Arresting Technology: An Essay

Ann Bartow

University of South Carolina School of Law

Follow this and additional works at: https://digitalcommons.law.buffalo.edu/buffaloipjournal

Part of the Intellectual Property Law Commons

Recommended Citation

Available at: https://digitalcommons.law.buffalo.edu/buffaloipjournal/vol1/iss1/5
ARRESTING TECHNOLOGY: AN ESSAY

Ann Bartow†

I. THE CRIMINALIZATION OF SHARING

Content owners analogize copying technology to burglar's tools, and acts of copyright infringement to theft and piracy. The rhetoric can be scorching. Metallica attorney Howard King equated Napster with thievery as follows: "At this moment, all around the world, hundreds of thousands of people are breaking into record stores and stealing CDs and tapes. Or they might as well be." In their complaint filed against Napster and several universities, plaintiffs Metallica and Creeping Death Music accused Napster users of exhibiting "the moral fiber of common looters." Metallica was willing to spew vitriol on Napster users, but apparently not particularly concerned about holding them legally accountable for alleged acts of copyright infringement. Instead, the machinery of the law was brought to bear on

† Assistant Professor of Law, University of South Carolina School of Law. Ideas in this essay were presented at the Beyond Napster: Debating the Future of Copyright in the Internet Symposium at American University, Washington School of Law (Nov. 16, 2000). She thanks the members of the American University Law Review for hosting the Symposium and Professor Jessica Litman for her influential thinking on this topic. This essay is dedicated to Jim McKenny and Casey Bartow-McKenny.

1 Metallica Sues Napster, Universities, Citing Copyright Infringement and RICO Violations (Apr. 13, 2000) (Searching for the band's tracks and downloading them on Napster was like walking by a Tower Records or HMV music store, seeing that the cash register was open and that no one was in the store, and helping yourself to whatever was available, according to Gayle Fine of Q Prime, Metallica's management company) at http://www.livedaily.com/news/781.html.

2 Metallica Sues Napster, Universities, Citing Copyright Infringement and RICO Violations, supra note 1. ("From a business standpoint [trading files via Napster], this is about piracy—a.k.a. taking something that doesn't belong to you; and that is morally and legally wrong. The trading of such information—whether it's music, videos, photos, or whatever—is, in effect, trafficking in stolen goods," said Metallica drummer, Lars Ulrich.).

3 Two Views on the Copyright Dispute Between Metallica and Napster, CNN.Com Law Center (May 19, 2000) http://www.cnn.com/LAW/columns/dual.metallica.05.19/ (last visited October 12, 2000).


5 See, e.g., Metallica News FAQ: "We are going after Napster, the main artery here. All the people doing illegal things here, whether with good or bad intentions, we are not going after individual fans. Metallica has always felt fans are family." At http://www.metallica.com/news/2000/napfaq.html (last visited October 12, 2000). But see RIAA Assists in
Napster, in an attempt to arrest a technology that enables peer-to-peer file sharing, while leaving the peers themselves free to purchase compact disks and attend future concerts.

Almost half of the people who responded to a recent nationwide survey said they do not have Internet access at home, and forty percent said they do not intend to get connected in the next four years. Those who do not have Internet access were likely to be disproportionately older, poorer, and less educated than those who do, and Caucasians were determined to be more likely to be connected to the Internet than people of color. For this reason, many of the stereotypical impressions one might hold about individuals who are likely to steal (poor, uneducated members of minority races) are especially unsupportable in cyberspace. In fact, in this country much of the "cyberthievery" and "cyberpiracy" (in the form of unauthorized copying of copyrighted works) is apparently committed by relatively affluent college students. Perhaps this is one of the reasons that as a society we seem to prefer outlawing copying technology to encouraging legal action against individual noncommercial copyright infringers.

One can only hope that another explanation for a reluctance to take legal action against individual noncommercial copyright infringers is a cultural unwillingness directly and linearly to equate unauthorized not-for-profit copying with criminal behavior. When the vendors of a copying technology are judicially labeled contributory infringers, then the actual users of the technology have necessarily been deemed guilty of copyright infringement as well, but most may be conceptually unaware of this if they have not been parties to the legal proceedings. Almost everyone has recorded copyrighted television broadcasts, photocopied copyrighted writings, or made duplicates of cassette tapes or compact discs containing copyrighted songs. These actions don’t seem like theft at the level of abstraction on which most people operate. (This is not for lack of effort on the part of content owners.)

_Student's Arrest_ (Sept. 18, 2000) (Where an Oklahoma State University student had his personal computer and a CD recorder seized after university officials were notified by the RIAA that he may have downloaded as many as 1,000 Internet music files. The unnamed student had not been arrested, and there was no evidence that he had been selling the files or profiting in any way from the downloads.) at http://www.wired.com/news/print/0,1294,38863,00.html.


_7 Schools Recess on Napster_ (Aug. 30, 2000) at http://www.wired.com/news/print/0,1294,38525,00.html (“Nearly 40 percent of Napster’s 25 million users are college-aged, and being able to deliver to that audience has been viewed as a major component of the company’s overall worth.”).

_8 The F.B.I., Justice Department, and Information Technology Association of America, a trade group, are engaged in initiatives to educate children about “cyberethics,”_
Pamela Samuelson has noted efforts to “educate” school children about the “crime” of nonprofit unauthorized copying. Those who use libraries on a regular basis may very well see free access to information as a societal good rather than a felonious transgression.

Downloading an unauthorized copy of a creative work does not have quite the gestalt of grabbing an item from the bins of a retailer and sprinting for the store exit, nor does it have the same consequences for a retailer. If someone steals a one-of-a-kind diamond ring from a jewelry gallery, it is gone. If a person simply takes a photograph of the ring, takes the picture to another jeweler, and has a copy made, the owner-originator still has the ring, which has lost only its uniqueness. The jeweler who designed the ring has lost a sale, but has not been deprived of precious stones or metals or imbedded labor and resources. If the illicit photographer does no more than photograph the ring, the jeweler has lost nothing except control over a two-dimensional image of her three-dimensional creation.

Copying a song without authorization doesn’t prevent the composer from playing or licensing her music, or from selling “legitimate” copies to interested consumers, so the song is clearly not “lost” in the same way a ring would be if stolen. Yet a good-quality playable copy performs the same function as the diamond ring itself. Alchemical devices that quickly and inexpensively duplicate fine jewelry exist only in science fiction. Technology capable of making hundreds of near-perfect copies of digital works is increasingly diverse, plentiful, and accessible. A song is not a diamond ring, and copying is neither theft nor looting in any traditional sense. Commercial bootlegging probably seems wrong to most people, but photocopying a few chapters of a book does not. Context is everything.

Because individual consumers’ activities over digital networks can be tracked and recorded, noncommercial personal copying activities that are essentially undetectable in the offline world become ascertainable and quantifiable when conducted online. The nature of digital technology means that many activities analogous to non-infringing acts in the offline world become putatively technical infringements when conducted over the Internet, because some degree of


9 Id.

content copying is a functional requirement of using a computer. In traditionally, loaning or giving a book, compact disc, or videocassette to a friend infringed no rights under copyright. The right to share or dispose of a purchased copy of a copyrighted work fell within the first-sale doctrine. In cyberspace, however, one cannot share material over the Internet without reproducing and transmitting it. It is therefore necessary as well as expedient to make multiple copies of copyrighted works, which enables (if one is so inclined) broad sharing with many people simultaneously, on a scale not possible with a book, compact disc, or videocassette. However, to prevent widespread sharing, content owners are attempting to use courts and laws to render it technologically impossible for individuals to share even one "legitimate" copy of a work. Though the Internet makes sharing information faster and easier than ever, some content owners would have all digital sharing unauthorized by them rendered illegal.

II.

KEEPING ONE'S EYES ON ONE'S OWN WORK

The last few decades have been marked by the development of new technologies that facilitate copying, including modern copiers, audio and video recorders, cable television, fax machines, communications satellites, and, of course, the computer. Like other copying tools, the decentralized Internet has no inherent ability to distinguish copyrighted materials from other varieties of content. At a functional level the Internet treats all information identically, whether it is political or cultural speech, copyrighted or not, and is essentially unregulated.

Distributing content on the Internet can differ dramatically from real-space distribution techniques. In the context of retail e-commerce, for example, a web page can simply function as a digital version of an ordinary catalog, at which one places an order, designates a mode of shipping, and then waits patiently for Federal Express, United Parcel Service, or the U.S. Post Office to deliver the product.

---

11 See, e.g., ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).
This is the model used for e-tailing clothing, food, furniture—indeed, all manner of tangible consumer goods. In other, more pertinent contexts, however, a web page can simultaneously function as catalog, warehouse, and courier: software, music, video, two-dimensional art and graphics, written text, and any other goods capable of digitalization. Using available technology, consumers can use sophisticated search and preference matching engines to identify desirable content. Where distribution, promotion, and support costs are low enough, a large, diverse assortment of content providers can be expected to nurture their entrepreneurial spirits online. Low barriers to entry foster competition, which poses threats to industries accustomed to oligarchic control of distribution, such as the music, movie, and publishing industries, and foments both opportunity and uncertainty. Savvy, pre-existing real-space distributors with good industry relationships and quality products and services would intuitively be in the best positions to utilize innovative new modes of content distribution in a profitable manner. Conversely, large, ponderous entities that buttress their industry hegemony through distortive exploitation of power imbalances rather than effective business practices are appropriately concerned that increased competition can threaten their market dominance. The ultimate impact of cyberspace on content distribution is manifestly unclear. One commentator, for example, articulated some of the questions surrounding the development of electronic publishing as follows:

The controversy over the [International eBook Award Foundation] awards and the birth of its grass-roots alternative... highlight some pressing issues for e-publishing—issues that have so far gotten lost in either idealism about the freedom it may give authors and independent publishers or eagerness on the part of the established book industry to stake its claim in a new medium. Will e-books offer a way for writers who’ve been snubbed by the big houses to find success marketing their books directly to readers? Or will e-publishing simply present the same books and authors currently found in bookstores, only in a different, less tangible form? Will mainstream publishers’ newfound interest in the e-publishing scene bring a higher standard of literary quality and professionalism to a community that until now was amateur in the best and worst senses of the word? Is a small bastion of independence being stamped out, or are e-book readers finally going to get content they find truly enticing?¹⁵

Many content owners find themselves struggling to retool and adapt to the new distribution methods enabled by the Internet, while

simultaneously devoting substantial resources to initiatives intended to preserve and defend their prevailing modes of operation. To advance the goal of preservation of the status quo, content owners are attempting to use the legal process to arrest the development of digital copying technologies.\textsuperscript{16} Not all of the entities vigorously litigating against technology are moribund oligarchies: some content owners are well suited to meeting the challenges of cyberspace and may be suing in knee-jerk fashion, or as a bargaining tactic with which to bludgeon (or at least obtain leverage over) putatively competing technologists during licensing negotiations. Nevertheless, copyright law should not bestow business interests with the right to interfere with or control technology developed by others. Allowing copyrights to be used for this purpose will chill the development of new technologies, which can be just as useful and creative as other content. Those technologies not dissuaded by the chilling effect of almost certain litigation will be underground and decentralized, formulated to evade copyright suits, and very difficult to enjoin.

A. Copyright Law Is Intended to Promote, Not Arrest, Technological Development

Courts should respond cautiously to claims that new technologies should be banned or heavily regulated simply because they facilitate copyright infringement. The Constitution empowers Congress to enact copyright laws in order to "promote the Progress of Science and useful Arts. . . ."\textsuperscript{17} Outlawing a useful technology merely because many people use it as a tool for infringement would hinder rather than promote such progress.

In Sony Corporation of America v. Universal City Studios\textsuperscript{18} ("Sony"), the Supreme Court held that "the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial non-infringing uses."\textsuperscript{19} The Court specifically stated that uses to be considered included "the different potential uses" as well as ac-

\textsuperscript{16} See, e.g., UMG Recordings, Inc. v. MP3.Com, Inc., 92 F. Supp. 2d 349 (S.D.N.Y. 2000); Recording Industry Ass'n of Am., Inc. v. Diamond Multimedia Systems, Inc., 29 F. Supp. 2d 624; the DeCSS discussion in Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000); Scour, and of course Napster. Cf. Kera Bolonik, The E-Book Wars supra n.15, (Some publishers think Microsoft is using vehicles such as the International eBook Award Foundation to "make sure that whatever e-book revolution may lie in the future will be owned by the world's largest software company.").

\textsuperscript{17} U.S. Const. art. I, § 8, cl. 8.


\textsuperscript{19} Id.
tual, current ones. In the context of the technology in dispute, the Betamax videocassette recorder, the threshold was met for two reasons: first, because consumers could use the Betamax to record programming that either was not copyrighted, or was copyrighted but owned by entities that did not object to having it recorded for private, noncommercial purposes; and second, because the unauthorized "time shifting" that Betamax recordings enabled was a fair use of copyrighted works, regardless of whether or not copyright owners endorsed the practice.20

The Supreme Court declined to hold that Sony could market VCRs only if it could ensure that the VCRs were never used to commit infringement, or paid licensing fees, or forced VCR owners to remit royalties to copyright owners. Sony stands squarely for the proposition that copyright law does not give copyright owners control over new technologies with legitimate uses, even though consumers can use those technologies to enjoy copyrighted works without authorization. It is clear why copyright owners might want such dominion over the technological accomplishments of others, but the copyright laws do not currently give it to them. The core copyright principle recognized in the Sony opinion is that intellectual property owners are not entitled to prohibit or exercise monopoly control over new technologies that incidentally (or even not so incidentally) threaten their established modes of commerce. Evolving technologies create new opportunities for lawful competition and, as a result, copyright owners must sometimes change their business methods. While most large-scale copyright owners recognize this, and are devoting resources to developing electronic distribution mechanisms, they are simultaneously using the legal process to delay or complicate the deployment of potentially competitive technologies. While multifaceted responses by content owners to the challenges posed by the Internet are both understandable and prudent, the courts should not reconfigure copyright law to serve the interests of select businesses. Indeed, the Supreme Court has forbidden this, holding in Sony: "[I]n an action for contributory infringement against the seller of copying equipment, the copyright holder may not prevail unless the relief that he seeks affects only his programs, or unless he speaks for virtually all copyright holders with an interest in the outcome."21

Copyright law is not intended or designed to insulate copyright owners from the course of technological development. The development of peer-to-peer networking technologies may undermine estab-

20 Id. at 424.
21 Id. at 446-47.
lished models of content distribution and marketing. However, that is a setback for which current copyright law provides no cure. Copyright law should not be reconfigured (and distorted) to facilitate the wholesale suppression of new technologies.

Penalizing technology originators for the uses to which the technology is put has been largely a losing proposition when applied to, say, weapons. Guns don’t kill people, goes the hackneyed saying, people kill people. Yet in the copyright context, copying technologies are increasingly viewed as the outlaws, robbing copyright owners of royalties and market share. The ostensibly bad behavior of technology users is pilloried as a means to impugn the technology. The actual copiers, those alleged to have directly infringed copyrights, are often left unscathed, because they are also content purchasers, and generally copyright owners do not want to antagonize them.

Copyright law has never given copyright owners control over all uses of their works. Rather, it gives copyright owners exclusive rights and expressly subjects those rights to a host of exceptions. The law allows unauthorized copies, downloads, uploads, transmissions, or distributions that might be fair use under §107 of the Copyright Act; lawful audio noncommercial consumer copies under § 108; and private performances and transmissions over which the statute gives the copyright owner no control. Sony makes plain that facilitation of such unauthorized but lawful uses is sufficient as a matter of law to constitute the capability for substantial non-infringing use. Copyright protections are intended to provide adequate incentives for investment in


23 See, e.g., Metallica News FAQ: “We are going after Napster, the main artery here. All the people doing illegal things here, whether with good or bad intentions, we are not going after individual fans. Metallica has always felt fans are family,” at http://www.metallica.com/news/2000/napfaq.html (last visited Oct. 12, 2000). See also, Ann Bartow, Educational Fair Use in Copyright: Reclaiming the Right to Photocopy Freely, 60 U. PITT. L. REV. 149, 203 (Fall 1998).


25 The Court wrote:

Even unauthorized uses of a copyrighted work are not necessarily infringing. An unlicensed use of the copyright is not an infringement unless it conflicts with one of the specific exclusive rights conferred by the copyright statute. Twentieth Century Music Corp. v. Aiken, 422 U.S. at 154-155. Moreover, the definition of exclusive rights in § 106 of the present Act is prefaced by the words “subject to sections 107 through 120.” Those sections describe a variety of uses of copyrighted material that “are not infringements of copyright” “notwithstanding the provisions of section 106.” The most pertinent in this case is § 107, the legislative endorsement of the doctrine of “fair use.” 464 U.S. at 447.
the development of future creative works, but by design, adequate incentives for such undertakings are far shy of the perfect-incentives framework that content owners aspire to.

Only when a technology is not capable of legitimate uses does it make sense to outlaw it. In the context of computer programs that copy, transmit, display, or otherwise manipulate data in a copyright-neutral manner, it is difficult to conceive of software innovations that could be so defined. Perhaps this is why content owners are so desperate to undermine the Supreme Court’s holding in Sony.

Courts need to avoid constructing the doctrine of contributory infringement in a manner that renders it impractical for information-sharing applications to operate under its strictures. The key feature of peer-to-peer file sharing systems is that the individual users control the transfer of files. Forcing technology producers to configure communication systems to ensure that users could not share files without the copyright owner’s authorization would require preventing users from controlling the selection and transfer of files, lest they choose to engage in unauthorized transfers. The effect would be to legally disable enormously promising technological innovations. Copyright owners’ interests in maintaining control over their works are very important, but not so important that society should forgo technology capable of substantial non-infringing uses in order to protect those interests. One recent example of large content owners attempting to control three related technologies simultaneously is the burgeoning litigation activities of the Recording Industry Association of America (RIAA). The RIAA first brought suit against Diamond Multimedia Systems’ Rio MP3 player, in conjunction with other litigation strategies it is pursuing. This device plays sound files that are downloaded from the Internet to a PC in MP3 format, which compresses and stores near-CD-quality music. The Rio can download any MP3 file, whether the owner paid for the download or made an unauthorized copy. In trying to block (or at least control) the sale of Rios, large


\[27\] See Recording Industry Assoc. of Am. v. Diamond Multimedia Systems, 180 F.3d 1072 (9th Cir. 1999).

\[28\] Rival formats are offered by companies such as Liquid Audio and a2bmusic, a subsidiary of AT&T, which offer proprietary platforms for online music distribution. IBM also has a digital distribution platform in production. See Jennifer Sullivan, Industry to Take on MP3, WIRED NEWS (Dec. 12, 1998), at http://www.wired.com/news/print/0,1294,16794,00.html.


\[30\] Id.
content owners attempted the first prong of a litigation hat trick: using copyright suits to take out or co-opt a device for playing songs in the MP3 format (regardless of how they were obtained), the MP3 format itself, and, finally, technologies for using or sharing files in the format (such as Napster, Scour, and MyMP3). This is but one example of the use of both successive and simultaneous copyright suits brought to impede the dissemination of creative works by attacking distributive technology that is not controlled by large mainstream content owners.

Sometimes just the threat of litigation can be enough to delay or repress content distribution. A carefully orchestrated campaign of conflicting information (and resulting uncertainty and fear) can close otherwise promising channels of content delivery. For example, many webcasters seeking to legally broadcast music online express frustration that the processes of obtaining the appropriate licenses and permission are complicated, expensive, and fraught with uncertainties. It is apparently the onerous licensing process, rather than technological difficulties, that is impairing the development of viable webcasting businesses.\footnote{See, e.g., Christopher Jones, \textit{Webcasters in License Limbo}, \textit{WIRED News} (March 27, 2000), \textit{at} http://www.wired.com/news/print/0,1294,34115,00.html (last visited Oct. 3, 2000).}

Perhaps technologists could write software that would inventory users' hard drives when they log on and allow only the authorized sharing of pre-approved content. However, this burdens the suppliers of a technology with presumptive liability for infringements committed by the technology's users if they fail to design or retrofit technologies that can be used to share content to minimize the possibility of infringement. The Court in \textit{Sony} did not hold that, when ordinary people use a new technology to engage in copyright infringement, the supplier of that technology must come up with ways to stop the infringement or stand enjoined. Rather, the Court held the opposite: notwithstanding the fact that a technological tool can facilitate copyright infringement, the "Progress of Science and the useful Arts" precludes an injunction so long as the tool is capable of substantial non-infringing uses. Copyright law falls on the side of permitting and promoting new technology, not of stifling it. Content owners purport to be figuratively asking the police to arrest thieves. In fact, what they are sometimes asking is that previously legal behavior be redefined as criminal, so that vendors are relieved of the burden of sorting out shoplifters from suspicious-seeming but innocent browsers and legitimate purchasers. If anyone is obligated to investigate, monitor, and control what end users are doing, it ought to be the content owners,
who can verify or disprove their suspicions, and then proceed accordingly.

B. Technology Itself Will Resist Arrest

Decentralized models of information dispersal such as peer-to-peer networking pose a significant challenge to sectors of the entertainment and information businesses that follow a model of centralized control over content distribution. However, this is not the sort of challenge that copyright law is designed to redress. The Internet is open and decentralized by design. This enables a diverse range of new technologies to be adapted to the existing protocol base. Many of these technologies enable editing, extraction, or transmission of content, most of which both require and facilitate some degree of content copying. Even technologies that enable copying as an end goal generally have coterminous beneficial non-infringing uses. For example, peer-to-peer network technologies may have the potential to replace inefficient search engines (thereby increasing content accessibility) and to reduce network congestion. They may be harnessed to help

---


33 Peer-to-peer file sharing may hold solutions for a number of problems plaguing the Internet. The majority of individuals search for content on the Internet using search engines. See Steve Lawrence & Lee Giles, Accessibility and Distribution of Information on the Web, 400 Nature 107 (1999). Current search engines, however, are imperfect, indexing only a small fraction of available websites. The design of web-based search engines, moreover, tends to favor commercial sites over non-commercial ones, popular sites over more marginal ones, and U.S.-based sites over sites in other countries. See id., Helen Nissenbaum and Lucas Introna, Sustaining the Public Good Vision of the Internet: The Politics of Search Engines (Princeton University Center for the Arts and Cultural Policy Studies Working Paper #9, 1999). Current search engines have a massive task to complete in order to maintain a current record of even a small fraction of the Internet, and their indexes are notoriously out of date. See Lawrence & Giles, supra. Peer-to-peer networking enables individuals to locate material available over the Internet that most search engines do not find, by searching among computers of groups of individuals likely to have the content or know where to find it.

Peer-to-peer file sharing systems have significant advantages over conventional web-based distribution for individuals who want to make content available as well as for those who seek content. Distribution over a peer-to-peer network does not require access to a web server, nor the ability to translate the content into HTML code. Further, it is unnecessary to cause the content to be indexed by a search engine, or to encourage the search engine to list it prominently in relevant search results. Peer-to-peer file sharing systems have the potential to change the architecture of the Internet. See, e.g., Amy Kover, Napster: The Hot Idea of the Year, FORTUNE, June 26, 2000, at 128.

34 Peer-to-peer technology, finally, holds promise as a potential method to relieve network congestion. Because file transfers need not be routed through central control points (and need not even be hosted at central locations), the ability to share files using peer-to-peer technology does not depend on the level of traffic at a host server. Thus, the technol-
members of the academic, scientific, or medical communities expeditiously share specialized information.

In any event, it is not clear that as a practical matter any technology could ensure that only non-infringing file sharing took place, while continuing to offer a peer-to-peer network system, since peer-to-peer file sharing systems vest control over the transfer of files in individual users. From the users' point of view, that is their most compelling feature. If the proprietors of peer-to-peer file sharing systems are required to control the content of all files on the system, the technology will lose much of its value for a host of legitimate information-sharing applications. Moreover, attempting to stop the deployment of emerging decentralized sharing technologies could entail shutting down a substantial portion of the Internet, which is an option that in

ogy ultimately may deliver greatly increased efficiency in the operation of the Internet. See, e.g., Amicus Copyright Law Professors, Napster, 239 F.3d 1010. 

Napster facilitates file transfers by maintaining information location tools on central Napster servers, and supplying Internet Protocol address and routing information to users seeking to transfer files. More recent peer-to-peer file sharing systems, such as Gnutella, dispense with central servers entirely. Because the district court cast its "continuing control" exception as one of several alternative grounds for declining to apply Sony, the absence of central servers would not exempt any peer-to-peer network system from the court's analysis. The breadth of the injunction, moreover, would prohibit decentralized file sharing systems as well as systems designed on the same model as Napster. 

See, e.g., Larry Lessig, Napster affidavit paragraph 66: "Gnutella is a simple substitute for Napster. It facilitates a better peer-to-peer searching capability and is operated in a far more decentralized manner. Because of this architecture, there would be no way, under the present architecture of the net, for a court to stop the deployment of Gnutella without essentially shutting down a substantial portion of the Internet. Gnutella is simply an application that runs on the net; there is no central server for this application; links are made in a chain that itself is not consistent or easily tracked." Lessig affidavit at http://dl.napster.com/lessig.pdf. But see Janelle Brown, The Gnutella Paradox, SALON (Sept. 9, 2000), at http://www.salon.com/tech/feature/2000/09/29/gnutella_paradox/print.html ("Consider this: File sharing systems work best when they reach critical mass—only once they have a significant number of users is it likely that someone out there will have the file you want. That's why Napster has continued to grow; with 30 million users the odds are in your favor that one or two of them will have what you need. But as soon as a file-sharing system has critical mass, it's big enough and threatening enough to become the copyright protectorate's next legal target; and those file-trading masses are also going to strain the network to its capacity and beyond. That's the Gnutella paradox. The attainment of widespread popularity may in fact signal a file trading software program's imminent demise.").

the past courts have viewed with disfavor. Given that all works that can be categorized as copyrightable subject matter are automatically copyrighted upon fixation in a tangible medium of expression, unauthorized sharing of copyrighted content is inevitable whenever there is informational sharing. Those who desire large-scale sharing will inevitably pursue more decentralized sharing mechanisms that will be harder for courts to reach or control. Ultimately, individuals determined to make illicit copies will probably succeed, while all Internet users, copiers and non-copiers alike, may bear the burdens of technological restrictions and legal strictures inhibiting innovation and the exploitation of digital resources.

There is nothing inherently evil about peer-to-peer file sharing, nor anything inherently detrimental to authors, composers, or artists. Technology is copyright neutral until users of the technology act. Inexpensive techniques for promoting and distributing works could promote creation of large numbers of diverse works. Such technologies could actually result in the originators of creative works capturing a greater portion of the income streams that their efforts generate, especially where digital technologies significantly reduce production and transaction costs.

The absence of such technologies could certainly negatively impact authors and artists. As one industry observer stated: "[I]f you’re a journalist, writing wouldn’t do much good if printing presses were outlawed." Even Metallica could suffer: in its early days the band encouraged fans to tape concerts and share those tapes with others to help build an audience base. Even now, the band allows noncommercial "bootlegging" and permits bootlegged MP3 files to be traded via Napster. However, any assumption that content owners (as contrasted with content creators) consistently want to disseminate works as broadly as possible, in congruence with the societal goals of copyright, is sadly misguided. The value and price of copyrighted works,

38 See, e.g., Larry Lessig, supra note 36.
like any other commercial goods, can be manipulated by careful control of supply and demand. For example, the rock musician Prince was limited by Warner Brothers Records, Inc., to producing one record every eighteen months, even though he wanted to release a record every seven months, presumably because such limitations made his music more unique and valuable. The company also refused to release a three-CD set that Prince wanted to craft and distribute. These may have been prudent business decisions with respect to Warner Brothers' profits, but they did not further the copyright goals of creation and dissemination of artistic works. It is not unreasonable to believe that many talented artists and authors go unsigned, and that many meritorious works go undistributed, when content-owner distributors decide to focus exclusively on particular authors or genres for commercial reasons. Content creators who are excluded or ignored by large content distributors are rarely concerned that Metallica, or Dr. Dre, or Paul McCartney, or Elton John gets every million possible. By one report, 25,000 unknown but potentially very talented artists expressly authorized Napster to permit its users to share their music well before Napster struck a deal with Bertelsmann, owner of the large BMG record label. These 25,000 artists will not be able to take advantage of peer-to-peer technologies if copyright litigation shuts them down.

Realistically, significant monetary enrichment and empowerment of authors and artists are not particularly likely outcomes of new

43 Id.
44 See, e.g., Ryan Tate, Paul McCartney can't let Napster be, UPSIDE TODAY (November 27, 2000), available at http://www.upside.com/textis/mvm (reporting on Paul McCartney and Elton John joining in supporting a weeklong campaign to advise people when they can download free music).
47 When asked whether Napster and similar technologies were good for artists, musician John Hiatt replied: "Absolutely. How could it not be? How could another avenue of being able to get yourself heard not be a good thing? The traditional avenues have gotten so corporatized — it's going to be one big major label when they're all done eating each other. And then there's one or two conglomerates that own all the radio stations, so you have to sound a certain way to make that work. When things get so constricted like that, other arteries have to open up. And that's what's happening, I think. The industry's needing a triple bypass. [Laughs] And the Web's giving it to 'em." Amy Reiter, A Conversation with John Hiatt, SALON (Sept 25, 2000), at http://www.salon.com/people/feature/2000/09/25/hiatt/print.html.
technologies. Even a cursory review of history seems to suggest that creative people have been routinely under-compensated, under-appreciated, and generally ripped off well before the dawn of the Internet age. Still, it is at least a possibility. One musician has expressed great excitement about the prospect of releasing an album in a pay-per-download format, enthusing:

It's a new way to get your music out. And it's a way of doing it without a middleman, i.e., a big corporate record company. I call the Internet “Willy Loman's revenge,” from Death of a Salesman. Willy Loman actually gets to bring his wares right to the customer, direct. That's exciting.

The forces that shape the effects that any given technology has upon content creators, who usually do not retain ownership or control of their creations, are driven much more directly by market considerations and business practices than by the technological landscape. One reason artists and authors may not benefit from the exposure the Internet makes possible is that large-scale content owners will find a way to control content distribution in cyberspace as they do in real space. The ability to use copyright-based lawsuits to incapacitate emerging distributive technologies would certainly help content owners reach that goal. In the context of music, for example, this might mean that musicians and composers begin to receive royalties from copyright-regulated uses of technologies such as Napster, which would monetarily benefit some artists to some degree. However, artists will simultaneously lose the ability to avail themselves of industry co-opted technologies to promote and distribute music themselves or in conjunction with small companies. This will disadvantage what is probably the vast majority of artists—those who are not wealthy and are not represented, managed, or otherwise in a business relationship with a well-resourced content owner.

48 E.g., M.J. Rose, A Bad Ending for E-Authors, WIRED NEWS (Nov. 20, 2000) at http://www.wired.com/news/print/0,1294,40086,00.html. (Half of 5,000 self-published authors with works for sale at MightyWords had their royalties reduced by 30 to 70%, and the other half had their contracts terminated.)


51 The RIAA, for example, is preventing many webcasters it signs deals with from making public the royalty fees they have negotiated, which makes it hard for musicians to figure out whether they are getting paid for the use of their music. See Brad King, Webcasters Caught in RIAA Web, Wired (Sept 27, 2000), available at http://www.wired.com/news/print/0,1294,39076,00.html.
All artists are disadvantaged when modes of distribution are precluded. Both broad access to the works of others and broad access by others to their own works can increase exposure and creativity and enhance the reputation of content creators. The ability to share in cyberspace gives artists and authors access to each other’s works, and also may enable broader access to older pre-existing works. Ancient films, documents, photographs, and sound recordings fixed in analog media can, if digitalized, be preserved and disseminated in a manner that greatly surpasses the level of availability in real space, often (at least in sufficiently aged works) without implicating copyrights. Older, out-of-circulation works that are still copyrighted raise more interesting questions. On one hand, digitalization may be the only venue through which the copyright owners can hope to capitalize on warehoused works whose small audiences or discreet markets do not justify update and re-release through ordinary distribution channels. At least one court decided that photocopy royalties were most important with respect to out-of-print books, because such royalties were the only way publishers could extract revenue from the works. On the other hand, if content owners are not willing to invest in maintaining and distributing works themselves, is it really fair to give them control (including veto power) over technologies that disseminate works with minimal transaction costs, at the expense of enhanced preservation and access? To do so would seem to violate the very precepts of copyright, as well as to facilitate an unearned windfall.

Meanwhile, if artists and authors are the true objects of concern, there are better ways to ensure that artists are adequately compensated than banning technological innovations. Most pertinently, Congress could statutorily set a royalty floor for copyright authors, states could follow and expand upon California’s lead and guarantee artists some percentage of the resale proceeds from their works, and content owners could be regulated in the way they are permitted to promote or restrict content creation and dissemination. Additionally, the government could increase direct support for artists through vehicles like the National Endowment for the Arts, and private organizations could be encouraged to increase their support of the arts through tax breaks and incentives, so that independent artists can remain that way.

52 See Kinko’s v. Basic Books’ analysis that unauthorized copying damages out of print books more than current/available ones because copy royalties are sometimes the only income stream available to authors and publishers of out of print works, 758 F. Supp. at 1533. See also Ann Bartow, Educational Fair Use in Copyright: Reclaiming the Right to Photocopy Freely, 60 U. Pitt. L. Rev. 149 (1998).

53 CAL. CIVIL § 986 (West 2001).
without starving, and simultaneously retain ownership of copyrights in their works.

Rather than attacking cyberspace-based modes of distribution, copyright owners could invest their time and energy in protecting their works with technology, leaving others to ignore, adopt, or thwart (on an individualized scale, using technology rather than law) the new modes of distribution. Though the Internet certainly presents a threat to copyrighted materials, other technologies can radically improve the ability of copyright holders to control the use and distribution of copyrighted works in cyberspace. Some technologies make it more difficult for content to be “ripped” from authorized sources. Others make it easier to track or spot illegal copying. These technologies could be adopted by content owners to identify and take action against those who are actually engaging in detrimental acts of copyright infringement. Rather than asking web-based technologies and services to invade and monitor usage, content owners could more narrowly focus requests for action with respect to specific incidents of copyright infringement. The Digital Millennium Copyright Act contains a notification procedure through which content owners can request that peer-to-peer service providers suspend users suspected of copyright infringement. The user is notified and terminated unless she contests the allegations, in which case the dispute may go to the courts for adjudication.

This approach would reward content owners that take responsibility for controlling distribution of their intellectual property, while simultaneously allowing new sharing technologies to flourish and to be exploited freely by those who wish to utilize them. It facilitates the targeting of bad actors, rather than the broad disablement of copyright-neutral technologies. It is the method of intellectual property policing encouraged by universities and other institutions concerned about free speech and academic freedom.

Most content owners are in fact pursuing “copyright control” technologies, and they have successfully petitioned Congress for the right to punish those who circumvent the technological protections.

they adopt. This makes their attempts to legally disable competing technologies especially ironic, if not flagrantly hypocritical. If content owners devoted more resources toward improving "legitimate" online distribution, the risks and challenges posed by unauthorized distributive mechanisms would be reduced.

If entities can use technology to protect content, and then use the law to protect even substandard technology, why do content owners bother suing the technologists? One sees a certain method in their seemingly mad disregard of the high costs associated with litigation. Criminalization of circumvention technology is helpful to content owners at many levels. It protects entities with inadequate technological protections and relieves them of the burden of investing in upgrades. What it doesn't do is give customers the inexpensive and efficient content delivery they may demand. Content providers can respond to consumer demand by developing their own distribution technologies, or they can license those of others. The threat of copyright infringement liability is probably a good tool with which to leverage a license of new technology with copying capabilities on favorable terms, and it appears to be ever more widely used.

Additionally, it would be useful to large-scale content owners to have all content providers beholden to the same sorts of distribution regimens. In real space, by and large, it seems to cost the same amount of money to rent or otherwise access a movie, regardless of which studio produced the movie, and regardless of how much the movie cost to make and promote. "New releases" tend either to cost more or to be available for shorter rental periods, but all of the new releases cost about the same to obtain. Variations in price seem more closely related to release date than to the popularity or quality of a work. Prices for books and compact discs vary a bit more, but still do not seem to vary greatly. Nor does price seem to have any clear relationship to either the creative or the capital investment in a work.

58 See Digital Millennium Copyright Act, P.L. 105-304, 112 Stat. 2860 (Oct, 28, 1998). Meanwhile, a Congress that is too afraid of tampering with the Internet to tax Internet sales or implement substantive consumer privacy protections, see supra note 15, did not hesitate to impose copyright strictures, in the context of the DMCA.

59 For example, the recording industry has apparently not been able to deploy a workable pay-for-play scheme based on encrypting music with digital keys, see e.g., Associated Press, Napster, Bertelsmann Deal Questioned (Nov. 1, 2000), available at http://www.salon.com/tech/wire/2000/11/01/napster/print.html (last visited Nov. 2, 2000), but may solve this problem by appropriating the technology of others, such as Napster and Scour, and perhaps adopting a subscription model.

60 See cases cited infra (as shown by the recent flurry of litigation around Napster, MP3, Scour, and DeCSS).

61 With respect to CDs at least, this is no coincidence, according to the Federal Trade Commission's press release, Record Companies Settle FTC Charges of Restraining Compe-
If single entities own or control both creative products and retail sales channels, consumers may be at their mercy with respect to both access and pricing. The best way for content owners to turn the pirating masses into paying customers is to develop their own large-scale, pervasive, easy-to-use digital distribution system, and many are pursuing this goal. However, they know that they will not succeed if their services are too difficult or too expensive, unless they can eliminate the competition both through copyright litigation and aggressive business practices.

Though Metallica's analogy of file sharing to theft is flawed, consider its implications. Few people would be willing to submit to invasive body searches as a condition for entering and leaving a retail establishment, especially if one particular store was the only one that posed such a requirement. However, if a large entity, or several large entities desiring to perform such searches, were enterprising enough to get a law passed requiring all retail venues in a given political subdivision to perform such searches, these entities would lose the competitive disadvantages and associated ill will they would doubtlessly have incurred if they had promulgated such requirements unilaterally. All

*Universal Music and Video Distribution, Sony Corp. of America, Time-Warner Inc., EMI Music Distribution and Bertelsmann Music Group (BMG), the five largest distributors of recorded music who sell approximately 85 percent of all compact discs (CDs) purchased in the United States [engaged in] allegedly illegal advertising policies that affected prices for CDs. . . . [A]ll five companies illegally modified their existing cooperative advertising programs to induce retailers into charging consumers higher prices for CDs, allowing the distributors to raise their own prices. The FTC estimates that U.S. consumers may have paid as much as $480 million more than they should have for CDs and other music because of these policies over the last three years. According to the FTC's complaints, the companies required retailers to advertise CDs at or above the MAP set by the distribution company in exchange for substantial cooperative advertising payments. The restrictions applied to all advertising, including television, radio, newspaper and signs and banners within the retailers' own stores. The restrictions even applied to advertising funded entirely by the retailer. Under the policies, large music retailers would lose millions of dollars a year if they failed to follow the MAP restrictions. The complaints detail how MAP policies were adopted to squelch discount music retailing. In the early 1990s, many new music retailers, including major consumer electronics stores, started to sell CDs at low prices to gain customers and market share. The more traditional music retailers also lowered their prices to compete. This retail "price war" led to lower CD prices for U.S. consumers as prices for popular CDs fell as low as $9.99. The record companies adopted the MAP policies in 1995-96 to extinguish this "price war," the Commission contends. The FTC alleges these MAP policies achieved their unlawful objective. The "price war" ended shortly after the policies were adopted and the retail price of CDs increased. The distributors then increased their own prices, and since 1997, wholesale prices for music have increased.*
retail establishments would probably experience less shoplifting, but low-margin retailers, forced to expend resources on searches they otherwise might prefer not to perform, would be required to absorb these expenditures or to pass them along to consumers by raising prices.

In the realm of cyberspace, a copyright paradigm friendly to large-scale content owners provides them with "plausible deniability" Teflon shields if there are negative reactions to efforts to regulate and curtail the manner in which consumers use (or are forbidden to use) copyrighted content. Complaints about use restrictions can be met by content owners with assertions that "it's not us, it's the law" that is inflicting them. Eliminating independent sharing technologies reduces the likelihood that entities will compete for customers based on the "shareability" or "copyability" of content, to the extent that would even occur with respect to creative works. Giving content owners the ability to dodge responsibility for constricting consumer access to information is not an appropriate function of copyright doctrine, but that is how it can be exploited.

C. Show Us the Money

In 1998, Jack Valenti, President & C.E.O. of the Motion Picture Association of America, Inc., gave testimony to the Senate Foreign Relations Committee which included assertions that "the core copyright industries ... contributed an estimated $278.4 billion to the U.S. economy" in 1996, and "gathered foreign sales and exports of $60.18 billion." These staggering figures were intended to demonstrate the magnitude of losses possible in the event of unfettered, wide-scale copyright infringement. However, they also illustrate the tremendous revenues reaped by content owners despite the copyright infringement possibilities offered by the Internet. In fact, there is some evidence that the ability to share and sample copyrighted works over the Internet ultimately increases "authorized" real-space sales of copies of copyrighted works.

Attorney Howard King, who filed a lawsuit against Napster on behalf of Metallica, stated that when music is copied without compensating the artists, software tools such as Napster "are allowing people to rob creative artists of the fruit of their creations. The eventual re-


suit is there's no reason to be an artist, because you have to give away your work for free. According to King, "Thousands of artists depend on record royalties to survive, to support their families and to create more new music. Napster takes royalties from these artists. . . . Left unchecked, Napster threatens the livelihood of every writer and musician. And except for the most established artists, Napster will also eliminate the funding from record labels needed to pay the significant costs of making and marketing new records." King's statements are clearly designed to evoke sympathy for musicians, but they rely on several unsupported (and potentially unsupportable) assumptions. One is that thousands of artists actually receive royalties adequate to survive, support their families, and create new music. Yet one record producer has suggested that an album that sells 250,000 copies and grosses over $1.6 million at the wholesale level (and almost twice that after retailing) will net band members as little as $4,000 each. It needs to be established through empirical research that nonprofit use of digital copying and sharing technologies actually and appreciably affects the royalties of authors and artists before this argument is accorded much weight.

King also seems to assume that, in the long run, file sharing technologies wouldn't suffer as much as record companies if copyright infringement stopped artists and authors from practicing their crafts. Yet any business plan a new technology adopts will depend in some way upon the constant creation of new, desirable content. No one will utilize a file sharing mechanism if there are no interesting files to sample and share. Anyone hoping to profit long term from sharing technologies will be as motivated as the copyright industrial complex to ensure the continued development of plentiful, high-quality creative works.

One copyright industry insider has asserted that "foreign piracy of U.S. copyrighted works" results in "estimated annual losses worldwide" of "approximately $18–$20 billion." Since the individual was

---


testifying before Congress, one would assume that there is a solid ba-
sis to these figures, and yet, while the loss figure is stunning, the hedge
words accompanying it ("estimated," "approximately") are equally
compelling. Naturally, any attempt to quantify foreign acts of copy-
right infringement would be an estimate. Yet offering dramatic figures
without support smacks of partisan demagoguery. It also raises ques-
tions about whether the actions of U.S. courts, which generally do not
have extraterritorial effect, can have much impact on large-scale
piracy. Eliminating non-profit sharing may even render it more profit-
able by increasing demand for pirated products.

Copyright owners who can demonstrate intentions to venture
into online distribution are increasingly allowed to demonstrate the
magnitude of wrongful takings with inchoate profits. They ought to be
required to support their allegations better by offering empirical evi-
dence and realistic projections rather than bombastic, apocalyptic sce-
narios. The state can't convict someone of burglary because the
person "may have" stolen a large amount of money, and arresting
technology should also require proof of damages. Yet Universal Music
Group did not demonstrate any lost sales caused by the My.MP3.com
service when it prevailed in a copyright infringement suit, and there
is no evidence that Napster has depressed CD sales. Admittedly, affi-
davits offered by (for example) Napster users asserting that they
would not have purchased music they downloaded via Napster even in
the absence of the sharing technology seem contrived and a bit too
convenient. And yet, to this author they have the ring of truth. At
different periods in our life, my spouse and I have intentionally dis-
pensed with television. Inevitably, however, we begin to feel culturally
disengaged, and eventually some life event that compels long periods
of prolonged inactivity (broken leg, new baby, etc.) induces us to

68 Amy Harmon, Enlisting Congress on Technology, N.Y. TIMES (Oct. 2, 2000) (Tech-
nology Section) available at http://www.nytimes.com/2000/10/02/technology/02NECO.html
(last visited Oct 3, 2000).

69 See, e.g., Metallica Sues Napster, Universities, Citing Copyright Infringement and
Whitney Broussard pointed out that he hasn't seen CD sales fall since the advent of Nap-
ster, and no one in the business has put any hard numbers out to estimate the real losses.");
Napster attorney Laurence Pulgram, quoted in Two Views on the Copyright Dispute Be-
tween Metallica and Napster, CNN.COM LAW CENTER (May 19, 2000), at http://
www.cnn.com/LAW/columns/dual.metallica.05.19/ (last visited Oct 12, 2000) ("[N]o one
has produced a speck of evidence that Napster has cost artists a dime. In fact, CD sales
were up substantially for 1999 and the first quarter of 2000 - even as Napster and other
file-sharing technologies were proliferating."); Eric Bohlert, Is Napster Hurting Record
print.html (CD sales related to number and quality of new releases rather than Napster).
reconnect our cable. Predictably, we spend most of the next seventy-two hours glued to the screen, watching even the most vapid programming late into the night. Then, sated, we grow choosier about the shows we deem worthy of our time. Gradually our interest and attention dwindle, and eventually days and sometimes weeks pass in which we don’t even turn the television on. A cable bill arrives during a televisionless interval, and we debate once again dispensing with television altogether. I mention these biographical trivia because I suspect Napster users follow a similar cycle. The siren song of free music causes short-term overindulgence. Hundreds of songs are downloaded. Many are actually listened to only once or twice, some perhaps not at all. Eventually the downloader finds better uses for those computer memory bytes. I suspect Napster users probably wouldn’t have purchased most of the songs they freely downloaded out of curiosity or even gluttony.

Large content owners ought to be required to demonstrate actual harm. One can’t win a products liability case by suggesting a product “might be” dangerous. It is a gross distortion of copyright law and fundamental legal principles in general to say “there might be less creativity” because a technology “might be costing content owners money.” Yet Professor Lawrence Lessig has trenchantly observed that while courts have held Congress to an extremely high standard when regulating pornography, in part out of fear of generating harmful, unintended consequences for the Internet, the same courts will happily enjoin alleged violations of the copyright law without any trial at all, and in complete disregard of the effects on the Internet or technological development generally.\(^7\) For example, in the Universal Music Group litigation against MP3.com, Universal was awarded $100 million, which the judge noted “was lower than it might otherwise have been because the company had made no effort to show that it had lost sales as a result of My.MP3.com.”\(^7\)

Additionally, large content owners need to prove that any losses they incur are the result of copyright infringements, as opposed to dreadful business practices. Consider the recent summer Olympics, in which the International Olympic Committee appeared to assert ownership of the thoughts and feelings of Olympic athletes, as well as their performances, claiming copyrights in interviews as well as in broad-

---


casts, sound clips, and ticker-tape sports results. NBC's website was the only Internet site authorized to show video footage of Olympic events, and NBC intentionally withheld footage for at least a day after each event to drive viewers to its low-rated (numerically as well as critically) television coverage. Using copyright law to impede dissemination of everything related to the Olympics, the International Olympic Committee devoted a lot of resources to policing cyberspace for infringing websites, but in the view of most observers the biggest threat by far to NBC's ratings was its poor coverage of the event. The I.O.C. tried to use the power of the copyright monopoly to shield NBC from the consequences of its own poor performance, and maybe NBC would have garnered even fewer viewers if Olympic information was coterminously available online. If the tactic was a success, it was hardly a positive result for society.

D. Let Them Sell Cake

Most Americans are probably not the scofflaws that content owners make us out to be. In cyberspace as in real space, most U.S. citizens (or "netizens") are law abiding most of the time. As long as

73 See id.
74 Dave Powell, President of Copyright Control Services, which monitored the Internet on the I.O.C.'s behalf acknowledged that the I.O.C. put profits before access, stating "Sports fans realize this material is out there and they'd like to be able to see it, but the Olympics is funded by broadcasters around the world, buying exclusive broadcast rights and paying a lot of money for those rights." Quoted in Violators Caught as Olympic Video Monitored on Internet, CNN.com (Sept 22, 2000) at http://www.cnn.com/2000/TECH/computing/09/22/olympics.netpolice.ap/index.html.
77 See, e.g., Janelle Brown, Ethical Music Piracy, SALON (Oct. 5, 2000) at http://www.salon.com/tech/log/2000/10/05/fairtunes/print.html, see also Janelle Brown, The Jukebox Manifesto, SALON (Nov. 13, 2000) at http://www.salon.com/tech/feature/2000/11/13/jukebox/print.html (quoting Rob Reid, CEO of Listen.com for the proposition that "If people can pirate for free, but it's hard to find things and it's hard to get good quality, most people who have more money and less time than they used to have will feel fine paying $10 [for an industry-approved service] and getting a better experience." But see Jack Valenti, Valenti Urged Congress to Support Copyright Protection in the Internet Age (June 15, 2000), available at http://www.mpaa.org/jack/2000/00_06_15.htm (the Internet is infested with thievery).
78 My focus is on U.S. residents since these are the folks that U.S. courts can realistically exercise jurisdiction over. I certainly don't mean to suggest other nations have either
it is reasonably convenient, efficient, and economical to gain access to a movie by renting a videocassette or DVD, ordering it through “pay-per-view,” or watching it on cable television (all of which garner royalties for content owners), then few people are likely to invest a lot of time and energy in obtaining counterfeit copies of the movie or gaining unauthorized access to any copies. If, as some observers suspect, the ultimate goal of content providers is to eliminate circumvention not only so they can capture escaping access fees, but so they can also ratchet up access fees, at a minimum they should not be allowed to pursue that goal without demonstrating entitlement to relief by establishing quantifiable losses. If content owners think we should be perfectly law abiding with respect to copyrights, then they should bear the burden of developing and deploying technology to achieve this goal. Courts should not do for content owners what they do not at least attempt for themselves.

If (for example) Napster evolves into a service for which users pay a flat monthly fee for access to a fixed library of songs administered by Napster, one could expect the same songs that were selling well in real space to compose the bulk of the downloads (the hits will get the hits!) and therefore claim for their owners the majority share of the revenue stream. Under a flat royalty (e.g., monthly fee) scenario, new songs from lesser-known or unknown artists could be accessed without additional cost, unlike in real space, where acquiring a permanently storable, playable version of a song requires either a special purchase or, minimally, the time and effort necessary to borrow the song in a tangible medium and make an unauthorized copy. However, new songs from new or lesser-known artists can’t be downloaded if there is no “legal” technology to accomplish this, or if the same recording companies that aren’t making CDs of this music now (perhaps because they don’t want their “stars” to face competition) are in control of the technology.

If a technology is truly depriving artists of significant amounts of wealth, that is indeed problematic. However, if the technology’s primary effect is to redistribute wealth from traditional music companies to entities utilizing alternative modes of distribution, without affecting greater or lesser concentrations of cyber pirates within their borders. But see Jack Valenti, President of the MPAA: If You Can’t Protect What You Own—You Don’t Own Anything; Comments by Jack Valenti President & Chief Executive Officer Motion Picture Association of America before the House Subcommittee on Courts & Intellectual Property on WIPO Copyright Treaties Implementation Act and the Online Copyright Liability Limitation Act, available at http://www.mpaa.org/jack/97/97_9_16b.htm ("In China, in Russia, in Italy, in scores of other countries, video pirates steal more than $2 billion of our intellectual property each year. . . . Russia . . . is literally infested with pirates. . . .").
most artists and authors (or perhaps helping them in the process), then the technology has not compromised the goals of copyright law. No one truly knows which approach to copyright best encourages creativity and supports content creation. The current approach certainly supports large revenues. By one report, record companies made $15 billion last year\textsuperscript{79} (record profits, if the reader will excuse the pun) in spite of Napster, Scour, and every other copying and sharing technology they have not yet taken down or taken over. Similarly, U.S. box office receipts were $7.5 billion in 1999,\textsuperscript{80} in addition to revenues generated through foreign distribution, licensing arrangements, transmission fees from cable television channels, video rental royalties, and so forth. Yet these industries suggest that piracy renders these returns inadequate. If this is true, perhaps it is because content owners failed to adapt to new technology, not because of some inadequacy of copyright law. If large companies cannot profitably distribute creative content, let them sell content that is not creative.

\section*{Conclusion}

I conclude with a story to illustrate just one of the myriad reasons it would be detrimental to allow content owners to arrest technology. When I was in practice, I had occasion to appear in municipal courts, usually in \textit{pro bono} matters. During the course of one appearance, a judge ruled against my client in a way that contravened binding precedent from the state appellate court. Neither the judge, nor opposing counsel, nor I was aware of this very recent court decision at the time of the ruling, but I discovered it immediately upon returning to the office, and promptly filed a motion for reconsideration of the verdict. However, the judge refused to hear the motion until he had a transcript of the trial, which would have required my client to pay a $5,000 deposit toward the court reporter's transcription fees. My client didn't have $5,000, and that fact effectively ended the matter.\textsuperscript{81} I firmly be-


\textsuperscript{81} An experienced attorney later suggested that my motion had embarrassed the judge, and that I should have figured out a way to tip the judge off about the case informally so that he could have appeared to discover it on his own, and withdrawn and reissued the order in a more face-saving manner.
lieve that my client would have had a better chance at a just outcome if courts had access to inexpensive, effective recording and transcription technology, and I know many attorneys who long for faster, more accurate trial transcripts. For a variety of reasons, neither state court systems nor even federal courts are likely to fund the prompt development of voice recognition and transcription technologies from scratch. However, they certainly may adopt appropriate technologies developed for other, more lucrative applications. With all due respect to court reporters, this can't happen quickly enough for me, and I am loath to see the development of any potentially useful technology arrested by copyright owners.

A better solution is to place the burden on copyright owners to develop or license technologies of their own to inhibit unauthorized copying. The copyright industry should attempt to develop digital content that is problematic as a technical (rather than legal) matter to copy. Failing this, content owners ought to make business decisions based on the reality that some sharing and copying will occur. If this renders certain creative-arts ventures unprofitable, so be it. Industry principals can invest their money in real estate development or sock factories—potentially profitable ventures that do not generally expose capital to the risks of copyright infringement. Perhaps this raises the dreaded specter of a world without Metallica, but most artists will probably go on creating. If the production of art and information does decline, we can always return to current practices, or perhaps invent new approaches to copyright altogether.