few files in response to search queries. Alternatively, the patch might prominently gather and display real time updates concerning the number of free-riders on the network and the median number of files being shared. Similarly, the record labels or their allies might release a Kazaa patch that either magnifies the extent of the free-riding on Kazaa, defaults users into free-riding, or, as the Kazaa Lite application has already done, allows free-riders to download files more efficiently than most file-sharers. In order to convince file-swappers to download these patches, the creators of these patches would need to create desirable improvements that enhance the experience of using these applications, and bundle these improvements with the un-charismatic code elements. If such patches were widely disseminated, the recording industry might effectively combat the distortion created by charismatic code. By providing file-swappers with a more realistic assessment of their peers or strengthening the appeal of free-riding, the recording industry might well prompt file-swappers to imitate the free-riding behavior that is still somewhat common on these networks.

Strahilevitz, *supra* note 11, at 592.

[454] ROBERT O. KEOHANE & JOSEPH S. NYE, POWER AND INTERDEPENDENCE 217 (3d ed. 2001).

[455] STEWART BRAND, THE MEDIA LAB: INVENTING THE FUTURE AT MIT 202 (1987), *quoted in* Ian R. Kerr et al., *Technical Protection Measures: Tilting at Copyright's Windmill*, 34 OTTAWA L. REV. 7, 38 (2002).

[456] *See generally* LESSIG, CODE, *supra* note 422; Tim Wu, *When Code Isn't Law*, 89 VA. L. REV. 679 (2003). For articles advocating the self-governance of cyberspace, see, for example, Johnson & Post, *supra* note 421; David G. Post, *Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace*, 1995 J. ONLINE L., *at* http://www.wm.edu/law/publications/jol/-articles/post.shtml; I. Trotter Hardy, *The Proper Legal Regime for "Cyberspace,"* 55 U. PITT. L. REV. 993 (1994); Henry H. Perritt, Jr., *Cyberspace Self-government:*

governments therefore can regulate human behavior. As Professor Lessig explained in *Code and Other Laws of Cyberspace*:

> The software and hardware that make cyberspace what it is constitute a set of constraints on how you can behave. The substance of these constraints may vary, but they are experienced as conditions on your access to cyberspace. In some places (online services such as AOL, for instance) you must enter a password before you gain access; in other places you can enter whether identified or not. In some places the transactions you engage in produce traces that link the transactions (the "mouse droppings") back to you; in other places this link is achieved only if you want it to be. In some places you can choose to speak a language that only the recipient can hear (through encryption); in other places encryption is not an option. The code or software or architecture or protocols set these features; they are features selected by code writers; they constrain some behavior by making other behavior possible, or impossible. The code embeds certain values or makes certain values impossible. In this sense, it too is regulation, just as the architectures of real-space codes are regulations.[457]

Nevertheless, some codes, like open source codes, are less regulable,[458] and thieves, pirates, and Robin Hoods thrive underground. Some governments might sacrifice regulability for markets and growing economic prosperity,[459] while others forgo protection against some circumvention by picking the easy route of regulating network end points, rather than network architecture.[460]

Since the emergence of the Internet, the Chinese government has tried very hard to impose its information control policy on the Internet.[461] Unfortunately, that policy was designed for traditional mass media and is arguably obsolete in the digital world. Thus, although Chinese

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Town Hall Democracy or Rediscovered Royalism?, 12 BERKELEY TECH. L.J. 413 (1997); Edward J. Valauskas, *Lex Networkia: Understanding the Internet Community*, FIRST MONDAY, *at* http://www.firstmonday.dk/issues/issue4/valauskas/index.html (Oct. 7, 1996). *But see* Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199 (1998) (disputing the need to distinguish between cyberspace and real-space transactions and advocating the need to ground cyberspace transactions in real-space laws).

[457] LESSIG, CODE, *supra* note 422, at 89.

[458] *See id*. at 107 (noting that open source code is less regulable than closed source code).

[459] In response to Professor Lessig's call for government intervention to preserve individual liberty and other foundational values in cyberspace, Professor Post argued that fundamental values in cyberspace can best be protected by the market. As he explained:

> Fundamental values are indeed at stake in the construction of cyberspace, but those values can best be protected by allowing the widest possible scope for uncoordinated and uncoerced individual choice among different values and among different embodiments of those values. We don't need "a plan" but a multitude of plans from among which individuals can choose, and "the market," and not action by the global collective, is most likely to bring that plenitude to us.
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> . . . [I]f there are many different architectures, then there is choice about whether to obey these controls. If there are multiple architectures from which to choose, it is no longer correct to say that "nothing requires" booksellers to provide users the ability to browse for free; the market for bookstores, the existence of competing bookstores, and consumers' desire to browse do so. It is hardly nothing; these are the very same things that "require[]" the real-space booksellers that Lessig mentions to allow you to browse for free. And if there are diverse architectures of privacy, of identity, and of content protection laid before the public, why is it so obvious that we will end up choosing the one(s) that deny us those things that Lessig (and I) think are so important?

Post, *What Larry Doesn't Get*, *supra* note 408, at 1453-54.

[460] *See* Michael Geist, *Cyberlaw 2.0*, 44 B.C. L. REV. 323, 348 (2003).

[461] For discussion of efforts by Chinese authorities to regulate the Internet, see generally SHANTHI KALATHIL & TAYLOR C. BOAS, THE INTERNET AND STATE CONTROL IN AUTHORITARIAN REGIMES: CHINA, CUBA, AND THE COUNTERREVOLUTION (Carnegie Endowment for International Peace Information Revolution and World Politics Project Working Papers 2001), *available at* http://www.ceip.org/files/pdf/21KalathilBoas.pdf; Nina Hachigian, *China's Cyber-Strategy*, FOREIGN AFF., Mar./Apr. 2001, at 118; Jack Linchuan Qiu, *Virtual Censorship in China: Keeping the Gate Between the Cyberspaces*, 4 INT'L J. COMM. L. & POL'Y 1 (1999); Jiang-yu Wang, *The Internet and E-Commerce in China: Regulations, Judicial Views, and Government Policies*, COMPUTER & INTERNET LAW., Jan. 2001, at 12; Peter K. Yu, *Barriers to Foreign Investment in the Chinese Internet Industry*, GIGALAW.COM, *at* http://www.gigalaw.com/articles/2001/yu-2001-03.html (Mar. 2001) (discussing the regulation of the Internet industry in China). *See generally* THE NETWORKS OF CONTRADICTIONS: UNDERSTANDING THE INFORMATION SOCIETY IN CHINA (Peter K. Yu & Jack Linchuan Qiu, forthcoming 2004).

authorities have repeatedly cracked down on cyber cafés, handed out heavy jail sentences to online dissidents, implemented new and restrictive laws and regulations, and censored political and nationalistic Web sites, the Internet remains relatively free in China, and access to Internet content is fairly unrestrictive to all but jailed dissidents.[462]

Indeed, the heavy-handed tactics used by Chinese authorities have backfired by heightening the cautiousness and sophistication of Chinese netizens. Those tactics also have led to the proliferation of anti-monitoring technologies and the increased reliance of Chinese users on proxy servers, offshore and mirror Web sites, and encrypted P2P systems, all of which have helped Chinese netizens evade government detection, monitoring, and control. If the Chinese government is struggling to regulate its netizens, it is very unlikely that the entertainment industry will achieve more success.

C. The Conquest of Generation Y

The final comparison concerns Generation Y, a group of teenagers who neither understand, nor see the benefits of complying with, copyright law. As I discussed elsewhere, there is a significant widening "copyright divide" between copyright holders and users of copyrighted works.[463] While copyright holders are eager to protect their interests, file-sharers neither understand copyright law nor believe in the system. As a result, copyright piracy is rampant, and illegal file sharing has become the norm, rather than the exception.

Today, most school children and college teenagers will not be able to understand the plight of artists and songwriters until they get a real job or unless they have close friends or relatives working in the entertainment industry. As they grow older and start working full-time, their perspective might change. They might be able to empathize with artists and songwriters. They also begin to understand the pain of not getting paid after doing a day of hard work. As rapper Eminem said candidly in his usual provocative style:

> Whoever put my s—t on the Internet, I want to meet that motherf—ker and beat the s—t out of him, because I picture this scrawny little d[—]ickhead going 'I got Eminem's new CD! I got Eminem's new CD! I'm going to put it on the Internet.' I think that anybody who tries to make excuses for that s—t is a f—king bitch. I'm sorry; when I worked 9 to 5, I expected to get a f—king paycheck every week. It's the same with music; if I'm putting my f—king heart and all my time into music, I expect to get rewarded for that. I work hard . . . and anybody can just throw a computer up and download my s—t for free. . . . If you can afford a computer, you can afford to pay $16 for my CD.[464]

Eminem might have ignored how the market actually works—i.e., parents might pay for the computer, while kids have to use their allowances to buy CDs. Nonetheless, his comparison of recording efforts to working a 9-to-5 day is something file-sharers can relate to after they grow up. In fact, file-sharers might see piracy differently after they learn about the plight of their musician friends, who have to stay poor because they do not receive royalties or because they

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[462] *See* Leonard R. Sussman, *The Internet in Flux*, *in* FREEDOM HOUSE, HOW FREE?: THE WEB & THE PRESS: THE ANNUAL SURVEY OF PRESS FREEDOM 4 (2001) [hereinafter 2001 FREEDOM HOUSE SURVEY], *available at* http://www.freedomhouse.org/pfs2001/pfs2001.pdf.

[463] *See generally* Yu, *The Copyright Divide*, *supra* note 5.

[464] ALDERMAN, *supra* note 72, at 114 (quoting Eminem as printed in *Wall of Sound*).

fail to earn recording contracts as a result of rampant online file trading. Young aspiring musicians might even learn their lessons from first-hand experience.

The Industry can tackle this "lost" generation in two ways. First, the industry can disregard this generation and move on to Generation Z, the next generation. This strategy is not as ill-advised as it sounds. Today, most school children and college teenagers will not be able to learn appropriate online conduct from their parents, teachers, and peers. Except for a small group of scientists, technophiles, and early computer enthusiasts, most adults did not grow up in a digital environment. They have limited computer literacy and do not use the Internet except for online shopping or sending e-mails. Even if these adults have made successful transition to the digital environment, they still might not be able to teach the youngsters what is legal and what is not, as they do not understand existing copyright law—or even better, the nuances of copyright law.

In a recent article, Professor Jessica Litman vividly described her son's third-grade teacher's lack of understanding of copyright law.[465] That teacher asked the class to conduct online research on the alpine tundra. At the end of the class, the teacher rewarded her students by giving each of them a CD containing the class's favorite songs. The only problem: All the songs, like information about the alpine tundra, were downloaded from the Internet. The teacher's action was troubling because she was probably one of the more influential figures in the young lives of these children. Her action therefore was likely to have more impact on the children than the many formal copyright pledges school officials required these children (and perhaps their parents) to sign.

Like teachers, peers can substantially affect the behavior of these youngsters. As Professor Robert MacCoun pointed out, young file-sharers are susceptible to peer pressure and what social psychologists call *pluralistic ignorance*.[466] As he explained:

> [Pluralistic ignorance is t]he idea . . . that, often, social situations are ambiguous and we look to other people to help us define what's appropriate in a given situation. And we often infer from the fact that no one else is acting alarmed that there's nothing alarming going on. Everyone is agreeing tacitly not to ask the hard questions . . . it's a little reminiscent of the

[465] Litman, *Sharing and Stealing*, *supra* note 10. *But see* Laura M. Holson, *Studios Moving to Block Piracy of Films Online*, N.Y. TIMES, Sept. 25, 2003, at A1 (discussing the role-playing activity "Starving Artist," in which "groups of students are encouraged to come up with an idea for a musical act, write lyrics and design a CD cover only to be told by a volunteer teacher their work can be downloaded free").

[466] Professor David Luban described in general how pluralistic ignorance affects human behavior:

> Evidently, we respond to situations by checking to see how other people respond, and their response in large measure determines how we perceive the situation and therefore how we ourselves will respond. And of course the phenomenon is reciprocal: as we watch the other, the other watches us. We reinforce each other, in wrong beliefs as well as accurate ones (a phenomenon psychologists call pluralistic ignorance). The shaping and reciprocal reinforcement of perception by seeing how others perceive the same thing constitutes the basic phenomenon of socially influenced cognition, or, for short, social cognition. Pedestrians stepping around the body of a homeless man collapsed in the street may simply be taking their cues from each other; the evidence suggests that they would stop to help if they were alone. Our moral compass may point true north when we are by ourselves, but place us next to a few dozen other compasses pointing East, and our needle will fall into alignment with theirs—and, in doing so, influence the needles of others' compasses.

David Luban, *Integrity: Its Causes and Cures*, 72 FORDHAM L. REV. 279, 284 (2003); *see also* Richard H. McAdams, *An Attitudinal Theory of Expressive Law*, 79 OR. L. REV. 339, 356-58 (2000) (discussing pluralistic ignorance and the "Emperor's New Clothes" phenomenon).

> 1970s period when marijuana use became so prevalent that people acted as though it had been *de facto* legalized.[467]

Although students from the present generation might privately believe it is wrong to trade copyrighted songs or movies on the Internet, they might pretend to support file swapping in public out of the fear that they will be stigmatized for acting or speaking contrary to the norm they perceive their community endorse. Such pretension is particularly dangerous, for it will force youngsters to conform their private preferences to the misperceived public norm.

Fortunately, the situation may change for Generation Z. Arguably, that generation will grow up in a more copyright-respecting environment. By the time they grow up, parents, teachers, and peers of this generation will have seen the P2P file-sharing wars and may have picked up the basics of copyright from the public media, widespread lawsuits, and the industry's educational campaigns. As the late Justice Thurgood Marshall noted, "Education is not the teaching of the three R's. Education is the teaching of the overall citizenship, to learn to live together with fellow citizens, and above all to learn to obey the law."[468] Through education, children in Generation Z will become better citizens in the digital copyright world.

No doubt, it is painful for the entertainment industry to forget about Generation Y. However, it is also painful to see the industry's profits falling every year without any solution. Somewhere down the road, the industry must figure out a strategy to deal with this generation of unscrupulous and illegal file-sharers. Forgetting about them and making plans for the next generation is something worth considering. After all, it is very unlikely that legislators and the public will tolerate widespread prosecutions of individual file-sharers who downloaded copyrighted materials in private homes for noncommercial purposes.[469] As the RIAA's recent lawsuits have shown, under the existing regime, "courts would need to punish the few infringers chosen for prosecution to an extent radically disproportionate to the wrong they committed. At some point, . . . the level of punishment required to deter private copying generally will simply become unjust."[470]

Moreover, as the Internet continues to expand to the rest of the world, Generation Y might make up for only a very small portion of the entire file-sharing population.[471] Indeed, forecasts have already showed that Americans—all generations combined—will make up for only a quarter of the world's Internet population by 2005[472] and that Chinese will outrank English as the most widely-used language on the Internet by 2007.[473] Given the fact that the future P2P file-sharing wars are likely to become transnational, Generation Y in the United States will only have a small impact on the outcome of the P2P file-sharing wars.

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[467] MERRIDEN, *supra* note 414, at 25 (quoting Professor Robert MacCoun).

[468] Transcript of Oral Argument at 91-92, Cooper v. Aaron, 358 U.S. 1 (1958), *quoted in* Lessig, CODE, *supra* note 422, at 92-93.

[469] *See* Harmon, *Verizon Challenges Music Industry's Subpoenas*, *supra* note 63 (reporting that Senator Coleman had scheduled a congressional hearing to privacy issues as well as the broader effect of technology on copyright enforcement); *see also* Robert E. Litan, *Law and Policy in the Age of the Internet*, 50 DUKE L.J. 1045, 1070 (2001) (noting that "it is highly doubtful that Americans would tolerate for very long, if at all, the police raiding homes and arresting teenagers for copying music or movies"); Strahilevitz, *supra* note 11, at 545 (noting that "it is widely believed that the public could not stomach widespread prosecutions of individual computer users who had illicitly downloaded copyrighted content").

[470] Lunney, *supra* note 10, at 851-52.

[471] Thanks to my colleague, Professor Adam Candeub, for pointing this out.

[472] Justin Hughes, *Of World Music and Sovereign States, Professors and the Formation of Legal Norms*, 35 LOY. U. CHI. L.J. 155, 165 (2003).

[473] Frances Williams, *Chinese to Become Most-Used Language on Web*, FIN. TIMES, Dec. 7, 2001.

A better and more effective solution, however, is to educate the current generation and to transform them into copyright-abiding netizens. After all, it is at best speculative to assume that the present generation would learn copyright law and be prepared to educate the next generation if the industry were to skip the current generation.

Today, the general public has many misconceptions about copyright law. Consider the treatment of copyrighted music, for example. Some believe they can download and listen to a copyrighted song without violating its copyright if they sample it and keep it for less than twenty-four hours.[474] Some maintain that it is legal to post copyrighted songs for downloading on a foreign Web site because U.S. copyright laws do not extend to countries abroad.[475] Some assume that all the songs posted on the Internet and P2P networks are in the public domain and thus free for others to download or copy.[476] Some assume that artists and copyright holders do not receive any royalties when radio plays their music.[477] Some claim that they attain "some" protection by ripping, mixing, and burning songs and posting them online.[478] Most interesting of all, there is a prevailing attitude that it is alright, or even legitimate, to trade copyrighted music because the recording industry has been making bad music for years to rip customers off.[479]

In recent years, the entertainment industry has been very active in educating the consuming public. For example, the recording industry has set up "Byte Me" to stem the distribution of illegal copies of popular music in MP3 format.[480] "Entertainment groups [also] have sent thousands of letters to colleges and corporations, alerting them to infringements," while celebrity musicians, like Dixie Chicks and Missy Elliott, have appeared on MTV and BET to relay artists' concerns.[481] Most recently, during the 2004 Annual GRAMMY Awards Ceremony, the Recording Academy unveiled a major public education campaign, which includes a new Web site whatsthedownload.com,[482] print and radio public service announcements, grassroots initiatives, and retail activities.[483]

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[474] DIGITAL DILEMMA, *supra* note 10, at 124.

[475] *Id*.

[476] *Id*.

[477] *See* MERRIDEN, *supra* note 414, at 71 (quoting an interviewee as saying that "[n]obody claims to lose money when their [sic] music is played on the radio").

[478] From time to time, one would read on Internet Web sites about requests that users not copy photos the site owner scanned or songs the owner ripped.

[479] As one interviewee maintained: "The record companies have been ripping customers off with huge profits for years, is it no wonder people resort to using Napster. The record companies are worried as they won't be able [sic] finance their extortionate lifestyles." MERRIDEN, *supra* note 414, at 71. Jazz artist Herbie Hancock, however, contended that Napster was not the answer to the industry's bad deal with artists and consumers:

> So far, [Napster]'s even worse than the labels. On the way to making millions for its owners and investors, Napster has yet to give anything to artists other than the chance to spread their music, for free, and whether they like it or not. Its supporters hide behind claims that labels misuse artists and consumers, as if that entitled them to take everything they want absolutely free. *Excuse me, but* just because record executives give artists a bad deal doesn't mean that everyone else can then go and do worse.

Herbie Hancock, *Preface* to ALDERMAN, *supra* note 72, at xviii.

[480] *See* DIGITAL DILEMMA, *supra* note 10, at 124.

[481] *Entertainment Industry Widens War*, USA TODAY, Feb. 13, 2003, at 9D.

[482] The Web site is available at http://www.whatsthedownload.com. As the Press Release described:

> WhatsTheDownload.com fills the crucial need for consumer information about the impact of illegal downloading. The site provides an overview of the issues, quotes from music-makers and artists offering personal perspectives on file-swapping, a message board where consumers can connect with one another and discuss downloading, a news and information section, and an opt-in eNewsletter called "The Download" that keeps consumers up-to-date on various file-swapping news. Additionally, the site includes in-depth information about copyright laws and a comprehensive listing of legitimate online music retailers.

In addition, the recording industry and universities have been actively encouraging students to switch to legal and legitimate music subscription services. A case in point is the recent arrangements major colleges and universities made with music downloading services, like MusicNet, Napster, and Rhapsody, to provide students with unlimited access to legally licensed music streams.[484] By doing so, the industry hopes that students will ultimately develop habits that they will continue after they graduate. As Napster's former President Michael Bebel proclaimed, "This deal encourages a new generation to try a legitimate service, enjoy and adopt it, and later when they have more time and money, continue it."[485]

Unfortunately, a respect for copyright can only be developed through a slow learning process, as it "is not an inherent or natural part of the cultural infrastructure."[486] To be effective, the education program must emphasize the core goals of copyright law, the difficult balance between control and dissemination, and the need for copyrighted materials to ultimately become a part of our shared intellectual heritage.[487] The program also must include both the exclusive rights of copyright holders and the limits on those rights, such as the idea-expression dichotomy, the fair use privilege, the first sale doctrine, and other statutory exemptions. By being clear, balanced, and comprehensive, the program will convey to the public a message that copyright law is fair and equitable. Through the creation of social and peer pressure, the message also will dissuade others from unauthorized file trading.[488]

In the next few years, public education efforts will continue to face many serious challenges. First, copyright law is complex, and it involves a very delicate balance between exclusive control and public access to information. If oversimplified, the message "will obscure the genuine and legitimate debate about how far copyright law extends."[489] Professor David Lange explained why it is "fundamentally wrong to insist that children internalize the proprietary and moral values of the copyright system."[490] The converse is also true. It would be

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Press Release, Recording Academy, "What's the Download[SM]," Consumer Education Campaign Addressing the Value of Paying for Music Unveiled at 46th Annual Grammy® Awards (Feb. 8, 2004), *available at* http://www.whatsthedownload.com/word_docs/Whats_The_Download_Launch_Press_Release.doc.

[483] *See id*.

[484] Borland, *College P2P Use on the Decline?*, *supra* note 237 (citing a report of the Joint Committee of the Higher Education and Entertainment Communities that more than twenty colleges and universities have signed up for deeply discounted access to music services such as MusicNet, Napster, and RealNetworks' Rhapsody); Graham, *Students Score Music Perks*, *supra* note 237 (reporting about arrangements universities and colleges made with the record industry for their students).

[485] Borland, *Napster to Give Students Music*, *supra* note 81.

[486] Bartow, *supra* note 305, at 23; *see also* Sheldon W. Halpern, *Copyright Law in the Digital Age:* Malum in se *and* Malum Prohibitum, 4 MARQ. INTELL. PROP. L. REV. 1, 11 (2000) (suggesting that copyright law might not have a normative role). As Professor Halpern elaborated:

> Individual determinations of moral and ethical conduct require a moral and ethical context. The problem for intellectual property law in general, and the law of copyright in particular, is the lack of such an underlying clear context. The nature of American copyright law makes it difficult, if not impossible to find or to construct an unambiguous moral compass.

Sheldon W. Halpern, *The Digital Threat to the Normative Role of Copyright Law*, 62 OHIO ST. L.J. 569, 572 (2001).

[487] DIGITAL DILEMMA, *supra* note 10, at 216.

[488] *See id*. at 305.

[489] *See id*. at 309.

[490] David Lange, *The Public Domain: Reimagining The Public Domain*, 66 LAW & CONTEMP. PROB. 463 (2003). As Professor Lange explained:

> It is wrong to challenge school children with responsibility for copyright. Wrong for copyright to intrude into private lives. Wrong to measure creativity by the standards of copyright. Wrong to lay impediments (moral, intellectual, legal) before exercises of the imagination, whether great or small. Wrong, in short, to rob us of this vital aspect of our citizenship: the right to think as we please and to speak as we think.
>
> We must learn to reimagine the public domain. We must learn to ask questions from within the province of that new status, a status like citizenship, measured by creativity and the imagination, and invoked by an exercise of either.

Id. at 482-83.

unsatisfactory to focus solely on the public domain and our shared cultural heritage. Congress, courts, and commentators have spent a lot of time and resources in the past two centuries trying to balance the interests of authors, copyright holders, and the consuming public. It is very unlikely that schools and teachers will do a better and more efficient job in striking this balance.

Second, the law on the books is very different from the one that is actually carried out.[491] Copyright law is very similar to the law concerning speed limits and jaywalking. The law is on the books, and some people get caught from time to time; yet, most people ignore it as if it does not exist. Fortunately, there are social norms, and people follow them. At some point, people will slow down (in the case of speed limits) or stop (in the case of jaywalking laws). The fact that people do not obey existing law does not mean that they will not obey law whatsoever. Oftentimes, they just find the law silly and expect a more sensible one.[492] Sometimes, they also might substitute the law with a different norm or misperceive that the norm reflects the law. As Professor Strahilevitz noted in the file-sharing context:

> Although the file-swapping networks encourage unlawful copyright infringement, the networks by no means cede the moral high ground. In the parlance of the file-swapping networks, those who infringe copyrights employ the language of reciprocity. "Freeloaders" are not those who download copyrighted content without paying for it, but those who download content without uploading content to other users.[493]

Finally, it might be irresponsible and inexpedient for policymakers to divert public funds for copyright education in times of budget cuts and economic stagnation. Even worse, some might consider such efforts inappropriate subsidies to the entertainment industry. For example, students and critics have voiced their disappointment over the Penn State-Napster deal for misusing educational fees to subsidize entertainment—or, worse, "to prop up flagging record company revenue."[494]

CONCLUSION

Today, P2P networks pose a serious challenge to the entertainment industry, and copyright battles have become increasingly difficult to fight. To remedy the situation, commentators have proposed many different solutions, which range from abolishing the copyright system to imposing private levies on P2P goods and services. Each of these proposals has its benefits and limitations, and each of them deals with only part of the unauthorized copying problem.

To help us better understand the P2P file-sharing controversy, this Article discusses the RIAA's enforcement tactics, developments in copyright law in 2003, and possible domestic and international challenges the entertainment industry will face in ensuing years. The Article also

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[491] *See* DIGITAL DILEMMA, *supra* note 10, at 305.

[492] Shirky, *supra* note 315, at 34 (noting that "the civil disobedience against the 55 MPH speed limit did not mean that drivers were committed to having no speed limit whatsoever; they simply wanted a higher one").

[493] Strahilevitz, *supra* note 11, at 556.

[494] Borland, *Napster to Give Students Music*, *supra* note 81. As one student noted:

> The money I pay could go to much better things such as rebuilding the network or better lab equipment. Almost every single student I have talked to is outraged that their money is going to a program that they don't even want . . . (and that) their money is being sent to the music industry without their consent.

John Borland, *Penn State Students Blast Napster Deal*, CNET NEWS.COM, *at* http://news.com.com/2100-1027-5103918.html (Nov. 6, 2003).

examines the various proposals commentators have put forward to solve the unauthorized copying problem: (1) mass licensing, (2) compulsory licensing, (3) voluntary collective licensing, (4) voluntary contribution, (5) technological protection, (6) copyright law revision, (7) dispute resolution proceeding, and (8) alternative compensation.

This Article contends that the law will not provide a complete solution and that the market, architecture, and social norms play equally important roles in crafting the "ultimate solution" to the unauthorized copying problem. Regardless of which solution—or, to be more precise, which set of solutions—policymakers ultimately adopt, this solution must meet the needs of consumers while taking into account the Internet's structural resistance and networked feature and the changing social norms in the digital copyright world.

To challenge readers to rethink the unauthorized copying problem, this Article presents three thought experiments that compare the P2P file-sharing wars to (1) a self-preservation battle between humans and machines, (2) an imaginary World War III, and (3) the conquest of Generation Y. Hopefully, by making these comparisons, policymakers and commentators will be able to step outside their mental boundaries to develop new solutions that target the crux of the unauthorized copying problem.

Reducing copyright piracy is not easy, and the debate on private copying is likely to continue, expand, and escalate. Maybe it is time for us to start from first principles to rethink some of the fundamental questions about our copyright system: Would the current system make sense when consumers can store their entire music collections, or even DVD collections, in small, cheap portable playback devices? Should Congress shorten the duration of the copyright term and switch to a format- or medium-based system in light of the increasingly short shelf-life of hardware and copyrighted products? Do entertainment companies have the needed rights to experiment with or switch to new business models? Should society rethink the industry structure and transform the role of intermediaries in light of our ability to distribute copyrighted works online? These questions have no easy answers, and the debate can only become more intriguing.

In retrospect, if one has to find a single word to account for the P2P file sharing controversy, that word may be nostalgia—or perhaps "greed," as Professor Jane Ginsburg put it in a provocative essay.[495] The hacker community and cyber libertarians long for the good old days when information was free, the network was open, and the online marketplace was not

[495] Jane C. Ginsburg, *How Copyright Got a Bad Name for Itself*, 26 COLUM. J.L. & ARTS 61 (2002). As Professor Ginsburg explained:

> I have a theory about how copyright got a bad name for itself, and I can summarize it in one word: Greed.
>
> Corporate greed and consumer greed. Copyright owners, generally perceived to be large, impersonal and unlovable corporations (the human creators and interpreters—authors and performers—albeit often initial copyright owners, tend to vanish from polemical view), have eyed enhanced prospects for global earnings in an increasingly international copyright market. Accordingly, they have urged and obtained ever more protective legislation, that extends the term of copyright and interferes with the development and dissemination of consumer-friendly copying technologies.
>
> Greed, of course, runs both ways. Consumers, for their part, have exhibited an increasing rapacity in acquiring and "sharing" unauthorized copies of music, and more recently, motion pictures. Copyright owners' attempts to tame technology notwithstanding, such developments as compression formats, high speed lines, and peer to peer networks, particularly popular on college campuses, recast Annie Oakley's anthem from "Anything you can do, I can do better," to "Anything you can steal, I can steal more of." At least some of the general public senses as illegitimate any law, or more particularly, any enforcement that gets in the way of what people can do with their own equipment in their own homes (or dorm rooms). Worse, they would decry this enforcement as a threat to the Constitutional goal of promotion of the Progress of Science, and thus a threat to the public interest.

Id. at 61-62 (footnote omitted).

commercialized. Similarly, the recording industry wants to return to those good old days when it was worth more than $14 billion, growing at an annual rate of more than six percent.

Those days are gone, however. They belonged to the last century—or even the last millennium. Turning back the clock is impossible; it might not even be a good idea. Instead of looking back, both sides should start planning for the future, keeping in mind the needs and interests of authors and artists. As the Electronic Frontier Foundation puts it succinctly in its recent White Paper:

> The current battles surrounding peer-to-peer file sharing are a losing proposition for everyone. The record labels continue to face lackluster sales, while the tens of millions of American file sharers—American music fans—are made to feel like criminals. Every day the collateral damage mounts—privacy at risk, innovation stymied, economic growth suppressed, and a few unlucky individuals singled out for legal action by the recording industry. And the litigation campaign against music fans has not put a penny into the pockets of artists.[496]

It is time for both sides to work together to develop a constructive, forward-looking solution. It is also time to rethink the P2P file sharing controversy and the future of private copying. Music is part of our culture and heritage, and it would be missed if it were extinguished.

[496] EFF WHITE PAPER, *supra* note 10.