

ALL RIGHTS RESERVED? REASSESSING COPYRIGHT AND PATENT ENFORCEMENT IN THE DIGITAL AGE

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I. INTRODUCTION

Almost two centuries ago, Thomas Jefferson poignantly expressed his skepticism for intellectual property protections with the following observation:

If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density at any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation.¹

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1. Letter from Thomas Jefferson to Isaac McPherson, (Aug. 13, 1813) in 1 THE FOUNDER'S CONSTITUTION 600, 600-01 (Philip B. Kurland & Ralph Lerner eds., 1987) (emphasis added). Jefferson's observations on intellectual property are particularly noteworthy since he was both a renowned inventor and architect.

In recent years, we have distanced ourselves considerably from these sentiments as our nation has embarked on a manic intellectual property land grab.² In the parlance of Jamie Boyle, we are currently witnessing an intellectual property enclosure movement every bit as significant as the eighteenth century's enclosure of common lands.³ Corporations are increasingly turning to intellectual property statutes to shield themselves from competition, obtain exclusive rights to intangible property, and protect the investments they have made towards the creation of valuable information, ideas, and innovations. Moreover, such firms are actively encouraging Congress and the courts to expand intellectual property enforcement. Examples abound. The Patent and Trademark Office faces a huge backlog in patent applications as biotech companies involved with the Human Genome Project have been rushing to patent DNA sequences that may have future value;⁴ Internet companies have increasingly turned to business method patents to protect their operations from competition;⁵ database compilers have lobbied Congress heavily for bills such as the Collections of Information Antipiracy Act (CIAA)—an Act that grants intellectual property rights to databases lacking in sufficient originality and innovation to qualify for ordinary copyright protection;⁶ and the movie and music industries have turned to lawsuits to slow the dissemination of pirated versions of their products through the Internet.⁷

Indeed, over the past few years, intellectual property litigation has become high profile. Witness the publicity surrounding the Napster case,⁸ Amazon.com's litigation on its one-click business

2. See generally James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87 (1997); Pamela Samuelson, *The Copyright Grab*, WIRED 4.01 (1996).

3. See James Boyle, *Taking Stock: The Law and Economics of Intellectual Property Rights: Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property*, 53 VAND. L. REV. 2007, 2010 (2000).

4. See Eliot Marshall, *Patent Office Faces 90-Year Backlog*, 272 SCIENCE 643 (1996).

5. See, for example, Amazon.com's business method patent on one-click checkouts, U. S. Patent No. 5,960,411 (issued Sept. 28, 1998), entitled "Method and system for placing a purchase order via a communications network," and Priceline.com's business method patent on reverse actions, U. S. Patent No. 5,794,207 (issued Aug. 11, 1998), entitled "Method and Apparatus for a Cryptographically Assisted Commercial Network System Designed to Facilitate Buyer-Driven Conditional Purchase Offers," (a key patent on which the priceline.com company is built).

6. See The Collections of Information Antipiracy Act, H.R. 354, 106th Congress (1999); The Collections of Information Antipiracy Act, H.R. 2652, 105th Congress (1998).

7. See *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); *Universal City Studios, Inc. v. Corley*, 273 F.2d 429 (2d Cir. 2001).

8. See *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d at 1004.

method patent,⁹ the constitutional challenge to the Sonny Bono Copyright Term Extension Act¹⁰ before the Supreme Court,¹¹ and the movie studios' efforts to enjoin individuals and entities from posting the crack to the DVD Content Scrambling System on the Internet.¹²

9. See *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343 (Fed. Cir. 2001); *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 73 F. Supp. 2d 1228 (W.D. Wash. 1999).

10. See 17 U.S.C. §§ 302(a), (c), 304 (2000).

11. See *Eldred v. Reno*, 239 F.3d 372 (D.C. Cir. 2001), *aff'd sub nom. Eldred v. Ashcroft*, 537 U.S. 186 (2003).

12. The crack, otherwise known as De-CSS, was discovered by Jon Johansen, a Norwegian teenager who posted it on the Internet. He was promptly arrested. Websites that linked to his crack in the United States, including the online version of the hacker magazine *2600*, were sued by the movie industry. An injunction issued, see *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 346 (S.D.N.Y. 2000), and it was upheld by the Second Circuit, see *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

The surging wave of intellectual property litigation is easy enough to explain. With the emergence of the service economy, the wealth of nations lies increasingly in the realm of information resources. Just as the manufacturing economy used to rely on property laws for the protection of investments, the service economy relies heavily upon the modern intellectual property regime to provide protection for investment in the development of information commodities. However, despite some success, the modern intellectual property regime has not proven entirely effectual in many areas of the economy. The shortcomings of the regime have grown particularly pronounced in recent years. We live in an era of increasing homologization of information and lowering costs of media relative to message. The rise of new technologies such as the CD burner, mp3 compression, and broadband Internet access has enabled ordinary people to circumvent intellectual property laws like never before.¹³ Consequently, litigation seeking to enforce intellectual property rights has burgeoned in recent years.

Admittedly, with the growth of the information economy, the value of companies increasingly resides in their intellectual property. However, extensive litigation seeking to enforce intellectual property rights is not necessarily the *sine qua non* of an information economy. Simply put, the tremendous pecuniary value of intellectual property resources does not necessarily dictate methodical and strict enforcement of intellectual property rights.

The inclination for strict enforcement of intellectual property rights is quite natural: corporations are reacting instinctively as if their intellectual property were material property. When your property is encroached upon, you sue. The logic is irrepressible: if someone else owns and possesses a parcel of land in fee simple absolute, you do not. When your chattel is stolen, you act to recover it, because if someone else owns and possesses it, you do not. Material property is rival and, at some level,

13. At the same time, however, the advent of digital fingerprinting and increasingly effective Internet search engines could reduce the costs of detecting intellectual property infringement. See David D. Friedman, *Does Technology Require New Law?*, 25 HARVARD J. L. & PUB. POL'Y 71, 72 (2001).

indivisible; competition for its use is therefore a zero-sum game. Material property is, by its very nature, scarce. And its value derives precisely from its scarcity.

However, intellectual property is unlike material property. It is, quite simply, different. These inherent differences suggest that corporations will, over time, rely more heavily on non-legal, rather than legal, mechanisms in order to maximize the value of their intellectual property resources. As this study will demonstrate, many corporations— particularly businesses unfamiliar with modern digital technology— initially over-enforce and over-litigate their intellectual property rights. However, the lessons of litigation typically push them in a different direction, relying more on non-legal mechanisms.

In advancing this assertion, this analysis first examines the differences between material property and intellectual property. The divergence continues to grow as digital technology has diminished the need for intellectual property to acquire a physical manifestation. As a consequence of this growing divergence, reliance on legal enforcement to combat intellectual property piracy may be increasingly futile and harmful. Even more significantly, corporations can garner tremendous value from certain levels of piracy. Thus, there is both social value and real corporate value to be had from achieving an optimal level of piracy of intellectual property resources. A multitude of mechanisms outside of legal enforcement can and should be utilized as an alternative means to achieve profit and growth in the information economy. As the evidence indicates, a variety of information-based industries can thrive not only despite, but *because of*, managed and controlled piracy.

Specifically, this article aims to foster a more rigorous analysis of the conditions under which piracy makes sense to individual businesses. Through the analysis, several key observations emerge. First, legal sanctions are more effective against commercially competing business entities, not individual pirates that give product away at no cost. Peer-to-peer sharing systems are too easy to undermine, litigation against them (and individual file sharers) can be too costly and ineffective, and the systems can and should be co-opted by content providers as a means to actually generate further demand for their product.

Second, piracy is most effectively combated through use of legal sanctions when the pirated products act as a market substitute for the product. When pirated products simply serve a

market that the authentic good has not penetrated, fighting piracy often does more harm than good. In the case of patented products, heavy intellectual property enforcement can undermine political support for a harmonized international intellectual property regime. Additionally, profits can be more easily secured through effective price discrimination than litigation. In the copyright arena, infiltration of pirated products into these markets can help fuel demand for the “real” thing once a particular market achieves the necessary economic wealth to pay the prices demanded by the original producers of the content.

Third, in markets where product interest and demand is driven by advertising, the social construction of “cool,” and notions of hip consumerism, authenticity is itself the value. As a result, markets where authenticity is itself the value benefit far less than other markets from concerted intellectual property enforcement. This is particularly the case in the entertainment and fashion industries.

Fourth, the advent of cyberspace and the digital revolution have rendered branding and its intellectual property analogue—trademark—more important and valuable than ever, especially vis-à-vis copyright. This is particularly true now that copyrighted content can be reproduced with such ease, scale, and low cost. After all, as a generally non-utile product,¹⁴ copyrighted works frequently obtain their market value more from source than content.¹⁵ Since protection of content has become increasingly futile, protection of source has taken on heightened importance—especially since that is where the true commercial value of copyrighted works frequently lies.

Fifth, the power of code and digital fences to reduce the need for heavy intellectual property protection has been exaggerated. Instead, the availability of a number of other devices, including network effects, price discrimination, and customization, has reduced the value of heavy intellectual property enforcement in a number of industries.

Finally, even in the absence of legal reform and heightened enforcement of intellectual property rights, the digital revolution will provide intellectual property creators with more, rather than fewer, opportunities for profit. An examination of the recent history of technological change and its impact on the music and movies industries highlights this point.

14. The universe of copyrighted software products is a major exception to this observation.

15. Their artistic value, however, is quite another matter.

All told, this Article does not call for an end to the availability of intellectual property protections secured by statutes, and it does not foreclose pointed litigation to secure these rights. Instead, its conclusions dictate a more rational use of intellectual property laws to the strategic benefit of individual corporations, and, ultimately, to society.

II. THE GROWING DIVERGENCE BETWEEN MATERIAL AND INTELLECTUAL PROPERTY: DIGITAL TECHNOLOGY AND VANISHING MANIFESTATIONS

As Thomas Jefferson's words at the outset of this Article suggest, the fundamental differences between material and intellectual property dictate different legal and business regimes for their exploitation, protection, and regulation. Intellectual property is a non-rival property form with expensive creation and cheap duplication costs. For example, the discovery of a vaccine for a terminal illness may take billions of dollars in research and development; but once it is discovered, duplication of that vaccine is comparatively inexpensive. Moreover, the peculiar characteristic of intellectual property—which Jefferson eloquently notes—is that no one possesses the less, because every other possesses the whole of it. When I allow you to duplicate my copy of Microsoft Word, I am no worse off because of it.¹⁶ Instead of one person enjoying the utility of the program, two are now able to access it. In fact, because of network effects, I am actually *better off* now that more people are using the software.¹⁷

16. This is true to the extent that there is no caché value to the exclusive possession of a particular form of intellectual property. One could, of course, imagine the Mercedes Benz of intellectual property existing, a particular software program whose perceived value diminished with more people having access to it. However, such a situation is very much the exception rather than the rule because the value of intellectual property is frequently enhanced by familiarity rather than scarcity; many forms of intellectual property enjoy robust network effects, and some forms of intellectual property are also highly utilitarian (see the universe of utility patents, for example).

17. See *infra* Section IV (analyzing the importance of network effects in the intellectual property arena).

At the same time, much intellectual property is characterized by tremendous economies to scale. While a Hollywood blockbuster, a new drug, or revolutionary software may require millions of dollars of investment just to bring into existence, its duplication is (terrifyingly) simple and cheap, particularly in digital form. Thus, despite the existence of large fixed costs, the marginal cost of intellectual property creation is effectively zero.¹⁸ For example, the latest round of the Star Wars saga may have cost \$300 million to create,¹⁹ but its duplication merely requires an ordinary home computer, some widely available DIVX ripping software, and a morsel of technological panache.

The value of intellectual property is also frequently enhanced by familiarity rather than scarcity. The value of tangible property is typically a function of its scarcity. The diamond-water paradox plagued classical economists for generations, leading them to wonder why diamonds are viewed as more precious than water despite the fact that water is a necessary element for human life while diamonds are a luxury good of dubious social value.²⁰ As economists during the marginalist revolution of the 1870s found, market demand (and hence market price) for a product should be ascertained from the perspective of an actual market participant—one who will value products on a marginal, rather

18. See Eric Schlachter, *The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet*, 12 BERKELEY TECH. L.J. 15, 22 (1997). As Schlachter argues, “[w]hile many costs are associated with producing intellectual property, including the time of the creator and the Internet infrastructure (such as the hardware, software and Internet connection), these costs become fixed costs once the intellectual property is produced. At that point, if the intellectual property is uploaded to the Internet, the remaining costs are trivial—further reproduction or distribution on the Internet imposes no meaningful marginal costs.” *Id.* at 22.

19. Although the costs of the two may not be that far removed from one another, I am, of course, referring to the movie, not the space-based anti-ballistic missile (ABM) system.

20. See ADAM SMITH, *THE WEALTH OF NATIONS* 132 (Prometheus Books 1965) (1776).

than total, basis.²¹ On the free market, therefore, “commodities are esteemed not in accordance with their significance in general, but with that of any small unit of the available supply.”²² Thus, diamonds have a market value far in excess of water since their availability relative to demand is slight. Simply put, diamonds are scarce while water is, relatively speaking, amply available. Along the neoclassical demand-supply dynamic, therefore, scarcity results in higher prices.

21. See, e.g., W. STANLEY JEVONS, *THE THEORY OF POLITICAL ECONOMY* (3d ed. 1888); LEON WALRAS, *PRINCIPLES OF POLITICAL ECONOMY* (1874).

22. Frank H. Knight, *Marginal Utility Economics*, in *THE ETHICS OF COMPETITION AND OTHER ESSAYS* 148, 151 (1935).

By contrast, the value of intellectual property is not necessarily dictated by scarcity. In fact, the value of intellectual property can frequently grow through familiarity and widespread propagation. In the commercial context, for example, increased consumption of an intellectual property commodity can translate into greater demand through standardization. For example, the value of Microsoft's Internet Explorer expands exponentially as it becomes the standard web browser: people grow accustomed to its interface and demand it whenever they access the Internet through a PC. Because of Explorer's status as the undisputed standard, websites are optimized to be browsed by it, rather than rival browsers such as Netscape Navigator. Network effects such as these make widespread dispersal of the program inherently valuable to a creator and to users, regardless of how that dispersal of the program occurs. Indeed, in the entertainment realm, the product is often the buzz that surrounds the intellectual property, not merely the work itself. Thus, value increases as buzz increases; buzz frequently increases as widespread dispersion occurs. As Sections IV and V further explore, these differences require disparate treatment of tangible and intangible assets.²³

The distinction between material and intellectual property has grown all the more pronounced with the advent of digital technology. In the past, intellectual property was still inextricably bound with physical property. For example, one could write a story—the words and expressions of which constitute intellectual property—but the story still had to manifest itself in the physical guise of a book—a form of chattel. Consequently, enforcement of intellectual property rights could be achieved through the enforcement of physical property rights. As information theorists John Perry Barlow has noted, in the past,

[C]opyright worked well because, Gutenberg notwithstanding, it was hard to make a book. Furthermore, books froze their contents into a condition which was as challenging to alter as it was to reproduce. Counterfeiting or distributing counterfeit volumes were obvious and visible activities, easy enough to catch somebody in the act of doing. Finally, unlike unbounded words and images, books had material surfaces to which one

23. See *infra* Sections IV and V.

could attach copyright notices, publisher's marques, and price tags.²⁴

Today, publishing a book is as easy as owning some desktop publishing software and a web domain name; the contents of intellectual property, when put into digital form, are readily subject to manipulation; counterfeiting requires nothing more than widely available technology; and, with the advent of the Internet, producers and consumers of counterfeit products from around the world can be brought together anonymously *en masse* through peer-to-peer (P2P) file-sharing networks. The marginal cost of mass reproduction has essentially been reduced to zero.

More than ever before, copyrighted works can exist independently of any material manifestation as digital technology has enabled the separation of intellectual property from its physical expression. In the vernacular of John Perry Barlow, we can now sell wine without the bottles.²⁵ As a consequence, traditional methods of legal enforcement, which largely relied upon expression of an idea that was physical in form, no longer possess the efficacy they once did.

III. THE LIMITS OF INTELLECTUAL PROPERTY ENFORCEMENT: LITIGATION AND ITS DISCONTENTS

In recent years, members of the information industry have argued that intellectual property, as a non-rival public good, needs increased protection under the law. These calls, grounded in the language of economic theory, have grown more obstreperous with the development of the Internet. As James Boyle observes,

[N]ew media such as the Internet are claimed to take content even closer to the image of a perfect public good, because costless copying and global networks mean that the software, digital text, or music in question is even less excludable and even less "rival." I don't even have to give up my book or movie for the time that it would have taken to duplicate it; digital objects already reside on a global network. As the subjects of intellectual property approach asymptotically to being perfect

24. John Perry Barlow, *Selling Wine Without Bottles: The Economy of Mind on the Global Net*, 7 AUSTL. INTELL. PROP. L. BULL. 2 (1994).

25. *Id.*

public goods, goes the argument, so must intellectual property protection increase in strength.²⁶

However, contrary to the platitudes of the intellectual property lobby, the digital revolution does not necessarily mandate greater reliance on intellectual property enforcement.²⁷

26. Boyle, *supra* note 3, at 2012.

27. On a related note, some theorists have even challenged the idea that intellectual property rights encourage innovation and creation. As Mark Nadel notes, very few creators ever reap significant financial rewards from copyright protections. See Mark S. Nadel, Questioning the Economic Justification for (and Thus Constitutionality of) Copyright's Prohibition Against Unauthorized Copying: § 106 at 39 (June 16, 2003) (unpublished manuscript, *available at* <http://www.ssrn.com>). In the winner-take-all entertainment, publishing, and software industries, only a precious few creators achieve extraordinary wealth through a hit record or bestseller. In these superstar-driven markets, copyright protection may simply enable publishers to support larger marketing campaigns and greater rents for powerful talents; these marketing costs and rents may well dissipate all of the increased revenues generated by copyright protection. Thus, borderline creators will never enjoy greater profits from copyright protection. See *id.* However, Nadel carries his point too far. While actual financial rewards go to very few, it is possible that the promise and potential of huge financial rewards encourage individuals to create art. Thus, like a lottery effect, the promise of huge rewards may still incentivize artistic creation. Nadel does, however, raise an important and related point. Given that people at the upper echelons of wealth often face backward bending labor curves, it could be argued that copyright itself harms the rate of output by those creators of content deemed most valuable by society. See *id.* at 11. For the social good, we may therefore not want to reward the big sellers in the content creation community quite so much, lest they become lazy, bloated rockers. For example, in the 1950s and 1960s, top music acts such as Elvis Presley and the Beatles routinely released at least one album per year. In those days, creators of copyrighted content received far lower rates of return on their creative output. With the advent of greater intellectual property enforcement and superior contract negotiations by content creators, artists such as Bruce Springsteen and U2 release a new album once every few years, if at all.

A. Enforcement and Illegibility in Cyberspace: The New Race to the Bottom

As a result of the increasing divergence between material and intellectual property, a distinctly negative case against intellectual property enforcement emerges. Creators of intellectual property face tremendous problems in enforcing legal prohibitions against piracy in an era characterized by two dominant features. First, with the advent of digital technology and the separation of intellectual property from its physical expression, information can now flow freely from one end of the planet to another with minimal expense and effort. At the same time, there is no robust international intellectual property regime to help contain violations of intellectual property rights.²⁸ These two aspects of the contemporary information economy combine to render intellectual property laws less meaningful than ever before.

28. Despite the existence of the WIPO Performances and Phonograms Treaty, see World Intellectual Property Organization Performances and Phonograms Treaty adopted December 20, 1996, S. Treaty Doc. No. 105-17, 36 I.L.M. 76; GATT TRIPS, see Agreement on Trade Related Aspects of Intellectual Property Rights, April 15, 1994, Marakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments--Results of the Uruguay Round vol. 31, 33 I.L.M. 81 (1994); the Berne Convention, see Berne Convention for the Protection of Literary and Artistic Works Sept. 9, 1886, as last revised July 24, 1971, 25 U.S.T. 1341, 828 U.N.T.S. 221; the Patent Cooperation Treaty, see Patent Cooperation Treaty June 19, 1970 28 U.S.T. 7645, 1160 U.N.T.S. 231; and the Paris Convention, see Paris Convention for the Protection of Industrial Property Mar. 20, 1883, 13 U.S.T. 2, 828, 828 U.N.T.S. 107, as last revised at the Stockholm Revision Conference, July 14, 1967, 21 U.S.T. 1538, 828 U.N.T.S. 303, there is still an absence of comprehensive international protection for intellectual property rights.

A hackneyed point nevertheless bears repeating: cyberspace has no local or national boundaries. This truism cannot be overemphasized in an era where digital information can flow about the planet so freely. Corporate scholars once noted a race-to-the-bottom in the context of firm incorporation decisions.²⁹

However, the ability to engage in legal arbitrage is much more pronounced with respect to information commodities. Unlike packing up an entire manufacturing plant to move from the United States to Mexico to take advantage of the absence of minimum wage laws and environmental protections, the process of relocating one's information resources does not take years or decades. It can happen in a matter of moments. In this global environment where information can flow freely and legal arbitrage is remarkably easy to achieve, any potential pirate can move his or her data to the place of least regulation and therefore avert enforceability.³⁰

Admittedly, cyberspace's transcendence of national boundaries does not alone guarantee the unenforceability of intellectual property laws. For example, courts have extended their jurisdiction beyond national boundaries.³¹ The French courts have issued an injunction against any auctioning of Nazi goods by Yahoo!³² However, when domestic public policies clash with international court rulings, especially in high profile issues, international court rulings rarely win: in the Yahoo! case, the French injunction has been rendered meaningless by the refusal of American courts, on First Amendment grounds, to enforce the ruling.³³

29. See, e.g., Lynn M. LoPucki & Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Empirical Evidence of a "Race to the Bottom,"* 54 VAND. L. REV. 231 (2001); Daniel R. Fischel, *The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law,* 76 NW. U.L. REV. 913 (1982); Ralph K. Winter, Jr., *State Law, Shareholder Protection, and the Theory of the Corporation,* 6 J. LEGAL STUD. 251 (1977). In the context of Delaware incorporation decisions, corporate law scholars now view the process more as a race to the top, rather than to the bottom. See *id.*

30. See *infra* notes 36-39 and accompanying text.

31. See *Internet Extends Long Arm of the Law*, at <http://www.cnn.com>, (July 22, 2002) (noting how, "[u]nder pressure from their citizens, government around the world are increasingly abandoning the hands-off attitude they initially had toward the Internet . . . [and] [t]hey are now applying their laws far beyond their borders").

32. See *LICRA & EUJF v. Yahoo! Inc.*, Interim Court Order No. 00/05308, 00/05309, T.G.I. Paris, May 22, 2000, available at <http://www.lapres.net/yahen.html> (Daniel Lapres trans.).

33. See *Yahoo!, Inc. v. La Ligue Contre Le Racisme et L'Antisemitisme*, 169 F. Supp. 2d 1181 (N.D. Cal. 2001).

Similarly, while the Recording Industry Association of America (RIAA) has successfully shut down American-based Napster and Audiogalaxy, KaZaa continues to thrive because a Dutch appeals court recently reversed an adverse lower court ruling against the service and found that the owners of KaZaa were not engaging in contributory infringement of music owners' copyrights through distribution of the KaZaa software.³⁴ The case has been appealed to the Dutch high court. However, even if the Dutch court rules against KaZaa, enforcement of its ruling will be difficult. Modern purveyors of piracy are either internationally dispersed individuals operating on a decentralized P2P system, such as gnutella, or they are nimble shell corporations that can easily relocate their systems and operations to a venue with favorable laws.

34. See Jason Fry, *In Music-Sharing, the Melody Lingers on*, WALL ST. J. EUR., at A10 (Sept. 17, 2002).

For example, shortly after receiving the adverse lower court ruling, the Dutch owners of KaZaa sold their service to the nebulous Sharman Networks Ltd.³⁵ A dummy corporation initially located in Australia, Sharman Networks is now officially incorporated in the South Pacific tax haven of Vanuatu, in part to avert enforcement even if the Dutch courts do rule against it on appeal.³⁶ Meanwhile, KaZaa promptly declared bankruptcy.³⁷ Thus, *even if* international harmonization of intellectual property does eventually occur, enforcement will only be effective against large, legible, and established corporations. All told, the peculiarly transnational characteristics of cyberspace combined with the nature of piracy make legal action against unauthorized users of intellectual property increasingly impractical.

Additionally, the absence of clear agreement about norms of intellectual property enforcement makes the chances of international harmonization even more remote. Nations vary significantly in how they weigh the infamous tension between giving information producers sufficient economic incentives to create their product and providing the people of a nation with a rich public domain.³⁸ Moreover, there are serious North-South issues facing the international intellectual property regime. Simply witness South Africa's struggle to obtain HIV drugs at a low price for its citizens. Thus, despite *de jure* proclamations to the contrary and the work of the World Intellectual Property Organization, the Paris Convention, the Berne Convention, GATT, and a host of other international regimes, there is a sharp *de facto* contrast between the ways in which various nations protect (or violate) intellectual property rights. In the United States, a U2 connoisseur must go deep into the dregs of random mom-and-pop record stores to find a meager catalog of bootlegged CDs. By contrast, in China, one would have great difficulty finding a *licensed* copy of U2's *Rattle and Hum*.³⁹ In

35. See John Davidson, *Sharman in File-Sharing Battle Zone*, AUSTL. FINANCIAL REV. (February 13, 2002), at 42 (citing "the mystery surrounding the structure and backing of Sharman Networks Ltd" and its CEO, Nikki Hemming).

36. See Steven Bonisteel, *Sharman CEO Charts Kazaa Business Plan*, NEWSBYTES (April 24, 2002).

37. See Benny Evangelista, *Dutch Firm KaZaa Puts Up White Flag: 'Rambo-style' Suit by Entertainment Industry Cited*, S.F. CHRONICLE, at B1 (May 23, 2002).

38. This tension is commonly regarded as the most fundamental question in designing intellectual property regimes. See ROCHELLE DREYFUSS & ROBERTA KWALL, INTELLECTUAL PROPERTY: CASES AND MATERIALS ON TRADEMARK, COPYRIGHT AND PATENT LAW 1-5 (1996).

39. U2, RATTLE AND HUM (Island Records 1988).

fact, piracy of software is so rampant in China and respect for intellectual property laws so attenuated that the Chinese offices of American companies have to go out of their way just to obtain legal copies of standard business software.⁴⁰

40. See Kate MacNamara, *Software Piracy \$289M Problem: Canada's 38% Rate Worse Than U.S., Says Study*, NATIONAL POST, June 11, 2002, at FP9 (noting that 92% of all software in China is pirated).

The convergence of these two features of the modern information economy—rapid information flow combined with an absence of effective norms against piracy—have combined to make intellectual property enforcement more difficult than ever before. The Napster case highlights this point. Napster, of course, was the first popular P2P music sharing system on the Internet. Accused of copyright infringement, Napster was the subject of a high profile lawsuit filed by the music industry. On July 26, 2000, the music industry succeeded in convincing a federal district court to issue a preliminary injunction against the continued operation of the Napster system.⁴¹ That injunction was stayed⁴² until February 12, 2001, when the district court's ruling was upheld by the Ninth Circuit.⁴³ At that point, the music industry had purportedly triumphed; sure enough, within days, traffic on Napster fell from an all-time high of 26.13 million unique file-swappers⁴⁴ to a trickle.⁴⁵ However, the death of Napster only heralded the emergence of other peer-to-peer sharing networks.

These new systems, which included Audiogalaxy, Gnutella, Morpheus, and KaZaa, threatened copyright holders more than Napster ever did. First of all, unlike Napster, most of the emerging alternatives were direct, decentralized peer-to-peer sharing systems; the absence of centralized servers made it infinitely more difficult to use technological barriers to monitor and prevent the illicit reproduction of copyrighted materials. Secondly, many of the Napster alternatives expanded the gamut of available offerings; rather than merely enabling the exchange of audio mp3s, the systems also offered commercial software, movies, graphics, and other computer files. Thirdly, the Napster alternatives provided superior file organization and graphic user interfaces (GUIs), which allowed users to access copyrighted materials with greater agility.

Finally, technological improvements in the Napster alternatives reduced download error rates and aided more efficient piracy. The obscure musical tastes of a Napster user were usually not satisfied. A request for the Pale Saints' seminal shoegazing rendition of Tom Waits's *Jersey Girl* would usually go unfulfilled,

41. See *A & M Records, Inc. v. Napster, Inc.*, 2000 WL 1009483 (N.D. Cal., July 26, 2000).

42. See *A & M Records, Inc. v. Napster, Inc.*, 2000 WL 1055915 (9th Cir. 2000).

43. See *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001).

44. *Jupiter Media Metrix Reports Multi-Country Napster Usage Statistics for February 2001*, available at http://www.jmm.com/xp/jmm/press/2001/pr_040501.xml.

45. *Napster: The Long Goodbye*, THE ECONOMIST, May 18, 2002, at 64.

as it would require a sharing user to be simultaneously logged on as the requesting user. By contrast, Audiogalaxy enabled a user to request any song that had ever been transmitted through its system. Once that request was entered into a user's preference, the song would be retrieved the next time that someone sharing that particular song was logged on. On Napster, if the user from which one was copying a song logged off, the file transfer ended.

On Morpheus, by contrast, file transfers continued seamlessly; even if a sharing user logged off of the network, the system simply switched the file transfer to another user with the particular file.

All told, these Napster alternatives have thrived and provided ample piracy opportunities for any intrepid web surfer. Indeed, several of the services expanded their scope beyond music (a limitation of Napster) and provide exchange of any computer file under the sun, including commercial software, movies, and graphics. As soon as Napster was shut down, dozens of alternatives emerged and these P2P systems have thrived (to the extent that people learn of them). In fact, in the year *after* the shutdown of Napster, the number of P2P sites multiplied by 535%.⁴⁶ Now unconstrained by physical boundaries or form, information can and will disseminate itself globally so long as there is a network sufficient to sustain its flow.

B. Norm Formation and the Precarious Quest for an Intellectual Property Morality

46. See File-Swapping Sites Multiply Despite Legal Tangles, *available at* <http://www.cnn.com> (April 29, 2002) (noting a survey by U.S. technology firm Websense Inc., which notes that the number of P2P sites on the Internet as of April 2002 totaled 38,000, up nearly 535 percent from the prior year).

There is another, more simple reason to avoid heavy intellectual property enforcement: litigation can be quite expensive, both in a monetary and public relations sense. Suing one's own fans is rarely a good idea, and often constitutes commercial suicide. Metallica, which named thousands of its most ardent fans and supporters as co-defendants in its suit against Napster, has suffered from a huge backlash and has enjoyed reduced commercial success since the incident.⁴⁷ As peer-to-peer systems perfect themselves and function in the absence of a centralized server, individual defendants will have to be named in order to enjoin file sharing.⁴⁸ Simply witness the RIAA's new strategy to do just that, as individuals are more traceable than shell corporations, can face heavy sanctions such as imprisonment, and can have more trouble fleeing offshore.⁴⁹ However, such battles are tremendously costly and create lasting resentment among artists' most ardent fans, thereby undermining commercial demand for one's product even further than dilution from file sharing possibly could. Already, the backlash against the RIAA has begun with mass protests against its heavy-handed tactics.⁵⁰

This observation is particularly true with respect to the Internet for two reasons. First, the rapid speed of communication and the existence of consumer/fan-based communities online enable disgruntled and antagonized consumers aggrieved with the threat of a lawsuit to post their gripes and to unify in action against a content-provider with great ease.⁵¹ Second, whether accurately or not, traditional Internet users perceive cyberspace as a "borderless, self-policing domain where traditional laws do not

47. In the five years preceding the suit, Metallica had numerous top forty hits and sold millions of records. In the time since the suit, Metallica has not been a major player on the music scene. Of course, a slowdown in Metallica's productivity and evolving music tastes have also affected this reversal in fortune, but there is little doubt that part of this commercial decline is due to a significant change in the way in which Metallica is perceived by the public. Once adored as renegade artists who championed the common man and woman and succeeded without the help of mainstream media corporations, Metallica lost its street credibility with the high-profile Napster suit.

48. Individual defendants actually engaging in the sharing will have to be named since, without a centralized server, there is no corporate entity that needs to enable the P2P sharing.

49. See Anna Wilde Matthews & Burce Orwall, *Online Music Sharers Face Wave of Lawsuits*, WALL ST. J., June 26, 2003, at D1 (noting RIAA's new strategy of suing individual file sharers).

50. See, e.g., Ciaran Tannam, *Anti-RIAA Street Protest Planned*, slyck.com (July 20, 2003), available at <http://www.slyck.com/news.php?story=200> (noting the organization of protests against RIAA); <http://www.boycott-riaa.com> (same).

51. Thomas C. Inkel, *Internet-Based Fans: Why the Entertainment Industries Cannot Depend on Traditional Copyright Protections*, 28 PEPP. L. REV. 879, 907 (2001).

and should not apply.”⁵² Thus, as Thomas Inkel concludes, “The amazing speed at which information travels across the Internet, the close-knit nature of the virtual fan communities that form around fan sites, and the influence wielded by many fan-Web masters all amplify the potential downside to using traditional methods to police Web-based copyright infringers.”⁵³

Game companies, for example, have embraced Internet users, pirates, and violators of their intellectual property, recognizing, quite correctly, that these pirates are also their most fervent fans and ultimately provide them with their profits. Indeed,

[T]he interactive entertainment industry's attitude toward fans and protection of their intellectual property gives new meaning to the term *laissez-faire*. For example, a fundamental marketing tool in the industry is the distribution of map editors and game “hacks” (pro-grams to create “mods,” or alternative versions of the games). The computer software developers also regularly release the programming source codes for adaptation and distribution by the public; for example, id Software has posted source codes and editors for several of its games and programming effects so that the public can create their own mods and levels.⁵⁴

Such an approach to intellectual property piracy on the Internet stands in stark contrast to the legal battles waged by traditional entertainment companies.⁵⁵

52. Erika S. Koster & Jim Shatz-Akin, *Set Phasers on Stun: Handling Internet Fan Sites*, 15 *COMPUTER LAW* 18, 21 (1998).

53. Inkel, *supra* note 51, at 907-08.

54. *Id.* at 904-05 (footnotes omitted).

55. See, e.g., Paramount's threatened suit against Star Trek web fiction; Michael T. Helfand, Note, *When Mickey Mouse Is as Strong as Superman: The Convergence of Intellectual Property Laws to Protect Fictional Literary and Pictorial Characters*, 44 *STAN. L. REV.* 623 (1992) (noting Disney's suits against even the smallest of copyright infringements).

Unlike the interactive software industry, entertainment companies and biotechnology developers have traditionally engaged in heavy litigation to restrict unauthorized use of their intellectual property.⁵⁶ Such a litigious route can have its costs by undermining the precarious quest for an intellectual property morality. For example, when pharmaceutical corporations from wealthy industrialized nations charge exorbitant amounts to individuals and public health systems in developing countries for medicine to curb or cure otherwise terminal illnesses, such inflexibility can create further stumbling blocks towards international harmonization of intellectual property laws and make the development of a universal intellectual property morality all but impossible to achieve. This is a critical point. We have largely achieved a social consensus that the theft of material property is morally and legally wrong. However, even in the heart of capitalism, much doubt abounds as to whether the same can be said for the piracy of intellectual property.

The tenuous nature of our national social consensus on intellectual property rights was recently demonstrated in the wake of the Anthrax threat that hit political and media offices in the United States. The leading treatment for Anthrax is Cipro, a drug for which Bayer, the German biotechnology conglomerate, owns the patent rights. Within days of the first Anthrax casualties, Senator Charles Schumer of New York suggested that the government should circumvent the patent rights for Cipro, thereby enabling it to obtain Cipro quickly at virtually no charge.⁵⁷ In Canada, the government overrode the Cipro patent to facilitate

56. See, e.g., *Sony Corp. of America v. University City Studios, Inc.*, 464 U.S. 417 (1984); *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001); *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); *Walt Disney Prod. v. Air Pirates*, 581 F.2d 751 (9th Cir. 1978).

57. See Charles Schumer, *New Cipro Source Could Dramatically Increase Supply*, Oct. 16, 2001, available at http://schumer.senate.gov/SchumerWebsite/pressroom/press_releases/PR00728.html.

the ordering of almost one million tablets of a generic version of the drug to fill gaps in the national stockpile.⁵⁸ Such actions were particularly ironic given the support that western governments lent to thirty-nine pharmaceutical companies in their suit against the government of South Africa for patent infringement of HIV drugs.⁵⁹

Of course, all property protection relies on government support. But because of intellectual property's non-rival features, its ease of propagation in the digital age, and its intangible form, enforcement of copyright and patent laws relies heavily upon social goodwill. For example, it is easy to tell when I am using your car, because when I do, it is gone and you cannot use it. Determining whether I am using your copyright, however, is a much more difficult matter; and the non-rival nature of copyright means that when I allow you to duplicate my copy of Microsoft Word, I am no worse off because of it. Thus, enabling some unauthorized use of intellectual property seems more inherently just than allowing unauthorized use of tangible property, particularly when lives may be on the line (as in the Anthrax example). Consequently, creating and fostering the perception that corporations are using and enforcing their intellectual property rights in a responsible and socially conscious manner is particularly important for their continued support and protection under the law.

58. Sarah Left, *Row Looming over Anthrax Drug Patent*, THE GUARDIAN, Oct. 22, 2001, available at <http://www.guardian.co.uk/anthrax/story/0,1520,578769,00.html>.

59. See Ravi Nessman, *Drug Firms Drop Lawsuit in S. Africa*, HOUSTON CHRONICLE, Apr. 20, 2001, at A-1. As the title of this citation suggests, the suit was eventually dropped.

The fragility of intellectual property rights is a phenomenon recognized by many members of the information economy. As a result, one of the more interesting strategies used by information-based corporations in recent years has been the use of educational efforts aimed at creating a new intellectual property morality. In its ideal form, the manipulation of morality could serve as a remarkably inexpensive method to achieve protection of information resources, since it would create a social restraint against information piracy absent expensive legal (and even extra-legal) enforcement. As Michel Foucault has noted, the self-regulating mechanism, acquired through social norms and mores, can save government and corporations huge sums of money that would otherwise go towards monitoring and enforcement costs.⁶⁰

In other words, on a cost basis, it is much cheaper to embed the citizenry with a self-regulating morality from within against piracy of intellectual property resources than to rely on monitoring and enforcement from without. Moreover, imbuing the public with this morality may be one of the most effective ways in which the information economy can effectively “enforce” against piracy.

60. See MICHEL FOUCAULT, *POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS 1972-1977* (Colin Gordon ed. & Colin Gordon et al. trans., 1980).

A centerpiece of both government and corporate plans for intellectual property protection in the future, education efforts have focused on convincing the public that information property is like any other form of private property and that stealing it is both against the law and morally wrong. For example, witness the plaintive speech of Michael Greene, the President of the Academy of Recording Arts and Sciences, during the 2002 Grammy Awards. Greene delivered an impassioned homily entitled *The Insidious Virus of Illegal Music Downloading*.⁶¹ As he argued, P2P sharing was “stealing [the] livelihood [of artists] one digital file at a time, leaving their musical dreams haplessly snared in this World Wide Web of theft and indifference.”⁶² The remarkable gesture highlighted just how deeply threatened the music industry feels by P2P file swapping systems. The RIAA has now rallied a bevy of anti-P2P pop stars, including Britney Spears, Nelly, Madonna, and Sean “Puffy/P. Diddy/Puff Daddy” Combs, to take to the airwaves in a series of “public service ads” that equate file sharing with stealing.⁶³ The advertisements are the work of a new coalition of record companies and industry groups called M.U.S.I.C. (Music United for Strong Internet Copyright) that will lobby for increased congressional protection for intellectual property protection in cyberspace.

Moreover, the Copyright Society of the USA and the American Intellectual Property Law Association co-sponsor a Copyright Awareness Week during late April each year.⁶⁴ These efforts are aimed at making children aware of the importance of copyright protection, thereby inculcating an intellectual property morality at an early age; and these efforts are administered by volunteer attorneys who themselves practice intellectual property law.⁶⁵

61. Michael Greene, *The Insidious Virus of Illegal Music Downloading*, Feb. 27, 2002, available at <http://grammy.aol.com/features/speech.html>.

62. *Id.*

63. See Julie Keller, *Aargh! Britney, Nelly Battles Pirates*, Sept. 27, 2002, available at <http://www.eonline.com/news/items/0,1,10601,00.html>.

64. In 2002, Copyright Awareness Week was April 22-28.

65. See www.csusa.org for more information.

Given the rise of so many new technologies that threaten to undermine the efficacy of intellectual property law enforcement, it is likely that corporate America will continue to increase its reliance on the manipulation of societal attitudes towards the ownership of information in order to protect its precious information resources. Education efforts aimed at teaching the public, especially young children, about the importance of respect for intellectual property rights will play a central role in this challenge.

However, these education efforts face a number of significant hurdles. First of all, the issue of intellectual property piracy is not nearly as black and white as many of these educational efforts would have us believe. While there are some fair use exceptions to private exclusive possession of tangible property,⁶⁶ they are far less nuanced and omnipresent than the statutory and common law restrictions placed on the exertion of intellectual property rights—restrictions that include, for example, temporal limits on patents and copyrights, usage and geographical limitations on trademarks, the idea/expression dichotomy, prohibitions against ownership of facts or laws of nature, the fair-use exception, and parody and satire rights.

The particular complexities of intellectual property law also make education efforts more difficult. As Jessica Litman has noted, “The current copyright statute has proved to be remarkably education-resistant. . . . Our current copyright statute could not be taught in elementary school, because elementary school students couldn’t understand it. Indeed, their teachers couldn’t understand it. Copyright lawyers don’t understand it.”⁶⁷ Moreover, as earnestly as record industry officials and certain artists believe that P2P could spell the end of the music business, this does not have to be the case. After all, witness the tremendous success of Apple’s i-Tunes, which embraces the use of the Internet as a profitable tool for digital music sales.⁶⁸ As this

66. See, for example, easements by necessity.

67. Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 50-51 (1994).

68. See Jon Healey, *Napster Service to be Revived by Year-End*, L.A. TIMES, July 28, 2003, at C1 (noting one success of Apple’s i-Tunes service, which has sold 6.5 million copies in its first two and one-half months of existence). But see Ciaran Tannam, *i-Tunes Sales Continue to Fall*, slyck.com (July 30, 2003), available at <http://www.slyck.com/news.php?story=208> (noting that week by week sales on i-Tunes have been declining and that the success of i-Tunes may have been exaggerated).

analysis will later explore,⁶⁹ the entertainment industry has repeatedly cried wolf at the arrival of new technologies.⁷⁰ Far from decimating the entertainment industry, prior technologies have actually resulted in greater demand and profits for media companies, and as Apple's i-Tunes shows, P2P could end up reinvigorating the music and movie industries.

Additionally, whether or not one believes that unauthorized copying of intellectual property ultimately damages information industries and content providers, the copying of intellectual property differs fundamentally from the theft of tangible property, simply because of the different natures of intangible and tangible property. Eschewing "absolutist, formalistic, and physicalist notions of tangible property," intellectual property has historically been grounded in pragmatic and utilitarian terms.⁷¹ By contrast, Blackstone inevitably rears his head when dealing with tangible property. As Boyle notes,

69. See *infra* Section V.G.

70. See Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900-2000*, 88 CAL. L. REV. 2187, 2191 (2000).

71. BOYLE, *supra* note 3, at 44.

The person who is asked why she should have the right to pile his [sic] flax by the tracks regardless of the inconvenience to the railroad company is likely to say 'because it's my land.' The author who is asked why she should have some legally protected interest in a work after it has been conveyed through the marketplace cannot appeal so easily to any naturalistic or physicalist notion of property.⁷²

Similarly, people who never dream of stealing a physical CD from a record store do not think twice about making exact copies of a CD on their computer.⁷³

These conceptual differences between tangible and intangible property make the development of an intellectual property morality against piracy particularly arduous,⁷⁴ especially in light of the current rash of litigation seeking strong enforcement of intellectual property rights. Such litigation actually imperils efforts to achieve a social consensus on intellectual property protection.

When biotech companies refuse to provide drugs to the developing world even though their marginal costs of production would be virtually zero, they only encourage active violation of their patent rights. When people are dying, they will steal.⁷⁵

When a whole nation is dying, that nation will revoke property rights to the extent necessary to protect its people from imminent death. Simply witness the activities of Brazil and South Africa in recent years—actions that have severely set back the cause of international harmonization of intellectual property regimes.

C. *The Visible and Invisible Costs of Litigation*

Moreover, there is another danger in sharp enforcement of intellectual property rights: frequently, the very act of filing a lawsuit unleashes a flood of publicity that only adds fuel to the fire which the plaintiff is attempting to extinguish. As noted earlier, the value of information commodities frequently increases, rather than decreases, with use. This phenomenon highlights the dangers inherent in vigorous enforcement of intellectual property rights. By providing extensive media exposure to the subject of a lawsuit, a plaintiff can only intensify the problem it is attempting to

72. *Id.* at 226 n.31.

73. *See id.*

74. Additionally, the development of the sort of intellectual property morality sought by the RIAA might be sub-optimal from the perspective of net social good.

75. *Cf.* CAROL GILLIGAN, *IN A DIFFERENT VOICE* 32 (1982) (noting how boys and girls react to the scenario of weighing respect for patent rights with the ability to save the life of a loved one).

curb with that lawsuit. It is no mere coincidence that Napster's value was at a maximum between the filing of the music industry's suit against it and the date on which the Ninth Circuit upheld Judge Patel's injunction against the service.

Prior to the filing of the Napster suit on December 7, 1999, Napster was largely known among computer aficionados, "phreaks," and hackers. However, with the suit, widespread publicity, notoriety and media coverage followed. As the suit proceeded, millions of ordinary Americans began to hear of the Napster name and they naturally became curious about the service.⁷⁶ Consequently, the number of people who used the service exploded from the 600,000 unique users per month at the time when the lawsuit was filed to nearly triple that figure by April 2000.⁷⁷ Ultimately, Napster reached a whopping peak of over twenty-six million unique users in February 2001, the time at which the injunction against the system went into effect.⁷⁸ The publicity effect was most poignantly demonstrated when, in early May of 2000, Metallica drummer Lars Ulrich made international headlines by naming 300,000 Napster users and Metallica fans in its related suit against Napster. During the week following the event, Napster enjoyed a flood of 141,000 unique daily users, up more than sixty percent from the same count the prior week.⁷⁹ With more users on the service, available songs covered a much wider gamut of musical genres than previously had been available—ranging from jazz, trip hop and classical to heavy metal, hip hop, and rock—and the value of the service was increased for everyone.

76. See *Napster: No Such Thing as Bad Publicity*, USA TODAY, May 23, 2000, available at <http://www.usatoday.com/life/cyber/tech/review/crh161.htm> (noting the profound impact of the publicity from the Napster suit in increasing file-swapping on the Napster system).

77. *Id.* (citing data from Jupiter Media Matrix).

78. See *Jupiter Media Matrix Reports Multi-Country Napster Usage Statistics for February 2001*, available at http://www.jmm.com/xp/jmm/press/2001/pr_040501.xml.

79. See Napster, *supra* note 75.

As noted earlier, the technology supporting Napster has been replicated and its spread is impossible to stop.⁸⁰ P2P sharing is still all the rage on the Internet. And there are dozens of Napster alternatives currently in existence, replete with more advanced features than Napster ever had. However, while aiding millions of acts of piracy per day, no single one of these alternatives has captured the public imagination as Napster did.⁸¹ The reason why is simple: *they have not yet been the subject of a long, drawn-out, high-profile lawsuit.*⁸² As a result, only savvy Internet users know about their existence; and since their value derives largely from the extent of their use and they lack the publicity to make their names well known, the systems are not nearly as useful as Napster in its heyday. The RIAA appears to have heeded this lesson from the Napster case by rapidly settling its dispute with Audiogalaxy rather than engaging in protracted litigation,⁸³ which can also be notoriously costly.⁸⁴ Additionally, the RIAA has picked its battles carefully, choosing not to sue many smaller P2P entities and only striking against systems once they surpass a particular threshold size. Moreover, the strategy of suing individuals gives less attention to the actual systems being used. Indeed, strategic targeting of individual users of P2P systems as a means to deter widespread, uncontrolled piracy could prove to be a useful, albeit risky, strategy.

IV. THE AFFIRMATIVE CASE FOR PIRACY: SELF-INTEREST PROPERLY UNDERSTOOD

80. See *infra* notes 36-39 and accompanying text.

81. See *Jupiter MMXI Press Release*, available at http://uk.jupitermmx.com/xp/uk/press/releases/pr_102901.xml (noting that “[d]espite widespread fears that post Napster or second-generation music swapping services provided a much wider threat to the music industry, the reality has proved to be very different. In fact the size of the European Peer-to-Peer market in August of [2001] (without Napster) is almost half the size it was back in February (with Napster)”).

82. The music and movie industries have filed suit against Grokster, MusicCity and KaZaa, see Nick Wingfield, *Napster Founder Recalls His Creation*, ASIAN WALL ST. J., Oct. 2, 2002, at A5, and once proceedings between the parties to the suit heat up, the popular press will pick up the story and, inevitably, use of these three services (all based on the FastTrack network) will expand exponentially.

83. See *Audiogalaxy Settles Music Piracy Lawsuit*, WALL ST. J., June 18, 2002, at D6.

84. The AIPLA's annual survey documents the skyrocketing costs of trademark, copyright, and patent litigation. See AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF ECONOMIC SURVEY 2001, 16, 84-90 (2001).

As noted earlier, the natural instinct is to protect intellectual property as if it were in the tangible property universe, where goods are defined by a scarcity that always enhances price.⁸⁵ Because the value of intellectual property is not necessarily enhanced by scarcity, however, piracy can spur, rather than hinder, profit, growth, and innovation. Consequently, a series of underutilized policies should be explored prior to pursuing intellectual property litigation.

A. Give It Away Now: Microsoft and Marketshare

85. See *supra* Section II.

The idea of giving away a product in order to capture market share is not unique to the realm of intellectual property. After all, businesses have adopted such a strategy on the material markets for years. Drug dealers frequently give away their first few hits in order to generate demand for their product; laws against predatory pricing practices exist because large, established businesses would otherwise flood the market with a vast quantity of a product at prices below cost in order to drive out a smaller, upstart competitor,⁸⁶ and the maker of a new shaving cream will give out free samples to create recognition and good buzz for its product.

However, intellectual property is particularly amenable to such a strategy. First of all, the marginal cost of production of intellectual property can be close to zero. As a consequence, the short-run economic consequences to a business's books from giving away free product are much less pronounced for intellectual property producers in comparison to their material analogues. Consequently, when attempting to market a high-quality intellectual property-based product in a saturated market, giving away the product can help establish name-recognition and market share at a relatively low cost. Ultimately, when market share and name-recognition are established, investment and sunk costs can be recouped. In the entertainment industry, where the buzz on a product is everything, such a strategy can be particularly rewarding. Interactive game producers, for example, have routinely released screen shots and game trailers to fan sites in order to generate hype for release.⁸⁷

Moreover, rather than giving away widgets through certain channels in order to sell widgets through other channels, one can also give away widgets to sell gidgets. For example, Gillette has often given away razors in order to sell its blades.⁸⁸ As Eric

86. This is particularly true in markets where the established business can erect barriers to entry to prevent a new wave of competitors from constantly entering the market.

87. See Inkel, *supra* note 51, at 905.

88. See Schlatchter, *supra* note 19, at 23-24 (citing Robert Metz, *Shaking the Money Tree*, at <http://www.talks.com/library/rm110496.html> (Nov. 4, 1996)). Similarly, cameras are discounted in order to sell film or development services.

Schlachter argues, such cross-subsidization is even more possible on the Internet with intangible intellectual property, since the marginal costs of reproduction and distribution of such intangible property is nearly zero.⁸⁹

89. See Schlachter, *supra* note 18, at 24.

Secondly, many forms of intellectual property enjoy immense network effects. Hence, it makes more sense to give away free product in order to exploit these network effects further down the road. The Internet enables the rapid international propagation of digitized works. However, contrary to the assertions of some observers,⁹⁰ this does not necessarily mean that greater intellectual property protections are needed for innovators and creators. Thirdly, non-enforcement of available intellectual property protections helps to encourage the anti-regulatory culture of the Internet—a culture that has produced tremendous innovation.

The settlement proposed in November 2001 in the private class action suits filed by consumers against Microsoft provides a poignant demonstration of these principles in action.⁹¹ Software companies, with their ready familiarity with digital technology, their experimental business models, and their nimble marketing methods, have been particularly adroit at properly understanding the benefits of limited intellectual property piracy. When the class representatives attempted to settle the consumer class actions against Microsoft, Microsoft's chief competitors scoffed. Larry Ellison, the CEO and founder of Oracle, and Steve Jobs, CEO and founder of Apple, both called the settlement a huge victory *for Microsoft*.⁹² Microsoft's proposed settlement was a stroke of absolute genius that signified Microsoft's astute understanding of intellectual property and, conversely, the class representatives' ignorance. In a shrewd bargain, Microsoft agreed, as a part of its settlement, to provide millions of dollars in free software to educational institutions. Press releases touted the huge size of the settlement by valuing the cost of this software transfer on the open market.

In reality, the settlement's alleged value in dollar terms—over one billion dollars⁹³—was vastly inflated, as the real marginal cost

90. See generally *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 344 (S.D.N.Y. 2000); Andrew Beckerman-Rodau, *Patent Law—Balancing Profit Maximization and Public Access to Technology*, 4 COLUM. SCI. & TECH. L. REV. 1, 33 n.154 (2002).

91. The settlement, agreed upon by the class representatives party to the antitrust suits on November 20, 2001, was ultimately rejected by Judge Frederick Motz on January 11, 2002. See *In re Microsoft Corp. Antitrust Litigation*, 185 F. Supp. 2d 519, 528 (D. Md. 2002) (noting concern over the settlement's provision to Microsoft of “a means for flooding a part of the kindergarten through high school market, in which Microsoft has not traditionally been the strongest player (particularly in relation to Apple), with Microsoft software and refurbished PCs”).

92. See generally *United They Would Stand*, THE ECONOMIST, Dec. 15, 2001.

93. Microsoft values the settlement at between \$1 billion and \$1.6 billion. See *In re*

of each unit of software being provided by Microsoft is infinitesimally small compared to its retail price, due to the relatively low marginal costs (virtually zero) for the (re)production of information goods, particularly software.

As a key and calculated boon from the settlement, Microsoft would make enormous inroads into the early-education market with the distribution of its software to children. Despite an overwhelming domination of most areas of the consumer software industry, Microsoft has not achieved as much success in the educational market, where Apple continues to hold a significant marketshare. There are huge benefits to becoming an industry standard—benefits of which Microsoft is keenly aware. With low marginal costs for the distribution of its product and with the huge network effects that Microsoft stands to gain from becoming the standard software for the kids of today (and, more importantly, the professionals of the next generation), Microsoft's allegedly punitive antitrust settlement is little more than an invaluable investment in the future strength of the company.

Microsoft Corp. Antitrust Litigation, 185 F. Supp. at 522. Steve Jobs of Apple suggests that the actual cost for Microsoft to donate the software will likely be under \$1 million. See Kelly Zito, *Microsoft Should Pay Cash, Jobs Says/ Apple Opposes Computer Giveaway*, S.F. CHRONICLE, (Dec. 7, 2001) at B1.

Effective exploitation of network effects is nothing new to Microsoft. Its operating system has maintained its dominance and a commanding marketshare, even as many alternative operating systems have come along (many of which have outpaced Windows in ease-of-use, stability, and functionality). However, networking and compatibility issues have enabled Microsoft Windows to remain entrenched as the operating system of more than ninety percent of the world's computers.⁹⁴

94. See Thomas A. Piraino, Jr., *An Antitrust Remedy or Monopoly Leveraging by Electronic Networks*, 93 NW. U. L. REV. 1 (1998) (citing figures presented in the Microsoft Antitrust case). It is worthwhile to note that some authors have argued that the importance of first-mover and network effects in the standardization arena has been greatly exaggerated. In their influential article on the matter, S. J. Liebowitz and Stephen E. Margolis demonstrate that the standardization of the Qwerty keyboard had nothing to do with its first-to-market advantage and high costs of conversion. See S. J. Liebowitz and Stephen E. Margolis, *The Fable of the Keys*, 33 J.L. & ECON. 1 (1990). As Liebowitz and Margolis suggest, the superiority of the Dvorak keyboard was nothing more than a myth and the Qwerty keyboard would not have maintained its dominant position against a clearly superior rival. See *id.* Moreover, as David Friedman has suggested, the choice of an initial standard is frequently a competitive process and "the facts that [a] producer of a particular standard asserted proprietary rights to it might be a reason for users to reject it in favor of some public domain alternative." David Friedman, *Standards as Intellectual Property: An Economic Approach*, 19 U. DAYTON L. REV. 1109, 1128 n.73 (1994). However, once a standard (such as DOS or Windows) is established, technically superior competition frequently loses in the battle for marketshare, largely due to network effects.

Microsoft has enjoyed similar standardization and networking benefits as Microsoft Word has steadily overcome WordPerfect and become the standard word processor in professional circles.

In the past decade, Microsoft has bundled, usually for no or minimal charge, its Word software into new computers bought on college campuses. Meanwhile, millions of pirated copies of Microsoft Word float about freely, many of these on college campuses. However, in the long run, this piracy and free distribution of Microsoft Word is of little worry for Microsoft. In fact, it is precisely because of piracy and free distribution that Word has emerged in the past few years as the dominant word processor in the business world. Simply put, broadly pirated software becomes the standard, and the value from becoming the standard often outweighs any potential losses from piracy. By disseminating its Word software far and wide, especially on college campuses, Microsoft has gradually become the standard word processor for millions of young professionals. Through use of the program in college, these young professionals grow accustomed to the Word graphic user interface, keystrokes, menus, and features.⁹⁵ When they later enter the working world, they demand Microsoft Word and, in the end, businesses respond to user comfort and convert from WordPerfect, the former industry standard, to Word.

Similarly, Microsoft has actually begun to embrace the P2P revolution by using such networks as KaZaa as a marketing portal. In October 2002, it was reported that Microsoft had begun distributing two promotional videos through KaZaa in order to show off the latest features contained in Windows Media 9.⁹⁶ Meanwhile, the creators of the promotional videos also obtained effective advertising by exposing their product to target audiences through inexpensive means.⁹⁷

B. The Grateful Dead: High Capitalism at Its Best

Upon cursory examination, the network and standardization effects that characterize the software market may appear to have

95. Some users even grow accustomed to the annoying paperclip helper character.

96. Jon Healey, *Microsoft Using Kazaa as a Marketing Portal*, L.A. TIMES, Oct. 21, 2002, at C1. The distribution of the videos also fulfilled a second purpose for Microsoft: upon playing the videos, users would have their Microsoft media player automatically upgraded to Windows Media 9.

97. See *id.* at C6.

little relevance to the entertainment side of the information industry. However, network effects apply in a broader sense to the entertainment industry, particularly when one examines them in light of contemporary meme theory.⁹⁸ One of the leading exports of the United States is its culture, memes often transmitted through entertainment media. As barriers that slow the dissemination of information memes are permeated—whether politically (e.g., through increased democratization), legally (e.g., through an expansion in recognized fair use defenses to intellectual property law), or technologically (e.g., through increased data compression (mp3) and superior methods of digital propagation (broadband))—the efficient propagation of information into the world culture is better facilitated. When that very information becomes adopted as a part of the universal culture, its value rises exponentially.

Thus, the entertainment industry is characterized by a powerful offshoot of the network-effects argument: market demand and value can be bred through familiarity rather than scarcity. This is a critical observation with important implications for the impact of piracy on the entertainment industry. The marketing model of the renowned band The Grateful Dead illustrates this point.

98. The concept of a meme was developed by biologist Richard Dawkins, who referred to memes as units of cultural evolution. See RICHARD DAWKINS, *THE SELFISH GENE* 192 (1989). A meme is “an idea, behavior, style or usage that spreads from person to person within a culture.” Charles M. Gastle and Susan Boughs, *Microsoft III and the Metes and Bounds of Software Design and Technological Tying Doctrine*, 6 VIRGINIA J. LAW & TECH 7, 68 n.139 (2001). See generally Susan Blackmore, *The Power of Memes*, SCI. AM., Oct. 2000, at 64; SUSAN BLACKMORE, *THE MEME MACHINE* (1999); *Meme*, OXFORD ENGLISH DICTIONARY ONLINE, available at <http://dictionary.oed.com/cgi/entry/00298365> (defining memes as “[a]n element of a culture that may be considered to be passed on by non-genetic means, [especially] imitation”).

Instead of embarking on a futile and frustrating course of heavy intellectual property litigation against their own fans and small, illegible, and shallow-pocketed bootleg producers (in other words, instead of following the dominant *modus operandi* of the contemporary music business), the Grateful Dead utilized a different model for profit that recognized the uses and limits of intellectual property.⁹⁹ First, the Dead focused their economic model on the sale of a product to which access *could* easily be restricted—the experiential product of a live concert. The Dead recognized that increased exposure to their music could fuel greater interest in their live shows, for which the Dead were legendary. Given the ineffectiveness of digital fences, the Dead relied upon real fences—in the form of stadium gates—to close off access to their commercial product. Moreover, demand was generated for their concerts through bootleg swapping pools actively encouraged by the Dead. In fact, at each of their concerts, the Dead would cordon off a pit close to the stage for hardcore Deadheads who wanted to record the shows on high-quality equipment. These bootlegs made their way among fans and actually helped bolster demand for both Grateful Dead live shows and sales of Grateful Dead records.

Secondly, the Dead generated immense profits through the sale of a number of material, tie-in products—products that were not subject to the intrinsic limitations and enforcement difficulties associated with intellectual property. For example, the late Jerry Garcia tapped into his cult of personality for economic profit with his line of men’s ties. The line catered to the legions of ex-hippies who had long since abandoned their communitarian ideals for an unabashed embrace of capitalistic enterprise, yet retained a love for the Dead’s music and fancied themselves corporate rebels. For these co-opted radicals, the “wild and

99. For further insight into the Dead’s business model, see Robert M. Rush, *Brand Management—Grateful Dead Style*, BRANDWEEK (Aug. 12, 2002); Clinton Wilder, *The Wilder Side: Music Industry’s Long, Strange Trip*, informationweek.com (August 21, 2000), available at <http://www.informationweek.com/800/00uwcw.htm>; Jennifer Sullivan, *Give Away Tunes, Make Money?*, WIRED (Sept. 2, 1999), available at <http://www.wired.com/news/print/0,1294,21523,00.html>.

wacky" Jerry Garcia ties, sold exclusively at Macy's, were the perfect appendage to their corporate uniform.

Finally, the Dead ultimately reaped benefits in the form of sales of their music product. This last point is perhaps the most controversial. However, it sheds light upon one of the central factual disputes in the Napster litigation: did the Napster service cause commercial harm to sales of music?

C. *Napster and the P2P Revolution*

As Napster supporters have argued, P2P file swapping exposes music fans to new music that they may not have otherwise heard (or that they could not afford to sample). As a consequence of this increased exposure, P2P users become commercial consumers of the CDs and live shows of new bands and musicians. Napster and other P2P systems can therefore provide a strong stimulus to music and concert-ticket sales by acting as free advertising. On the other extreme, Napster opponents view every music pirate as a lost consumer (a dubious proposition at best); more reasonably, P2P foes argue that relentless piracy, readily available and without cost, ultimately erodes the commercial market for an information product and kills the incentive for further production of that product.¹⁰⁰

The truth, as usual, lies somewhere in between, and is slightly more nuanced than either party would like to admit. Certain musicians will benefit and others will be harmed. Some acts will undoubtedly be hurt by Napster. One-hit wonders, in particular, will suffer. Music companies will no longer be able to prop up a one-hit wonder with massive label support so that the given song can penetrate heavy rotation lists for the nation's top pop stations in the largest media markets and spin its way into the collective subconscious of the American teenager, dominate the adolescent zeitgeist for fifteen minutes of fame, and generate demand for the sales of the song, which is intentionally made unavailable at the

100. As Anthony Kronman argues in another context, absent an ability to commodify, to exclude others, and to make information costly, producers lose their incentive to create more information. See Anthony T. Kronman, *Mistake, Disclosure, Information, and the Law of Contracts*, 7 J. LEGAL STUD. 1 (1978).

stores, thereby forcing consumers to shell out \$18.00 for a CD packed with eleven filler tracks and the desired track (plus, if lucky, a special bonus remix).

So just as video may have killed the radio star,¹⁰¹ Napster may have killed the economic feasibility of the one-hit wonder. But the music companies need not fear, as the image-driven business model can continue to thrive in the post-Napster environment. It just needs to be done a little differently. In order to remain profitable, music companies may have to tinker with their business model. Music companies can become more involved in the concert side of the music industry, an area where real fences enable performers to prevent piracy. Music companies can address the digital revolution head-on by actually providing reliable Internet downloads of music in formats that enable consumers to play and record their music with the flexibility they now enjoy through P2P services.

Moreover, long-running acts will likely not suffer from the P2P revolution, as fan loyalty generates strong CD sales regardless of bootleg availability. For example, Eminem's most recent album, *The Eminem Show*, skyrocketed to the top of the Billboard charts in its first week despite the fact that his album was bootlegged and widely available in its entirety on the Internet in the weeks before its official release and despite the fact that many of Eminem's most ardent fans are teenagers (precisely the group with greatest access to and use of P2P system).¹⁰² Long-running acts are also able to earn derivative profits from a host of reliable sources, including touring revenue from ticket sales; licensing agreements for commercial advertisements and movie soundtracks; royalty streams from restaurant, radio, and other public performances of their works; and related commercial (non-music) products sold directly to fans (so long as the authenticity of their product is controlled through careful enforcement of use of their trademark).

P2P systems can also spur sales for a large category of musicians—talented singers and instrumentalists who remain undiscovered by the general public because of an inability to

101. See The Buggles, *Video Killed the Radio Star* (quite intentionally, this was the first video ever played on MTV on August 1, 1981).

102. See David Jenison, *An Em-azing One-Day Record*, E! ONLINE NEWS, May 30, 2002, available at www.eonline.com/News/Items/0,1,10025,00.html?eol.tkr. On its first day of release alone, Eminem's record sold 285,000 copies, making it the first album to ever land at number one on the Billboard charts after just one "official" day in the retail racks. See *id.*

obtain heavy label support and radio backing. These individuals and bands will have an unprecedented opportunity to have their music reach the public through P2P and have an opportunity to achieve greater sales as a result. Thus, P2P systems are unlikely to prevent artists as a whole from recouping rewards for their intellectual labors. Rather, P2P systems and changing technologies may alter the nature of creative works and their distribution, as well as the *types* of works that are most rewarded economically.

Thus, efforts by the music industry to shut down P2P file sharing could be nothing short of myopic, as the effect of P2P is not totally clear.¹⁰³ In fact, a recent market analysis by Jupiter MMXI, an Internet market intelligence firm, found that heavy online file-swappers were also more likely to spend money buying CDs in shops.¹⁰⁴ Music industry studies to the contrary have frequently been fatally flawed. For example, during the Napster case, Soundscan's CEO, Michael Fine, testified on behalf of the music industry. As he argued, P2P file sharing has eroded music sales.¹⁰⁵ Specifically he pointed to evidence showing that, while overall CD sales increased from 1997 through 2001, sales of CDs near the top forty wired college campuses have declined significantly.¹⁰⁶ However, all of his figures specifically excluded legal sales of CDs on the Internet.¹⁰⁷ This omission annihilates the validity of his conclusions. *Ipsa facto*, students from the top forty wired colleges in the United States, who are more likely to be P2P file sharers, are also much more likely than the general public to purchase their CDs through the Internet rather than through traditional means. Hence, the purported erosion in CD sales recorded at record stores near college campuses could just as well be the result of increased Internet purchases of CDs (a market that has expanded dramatically over the past five years) rather than a decline in CD purchases overall by these students. Recent economic literature has also demonstrated that, in some instances, the sharing of information goods can generate increased, rather than decreased, profitability, especially where

103. See *Napster: The Long Goodbye*, THE ECONOMIST, MAY 18, 2002, at 64.

104. See *id.* at 64 (citing the Jupiter MMXI study).

105. See *Report of Michael Fine*, filed June 10, 2000, A&M Records, Inc. v. Napster, Inc., No. C99-05183MHP, 2001 WL 227083, at *1 (N.D. Cal. March 5, 2000).

106. See *id.*

107. See *id.* at 4.

demand aggregation serves to decrease buyer diversity.¹⁰⁸ As one study concluded with respect to small-scale sharing, “public and private policies that simply focus on the total amount of sharing done, without regard to the types of teams that do the sharing, will often severely miscalculate the effect [of sharing] on profit.”¹⁰⁹ On the other hand, much ado has been made of the recent slump in CD sales;¹¹⁰ however, this decline could be caused by low consumer spending, the economic recession, and the music industry’s failure to meet consumer demands for products in digital and portable formats, rather than by the deleterious impact of file sharing on sales.¹¹¹

D. Innovation and Culture

The anti-regulatory culture of the Internet also has remarkable innovation advantages.¹¹² One can derive tremendous value from the work of others and then use it to profit. It is precisely for this reason that intellectual property law has historically attempted to balance private incentives for creation with the

108. See, e.g., Yannis Bakos et al., *Shared Information Goods*, 42 J.L. & Econ. 117, 148 (1999). Drawing an analogy to literature demonstrating how commodity bundling can enhance seller profitability, Bakos et al. note that the free sharing of information goods can achieve similar effects: “A long line of scholarship suggests that . . . [commodity bundling, a practice whereby a seller chooses to sell several goods together in a single package instead of selling each good individually,] can enhance profit since . . . consumer valuations for multiple products tend to have a profitability distribution with a lower variance per good as compared to consumer valuations for each product individually. . . . [J]ust as bundling can increase a seller’s revenue by combining several consumer’s demand for several goods, sharing can increase a seller’s revenue by combining several consumer’s demand for a single good. Under the right conditions, either type of aggregation can be a boon to the seller.” *Id.* at 124-25 (footnotes omitted). But see Michael J. Meurer, *Price Discrimination, Personal Use and Piracy: Copyright Protection of Digital Works*, 45 BUFF. L. REV. 845, 851 (1997) (noting that sharing of information goods can make price discrimination more difficult, and therefore diminish profitability, since sellers will have a harder time sorting customers into homogenous groups).

109. Meurer, *supra* note 108, at 148.

110. According to industry figures, CD shipments fell by seven percent in the first six months of 2002. See Wingfield, *supra* note 81, at A5.

111. In fact, the decline in music sales could be the industry’s own *intentional* doing. The music industry faces price-fixing charges in the CD market. If true, these allegations would mean that the music industry inflated the price of CDs above market equilibrium, therefore artificially lowering demand and creating deadweight loss (but, presumably, increasing profits). See Oscar S. Cisneros, *States: Labels Fixed CD Prices*, WIRED NEWS, available at <http://www.wired.com/news/politics/0,1283,38103,00.html> (Aug. 8, 2000); Stephen Labaton, *Five Music Companies Settle Antitrust Case on CD Price-Fixing*, N.Y. TIMES, May 11, 2000, at A1.

112. The Internet culture of free information exchange and its skepticism of intellectual property rights may also favor information producers who market their products without the threat of intellectual property enforcement.

maintenance of a rich public domain from which innovation can occur. As Judge Alex Kozinski has noted,

[I]ntellectual property law is full of careful balances between what's set aside for the owner and what's left in the public domain for the rest of us: The relatively short life of patents; the longer, but finite, life of copyrights; copyright's idea-expression dichotomy; the fair use doctrine; the prohibition on copyrighting facts; the compulsory license of television broadcasts and musical compositions; federal preemption of overbroad state intellectual property laws; the nominative use doctrine in trademark law; the right to make soundalike recordings. All of these diminish an intellectual property owner's rights. All let the public use something created by someone else. But all are necessary to maintain a free environment in which creative genius can flourish.¹¹³

113. See *White v. Samsung Electronics America, Inc.*, 989 F.2d 1512, 1516 (9th Cir. 1993) (Kozinski, J., dissenting).

Indeed, the Internet culture of free information exchange has been widely heralded, and its public benefits have been well documented. Simply witness the development of the Linux system through the open-source movement. In the case of Linux, a Unix-like operating system initially developed by Finnish programmer Linux Torvalds, the absence of intellectual property enforcement has enabled anyone to access the code for the system.¹¹⁴ As a result, the system is constantly subjected to a peer review process that leads to repeated enhancements and improvements to the code. This evolutionary process, driven largely by the Internet's "gift culture,"¹¹⁵ has made Linux the most stable and technically sound operating system currently available.¹¹⁶

It is important to note that the benefits of a rich public domain do not simply accrue to the public. There are also strong private benefits from the anti-regulatory culture of the Internet. The development of Linux, for example, has not only benefited the public; it has also created an entirely new market of products (commercially sold) for the operating system and numerous corporations have developed significant and profitable product lines.¹¹⁷ As Marcus Maher notes,

[A] number of companies have successfully based their business on selling open source software. Part of what is being

114. The Linux operating system carries with it a GNU General Public License. See The General Public License (GPL), at <http://www.opensource.org/licenses/gpl-license.html> (last modified June 1991).

115. Marcus Maher, *Open Source Software: The Success of an Alternative Intellectual Property Incentive Paradigm*, 10 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 619, 632 (2000). The "gift culture" is, of course, not without its own selfish motivations, as Maher notes. See *id.* at 632.

116. As Patrick Bobko notes, "Linux is gaining recognition as the most stable and technically sound operating system available and is making inroads into Corporate America." Patrick K. Bobko, *Linux and General Public Licenses: Can Copyright Keep "Open Source" Software Free?*, 28 AM. INTELL. PROP. L. ASSOC. Q.J. 81, 85 (2000).

117. See Maher, *supra* note 113, at 643.

sold is simply a convenient aggregation of open source programs. However, many of these companies also provide value beyond this convenient aggregation. For example, traditional models of customer support may be provided for the programs included in the software package. These businesses may also help to implement changes suggested by their customers for immediate use by the customers in their environment, and perhaps also in future versions of the product.¹¹⁸

By enabling others to innovate freely for them, numerous Internet players have also derived profit directly from the powerful sharing ethos fostered online. Such innovations can often be co-opted commercially at a low price and with little initial investment. Amazon.com, for example, has thrived on the sharing spirit of individuals who are willing to write user reviews of the products sold on their website. These reviews form an unrivaled database of commentary that lures individuals to the amazon.com website and, more often than not, leads to purchases. In fact, it is precisely because of this value-added contribution that amazon.com was able to ward off a strong challenge from barnesandnoble.com in the battle for online booksellers. Amazon.com offered value-added content to its website that barnesandnoble.com lacked—value-added content that was produced through the goodwill and creativity of its consumers.

118. *Id.* at 643-44.

Through Internet sharing and goodwill, Gracenote cddb has been able to do what would have otherwise cost millions of dollars in human labor—compile a list of tracks on virtually every commercial compact disc known to humankind.¹¹⁹ This proprietary and valuable database is then used by audio players such as Winamp and Realaudio as a means to identify any audio compact disc played on a computer.¹²⁰

119. See <http://www.gracenote.com>.

120. Now that Gracenote has privatized the cddb database, it is the subject of a lawsuit questioning whether databases formed through submissions by individual members of the public can be considered the property of the company that collects and formats that data. See Robert Lemos, *Access Denied*, CNET NEWS.COM, at http://news.com.com/2009-1023-258109.html?legacy=cnet&tag=tp_pr(May 24, 2001).

Similarly, game developers frequently allow fans to tinker with their programs and develop improvements, which are then implemented in new releases.¹²¹ Moreover, the development and evolution of P2P systems illustrates the benefits of the Internet's anti-regulatory culture. Napster, the Internet's first "killer app," was developed as a direct result of the free-sharing spirit of the Internet. Rather than engaging in a futile series of lawsuits against the endless stream of P2P systems, the music industry could have capitalized on the tremendous innovations introduced through the development of Napster, Audiogalaxy, and other P2P systems. To a limited extent, the music industry has done this with the development of the Rhapsody pay-site; however, the industry's stubborn insistence on not providing consumers, through legitimate channels, with the flexibility they crave continues to be a problem. Rhapsody, which draws on data compiled through the Audiogalaxy system before it was shutdown by the RIAA, has a wealth of information about various artists. The system is also clean, reliable and well organized. Thus, it provides access to music far superior to that of any free-site in all ways but one. At the core, Rhapsody falls short of meeting consumer demands by failing to provide consumers with the ability to access music in the way they want. Rhapsody allows no downloading of music, presumably in order to prevent bootlegged copies of music from flooding the Internet.¹²² As the popularity of Napster demonstrated, users want to be able to download music so that they can listen to it without being connected to the Internet, and they want their music in mp3 format, since that enables them to transfer music to discrete CD players, DVD players, and portable mp3 players.¹²³ As the commercial success of Apple's i-Tunes reveals, consumers will pay for unrestricted digital access to music by their favorite artists.

V. THRIVING IN A POST-STRUCTURALIST ENVIRONMENT: ECONOMIC GROWTH IN THE ABSENCE OF LEGAL ENFORCEMENT

121. See Inkel, *supra* note 51, at 904-05.

122. It is almost as if the music industry is in complete denial that the Internet is already flooded with bootlegged copies of copyrighted music.

123. Rhapsody fails to give music consumers the flexibility they demand because to use the service, an individual must be connected to the Internet. Moreover, the music provided is not in a format that can be easily captured and transferred to CD players, DVD players, or mp3 players.

As noted earlier, this Article does not advocate piracy without limits or an end to the availability of intellectual property protections secured by statutes. Companies cannot simply give away their product with reckless abandon, somehow expecting to recoup their costs of investment sometime indefinitely down the road. However, even where piracy might be harmful to a corporation, heavy enforcement of intellectual property rights may not be needed to spur development and profit in technology and/or information industries. Enforcement can be notoriously expensive and counterproductive, even where it is desired and legitimately needed. Instead, there are other mechanisms besides legal enforcement to minimize piracy deemed harmful to a corporation. Assuming actors divorced from morality,¹²⁴ piracy occurs where the costs of illicit reproduction are less than the cost of purchasing intellectual property at the store. While digital technology has the capability of pushing the costs of illicit reproduction to near zero, this need not be the case. Corporations can increasingly turn to a bundle of non-legal mechanisms to raise the relative costs of illicit reproduction or reduce the costs of purchasing intellectual property in order to protect their information commodities.

A. The New Enclosure Movement: The Uses and Limits of Digital Fences

124. By sharp comparison to the world of tangible property, society has yet to achieve a strong, consistent and universalized morality in the intellectual property arena. See *supra* Section III.C.

First of all, the most acknowledged mechanism for protecting intellectual property in the absence of legal enforcement is the use of network architecture. Lawrence Lessig's seminal book, *Code*, contains the strongest expression of this view.¹²⁵ According to Lessig, the demise of intellectual property at the hands of the Internet has been greatly exaggerated. Admittedly, the Internet has made legal enforcement of copyright all the more difficult by rendering tracing and punishment of copyright violators incredibly costly and difficult.¹²⁶ As John Perry Barlow asserts, "copyright . . . was developed to convey forms and methods of expression entirely different from the vaporous cargo it is now being asked to carry."¹²⁷ The wine is now available without the bottle and, as such, legal mechanisms that attach to the bottle have become increasingly irrelevant. Moreover, digital technology has given individuals the ability to copy intellectual property with unprecedented ease and privacy.

However, the increasing inability of legal protections to regulate intellectual property use on the Internet does not necessarily render intellectual property protection impossible. In fact, as Lessig argues, the digital revolution has led to the development of digital fences and the use of private code that will enable the holders of intellectual property rights to enforce protection without reliance on legal mechanisms. Code will reintroduce protection eroded by technology. In the argot of Mark Stefik,¹²⁸ "trusted systems" will emerge on top of the existing Internet network, controlling access to intellectual property resources through such devices as encryption, enabling owners of intellectual property to "sell access to [their] materials on terms they want" and to enforce those contracts privately.¹²⁹

Thus, Lessig concludes that use of secured networks, digital fences, and code on the Internet will help ensure the protection of intellectual property in the coming years, perhaps even to a level so high that it becomes socially undesirable by robbing the public domain of important informational content. As he boldly claims, "we are . . . entering a time when copyright is more effectively protected than at any time since Gutenberg. The power to

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

126. See Esther Dyson, *Intellectual Value*, WIRE, July 1995, at 137.

127. John Perry Barlow, *The Economy of Ideas*, WIRE, March 1994, at 85.

128. See Mark Stefik, *Shifting the Possible: How Trusted Systems and Digital Property Rights Challenge Us to Rethink Digital Publishing*, 12 BERKELEY TECH. L.J. 137 (1997).

129. LESSIG, *supra* note 122, at 128.

regulate access to and use of copyrighted material is about to be perfected.”¹³⁰ In such an era, we may be providing holders of intellectual property rights too much, rather than too little, protection.¹³¹

130. *Id.* at 127.

131. *See id.*

Lessig and other critics¹³² are correct in emphasizing the role of code in protecting intellectual property in the digital age, particularly as a counterbalance against the technological changes that render legal enforcement increasingly quixotic. Implementing exclusion policies based on network architecture can undoubtedly help secure profit margins in the absence of intellectual property rights. For example, the creators of such information databases as the online Encyclopedia Britannica have relied on such technical protections, including encryption techniques, to protect their information and derive economic gain from the sale of its access through their own secured, trusted system.

However, the importance of code, much like the demise of law, has been greatly exaggerated. As Lessig writes,

What copyright seeks to do using the threat of law and the push of norms, trusted systems do through code. . . . Trusted systems give access only if rights are respected The controls needed to regulate this access are built into the systems, and no users (except hackers) have a choice about whether to obey these controls. The code displaces law by codifying the rules, making them more efficient than they were just as rules.¹³³

With this sentence, Lessig concedes that hacking provides an exception to the primacy of code. This exception, however, appears to swallow the rule.

132. See, e.g., William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203, 1210 (1998) (noting that "the techniques for tracking intellectual products are improving swiftly. As a result, it will soon be much easier for creators to monitor the ways in which their creations are being employed--and thus to enforce contractual limitations on permissible uses. And, encryption technology will likely enable creators in the future to differentiate ever more precisely permissible from impermissible activities).

133. LESSIG, *supra* note 122, at 130.

Simply put, encryption systems can be circumvented; hackers can infiltrate and subvert secured networks; the architecture can be transformed. It has happened time and time again: simply witness the ill-fated attempt of the music industry to develop copy-protected discs. A crack—low-tech to boot—was quickly discovered and rendered the protection technology wholly ineffective. By drawing a thick line around the outer edge of a copy-protected CD with a felt-tipped pen, CDs can be copied, despite the music industry's best efforts.¹³⁴ Similarly, the DVD Content Scrambling System, a code embedded into the architecture of every DVD, has already been hacked and the script for De-CSS was, for a time, posted about the Internet, including a link to it from the leading hacker magazine, 2600. In fact, the only thing stopping the De-CSS script from being more widely known and utilized has been reliance on and enforcement of the *law*. Through enforcement of the Digital Millennium Copyright Act,¹³⁵ good old-fashioned courts, including the Second Circuit,¹³⁶ have assured—at least so far—that the crack not achieve widespread propagation.¹³⁷

Admittedly, hacking around encryption techniques is often fraught with complexity. These difficulties raise the marginal costs of (illicit) reproduction to above zero, thereby making the decision to purchase a product, rather than seeking out its bootlegged alternative, more likely. For example, the music industry has recently turned to the development of tags on copyrighted songs in order to combat online piracy. Copyright tags invisibly attach themselves to digital formats of songs; unwitting users who download such a tagged song will be disappointed upon completion of their download, finding that they possess a song that can be neither played nor copied. While

134. See *CD Crack: Magic Marker Indeed*, WIREDNEWS, at <http://www.wired.com/news/technology/0,128252665,00.html> (May 20, 2002). Thus, under the Digital Millennium Copyright Act, 17 U.S.C. § 1201, which criminally proscribes circumvention of copy protection schemes and the possession of devices that can circumvent copy protection, it is possible that possession of felt-tipped pens could be considered a criminal offense. See Michael Himowitz, *Felt-Tipped Pens Potentially Illegal*, TULSA WORLD, June 3, 2002, at 7.

135. 17 U.S.C. § 1201.

136. An injunction issued preventing websites from even linking to a copy of the De-CSS code, see *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 346 (S.D.N.Y. 2000), and this injunction was upheld by the Second Circuit, see *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001).

137. Of course, whether code constitutes speech and whether the Digital Millennium Copyright Act (DMCA), which proscribes the publication of such cracks, violates the First Amendment is quite another issue.

copies of non-tagged songs may still float throughout cyberspace, individual pirates now run a risk of downloading a tagged song, thereby increasing the costs of reproduction, which in turn acts as a deterrent against piracy. Even where attempts to use technological barriers ultimately end up easily cracked, that does not mean they are entirely unsuccessful. After all, it took a while to develop even the low-tech crack for copy-protected CDs; during this time, copy-protection mechanisms helped to increase the costs of piracy relative to the costs of purchasing the product through ordinary channels.

However, the efficacy of code is variable and unpredictable. Moreover, even where effective, the use of code is not without significant costs to its advancers. For instance, the music industry's decision to use copy-protected CDs fueled resentment from music consumers who were not able to get music in the mutable digital format they wanted. It undoubtedly forced consumers who would have otherwise purchased CDs to turn to pirated copies that provided them with the ability to listen to music in the format they wanted—whether on a “mix” CD, through their portable mp3 players, or accessible through the Internet. Secondly, the clandestine introduction of unlabeled copy-protected CDs may have unwittingly exposed the music industry to liability issues for false advertising and unfair business practices. As the software industry learned long ago, code is easily cracked and there are many other extra-legal mechanisms to rely upon to achieve adequate rates of return on intellectual property.

B. The Availability of First-to-Market Advantages in Cyberspace

Drawing on the work of the New Chicago School,¹³⁸ Lawrence Lessig notes that the interplay of four different social constraints form regulatory systems. These social constraints include the law, architecture, norms, and the marketplace.¹³⁹ For example, cyberspace is regulated by our laws, the code of the network, a distinct set of cybernorms, and the realities of the marketplace. Thus, when technology threatens to render legal protection impractical, it is not solely network architecture that can protect

138. See Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661 (1998).

139. LESSIG, *supra* note 122, at 86-88.

intellectual property. Norms and the marketplace can have a powerful effect as well. In particular, the marketplace, combined with continued enforcement of trademark laws, can continue to provide intellectual property creators with an ability to amply profit from the development of their product.

First, there are significant marketing and reputational advantages for those who come first to market with a product and these advantages should be fully exploited. There is always a lag between the moment when a creator goes to market with a new product and the moment when imitators can reach the market with their product. This lag—where the creator is also the exclusive provider of the product without the aid of intellectual property enforcement—enables the creator to accrue tremendous marketing and reputational advantages.¹⁴⁰ Reputation reduces search costs for consumers seeking a particular product, thereby reducing the relative price of purchasing intellectual property over pirating it. Consequently, reputational advantages help to mitigate piracy, even in the absence of any intellectual property enforcement.

140. Information economist Jack Hirshleifer has argued that intellectual property producers also can trade on knowledge of their inventions and receive gain thereby. See Jack Hirshleifer, *Private and Social Value of Information and the Reward to Inventive Activity*, 61 AM. ECON. REV. 561 (1971). This assertion is quite idealized, as it assumes access to liquid and smoothly functioning capital markets that price the value of all information. However, Hirshleifer does raise another important mechanism through which sufficient return on investments in intellectual property can be obtained in the absence of legal enforcement.

Admittedly, lead times may not be as significant as they were in the past. As Justice Breyer recounts, to obtain a lead time in the nineteenth century, an American publisher would pay popular English writers substantial royalties for early proofs of a new novel. The proofs would then arrive in America well before any other publisher could compete by obtaining a copy of the book's English edition.¹⁴¹ By the twentieth century, publishers still appeared able to exploit lag times, leading then-professor Steven Breyer to argue in 1970 against copyright extensions:¹⁴² "By the time a copier chooses a book, prints it, and distributes it to retailers, he may be six to eight weeks behind, by which time the initial publisher will have provided retailers with substantial inventories."¹⁴³ Combined with the threat of retaliation, first to market advantages appeared to provide sufficient incentives for book publishing in the absence of copyright, he argued.¹⁴⁴ With the ability to separate content from physical form through digitization and the power of the Internet to disseminate such content around the globe in a matter of minutes, one might question the continued relevance of Justice Breyer's point.¹⁴⁵ In many ways, however, reputational advantages have grown increasingly powerful as the divide between material and intellectual property has grown increasingly pronounced—as the wine has separated itself from the bottle. Hence, while digital technology has made piracy easier, digital technology has also heightened the ability of marketing and reputational advantages to make piracy *less* desirable.

141. Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 299-300 (1970).

142. Given Justice Breyer's stance on the issue in 1970, his dissenting opinion was not surprising in *Eldred v. Ashcroft*, 537 U.S. 186 (2003) (Breyer, J., dissenting).

143. *Id.* at 300.

144. *See id.*

145. See, for example, the government's brief in *Eldred v. Ashcroft*, arguing that changes in technology and an increase in piracy suggest that copyright extension is needed now more than ever. See Respondent's Brief in *Eldred v. Ashcroft*, 2002 WL 1836720, at *33 (August 5, 2002).

The Internet is a quintessential space where reputational advantages to businesses are of paramount importance. There is no physical geography on the Internet and no prime real estate (at least, thus far).¹⁴⁶ Every website, whether a “.com,” “.net,” “.org,” or “.tv,” is just as accessible as any other website; when users log on to the World Wide Web, they face a big blank screen ready to take them wherever they want.¹⁴⁷ Consequently, a potential consumer will gravitate towards known names. Admittedly, known names matter in real space as well. But, location is also critical in cyber space: *ceteris paribus*, a consumer will shop at a closer store over a faraway one and a store located in a safer neighborhood over one located in a more dangerous neighborhood. In cyberspace, location has been rendered immaterial. What remains is name recognition—branding—and its intellectual property analogue—trademark.

For example, when a consumer wants to purchase books online, he or she has to select a website to surf. Amazon.com, the Internet's first major bookseller, represents the first-to-market exemplar, par excellence. Amazon.com is nothing more than a bookstore that happens to be located in cyberspace. There is little preventing any other entity from setting up a similar shop on the Internet (and many others have tried). However, Amazon.com thrives precisely because it was the *first* bookseller on the Internet. Hence, Amazon.com's reputational advantages have enabled it to secure the dominant position in the online

146. One can imagine the Internet becoming ghettoized with the emergence of new top-level domains to which certain ISPs may not allow access. For example, there are proposals requiring adult websites to be relegated to their own top-level domain name. See North Carolina House Resolution 1804 (Sept. 23, 2002); California Senate Joint Resolution No. 27 (Aug. 5 2002); Hawai'i Senate Resolution No. 7 (Apr. 12, 2001); Washington State Joint Memorial No. 8007 (Jan. 16, 2001); Mike Himowitz, *Safe Sex: A Web with .xxx?*, NEWSDAY, Jan. 3, 2001, at C9.

147. Or, more often than not, they face a Microsoft Network portal that is set as the default website upon the loading of Microsoft's Internet Explorer.

bookselling industry in the absence of any real intellectual property protection for its site.¹⁴⁸

148. Excluding, of course, Amazon.com's attempts to enforce its one-click patent.

Take a hypothetical example. A music fan back in 1997 wants to obtain his favorite songs in a portable and digital format. His instinctive response is easy to predict: he would have logged on to the Internet and then surfed to the official websites of the bands he loved or the official websites of the record labels whose names he knew. Unfortunately, he would not have found any portable, digital music at that time, because the record labels were afraid of placing their songs online without sufficient protections against their mass reproduction. Hence, Napster emerged and responded to a huge pent-up demand for portable, digital music. If, however, the major record labels had gotten to the market first with mp3, using their tremendous reputational advantages and direct access to a vast back catalog of music, there may never have been a need for Napster.¹⁴⁹ *Napster emerged not only because people wanted to get music at no cost—after all, this is something they could do before the advent of the Internet through other means—but because people also wanted to obtain music quickly in a portable and digital format.*¹⁵⁰

The record labels missed a golden opportunity to translate their brand name and reputational advantages in the physical world to the provision of digital and portable music in the cyberworld. If anything, however, this suggests the primacy of domain names, branding, and trademark, rather than copyright and patent, enforcement in the cyberage.¹⁵¹

149. The movie industry appears to have learned from the music industry's mistakes in this area. In November, 2002, the five major movie studios began to offer films through an Internet service entitled Movielink. As Rick Finkelstein, president and chief operating officer of Universal Pictures explained, "We need to start the process and get this service up and running, test it, get feedback, and spend the necessary time to perfect it. *You want to be sure that you're there when the demand occurs. Otherwise, there's a risk that the pirates comes in and occupy this space.*" Jon Healey, *Online Movie Service Launches*, L.A. TIMES, Nov. 11, 2002, at C1, C6 (emphasis added).

150. Of course, even without P2P sharing, individuals could obtain music in a portable and digital format by going to a CD store, purchasing a non-copy protected CD, obtaining ripping software, and then taking the time to rip tracks individually from the CD into mp3 format. However, aside from monetary compensation issues, Napster largely eliminated these inconvenient steps in the process of obtaining portable and digital music.

151. For example, Robert Young points to the marketing strategy of Linux software developer Red Hat, which has succeeded in a technological environment in the absence of intellectual property rights. He likens Red Hat's success to that of Heinz. People can make their own catsup and there is nothing technically superior about Heinz catsup. Nevertheless, Heinz has developed a huge marketshare, and enjoys tremendous profitability, in the catsup market due to brand marketing. See ROBERT YOUNG, *GIVING IT AWAY IN OPEN SOURCES: VOICES FROM THE OPEN SOURCE REVOLUTION* 115-17 (1999).

C. *Getting It Right: Quality and Market Demand in the Absence of Intellectual Property Enforcement*

Regardless of the existence of piracy, there are always those who demand product at perfect quality or in an authentic form. This simple fact undercuts the ability of free distributors of pirated products to overtake more than a marginal segment of any market for an information commodity. For example, companies cannot afford to have bootlegged copies of software when their entire systems depend on that software functioning properly to keep them in business. Law firms do not use hacked copies of Microsoft software. Aside from the legal liabilities they would face, they need the software to work as well as it can. They can ill-afford unnecessary crashes when their entire economic enterprise depends upon the proper functioning of their computer networks. Likewise, hospitals cannot risk giving patients cannibalized drugs. Audiophiles and movie buffs still view the mp3 and DIVX formats as imperfect and actually prefer to see and hear the real thing.

Of course, some critics argue that each successive wave of technology has seen pirated goods getting closer and closer to the real thing, thereby increasing the incentives for and value of piracy. For example, Lawrence Lessig notes that “the Net promise[s] perfect copies of digital originals at practically no cost.”¹⁵² Moreover, as Nicholas Negroponte argues, “[i]n the digital world, . . . [the] copy is as perfect as the original and, with some fancy computing, even better. In the same way that bit strings can be error corrected, a copy can be cleaned up, enhanced, and have noise removed. The copy is perfect.”¹⁵³ With respect to music, putting the tape deck to the TV to record your favorite song was a barely passable substitute for the original recording; taping directly from the fm radio was much better; and the mp3 and SHN formats now approach CD quality, making a bootleg copy of a song almost as crystal-clear as a commercial copy.

However, these critics ignore two key points. First, at some level, the bootlegged copy is not quite the same as the real thing. Particularly in segments of the information industry—such as entertainment media—where possession of the authentic,

152. LESSIG, *supra* note 122, at 125.

153. NICHOLAS NEGROPONTE, BEING DIGITAL 58 (1995).

genuine, commercial product is the product itself, bootlegging is no substitute.¹⁵⁴ Just as Cubic Zirconium never destroyed the market for diamond engagement rings,¹⁵⁵ piracy will never destroy an entertainment or fashion industry whose principal demand generator is a notion of “cool” that defines cache value by possession of the authentic, genuine, commercial article.

154. This is particularly true, for example, in the world of haute couture.

155. Of course, unlike a digital copy and original master of a movie, Cubic Zirconium and diamonds do not have identical structures. However, they have the ability to function identically as engagement rings (though not as glass cutters) and are difficult to distinguish with the naked eye.

Secondly, and even more importantly, a noncommercial provider of a good has less economic incentive than a commercial provider for efficient provision and quality control of the good in question.¹⁵⁶ As a consequence, on a system such as Napster, Audiogalaxy, or KaZaa, titling is imprecise, accessibility limited, transmission speeds slow, and it can often be hard to find what one is looking for. Additionally, free P2P pirating systems are incredibly easy to disrupt, as the music industry has recently found out. Instead of spending millions of dollars on the Napster lawsuit, the music companies could have sabotaged Napster in a much quicker and cheaper manner by introducing incorrectly titled songs into the system. Michael Jackson songs could have been intentionally mislabeled as Metallica songs. Imagine the horror when a teenager expecting to hear Metallica's hard-rocking "Enter Sandman" instead hears Michael Jackson's high-pitched, hormonally-induced screeches in "Billie Jean." The imprecisions that define any bootlegged information commodity—ranging from mere nuisances (a music fan seeking to listen to the Smiths might get the Smithereens) to life threatening (a patient who receives methamphetamines instead of morphine)—increase the expected cost of piracy and therefore naturally limit rates of piracy. In fact, the increasing number of Internet users who claim to have been "spoofed" by spending hours downloading music only to find out it has been mislabeled has increased dramatically, and has led many to speculate that the music industry has gotten wise to this inexpensive means of undermining P2P sharing networks.¹⁵⁷ Once again, it is trademark, more than copyright, that can help consumers identify quality providers.

For those who need it right, piracy is not a feasible alternative. After all, I could create some patented drug by myself in the comforts of my own kitchen. The formula is available as a part of the deal struck between patentees and the Patent and Trademark Office.¹⁵⁸ But I do not do that because it is difficult, it is

156. A commercial provider of pirated goods may, however, have sufficient incentives for efficient provision and quality control of the good in question. This is one reason (among many) why anti-piracy efforts should be concentrated on rival commercial pirates rather than noncommercial P2P trading.

157. Of course, pro-P2P forces have already begun to subvert spoofing efforts by the music industry with the development of such programs as edonkey and overnet, which carefully scan the digital properties of mp3s to confirm that they are properly labeled.

158. See 35 U.S.C. § 112 (setting forth the specification requirement of the Patent Act).

imprecise, and I need a known quality before ingesting a series of foreign chemicals into my body.

D. The Limits to Laissez-Faire

At this point, it is critical to point out an important limitation to the argument advanced by this Article. This Article does not advocate unabashed piracy of intellectual property. Moreover, it does not suggest that any and all infringement of intellectual property rights are good, either socially or for the company that owns those intellectual property rights. It does not even argue that legal enforcement of intellectual property rights is passé or outmoded. In some areas, piracy accrues no private benefit to the owner of the intellectual property right—this is particularly true for certain types of utility patents, including business method patents, for which network and standardization effects are insignificant. Moreover, when a competing company begins to violate one's copyright or patent, and distributes one's product for profit rather than for free, aggressive and swift legal recourse is the appropriate measure. Indeed, corporate and economic realities make legal enforcement particularly valuable in such a scenario. Specifically, the law remains remarkably effective in dealing with intellectual property theft by large corporations. Should they violate someone's intellectual property rights, large corporations, unlike individuals, are highly visible and legally legible targets with deep pockets. They are therefore particularly subject to liability risk through civil and criminal sanctions. And, they should be subject to such civil and criminal penalties.

However, the same logic does not apply to non-profit, individual, or corporate-shell infringers who are more easily able to avert legal enforcement and against whom legal enforcement may not even be necessary, as this Article argues. Indeed, in all situations, owners of intellectual property should always consider the alternatives and perspective discussed herein prior to pursuing legal action.

E. Alternative Business Models

Even in the presence of extensive piracy, intellectual property owners can actually increase their profits through the use of a variety of business strategies. First of all, as economists have suggested, profits can be substantially increased under a given

legal regime through effective utilization of differential pricing.¹⁵⁹ By combining market information about the ability and willingness of various consumers to pay for intellectual property and through utilization of external signs and signifiers to encourage self-selection of consumers into multiple pricing brackets,¹⁶⁰ intellectual property holders can achieve far greater rates of return on intellectual property assets than under a uniform pricing scheme wherein a good is sold at the same price to all consumers in all places. Moreover, as noted earlier, some forms of piracy can actually make price discrimination easier, thereby enhancing profitability.¹⁶¹

159. For a detailed economic analysis of the impact that price discrimination can have on profits, see Hal R. Varian, *Differential Pricing and Efficiency at* <http://alfred.sims.berkeley.edu/Different/different.html> (June 1996) (arguing that it is optimal for intellectual property to be offered on a price-discriminated basis). See also William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203, 1234-40 (1998); Yochai Benkler, *An Unhurried View of Private Ordering in Information Transactions*, 53 VAND. L. REV. 2063 (2000); Julie Cohen, *Copyright and the Perfect Curve*, 53 VAND. L. REV. 1799 (2000); Wendy J. Gordon, *Intellectual Property as Price Discrimination: Implications for Contract*, 73 CHI.-KENT. L. REV. 1367, 1387-88 (1998).

160. Boyle, *supra* note 3, at 2023.

161. See *supra* note 106.

Price discrimination can be achieved in a number of ways. For example, as James Boyle notes, “markets can be segregated by time, early release at a high price followed by a slow diminuendo designed to capture every combination of eagerness and resources.”¹⁶² Product can also be segregated geographically. By getting richer consumers in the United States and Europe to pay one price for a given drug while poorer consumers in Latin America and Africa pay a lower price, drug companies could expand their sales, enhance their profits, and head off equity issues regarding the access to life-saving drugs in developing nations.¹⁶³

The biggest stumbling block to the implementation of such a scheme in the biotech world is the fear that cross-border medicinal flows will erode drug company profits from sales in the West. Monitoring of cross-border medicine flows is, at best, only partially effective.¹⁶⁴ However, the fear of profit erosion is not an impossible concern to address. Developing countries can implement an effective mechanism to prevent profit erosion: health clinics in developing countries (and in low-income communities inside of developed countries) can and should ensure that life-saving medicines provided at low prices to the poor are ingested on-site.¹⁶⁵ That way, cheap medicine will get to those in need while individuals who can afford to pay high prices for the drugs in the West will continue to provide drug companies with profits necessary to ensure continued research and development.

Additionally, effective utilization of product customization can head off the lure of undesired piracy. As Eric Schlachter argues, intellectual property owners can “use a myriad of alternative business models to extract value from the free distribution of intellectual property . . . [thereby enabling] cross-subsidization of intellectual property creation” and inducing entrepreneurs to create intellectual property so that they can use it to make a profit from alternative revenue sources.¹⁶⁶ Such cross-subsidization is

162. Boyle, *supra* note 3.

163. This also has the effect of lessening the temptation of developing nations to revoke valuable patent rights on emergency grounds.

164. There is little reason for optimism that stepped-up monitoring could control such flows. Witness, after all, the failure of monitoring the international trade in illicit drugs, despite the high-profile and well-funded war on drugs.

165. I am indebted to David Friedman for this argument.

166. See Schlachter, *supra* note 19, at 24.

not merely limited to advertising or the selling of eyeballs in exchange for content. For example, Microsoft's provision of customer support, upgrades and customization of its product for various industries and businesses has enabled the company to enjoy tremendous returns on its investments, despite the high piracy rates of its software. The Microsoft model has, of course, been adopted by many Silicon Valley firms.

Naturally, what might work for the software industry may not translate well to the entertainment industry. As Pamela Borsook points out, "the meme floating around many software companies—charge little for initial product and make money off upgrades, custom versions and support—makes little sense for a piece of music. As Judith Saffer, assistant general counsel for performance-rights organization BMI, New York, says, 'You can upgrade software, not music.'"¹⁶⁷ However, both Borsook and Saffer miss the point: customization can take many forms and a bit of creativity may be needed by the entertainment industry to figure out what forms of value-added services will make sense for the music, movie, and publishing business. For example, while upgrades may not make sense for music, greater interactivity with an artist may provide the value-added needed to coax music fans to purchase their CDs rather than obtain them for free on the Internet. One possibility might include providing purchasers of an artist's CD with the exclusive and unique password and user number to gain access to a live chat with the artist in an AOL chat room. Under such a system, the music will generate interest in the artist, which fuels interest in the live chat room experience; the record companies will obtain their profit by restricting access to a live experience with the artist around which they can effectively build fences. This is merely one example of a theory of customization and value-added that has infinite iterations.¹⁶⁸

F. The Database Case

The analysis contained above is not merely compelling in theory. Indeed, an examination of a series of cases from the

167. Pamela Borsook, *Steal This Article*, UPSIDE (March 1, 1996), available at <http://www.upside.com/taxis/mvm/story?id=34712c125c>.

168. The music industry is slowly adopting the value-added strategy by offering "an assortment of songs, contests and other goodies that can be obtained only through the [purchased] disc." Jon Healey, *Labels' Online Hope: New Enhanced CDs*, L.A. TIMES, Nov. 17, 2002, at C1.

recent past suggests that waves of intellectual property litigation are largely useless and that markets with heavy intellectual property can thrive despite an absence of strict intellectual property protection. Examples of thriving markets in the absence of heavy intellectual property protection abound.

Under the *Feist* doctrine announced by the Supreme Court in 1991,¹⁶⁹ collections of data that lack sufficient originality in selection criteria of factual information are not entitled to protection under the current federal statutory scheme for intellectual property rights. Consequently, Congress has proposed a series of bills, such as the Collections of Information Antipiracy Act,¹⁷⁰ that seek to redress this alleged shortcoming by extending copyright-like protection to databases rich in facts, high in labor-input, but short on innovation.¹⁷¹ However, in the absence of intellectual property protection, the database market has thrived precisely because of effective utilization of non-legal mechanisms to generate profit and growth.¹⁷² While a lack of intellectual property protection may have hurt database production at the margins, the database market has boomed precisely because of its effective utilization of the myriad means other than intellectual property rights to derive profit from information production.

Database providers have successfully exploited the tremendous marketing and reputational advantages that stem from coming first to market with a product. The draw of the Lexis-Nexis and Westlaw names alone has prevented upstart competitors such as loislaw.com from making significant inroads

169. See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

170. See The Collections of Information Antipiracy Act, H.R. 354, 106th Cong. (1999); The Collections of Information Antipiracy Act, H.R. 2652, 105th Cong. (1998).

171. For an extensive background on the debate over extending intellectual property protection to databases, see generally Jane C. Ginsburg, *Creation and Commercial Value: Copyright Protection of Works of Information*, 90 COLUM. L. REV. 1865 (1990); Jane C. Ginsburg, *No 'Sweat'? Copyright and Other Protection of Works of Information after Feist v. Rural Telephone*, 92 COLUM. L. REV. 338 (1992); Jessica Litman, *After Feist*, 17 U. DAYTON L. REV. 607 (1992); Jessica Litman, *Reforming Information Law in Copyright's Image*, 22 U. DAYTON L. REV. 587 (1997); Malla Pollack, *The Right to Know?: Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause, and the First Amendment*, 17 CARDOZO ARTS & ENT. L.J. 47 (1999); and J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51 (1997).

172. *But see* LAURA D'ANDREA TYSON & EDWARD F. SHERRY, INFORMATION INDUSTRY ASS., STATUTORY PROTECTION FOR DATABASES: ECONOMIC & PUBLIC POLICY ISSUES--EXECUTIVE SUMMARY, available at <http://www.house.gov/judiciary/41118.htm> (Oct. 23, 1997) (arguing that the databases market could have grown at an even quicker pace had it received intellectual property protections).

into the online legal research market. Westlaw and Lexis-Nexis are known to get the cases right, provide accurate citations, and give detailed and analytically cogent case notes. For attorneys who must get the research right (or risk the loss of a client and possible disbarment), “piracy” of case law or reliance on unknown (though remarkably cheaper) case law providers is not possible. Moreover, by effectively doling out free access to law students, summer associates, and new associates, both Westlaw and Lexis have managed to get future attorneys hooked on their particular interfaces. These interfaces then become the industry standard, thereby making any deviation by a law firm all the more unlikely and unpalatable.

Database providers have also achieved high rates of return on their relatively unprotected information products by engaging in value-added services that both rationalize their high prices and keep customers. Both Westlaw and Lexis have extensive live help services that they offer only to registered users of their systems. Moreover, such value-added innovations such as Westlaw’s key number and key cite systems (protected in part by copyright law)¹⁷³ have enabled database providers to retain customers.

173. See, e.g., *West Publishing Co. v. Mead Data Central, Inc.*, 799 F.2d 1219 (8th Cir. 1986).

G. *Hollywood's Parade of Horribles*

One need look no further than the most vocal critics of P2P sharing on the Internet—the music and movie industries—to witness how businesses can thrive in the absence of intellectual property protection. Only two decades ago, the movie industry cried wolf and bemoaned the demise of Hollywood at the hands of the VCR. In *Sony v. Universal Studios*,¹⁷⁴ the major motion picture studios filed suit against Sony for contributory copyright infringement stemming from its development of the Betamax technology. In the case, the studios vehemently argued that the advent of the Betamax (and, ultimately, its more popular counterpart, the VHS) would devastate the motion picture industry by dramatically reducing the size of live audiences at the time of television telecasts and, most importantly, annihilating rerun audiences for both television and movie audiences.¹⁷⁵ At the time, Jack Valenti, the President of the Motion Picture Association of America (MPAA) testified that “the VCR is to the motion picture industry and the American public what the Boston strangler is to the woman alone.”¹⁷⁶ The industry even went so far as to argue that theater and film rental exhibition of programs would suffer because of time-shift recording of those programs.¹⁷⁷

The Supreme Court disagreed, arguing that consumers are entitled under fair use rights to the practice of time-shifting and noting that the existence of potential infringing uses for a technology should not render that technology illegal *per se*.¹⁷⁸

174. *Sony Corp. of America v. University City Studios, Inc.*, 464 U.S. 417 (1984).

175. See *Universal City Studios, Inc. v. Sony Corp. of America*, 480 F. Supp. 429, 466 (D.C. Cal. 1979).

176. Nadel, *supra* note 27, at 19 (quoting *Home Recording of Copyrighted Works: Hearing on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5750 Before the Subcomm. On Courts, Civil Liberties, and the Admin. Of Justice of the Comm. on the Judiciary*, 97th Cong. 8

What happened over the past twenty years is a rather unambiguous matter of public record. Far from marking the death knell of Hollywood, the VCR spurred major revenue and profit growth. In fact, studios now derive more profit from motion pictures' video rentals and sales than from their theatrical release.¹⁷⁹

(1983) (testimony of Jack Valenti, President, Motion Picture Association of America, Inc.)).

177. Universal City Studios, 480 F. Supp. at 467.

178. *See id.*

179. In 2000, American consumers spent \$17.4 billion on the renting and purchasing of videos. Video revenues accounted for fifty-five percent of gross studio revenue, more than box-office, pay-per-view, and television revenue combined. *See* Elise K. Prosser, *How Early Can Video Revenue Be Accurately Predicted?*, 42 J. ADVERTISING RES. 4755 (2002).

Similarly, the music industry felt that the advent of FM radio would mean that individuals would simply use home taping technology to record songs off the radio and never purchase tapes (and, later, CDs). Instead, increased exposure to music resulted in greater sales of their music.¹⁸⁰ As Cory Doctorow of the Electronic Frontier Foundation notes, “Every time, looking back in hindsight, we can see that ultimately, each new medium made it easier for people and artists to communicate with each other. It resulted in a larger, more vibrant entertainment industry.”¹⁸¹

VI. CONCLUSION: OPTIMIZING PIRACY, OPTIMIZING THE LAW

In his prophetic book, *An Unhurried View of Copyright*, published in 1966, Benjamin Kaplan quipped: “As a veteran listener at many lectures by copyright specialists over the past decade, I know it is almost obligatory for a speaker to begin by invoking the ‘communications revolution’ of our time, then to pronounce upon the inadequacies of the present copyright act.”¹⁸² Several decades later, Kaplan’s words ring more true than ever. Once again, the current legal regime is under fire for its inability to adequately protect intellectual property owners in the digital world. However, as this study has demonstrated, there are, on balance, sufficient means for the protection of intellectual property available in the cyberspace to encourage innovation from intellectual property producers in the private sector. Moreover, piracy can play an intricate role in the business model of numerous corporations in information industries.

Of course, the optimal level of piracy varies from market to market. However, in old industries adapting to new technologies, there is a tendency for a knee-jerk reaction toward legal protection of intellectual property rights without careful weighing of the costs and benefits of piracy and full assessment of alternate means of addressing the piracy issue. Where and when to enforce is key. Reality is much more nuanced than the simplistic notion that piracy is always harmful. Indeed, piracy can

180. See Don Fernandez, *Music vs. Copyright: Who Wins? Napster, Mp3 and Other Net Technologies Challenge Widely Held Definitions of Information*, ATLANTA JOURNAL-CONSTITUTION, May 13, 2000, at A10.

181. Quoted in Julie Keller, *Aargh! Britney, Nelly Battles Pirates*, E!ONLINE NEWS (Sept. 27, 2002), at <http://www.eonline.com/News/Items/0,1,10601,00.html>.

182. BENJAMIN KAPLAN, AN UNHURRIED VIEW OF COPYRIGHT 1 (1966).

have a beneficial impact on a number of industries— such as software, biotechnology, music, and movies—industries that chiefly thrive on the creation and dissemination of intellectual property.

The more important question, however, is the future of intellectual property law. Instead of vigorous enforcement of and litigation over intellectual property rights, increased emphasis should be placed on the utilitarian goals of the intellectual property system—the encouragement of innovation—particularly on an international level.¹⁸³ There will be no effective enforcement of intellectual property rights—where necessary and important for innovation advances—without international agreement. And there will be no true international consensus on the enforcement of intellectual property rights until the West gives sufficient incentives to the developing world to join the international intellectual property regime. This is the next great challenge in intellectual property law.

183. Contrary to popular prejudices, the developing world is not an intellectual-property poor hinterland. However, the forms of valuable intellectual property found in the developing world, contained in the folklore, cultural heritage, and biological and ecological “know-how” of indigenous people, are currently unprotected by the international intellectual property regime. Through its “overly author-centered vision of intellectual property,” the modern intellectual property regime neglects these “unacknowledged sources and non-authorial modes of scientific and cultural production.” See THE BELLAGIO DECLARATION, at <http://users.ox.ac.uk/~wgtrr/bellagio.htm>. Consequently, developing nations do not receive appropriate benefits for their promotion of “science and the useful arts.” U.S. CONST. art I, § 8, cl. 8. See generally DARRELL POSEY AND GRAHAM DUTFIELD, BEYOND INTELLECTUAL PROPERTY: TOWARD TRADITIONAL RESOURCE RIGHTS FOR INDIGENOUS PEOPLES AND LOCAL COMMUNITIES (1996). This is not simply unjust, see, e.g., Victoria E. Spier, *Finders’ Keepers: The Dispute Between Developed and Developing Countries over Ownership of Property Rights in Genetic Material*, 7 WID. L. SYMP. J. 203 (2001) (noting numerous instances of “bio-piracy” by Western biotech companies); it is economically inefficient, both for developing countries and the West, see Boyle, *supra* note 2, at 142.