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Copyright Infringement and Peer-to-Peer Technology

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COPYRIGHT INFRINGEMENT AND PEER-TO-PEER TECHNOLOGY

Niels Schaumann[†]

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I. INTRODUCTION

Last year, the Ninth Circuit affirmed¹ a trial court decision that

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1. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001), *aff'g in part and rev'g in part*, 114 F.Supp. 2d 896 (N.D. Cal. 2000).

some seventy-five million Americans were infringing copyrights² by exchanging music files in the MP3 format via a peer-to-peer (“P2P”) network known as Napster. The breathtaking sweep of this holding—that almost one-quarter of the population of the United States was engaging in illegal (and perhaps even criminal)³ activity—is reason enough to give the case a second look. But there are other reasons, too. Students of copyright law cannot fail to notice that the Ninth Circuit’s analysis of infringement is minimal and confusing, even opaque, at times.⁴ The court seems unsure of the forest, despite apparently having pinpointed many of the trees. In this Article I will try both to explain why the Ninth Circuit was so vague, and to provide some guidance for the better resolution of copyright infringement cases arising from P2P file exchange.

Peer-to-peer networks, permitting direct transmission of files among their users, present one of the thorniest practical problems copyright law faces today. This is well-illustrated by the *Napster* case, in which the record company plaintiffs won what may yet prove a Pyrrhic victory⁵ to retain control of the distribution of their

2. *Napster*, 114 F.Supp. 2d at 902.

3. See No Electronic Theft (NET) Act, Pub. L. No. 105-147, § 2(b), 11 Stat. 2678 (1977) (codified as amended at 17 U.S.C. § 506 (2000)).

4. In fact, the Ninth Circuit’s discussion of the infringement of Napster’s users takes up merely three sentences:

We agree that plaintiffs have shown that Napster users infringe at least two of the copyright holders’ exclusive rights: the rights of reproduction, § 106(1); and distribution, § 106(3). Napster users who upload file names to the search index for others to copy violate plaintiffs’ distribution rights. Napster users who download files containing copyrighted music violate plaintiffs’ reproduction rights.

Napster, 239 F.3d at 1014. The district court’s finding that the plaintiffs had made a prima facie case of infringement was not appealed by Napster, which focused its energies on attempting to establish various defenses. *Id.* at 1013.

5. The P2P networks that have sprung up since Napster’s demise are less centralized and, at least in some cases, beyond the jurisdictional reach of United States courts. For example, KaZaA, another peer-to-peer file sharing network, used software distributed by a Dutch company, which has since sold it to an Australian company. Scott Wolley, *Steal This Movie, Napster Isn’t Gone It Just Went to the Multiplex*, FORBES, Feb. 18, 2002, available at 2002 WL 2213818. See also *Kazaa Continues on Despite Court Ruling*, EUROPEMEDIA, Feb. 4, 2002, available at 2002 WL 10689610; Jasper Koning, *Kazaa Plays on Despite the Threat of Fines*, ZDNET NEWS, Dec. 20, 2001, at <http://zdnet.com.com/2100-1106-803432.html>; *Kazaa Sells File Sharing Software*, N.Y. TIMES, Jan. 23, 2002, at C4. KaZaA and similar networks do not require a Napster-like central index server. See Memorandum of Points and Authorities of Defendants Streamcast Networks, Inc., et al. 3-7, *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, No. 01-08541 SVW (PJWx) (C.D. Cal. filed

products. But to say that technology poses a *practical* problem is not to say it poses a *legal* problem. Indeed, careful analysis of the copyright issues presented by peer-to-peer networks shows that the legal issues are, if not trivial, at least not terribly complex. Nor do P2P cases require a sophisticated understanding of technology—not much more than is possessed by a teenager who actually uses a peer-to-peer service to exchange files. More than that is unnecessary.

But first things first. Why is music⁶ the subject of so much attention?⁷ Music is the first kind of copyrightable work to be widely distributed on P2P networks; this may be because its legitimate distribution typically is in a digital (compact disc) format, and it is therefore easily converted into a digital compressed (MP3) format suitable for P2P distribution.⁸ Or perhaps it is because works of popular music are short, producing relatively small files that do not take very long to transmit. Or maybe it is because the audience for popular music is young, relatively technologically savvy, and willing to learn what is necessary to trade files embodying its preferred musical entertainment. Probably all of these factors contribute to the attention placed on the distribution of music. In any case, music is where the P2P action is at the moment, so I will focus on P2P transmissions of music files for most of this discussion.

From one perspective, P2P networks merely facilitate personal copying of recorded music, an activity that in other contexts is

Jan. 22, 2002).

6. Here, I mean to include both the musical work, *e.g.*, the song, and the sound recording in which the song is embodied. More about this distinction later (see *infra* notes 56-58 and accompanying text), although for my purpose, it is not really important except insofar as there are typically multiple plaintiffs entitled to claim infringement by user activities on P2P networks. Other works, of course, have been the subject of recent copyright litigation, and some of those lawsuits, like *Napster*, have generated some press. *E.g.*, *Universal City Studios, Inc. v. Corley*, 273 F.3d 429 (2d Cir. 2001); see Amy Harmon, *Compress Data, DVD Copyright Case Grinds Through Court*, N.Y. TIMES, Jan. 21, 2002, at C4; Amy Harmon, *Technology: Judges Weigh Copyright Suit on Unlocking DVD Shield*, N.Y. TIMES, May 2, 2001, at C4; *Court Tells Web Sites to Remove Code*, N.Y. TIMES, Jan. 24, 2000, at C2; Greg Miller, *Film Industry Wins Ruling in DVD Suit Motion Pictures, N.Y. Judge Tells Web Sites to Stop Distributing Software that Allows Users to Copy Discs. But is it too Late?*, L.A. TIMES, Jan. 21, 2000, at C1.

7. The media has devoted significant attention to online exchange of music files. *Napster*, for example, was a cover story for both NEWSWEEK (June 5, 2000) and TIME (October 2, 2000) magazines.

8. See *Napster*, 239 F.3d at 1011.

indisputably legal. Thus, under copyright law, Joe may borrow a CD of recorded music from his friend, Sally, take it home, and copy it to a digital or analog medium for his own personal use.⁹ A credible argument can be made that the functional equivalent of this activity—copying the file directly from Sally's computer via a P2P network on the Internet—should be treated the same way. The analogy is not perfect, however; there are some differences between what happens face-to-face and what happens over P2P networks. In the physical world,¹⁰ Joe and Sally must know each other in order to establish a relationship in which Sally will loan Joe her CD. Moreover, Sally must trust Joe enough to loan him the CD, since there is at least some risk that she will never see it again. Similarly, Joe's ability to copy CDs is limited by the CDs his friends (including Sally) have in their possession, which may or may not include the particular music Joe wants to copy.

On a P2P network, by contrast, Joe and Sally do not need to know each other. Sally need not trust Joe because she is not "giving" Joe something in the sense that she will be deprived of it. Finally, on a P2P network, Joe can search the collections of thousands, perhaps millions, of users who collectively make available much, if not most, of the recorded music currently available for purchase. Joe's Internet "friends" are far more likely to have the music Joe wants than the physical circle of even an extremely outgoing person's friends. These differences make P2P activities more threatening to content owners, who see such networks as little more than decentralized, anonymous—and therefore highly dangerous—piracy. Ultimately, the difference lies not so much in what Joe does—which, after all, is simply copying music for personal use—but that Joe's myriad of Internet friends make their collections of music available not only to Joe, but to anyone on the P2P network. In short, they make it available to the public.

Napster, the first P2P network to achieve widespread adoption by music users, unsurprisingly became the first target of content owners' ire in a lawsuit filed in California in 1999. And content owners found a receptive judiciary: In *Napster*, the Ninth Circuit extended the protections accorded to copyright owners by sharply

9. See 17 U.S.C. § 1008 (2000).

10. Sometimes, and a little repulsively, referred to as "meat space." Richard Smith, *Book to Unravel Internet Jargon*, SCOT. DAILY REC., Oct. 6, 2001, at 29, available at 2001 WL 27808977.

limiting, in the P2P context, the right of music consumers to make personal use copies of recorded music. This right, acknowledged by content owners in 1992,¹¹ reflects an understanding that noncommercial copying of recorded music for personal use is not within the scope of the copyright holder's monopoly. Surprisingly, the Napster court did not address in any coherent way the nature of the infringement that was taking place on the Napster P2P network, instead referring generally to the "infringement" committed by Napster's users.¹²

In this article, I will analyze the activities of P2P users to determine more precisely which, if any, of their actions infringe copyright. In Part II, I will describe the process of copyright lawmaking and the recent evolution of copyright law in response to technology. This discussion will include a brief description of conventional and P2P network technology. A copyright analysis of user activities on P2P networks follows in Part III, where I argue that the nature of copyright legislation requires courts to be especially careful and precise in determining the contours of infringing noncommercial conduct by members of the public. The analysis in Part II will lead to the conclusion that *copying* by P2P users does not infringe copyright, but *distribution* does. In Part IV, I address some strategic considerations affecting copyright enforcement and P2P networks, including some speculation about why the Napster case turned out the way it did, and why that is a problem. Finally, I propose the reinvigoration of *Sony*¹³ as a way to preserve the public benefit of P2P technology.

II. TECHNOLOGY AND COPYRIGHT LAWS

Advances in technology have historically been marked by copyright controversy, and it is a cliché that the predecessors of modern copyright statutes were developed to address the first technology of mass copying, namely the printing press. Evidently things have not gotten much better: Nearly every technological advance touching copyright has required revision of the copyright laws. Significantly, the process of revision itself has for the last

11. See *infra* notes 135-41 and accompanying text.

12. E.g., *Napster*, 239 F.3d at 1013-14.

13. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (holding that distribution of technology capable of substantial non-infringing use is not contributory copyright infringement).

century been deemed too complex to entrust to normal American legislative processes; making copyright laws doesn't much resemble making other federal laws, or even other federal intellectual property laws. For about 100 years, copyright legislation has been the product of negotiations among the dominant players in the affected industries; no bill has passed that did not reflect the consensus of these industries.¹⁴

Of course, neither the public nor industries based on technology arising after the adoption of a copyright statute are represented at these negotiations. Thus, they usually find themselves excluded from the elaborate scheme of statutory rights, licenses and exemptions¹⁵ embedded in the copyright law. Within a few years after the Copyright Act of 1909¹⁶ was passed, the infant motion picture and radio broadcasting industries perplexed Congress and copyright lawyers.¹⁷ Was a motion picture a "dramatic composition" and, if not, might it still be a "drama"? Did projecting a motion picture involve "copying" it? Did broadcasting music to radios in private homes involve a "public performance"?¹⁸ By the time the next revision of the Copyright Act was adopted, issues involving photocopying,¹⁹ sound recordings,²⁰ and cable television²¹

14. See JESSICA LITMAN, *DIGITAL COPYRIGHT* 35-69 (2001) [hereinafter LITMAN, *DIGITAL COPYRIGHT*]; Lewis Kurlantzick & Jacqueline E. Pennino, *The Audio Home Recording Act of 1992 and the Formation of Copyright Policy*, 45 J. COPYRIGHT SOC'Y U.S.A. 497, 531-34 (1998); Jessica Litman, *The Exclusive Right To Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 33 (1994); Jessica Litman, *Copyright and Information Policy*, 55 L. & CONTEMP. PROBS. 185, 196 (1992). See generally Jessica D. Litman, *Copyright Legislation and Technological Change*, 68 OR. L. REV. 275 (1989) [hereinafter Litman, *Copyright Legislation*]. Professor Litman has made an exhaustive review of the process of copyright legislation, and her articles are recommended to everyone seeking information about the history of copyright laws in the United States.

15. See LITMAN, *DIGITAL COPYRIGHT*, *supra* note 14, at 25; Litman, *Copyright Legislation*, *supra* note 14, at 299-300.

16. Copyright Act of 1909, ch. 320, 35 Stat. 1075 (1909), *repealed by* Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified as amended at 17 U.S.C. §§ 101-1332) (2000)).

17. Litman, *Copyright Legislation*, *supra* note 14, at 290-99.

18. *Id.* at 303 (*citing* *Patterson v. Century Prod.*, 93 F.2d 489 (2d Cir. 1937); *Metro-Goldwyn-Mayer Distrib. v. Bijou Theatre*, 3 F.Supp. 66 (D. Ma. 1933); *Tiffany Prods. v. Dewing*, 50 F.2d 911 (D. Md. 1931)).

19. See 17 U.S.C. § 108 (2000).

20. See Act of Oct. 15, 1971, Pub. L. No. 92-140, 85 Stat. 391.

21. See Copyright Act of 1976, 17 U.S.C. § 111 (most recently amended in 1999) (cable networks to required to pay a royalty for retransmission of broadcast signals); see generally *Teleprompter Corp. v. CBS*, 415 U.S. 394 (1974); *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390 (1968); *E. Microwave, Inc. v.*

were added to the list.

A. *Videocassettes to DAT: The Audio Home Recording Act*

Although the 1976 Act was drafted to avoid some of the rigid categories that caused problems in the 1909 Act,²² it was not long before technology again undermined the compromises painstakingly achieved²³ by the industry negotiators who produced the new Act. In fact, the ink was barely dry on the new copyright law when the first major technological challenge arrived, with the introduction of Sony's Betamax videocassette recorder. Universal Studios and Walt Disney Productions immediately filed suit against Sony claiming that Sony was liable for any copyright infringement committed by users of videocassette recorders who used them to record copyrighted material broadcast by television stations.²⁴

Because Sony did not itself copy any of the plaintiffs' works, its liability was derivative of the infringement of its customers. That is, if Sony were liable, it would be for "contributory infringement," rather than direct infringement.²⁵ The Supreme Court held that "the sale of copying equipment . . . 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*."²⁶ The district court had determined that the copyright proprietors in many televised programs did not object to videotaping.²⁷ Further, the Court held that even unauthorized videotaping would in many cases be fair use, and

Doubleday Sports, Inc., 691 F. 2d 125 (2d Cir. 1982); WGN Continental Broad. Co. v. United Video, Inc., 693 F. 2d 622 (7th Cir. 1982); Niels B. Schaumann, Note, *Copyright Protection in the Cable Television Industry: Satellite Retransmission and the Passive Carrier Exemption*, 51 FORDHAM L. REV. 637 (1983).

22. H.R. Rep. No. 94-1476, 94th Cong., 2d Sess. 55, at 53-56 (1976).

23. A full description of the process leading up to the adoption of the 1976 Act appears in Litman, *Copyright Legislation*, *supra* note 14, at 305-42.

24. See *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

25. *Id.* at 426. A related theory of third-party liability, vicarious liability, is based on principles of *respondeat superior*. It is most commonly applied "against a defendant whose economic interests [are] intertwined with the direct infringer's . . ." *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 262 (9th Cir. 1996) (vicarious liability may be imposed on the operator of a swap meet at which vendors, renting space from the operator, were selling infringing materials). In *Napster*, the Ninth Circuit held that both theories applied. *A & M Records, Inc. v. Napster*, 239 F.3d 1004, 1019-24 (9th Cir. 2001).

26. *Sony*, 464 U.S. at 442 (emphasis added).

27. *Id.* at 425.

therefore noninfringing. Consequently, Sony's videocassette recorders were capable of substantial noninfringing use and their sale could not be enjoined.²⁸

The next major technological challenge faced by the 1976 Act came in the form of another new recording and reproduction technology—digital audiotape, or DAT. The success of the compact disc ("CD") format for recorded music nourished the growth of digital recording technology, as consumer preferences for digital recordings asserted themselves in the marketplace.²⁹ Digital tape recorders became dominant in recording studios, and in the late 1980s consumer versions were introduced in Japan. The response of American content owners was swift: They threatened copyright litigation against anyone who imported consumer DAT technology into the United States,³⁰ and ultimately filed a lawsuit against Sony.³¹ Perhaps convinced by *Sony* that such a lawsuit had only limited prospects for success, the content owners and the hardware manufacturers resolved this controversy the old-fashioned way: They met, negotiated, and proposed their compromise to Congress as the Audio Home Recording Act of 1992 (the "AHRA"). Congress did its part and enacted the compromise into law.³²

The agreement between content owners and the hardware manufacturers was complex by the standards of the early 1990s, if considerably less so by today's standards. (Compared to the Digital Millennium Copyright Act of 1998, for example, the AHRA is a

28. *Id.* at 456.

29. In the early days of CD technology, commercially available CDs frequently were labeled with a combination of the symbols A and D, signifying which steps of the recording, mastering and reproduction process were carried out in the analog domain and which in the digital domain. Thus "AAD" signified analog recording, analog mastering, and digital reproduction; "DDD," about which consumers were most enthusiastic, meant digital recording, mastering and reproduction. Some CDs continue to be labeled this way, primarily those featuring older content. The majority of new CDs no longer include this label, as today essentially all commercial recording, mastering and reproduction is digital. *See generally* Michael Plumleigh, *Digital AudioTape: New Fuel Stokes the Smoldering Home Taping Fire*, 37 UCLA L. REV. 733 (1990).

30. *See* LITMAN, DIGITAL COPYRIGHT, *supra* note 14, at 59-60. *See generally* Barak D. Jolish, *Notes of Uncertainty: Dispatches from the Battle Over Digital Music*, J. OF INTERNET L. (Nov. 1999), at http://www.gcwf.com/articles/journal/jil_nov99_1.html.

31. *Cahn v. Sony Corp.*, No. 90 Civ. 4537 (S.D. N.Y. filed July 9, 1990). *See generally* MELVILLE B. NIMMER & DAVID NIMMER, 2 NIMMER ON COPYRIGHT, § 8B.01[C], at 8B-7 (2001) [hereinafter 2 NIMMER ON COPYRIGHT].

32. Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified as amended at 17 U.S.C. §§ 1001-1010 (2000)).

model of clarity and accessibility.) The bargain was this: Content owners agreed not to block the manufacture, importation and distribution of digital recording devices for consumers, and not to bring infringement litigation based on private, noncommercial home copying of recorded music.³³ After *Sony's* holding that home videotaping was (at least in many circumstances) fair use, it must have seemed to content owners that the “right” to sue for home taping was at best in doubt, and—therefore—something easily conceded.

For their part, the hardware manufacturers agreed to pay a royalty on digital recording devices and media, which was to be divided up among content owners according to a complicated, and ultimately irrelevant—because so few such devices were ever sold—formula.³⁴ In addition, the hardware side agreed not to market digital audio recording equipment to consumers unless it incorporated a copy control system designed to prevent consumers from making a digital copy of a digital copy (so-called “serial copying”).³⁵ Content owners saw serial copying as the biggest threat posed by digital recording technology because serial copies in theory are indistinguishable from the digital original, and copies of copies proliferate more quickly than copies made directly from the original.³⁶ The technology approved by the parties to regulate serial copying was called the Serial Copy Management System (“SCMS”), and all devices defined as “digital audio recording devices” or “digital audio interface devices” must include it.³⁷

In the negotiations, however, manufacturers of computer hardware and peripheral devices succeeded in exempting their

33. 17 U.S.C. § 1008 (2000) states, “No action may be brought under this title alleging infringement of copyright . . . based on the noncommercial use by a consumer [of a digital or analog audio recording device or medium to make] digital musical recordings or analog musical recordings.” The hardware manufacturers requested this provision not out of an altruistic concern for consumers, but rather because their own liability would be derivative of consumer liability, under the doctrine of contributory infringement. *See Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 434-42 (1984).

34. *See* 17 U.S.C. §§ 1003-07 (2000).

35. *Id.* § 1001(11) (definition of “serial copying”); *id.* § 1002(a) (requirement of serial copy control).

36. In other words, if every possessor of a copy can make more perfect copies, and everyone who gets one of those perfect copies can make still more perfect copies, the number of copies may increase faster than if everyone who wants to make a copy must first gain access to an original.

37. *Id.* § 1002(a).

products both from the requirement that they include SCMS copy protection, and from the media royalty.³⁸ At the time, this seemed acceptable to the content owners, because computers were not a practical means of copying and distributing musical content. A typical CD contains about 700 MB of information; in 1992, the typical hard disk could hold only about 50 MB.³⁹ Copying a CD was, for most consumers in 1992, wildly impractical—requiring some fourteen average hard disks to hold the information, and content owners were understandably unconcerned about this happening. The picture for distribution was, if anything, even more reassuring to content owners. Few (only about five million people, worldwide⁴⁰) had access to the Internet, and given the transmission speeds of dial-up modems in 1992, it would have taken about twenty-eight days to transmit a CD's worth of information.⁴¹

All of this was to change astonishingly quickly: In 1993, the Internet (which during the first Clinton presidential campaign was too-frequently referred to as the instantly trite "information superhighway") became the pompous-sounding National Information Infrastructure,⁴² and content owners realized that technologies for copying and distributing content were changing faster than the owners could keep up.

B. The Internet, Part I: The Digital Performance Right in Sound Recordings Act

And so arrived the next, and still current, technology challenge for copyright—the Internet. Internet technology,

38. *Id.* §§ 1001(3), (4)(B)(ii), (5)(B)(ii).

39. See *The Industrial Era: 1991-1993*, THE HISTORY OF COMPUTING PROJECT (Apr. 27, 2001), at <http://64.177.126.115/timeline/1991.htm> ("Hard disc drives with . . . a capacity of 20 and 40 Mb are coming on the market this year")

40. LITMAN, DIGITAL COPYRIGHT, *supra* note 14, at 89. See generally Ronald D. Doctor, *Social Equity and Information Technologies: Moving Toward Information Democracy*, 27 ANNUAL REV. OF INFO. SCIENCE & TECH. 43-96 (1992).

41. In computer terminology, "kilo" means 1024 and "mega" means 1024². One byte equals 8 bits; therefore 1 megabyte ("MB") equals 8(1024²), or 8,388,608 bits; 700 MB therefore equals 5,872,025,600 bits. At a transmission speed of 2400 bits per second, prevalent in 1992, it would have taken 2,446,677 seconds to transmit 700 MB of information. This amounts to 40,778 minutes, 680 hours, or roughly 28 days.

42. See the web site of the Information Infrastructure Task Force, formed in 1993 to "articulate and implement the Administration's vision for the National Information Infrastructure (NII)." Nat'l Info. Infrastructure, at <http://www.iitf.nist.gov> (visited Feb. 10, 2002).

however, is vastly more complex and flexible, and capable of a great deal more, than videocassettes or DAT recording. It is not surprising, then, that the problems posed by the Internet are themselves more numerous—and reach farther into copyright law and policy—than those raised by earlier technology. Indeed, many copyright lawyers have been concerned with little else these past few years. There is not just one “problem” raised by the Internet, but a seemingly endless series of issues.

Once again, the first storm clouds gathered over the recorded music industry, which had been quick to threaten litigation against anyone with the temerity to import consumer DAT technology.⁴³ Understanding the record companies’ concerns requires a brief digression into the means of exploiting music generally, and what this might mean on the Internet.

1. *Music Rights and Copyrights*

There are two principal means by which recorded music, standing alone,⁴⁴ is exploited: (1) by performance, and (2) by distribution of recordings. The Copyright Act, as a set of negotiated provisions among the many industries that produce and use copyrighted works, has a typically complex model for allocating rights for recorded music. First, some terminology should be clarified. What is a “performance”? For our purposes, it will do to state simply that a public performance of recorded music takes place anytime a recorded work is played—made perceptible in auditory form—for the public. This happens when the work is played in a public place, and when the work is transmitted or otherwise communicated to the public.⁴⁵ “Distribution,” by contrast, is not defined in the Copyright Act, but distribution to the public is commonly understood to be essentially synonymous with “publication,” which means distribution of tangible copies (or phonorecords) by sale, rental, lease or lending.⁴⁶

A recording of music, however, comprises two distinct copyrights: the *musical work*, which can be fixed in numerous media

43. See *supra* notes 30-32 and accompanying text.

44. There are additional means of exploiting musical works, but here I am addressing only recorded music—specifically, recorded music standing alone (i.e., not synchronized with a film soundtrack or other audiovisual work).

45. 17 U.S.C. § 101 (2000) (definitions of “perform” and “perform or display publicly”).

46. See *id.* (definition of “publication”).

(e.g., in sheet music, or in a CD) and the *sound recording*, which consists of specific sounds fixed in a medium that enables the sounds to be re-created when played back (e.g., tape, CD).⁴⁷ The rights in the sound recording and in the musical work are typically owned by different persons: The musical work is usually owned by its publisher,⁴⁸ while copyright in the sound recording is usually claimed by the record company that financed the recording.⁴⁹ Equally important, the nature of the rights in the two works is different. Of particular interest is that, before 1995, only the musical work embodied in a sound recording, and not the sound recording itself, had a public performance right. For example, when a radio station broadcasted a recording to the public, no performance payment was due the record company,⁵⁰ although the publisher of the musical work (who has a performance right) would be entitled to receive a payment.⁵¹ Similarly, if a recording artist creates a new version of a song previously recorded and distributed to the public, the owner of copyright in the musical

47. "Sound recording" is defined in section 101 of the Copyright Act, but "musical work" is not defined in the Act. *See id.*

48. Technically, the rights are usually divided equally between the songwriter or composer, and the publisher. SIDNEY SHELBY & M. WILLIAM KRASILOVSKY, THIS BUSINESS OF MUSIC 245 (Billboard Books, 1990) [hereinafter BUSINESS OF MUSIC]. *See generally*, 2 ALEXANDER LINDEY, LINDEY ON ENTERTAINMENT, PUBLISHING, AND THE ARTS § 7.01 (2000) [hereinafter LINDEY ON ENTERTAINMENT]. I will refer to all such parties as the "publisher" for brevity.

49. BUSINESS OF MUSIC, *supra* note 48, at 39-42.

50. *See* 17 U.S.C. § 106(4) (2000) (failing to include "sound recordings" among the works that enjoy a public performance right).

51. *Id.* Radio stations (and anyone else performing a musical work publicly) must license the performance right, usually from one of three "performing rights societies" in the United States: ASCAP (the American Society of Authors, Composers and Publishers), BMI (Broadcast Music Incorporated) and SESAC (formerly the Society of European Stage Authors and Composers, but now simply SESAC). *See generally* BUSINESS OF MUSIC, *supra* note 48, at 196-200. The performance right itself was seriously circumscribed in the Fairness in Music Licensing Act of 1997, which limited the venues in which a public performance is a licensable event. *See* 17 U.S.C. § 110(5) (2000). Record companies can, and have, argued for a comprehensive performance right in sound recordings, but in the process of industry negotiation that has shaped the Copyright Act, they have not prevailed. 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.21[B]. Thus, until 1995, they had to content themselves with the "free" promotion their products receive when they are played on the radio (although recurrent "payola" scandals, in which record companies are alleged to have bribed radio stations for airplay, continue to surface and raise doubts about whether this promotion is "free" in the way that lunch is sometimes said to be).

work is entitled to receive payment. The record company that distributed the earlier recording is not entitled to receive payment because its copyright (which is limited to the specific sounds fixed in the sound recording) is not infringed by the *new* version. In other words, because record companies hold copyrights in sound recordings—and not in musical works—their rights are limited and extend (before 1995) principally to the reproduction and distribution of their sound recordings.⁵² The rights of music publishers, as copyright holders in musical works, are broader, and include reproduction, adaptation, distribution, performance and display.⁵³

2. *Music Rights on the Internet*

Internet activities commonly include reproduction, distribution and performance, and may thus infringe rights held by both record companies and music publishers.⁵⁴ Each of these industries, therefore, considered the Internet a potential threat. Record companies were concerned that in the future, their businesses—built on the distribution of tangible copies—would no longer be viable. In a world in which a comprehensive recorded library of music existed and could be accessed by anyone at any time and from any place, no one would need to own tangible copies of recorded music any longer. If Sally wanted to hear a particular selection, she would simply request that it be transmitted, and then listen to the transmission.⁵⁵ Consumers want the content, not the medium. This prospect was not necessarily of grave concern to music publishers, as each audible transmission to a requesting member of the public would be compensable to them

52. See 17 U.S.C. § 114(a) (2000). Sound recordings do also carry an adaptation right, although historically it has not been licensed much.

53. *Id.* § 106.

54. For example, copying a file embodying a sound recording involves reproduction (see *infra* notes 64-67 and accompanying text); making that file available to the public involves distribution (see *infra* notes 76-83 and accompanying text); and transmitting that file in such a way that it is audible as it is being transmitted involves performance (see *infra* notes 63-67 and accompanying text). Similarly, the digital transmission over a cable television service of recorded music, which usually requires a subscription similar to that needed for a “premium” movie channel, is the digital performance of sound recordings.

55. See William H. O’Dowd, Note, *The Need for a Public Performance Right in Sound Recordings*, 31 HARV. J. ON LEGIS. 249, 256 (1994) (describing the “celestial jukebox”).

as a public performance. But it was a direct threat to record companies, who saw no means under the pre-1995 Act of extracting revenue from this scenario.

Music publishers, however, had their own concerns about the Internet. Publishers commonly license musical works for "mechanical reproduction," meaning the embodiment of the works in sound recordings. Each time a composition is recorded and phonorecords⁵⁶ are distributed to the public, a mechanical license must be obtained and a fee paid.⁵⁷ These fees account for a substantial portion of music publishers' income, and publishers saw the fees threatened by the Internet. Mechanical licensing was necessary before a *tangible* phonorecord embodying a musical work could be made and distributed to the public. But what if the public chose instead to download⁵⁸ digital files encoding the same music? Publishers were concerned that a musical work recorded, but disseminated via the Internet rather than by distribution of tangible objects, would be exempt from mechanical licensing. This was, of course, of no concern to the record companies, who saw the possibility of exemption from mechanical license fees as a boon.

3. *The Digital Performance Right in Sound Recordings Act*

Clearly it was again time for a compromise. And so the record companies and music publishers (along with broadcasters, cable companies, and other affected industries), returned to the bargaining table, each with its concerns, and worked out a solution, enacted by Congress as the Digital Performance Right in Sound

56. The Copyright Act uses the term "phonorecord" to signify a copy of a sound recording. See 17 U.S.C. § 101. A "phonorecord" is a tangible object embodying the sounds fixed in the recording. See *id.*

57. The first time a composition is recorded and phonorecords are distributed to the public, the license is not compulsory; the publisher may grant or deny the right. For subsequent recordings, however, the Copyright Act specifies that the owner of the musical work may not withhold the license; it is available to anyone on payment of the fee specified under the Act. See 17 U.S.C. § 115; see 2 NIMMER ON COPYRIGHT, *supra* note 31, §§8.04[B], [C], at 8-58.5 to 8-58.8.

58. By "download" I mean a transmission of a file that becomes fixed and identifiable on the recipient's computer, which can be played and replayed when the recipient chooses without the need for further transmission of information. This scenario differs from the performance scenario that was of concern to record companies, in which each time the recipient wants to hear the file it must be requested and transmitted. See *United States v. Mohrbacher*, 182 F.3d 1041, 1048 (9th Cir.1999) (quoting ROBIN WILLIAMS & STEPHEN CUMMINGS, *JARGON: AN INFORMAL DICTIONARY OF COMPUTER TERMS* 170-71 (1993)).

Recordings Act of 1995 (the “DPRSRA”).⁵⁹ Record companies received an exclusive right to publicly perform their sound recordings by means of digital transmissions.⁶⁰ This meant that users of the hypothetical “celestial jukebox”⁶¹ who wanted to dispense with ownership of physical recordings of music would now have to pay record companies for the right to listen to the recordings, in addition to music publishers (who were, even before 1995, entitled to payment). This seems a fair outcome, because in a not-yet realized world in which content can be transmitted so easily, “performance” may be the only compensable event for the owner of copyright in a sound recording.⁶²

For their part, music publishers got acknowledgment from the record companies that transmitting a music file, when it is reproduced and specifically identifiable on the receiving computer, is the practical equivalent of distributing phonorecords and therefore that a mechanical license must be obtained for such distribution (called “digital phonorecord delivery” by the Copyright Act).⁶³ In addition, the owner of copyright in the sound recording

59. Act of Nov. 1, 1995, Pub. L. No. 104-39, 109 Stat. 336. See 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.21[B], at 8-288-291 nn.32-60 and accompanying text.

60. 17 U.S.C. § 106(6) (2000). The right is riddled with exceptions, lucidly described in 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.22[B]-[D]. Some of these are currently the subject of intense discussion among affected industries and the Copyright Office. See generally R. Anthony Reese, *Copyright and Internet Music Transmissions: Existing Law, Major Controversies, Possible Solutions*, 55 UNIV. OF MIAMI L. REV. 237 (2001) [hereinafter Reese, *Major Controversies*]. None apply, however, to the case of an interactive service, where the user chooses what she wishes to listen to, requests it, and hears the resulting performance; such services must at present negotiate individually with the copyright owner of each sound recording they transmit. 17 U.S.C. §§ 114(d)(1)(A), (d)(2)(A)(i) (2000). The statute limits the duration of any license so negotiated to 12 months, or 24 months in the case of a licensor holding the copyright to 1000 or fewer sound recordings. *Id.* § 114(d)(3)(A).

61. See House Report on the Digital Performance Right in Sound Recordings Act, H.R. REP. NO. 104-274, 104th Cong (1st Sess. 1995) (reprinted in MELVILLE B. NIMMER & DAVID NIMMER, 10 NIMMER ON COPYRIGHT, App. 45 (2000)).

62. See O’Dowd, *supra* note 55, at 250-61.

63. 17 U.S.C. § 115(c), (d) (2000). Once the parties’ compromise was in place, however, publishers decided that perhaps they had been too hasty in settling for merely a mechanical license fee for digital phonorecord distribution. They currently take the position that digital phonorecord distribution inevitably also implicates their performance right, even when the transmission resulting in an identifiable recording (*e.g.*, an MP3 file) is inaudible while in progress. See *Major Controversies*, *supra* note 60, at 260; see also 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.23[A][2], at 8-355 to 8-356; *id.* § 8.24[B].

was entitled to a fee for exercise of its exclusive right to distribute the sound recording to the public.⁶⁴

And so, for a little while, it seemed that the problem of music transmission on the Internet had been solved. If transmission takes place in a “digital performance” mode, in which it is audible as it is being transmitted,⁶⁵ both the publisher and the record company have a performance right and are entitled to a fee. The change in this case was to protect the record company against a future in which performance, rather than distribution, was the principal way to make money from sound recordings—publishers already had a performance right. If, on the other hand, the transmission is inaudible while it is in progress, but results in an identifiable reproduction on the recipient’s system, thereby substituting for the distribution of a tangible copy, publishers are entitled to their mechanical license fee, and the record company is entitled to a fee for distribution of phonorecords. Finally, if the transmission is both a public performance *and* results in an identifiable reproduction on the recipient’s computer,⁶⁶ then performance rights *and* distribution rights need to be licensed from both the record company and the publisher. Note that both record companies’ and

64. 17 U.S.C. § 106(3) (2000). Note that record companies would not typically be entitled to a fee from the recipient of the digital phonorecord for reproduction of the sound recording because the AHRA specifies that consumers may make noncommercial digital musical recordings or analog musical recordings without liability for infringement. *Id.* § 1008. See *supra* notes 18-20 and accompanying text (discussing the AHRA); see *infra* notes 76-83 and accompanying text (regarding the transmitter’s liability for distribution).

65. Music publishers have asserted that *any* transmission necessarily involves a public performance, and some controversy remains over which transmission involve performances and which do not. See, e.g., 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.24[B], at 8-370 to 8-372; Reese, *Major Controversies*, *supra* note 60, at 259-60. The rather sensible position taken by the Clinton Administration’s White Paper was that “[w]hen a copy of a work is transmitted . . . in digital form so that it may be captured in a user’s computer, without the capability of simultaneous ‘rendering’ or ‘showing,’ it has rather clearly not been performed.” Bruce A. Lehman, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 79 (1995) [hereinafter the WHITE PAPER].

66. For example, a transmission that is audible as it progresses, and when it is complete, leaves behind a file that the recipient can replay at will, would constitute both a performance and a distribution. See 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.23[B][2], at 8-357 nn.41-42 and accompanying text; cf. *id.* § 8.23[B][5], at 8-360 (observing that if an “activity is exempt from liability under the transmission scheme, it is similarly exempt from liability under the amended mechanical compulsory license”) (footnotes omitted)).

publishers' rights are directed to actions taken by the party *transmitting*, rather than the party *receiving*,⁶⁷ the music: Since 1992 the AHRA has permitted consumers to make digital musical recordings and analog musical recordings, as long as they were noncommercial (*i.e.*, for personal use). This did not leave record companies and publishers unprotected, however, as they had unlimited rights to pursue those engaging in commercial reproduction, as well as non-reproduction activity (*e.g.* distribution, performance) of any stripe.⁶⁸ Unfortunately for both industries, however, technology raged onward, swiftly washing away their hastily-erected breakwaters.

C. The Internet, Part II: The No Electronic Theft and Digital Millennium Copyright Acts

First, transmission speed increased almost unimaginably. Merely ten years after the Audio Home Recording Act was passed, cable modems can achieve transmission speeds nearly 1,300 times faster than dial-up modems in the early 1990s, drastically cutting transmission times.⁶⁹ What once would have taken 28 days now takes only 32 minutes. Next, hard disk size increased by orders of

67. See S. Rep. (DPRSRA) at 27, quoted in 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.24[B], at 8-371. The Senate Report mentions only remedies for unlicensed distribution by the transmitting entity, not unlicensed reproduction by the recipient:

where a digital audio transmission is a digital phonorecord delivery as well as a public performance of a sound recording, the fact that the public performance may be exempt from liability . . . does not in any way limit or impair the sound recording copyright owner's rights and remedies under section 106(3) *against the transmitter for the distribution* of a phonorecord of the sound recording. As another example, where [a] digital audio transmission constitutes a distribution of a phonorecord as well as a public performance of a sound recording, the fact that the transmitting entity has obtained a license to perform the sound recording does not in any way limit or affect the entity's *obligation to obtain a license to distribute* phonorecords . . .

Id. (emphasis added).

68. Accord 2 NIMMER ON COPYRIGHT, *supra* note 31, §§8.23[B][4], [B][5], at 8-359 to 8-360.

69. The author used the services of bandwidthplace.com, at <http://bandwidthplace.com/speedtest>, to test the speed of his cable connection. On January 27, 2002, it measured 375.8 KB/second, which is 3,078,554 bits per second. At this speed, a 700 MB file would take only about 32 minutes to transmit. See Bandwithplace.com, at <http://www.bandwithplace.com/speedtest> (visited Jan. 27, 2002).

magnitude.⁷⁰ Today, a typical desktop computer includes a hard disk with at least 20 gigabytes of storage, enough to hold 28 CDs' worth of information (uncompressed), and many computers have much more capacity. Finally, the application of compression technology to music files, notably the MP3 format, reduced the volume of data necessary to store and transmit musical information to less than 1/10th what it required if uncompressed, with minimal effect on audio quality.

The result of these technological advances was to give consumers the ability to conveniently copy, compress, and transmit music files, using technology that (because it is computer equipment) is exempt from the AHRA and therefore does not need to incorporate copy control. While the negotiations between the record companies and the music publishers that produced the DPRSRA may have been adequate to adjust relations between those parties, they did nothing to prepare either one for the vastly increased ability of consumers to themselves copy and distribute sound recordings.

Content owners responded to this threat in two ways. First, in the No Electronic Theft Act⁷¹ they succeeded in substantially strengthening the penalties for copyright infringement, including the extension of criminal penalties even to noncommercial infringement.⁷² Second, they negotiated among themselves a set of further amendments, obligingly enacted by Congress as the Digital Millennium Copyright Act of 1998 (the "DMCA").⁷³ This breathtakingly complicated piece of legislation, among other things, creates new legal remedies for "circumvent[ing] a technological measure that effectively controls access to a work protected under [the Copyright Act],"⁷⁴ and for trafficking in "any technology, product, service, device, [or] component" that could

70. At 20 gigabytes, the typical hard disk today can store about 500,000 times the information of its counterpart in 1992. Even as capacity increased dramatically, the costs dropped. Today's 20-gigabyte hard disk sells for about \$150, compared with \$1,600 for a 1-gigabyte hard disk in 1992. Deborah Sacrey, *PC Workstation Technology and Its Impact on the Independent/Consultant*, HOUS. GEO. SOC'Y, at <http://www.hgs.org/artcpics/cnsl1197.htm> (visited Feb. 10, 2002).

71. No Electronic Theft (NET) Act, Pub. L. No. 105-147, § 2(b), 111 Stat. 2678 (1997) (codified as amended at 17 U.S.C. § 506 (2000)).

72. See 17 U.S.C. § 506 (2000).

73. Pub. L. No. 105-304, § 103(a), 112 Stat. 2863 (1998) (codified at 17 U.S.C. § 1201).

74. 17 U.S.C. § 1201(a)(1)(A) (2000).

circumvent such a technological measure.⁷⁵ Thus, a copyright owner that chooses to implement access control (for example, by encrypting the content and providing the decryption key for a price) has a legal remedy against one who decrypts the content, as well as against the one providing the decryption technology. This remedy exists even if the access has an entirely legal purpose (for example, gaining access to a work in order to make fair use of it).⁷⁶ To the extent access controls are circumvented to facilitate infringement, then both the circumvention and the infringement are independently actionable.⁷⁷ The DMCA thus appeared to make the future safe for content owners not merely by allowing them to control access, including lawful access, to their works, but also providing civil⁷⁸ and criminal⁷⁹ penalties for the circumvention of access controls.

D. P2P Technology and the Importance of Distribution

Despite their many efforts to protect themselves from technology, however, content owners almost immediately found themselves threatened again. The patchwork of fixes applied to the Copyright Act between 1992 and 1998 was founded on an idea that itself turned out to be dangerously flawed, that content owners could maintain control of the *distribution* of their works. The AHRA

75. *Id.* § 1201(a)(2)(A)-(C). The DMCA also prohibits trafficking in devices that can defeat “protection afforded by a technological measure that effectively protects a right of a copyright owner under [the Copyright Act].” *Id.* § 1201(b)(1)(A)-(C). This provision is intended to prohibit trafficking in devices that defeat *copy controls*, whereas its counterpart in § 1201(a)(1)-(2) prohibits *both using and trafficking* in devices that defeat *access controls*. *Id.* § 1201(a)(1)-(2). The wording of the clauses is revealing: “access” is not a right enjoyed by copyright holders, while copying is. Thus, the prohibition relating to copy controls talks in terms of “a right of a copyright owner.” *Id.* § 1201(b)(1)(A)-(C). The prohibition relating to access controls protects technological measures that enforce a right copyright owners don’t formally have. *Id.* § 1201(a)(1)-(2). Moreover, the latter prohibits not merely trafficking in such technology, but even using it. *Id.*

76. For these reasons, and others, The Digital Millennium Copyright Act has been extensively criticized in some quarters, even as it has been defended in others. *See, e.g.*, LITMAN, *DIGITAL COPYRIGHT*, *supra* note 14; Jane C. Ginsburg, *Copyright and Control Over New Technologies of Dissemination*, 101 COLUM. L. REV. 1613, 1631-1636 (2001).

77. This is inherent in the DMCA, which defines new offenses and provides separate remedies for their violation. *See* 17 U.S.C. § 1203 (2000).

78. *Id.*

79. *Id.* § 1204.

immunized copying, but not distribution, by consumers; the assumption was that consumers lacked the ability widely to distribute the works they were allowed to copy. The DPRSRA addressed electronic distribution, but only to specify that such distribution was compensable to copyright owners. The DMCA, too, is useful only to the extent that distributed copies, already in public hands, are controlled by technological methods. In fact, because the issue is the power to prevent distribution, and not merely the right to do so, legislation alone may not be up to the task.

The flaw in content owners' thinking was not immediately apparent. As long as distribution of music files took place in the context of the traditional architecture of the world wide web, where a central server stored files and made them available to users downloading them, it was possible (if difficult) to control illicit distribution by vigorous enforcement directed at the web sites distributing content. The DPRSRA and the No Electronic Theft Act provided the necessary tools for this.⁸⁰ The advent of P2P technology in the late 1990s, however, decentralized the process of distribution and quickly exposed the fragility of the assumption that distribution could be managed. One can readily imagine content owners' panic, then, when P2P technology left them with no point at which the tide of distribution could be stemmed.

P2P technology was envisioned years ago as a means to avoid the bottlenecks that can occur when many users simultaneously attempt to access a server, overwhelming its capacity to process the users' requests.⁸¹ It was not invented to facilitate copyright infringement; rather, it is a technological solution to a problem of computer network architecture. Until recently, however, it was neither practical nor popular. The following is a simplified description, first of the problem that P2P helps to solve, and then of P2P technology as currently implemented for consumers.

In the traditional ("one-to-many") model, users access a web site, physically located on a server—a computer whose task is to respond to user requests (for example, to view a file, to receive and

80. See *supra* notes 67-71 and accompanying text.

81. Charles Cooper, *Will Napster Kill P2P? Here's What You Need to Know*, ZDNET.COM, Feb. 16, 2001, at <http://www.zdnet.com/anchordesk/stories/story/0,10738,2686515,00.html>; Todd Sunsted, *The Practice of Peer-to-Peer Computing: Introduction and History*, Mar. 2001, IBM.COM, at <http://www-106.ibm.com/developerworks/java/library/j-p2p> (noting that P2P applications appeared nearly two decades ago).

process user orders, or any of the myriad functions performed by web sites). In this model, one⁸² server responds to many users, and the model was a vast improvement over that prevalent in the pre-network era, when information generally had to be delivered physically to the computer⁸³ on which it was used. For all its relative efficiency, however, the one-to-many model has some shortcomings easily noticed by users and web site proprietors. From the user's perspective, a bottleneck is created when server capacity is overtaxed by the number of user requests. That is, logging on to a busy server results in very slow responses, or even in some cases a complete failure to respond. From the web site proprietor's perspective, it is expensive to store vast amounts of information on servers. Moreover, a successful business model implies that the more information is stored, the more users will be attracted to the information, necessitating additional processing capacity—and thus additional investment—to avoid bottlenecks that will make response times unacceptably slow and thereby drive users away.

P2P technology addresses these concerns by reconfiguring the model of information storage and retrieval. In the P2P model, each user's computer acts simultaneously as a server and as a client. The result is a "many-to-many" configuration; many servers to many users. Because each connected computer functions simultaneously as a client and as a server, each computer is a "peer" of the other connected computers; hence the term "peer-to-peer."⁸⁴ Napster, the first popular—wildly popular,⁸⁵ in fact—P2P service, provides a good example: Logging onto Napster gave each user the option to

82. Again, this is a simplified description. Most busy web sites distribute their processing load among numerous servers, but the point is that for any given number of servers, there exists a number of users that will overwhelm the servers' processing capacity.

83. Old habits often die hard. Even after networks became common, network administrators would refer to the tendency of users physically to transport floppy disks from their desktop computers to other computers as the "sneakernet." See Sean Captain, *Stealth Fighters*, PC WORLD, Sept. 1, 2001, available at 2001 WL 2133774 (recalling a time when viruses would travel via the sneakernet of floppy discs).

84. See *A & M Records, Inc. v. Napster*, 239 F.3d 1004, 1011 (9th Cir. 2001).

85. Napster itself claimed that by the end of 2000, it would have 75 million users. *A & M Records, Inc. v. Napster, Inc.*, 114 F.Supp. 2d 896, 902 (N.D. Cal. 2000), *aff'd in part and rev'd in part*, 239 F.3d 1004 (9th Cir. 2001). Stories in the news media place the figure between 60-100 million. See generally Steven Levy, *The Noisy War Over Napster*, NEWSWEEK, June 5, 2000, at 46; Karl Taro Greenfeld, *Meet the Napster*, TIME, Oct. 2, 2000, at 59.

“open” one or more directories of her hard disk to other users, making the files contained in those directories available for transmission to other users upon their request.

P2P network architecture has two main advantages over conventional architecture. First, there are fewer bottlenecks caused by user activity, because each user interacts one-on-one with the particular other user that has the desired information. Second, unlike conventional network architecture, there is no need to store all the information that users may seek in a central location. Instead, each user on the network provides a little storage space by storing the information in which that user is interested. The information that the most users are interested in is stored in the most locations, further improving the efficiency of access and retrieval.

However, P2P networks raise problems of their own, particularly in connection with searching for information. In conventional web architecture, searches are made of web servers, rather than of every user’s computer. The number of servers is small compared to the number of client computers, and so searches can proceed relatively quickly. Also, because web servers are comparatively stable and tend to stay connected to the Internet, they can be effectively searched by software that indexes their contents periodically and makes the index available.⁸⁶ On a P2P network, users log on and off constantly, and because the users are where the information resides, a search requires navigating from one user to another to locate the desired information.

To solve the problem of slow searches, Napster enhanced P2P network architecture by centralizing the search function. Napster’s enhanced P2P architecture established a central index of all information—in this case, all the MP3-encoded music files—located on the user/servers, in real time (*i.e.*, updated as users log on and off).⁸⁷ Thus, when a user logged on to the Napster site, she was able to access the centrally-maintained index, which was immediately updated to include the files, if any, that she chose to share with other Napster users.⁸⁸ Because the index was central,

86. However, as server-based web sites proliferate, it becomes increasingly difficult to search them and maintain an accurate, reasonably current index of their contents. The result of this is familiar to most web users—links displayed by search engines that lead nowhere.

87. *Napster*, 239 F.3d at 1012.

88. *Id.* at 1011-12.

searches were very fast compared with non-enhanced P2P alternatives. MP3 files themselves were never located on the Napster server, which maintained only an index of the files shared by Napster's users.⁸⁹ The index permitted users to search for file names, and displayed the search results in the form of links on which a user could click to begin the process of downloading the file directly from another user. Thus, at any moment, a Napster user (the "downloading user") might be downloading a file from another user (the "distributing user"), who was sharing that file by permitting the download.

With this understanding of the activities that took place⁹⁰ on the Napster P2P network, we are ready to examine their copyright implications.

III. COPYRIGHT LAW AND P2P NETWORKS

A. *The Argument for Precision*

It is important to be precise about the activities of P2P network users and the specific rights of copyright owners affected by those activities. As the history of Copyright Act revision demonstrates, content owners carefully negotiate the precise scope of their respective rights and the exceptions to those rights. When disputes arise among the parties who negotiated the terms of the Copyright Act, the parties are fastidious about the rights and exceptions. Now that content owners are applying the Act to *consumers*, who were *not* represented in the negotiations over its details,⁹¹ it is at least as

89. *Id.* at 1012.

90. As a result of the infringement litigation filed against it, the Napster service shut down in July 2001 and remains unavailable at this writing, although a limited beta test of a new, non-infringing Napster commenced recently. The beta test is limited to those who initially volunteered to be testers. For a sample of the new Napster membership service, visit Napster at <http://napster.com/preview> (visited Feb. 10, 2002).

91. Professor Litman has written eloquently about the dangers of applying the Copyright Act, drafted by industry interests, to consumers, unrepresented in the negotiations.

If ordinary people are to see copyrights as equivalent to tangible property, and accord copyright rules the respect they give to other property rules, then we would need, at a minimum, to teach them the rules that govern intellectual property when we teach them the rules that govern other personal property, which is to say in elementary school. The problem, though, is that our current copyright statute could not be

important—if not more so—to be specific about these details. It seems inherently unjust to subject the public to statutes in which it had essentially no say, and then not even give it—us—the benefit of whatever exceptions from liability were put there by copyright industries.

The situation becomes even more unfair when one realizes that in these cases, the consumers whose infringement is being decided are generally not even before the court; whatever arguments they might have made to protect themselves will never be heard. Instead, their rights are adjudicated *in absentia*, in lawsuits for contributory infringement and vicarious liability—such as the *Sony* and *Napster* cases. It might be tempting for an overworked federal judge to conclude that “some kind of infringement must have happened, so it doesn’t really matter which.” And that may be literally true with respect to the defendant before the court, whose third-party liability depends only on *some* finding of consumer infringement. This kind of decision, however, does a grave disservice to consumers who, no less than copyright industries, deserve the benefit of whatever limitations on copyright may have been agreed among the parties to the negotiations over the statute.

The Constitutional purpose of copyright is to “promote the Progress of Science and the useful Arts.”⁹² Under the Constitution, then, copyright must provide increased public access⁹³ to works of authorship; public benefit is the ultimate purpose of copyright,⁹⁴

taught in elementary school, because elementary school students could not understand it. Indeed, their teachers couldn’t understand it. Copyright lawyers don’t understand it.

LITMAN, DIGITAL COPYRIGHT, *supra* note 14, at 72.

92. U.S. CONST. art. I, § 8, cl. 8.

93. “Progress” in the Copyright Clause is plausibly read to mean “dissemination.” See Malla Pollock, What is Congress Supposed to Promote?: Defining “Progress” in Article I, Section 8, Clause 8 of the United States Constitution, or Introducing The Progress Clause (Dec. 2001) (unpublished manuscript, on file with the William Mitchell Law Review and with the author; cited by permission). Even if “progress” might also connote qualitative improvement, dissemination is a key factor: In the absence of the latter, the former becomes unlikely.

94. The importance of promoting access to works was emphasized by the Supreme Court in *Sony*. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 430-31, 442 (1983) (holding that a person providing technology “capable of substantial non-infringing use” was not thereby liable for contributory copyright infringement, even though the users of the technology engaged in infringement made possible by the technology). The decision recognizes that technology may

and that benefit is achieved by remunerating authors to the extent necessary to provide an incentive for the creation of works. Accordingly, copyright should be understood as a balancing of public rights to use copyrighted works against the rights of content owners to compensation.⁹⁵ The public, however, is largely unrepresented in the process of making copyright laws. The public right to use works is not part of the discussion over the shape of copyright legislation⁹⁶ because copyright legislation is the result of industry consensus enacted by Congress. Consequently, the right of the public to use copyrighted works depends largely on the courts' interpretation of the legislation created by content owners, and courts therefore must be especially sensitive and precise in deciding such cases.

In asserting consumer infringement, copyright owners (as in *Napster*) tend to claim undifferentiated ownership of their works.⁹⁷ But it is elementary that some uses of copyrighted works may infringe while others do not; this is the inherent nature of copyright, which defines specifically the uses that are exclusive to, and thus licensable by, the copyright owner, and leaves the remainder to the public.⁹⁸

In addition, as we have already seen, different rights are often owned by different persons: Thus, the performance right in musical works is typically owned by the composer and the publisher of the work, while the reproduction right in sound recordings embodying the work is owned by the record company. Proper

be used for both infringing and non-infringing purposes, and that the mere capability of substantial non-infringing use tips the balance in favor of permitting the technology. *See id.*

95. *See* L. RAY PATTERSON & STANLEY W. LINDBERG, *THE NATURE OF COPYRIGHT: A LAW OF USER'S RIGHTS* ch.14 (1991); *see also* Jessica D. Litman, *Revising Copyright Law for the Information Age*, 75 OR. L. REV. 19 (1996) (discussing that the expansion of copyright and patent law is adverse to the goals of the intellectual property system); Ruth G. Okediji, *Givers, Takers, and Other Kinds of Users: A Fair Use Doctrine For Cyberspace*, 53 FLA. L. REV. 107, 117-46 (2001) (examining the relationship between fair use and the public welfare role of copyright).

96. *See* Deborah Tussey, *From Fan Sites to Filesharing: Personal Use in Cyberspace*, 35 GA. L. REV. 1129, 1155-56 (2001).

97. *See* A & M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1013-14 (9th Cir. 2001); R. Anthony Reese, *The Public Display Right: The Copyright Act's Neglected Solution to the Controversy Over RAM "Copies,"* U. ILL. L. REV. 83, 149 (2001) [hereinafter Reese, *The Public Display Right*] ("properly interpreting the specific rights granted to the copyright owner can help focus attention away from notions of undifferentiated ownership by rightsholders").

98. *See* PATTERSON & LINDBERG, *supra* note 95; *see also* Litman, *supra* note 95; Okediji, *supra* note 95, at 116 n.34.

identification of the rights involved is essential to determine from whom a license is needed. The *Napster* case itself illustrates this point: After the record companies had succeeded in shutting down Napster's service, they themselves encountered copyright claims from music composers and publishers when they attempted to inaugurate their own music downloading services.⁹⁹ Proper identification also promotes efficient exploitation of copyrights, by minimizing the ability of the owners of certain rights to block the licensed exploitation of other rights.¹⁰⁰

99. See Dawn C. Chmielewski, *Record Labels, Music Publishers at Impasse*, SAN JOSE MERCURY NEWS, Aug. 24, 2001, available at <http://www.siliconvalley.com> (on file with author).

100. For example, the RAM copy doctrine—the questionable notion that every transfer of a work into the volatile, temporary memory of a computer is the making of a “copy” for copyright purposes—means that every use of a work in digital form involves the making of numerous copies. See *Stenograph L.L.C. v. Bossard Assocs. Inc.*, 144 F.3d 96, 101-02 (D.C. Cir. 1998) (citing *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 518 (9th Cir. 1993)). One consequence of this is that the Copyright Act's limitations on the public performance and public display rights become meaningless as soon as digital technology is involved, since all digital performances and displays (including private ones) require that a “copy” be made. See 17 U.S.C. §§ 110, 114. Moreover, should the owner of the performance right wish to license it, she will not succeed unless the holder of the reproduction right also licenses the work (because the work cannot be exploited by a digital performance unless the reproduction right is also licensed). See Reese, *The Public Display Right*, *supra* note 97, at 136. The RAM copy “doctrine” has a fascinating history, beginning in 1988 in a case concluding that although a RAM copy was a copyright “copy,” the defendant was not liable for infringement under section 117. *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 261 (5th Cir. 1988). The first case in which a defendant actually was liable for making a RAM copy apparently was a district court case in Illinois, which did little more than cite the Nimmer treatise for the proposition that loading a file into a computer's “memory” constitutes “copying.” See *ISC-Bunker Ramo Corp. v. Altech, Inc.*, 765 F.Supp. 1310, 1332 (N.D. Ill. 1990), citing 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8.08 (1989). On this point, however, the Nimmer treatise in 1989 included little reasoning, relying on the FINAL REPORT OF THE COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS (1979) [hereinafter the CONTU Report], which said that “The introduction of a work into a computer memory would . . . be a reproduction of the work.” CONTU Report at 40. The interesting thing about the language of the CONTU Report is that it was written in 1979, a time when the term “memory” was frequently used interchangeably to mean any form of computer storage, whether volatile (disappears when the computer is shut down, for example RAM) or not (remains after shut-down, for example a hard disk). There is reason to believe that the CONTU Report was referring to disk storage rather than to RAM storage, in light of its recommendation that section 117 be amended to permit the rightful possessor of computer software to copy or adapt it, if doing so is “an essential step” in using the software. See CONTU Report at 12-13. The reference to “adapt[ing]” software is probably best read as permitting the modification and recompiling of source code, something

Finally, the principal response of content owners to the problem of easy distribution by the public has been litigation against third parties supplying access to distribution capability.¹⁰¹ The content industries' battle for control of distribution can be won only if the public cooperates. The technology genie cannot be intimidated back into the lamp; as long as the public believes it has the right to distribute copyrighted content for free, someone will provide it with the means to do so. Perhaps the next step (suggested in 1995 by the Clinton Administration's "Information Infrastructure Task Force"¹⁰²) for content owners should be to attempt to educate the public about its infringement of content owners' rights. If, however, content owners want to enlist the public to help control infringement, the industries must be willing to support propositions of copyright law that make sense to the public.¹⁰³ Content owners, however, have tried to substitute rhetoric

frequently necessary to run software in 1980, before the prevalence of mass-market, shrink-wrapped software. It is therefore questionable whether the Nimmer treatise, and thus the *Altech* case, are on a solid footing when they apply the language of the CONTU Report to RAM copies. In any case, the idea of RAM copies remained obscure until 1993, when it returned in the *MAI* case, *supra*. Like *Altech*, however, *MAI* did little more than conclude that copies in RAM were fixed and therefore their creation implicated the reproduction right. *MAI*, 991 F.2d at 518. On the issue of fixation, the court said only that

by showing that Peak loads the software into the RAM and is then able to view the system error log and diagnose the problem with the computer, *MAI* has adequately shown that the representation created in the RAM is 'sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.

Id. (quoting 17 U.S.C. § 101 (2001)). Since *MAI*, the doctrine has been uncritically accepted in a series of lower court cases, none of which engaged in any kind of critical examination of the rule or what it might mean. See Mark A. Lemley, *Dealing with Overlapping Copyrights on the Internet*, 22 U. DAYTON L. REV. 547, 550-52 nn.20 & 26 (1997) (discussing case law that suggests RAM copies are fixed, and unfixed).

101. *E.g.*, *A & M Records, Inc. v. Napster, Inc.*, 239 F.2d 1004 (9th Cir. 2001). After content owners succeeded in shutting down Napster, additional lawsuits were filed regarding Aimster (a P2P technology similar to Napster that, however, limited distribution to only those persons on a user's instant messaging "buddy list"). See Brad King, *Aimster the Latest to Chime In*, WIRED NEWS, Nov. 14, 2001, at <http://www.wired.com/news/mp3/0,1285,48255,00.html>. Grokster and Morpheus, other P2P technologies that, unlike Aimster, did not depend on maintenance of a central index, became the next targets. See *Metro-Goldwyn-Mayer Studios v. Grokster, Ltd.*, No. 01-08541 SVW (PJWx) (C.D. Cal. filed Jan. 22, 2002).

102. WHITE PAPER, *supra* note 65, at 227-37; see also Litman, *Digital Copyright*, *supra* note 14, at ch. 8.

103. See LITMAN, *DIGITAL COPYRIGHT*, *supra* note 14, at 112-17.

of “theft” and “piracy”¹⁰⁴ for intelligible rules. This will surely fail. Public understanding of the rules depends on precision and consistency in determining which rights are infringed by which activities.¹⁰⁵

For these reasons, then, we turn next to a consideration of the specific activities of users of P2P networks, and the copyright consequences of those activities.

B. P2P Activities and Copyright Consequences

Users of a P2P network may be downloaders (clients), distributors (servers), or both.¹⁰⁶ Because the activities of downloaders differ from those of distributors, the legal consequences may differ as well; in the case of users who both download and distribute, both sets of consequences will attach.

1. Downloaders

When acting as a client, a user searches the network and, if the desired information is found, downloads the file directly from the user on whose system it resides.¹⁰⁷ There are potentially two infringing activities of clients: the network search and the download that takes place if the desired information is found. The network search does not infringe any rights of copyright owners. The search produces only a list of the names of the files residing on the computers of users functioning as servers. Although the culture of P2P networks has produced a somewhat standardized format for

104. See, e.g., Michael Learmonth, *A New Note in the Song-Swapping Debate*, INDUS. STANDARD, May 24, 2000, at <http://www.thestandard.com/article/display/0,1151,15407,00.html> (using the term “swapping”); John Schwartz, *Trying to Keep Young Internet Users From a Life of Privacy*, N.Y. TIMES, Dec. 25, 2001, available at <http://college.nytimes.com/guests/articles/2001/12/25/891126.xml>. Jessica Litman has noted that the rhetoric has become increasingly overheated as time goes on. LITMAN, DIGITAL COPYRIGHT, *supra* note 14, at ch. 5. As recently as the 1980s, the term “piracy” referred to large-scale, infringement for profit. Today, by contrast, a college student using a P2P network to download a copyrighted sound recording in MP3 format is as likely to be called a “pirate” as is a facility in China churning out hundreds of thousands of infringing music CDs each day. See *id.* at 85.

105. Of course, precision may lead us to conclude that the copyright regime is illogical, if not incomprehensible. If so, however, our efforts toward precision will not have been in vain, because a revamping of copyright ought to proceed from the clearest possible understanding of the system currently in place.

106. See *supra* Part IIA.

107. *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1012 (9th Cir. 2001).

these filenames,¹⁰⁸ they are not created by the owners of the content they contain, but rather are created by the users themselves. In most cases, of course, the filenames include at least the name of the musical work embodied in the file. There is widespread agreement, however, that names and titles of works are not copyrightable.¹⁰⁹

Downloading a file from a P2P network involves making at least one “copy,”¹¹⁰ namely the file saved on the downloader’s hard disk. In the absence of valid defenses, this copy violates the copyright owner’s right of reproduction under section 106(1). The question then becomes whether a consumer, downloading a file from a P2P network, has a valid defense to infringement resulting from making the resulting copy or copies. There are, in this context, two principal defenses that can be raised by consumers: The first is based on fair use;¹¹¹ the second, on the AHRA’s provision that no infringement action can be brought based on a consumer’s noncommercial copying resulting in digital musical recordings or analog musical recordings.¹¹²

a. Fair use

A thorough analysis of the fair use doctrine suggests that P2P copying by downloaders is fair use. Section 107 sets out four non-exclusive factors courts are to consider in determining whether a particular use is fair: (a) the purpose and character of the use; (b) the nature of the copied work; (c) the amount copied; and (d) the effect of the use on the market for the copied work.¹¹³

108. The format most often encountered is [Artist] - [Song title].mp3. Numerous variations, most involving additional information, exist: One may find, for instance, [Decade]- [Artist] - [Song title].mp3, [Decade]- [Artist] - [Song title]- [(Live) or (Album title)].mp3, or any of numerous additional variations.

109. See 2 NIMMER ON COPYRIGHT, *supra* note 31, § 2.16.

110. In fact, if one accepts the RAM copy doctrine, many more “copies” are made along the way. See *supra* note 100. Not all of these copies infringe; the DMCA expressly immunizes some from copyright infringement liability. See 17 U.S.C. § 512 (2001). However, the DMCA, like all recent copyright legislation, was the result of negotiation among copyright industries, and its exemptions—unsurprisingly—do not extend to members of the public, who were unrepresented in the negotiations. Consequently, the RAM and other incidental copies made by the recipient of a P2P transmission are not exempt under the provisions of the DMCA. See *id.* However, they are all subject to the same analysis as the specifically identifiable copy made on the user’s hard disk.

111. 17 U.S.C. § 107 (2001); see *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 447-57 (1984).

112. 17 U.S.C. § 1008; see *supra* notes 32-33 and accompanying text.

113. *Id.* § 107.

In analyzing the first factor, purpose and character of the use, courts look principally to two aspects of the use: First, whether the copying is transformative, and second, whether the copying is commercial.¹¹⁴ “Transformative” copying transforms the copied work into something new.¹¹⁵ In the case of peer-to-peer copying of recorded music, much of the value to the consumer lies in the fact that the audible perception of the copy is very close, if not identical, to that of the original, authorized recording. This kind of copying does not transform the recording into anything new;¹¹⁶ the transformation into a new medium is irrelevant when the consumer’s perception of the content is essentially the same. At the same time, however, the copying that takes place by a downloader is not commercial. Home copying for personal use is the paradigm of noncommercial use. To be sure, persons downloading music save the expense of purchasing copies.¹¹⁷ However, the same could be said for much, if not all, home copying for personal use. A personal use copy of a magazine article, made at the public library, saves the expense of ordering a back issue of the magazine, but does not thereby become “commercial.” On the whole, this factor does not clearly weigh either for or against fair use. P2P copying is neither transformative (which weighs against fair use), nor is it commercial (which weighs in favor of fair use).

The second factor, nature of the copied work, looks at whether the copied work is creative or imaginative, as opposed to being factual or fact-based. The former is “closer to the intended core of copyright protection,”¹¹⁸ while the latter, in order not to foreclose subsequent authors from creating their own works based on the same facts, receive less protection.¹¹⁹ On this spectrum, there is little question that the musical works and sound recordings downloaded

114. See *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 579, 584-85 (1994); see also *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1015 (9th Cir. 2001).

115. *Campbell*, 510 U.S. at 579.

116. *UMG Recordings, Inc. v. MP3.com, Inc.*, 92 F.Supp. 2d 349, 351 (S.D. N.Y. 2000) (reproduction of audio CD into MP3 format does not “transform” the work).

117. See *Napster*, 239 F.3d at 1015. The *Napster* district court also considered the distribution of files to “anonymous requesters” to be “commercial.” *A & M Records, Inc. v. Napster, Inc.*, 114 F.Supp.2d 896, 912 (N.D. Cal. 2000). This makes a good example of blurring the kinds of infringement taking place. We are here (and the *Napster* court was) concerned with defenses to copying, not distribution.

118. *Campbell*, 510 U.S. at 586.

119. *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 978 (2d Cir. 1986).

from a P2P network are creative.¹²⁰ This, however, does not preclude a finding of fair use: In *Sony*, the copied works were creative, yet the Court did not hesitate to find the use fair, especially in light of the fact that performances of the works were made available free of charge to home viewers.¹²¹ Very similar circumstances apply to the works copied via P2P technology. Accordingly, under *Sony*, this factor weighs in favor of fair use.

The third factor involves the amount copied from the copied work. The more of the work is copied, the less likely it is that the use is fair,¹²² although there are circumstances in which copying an entire work is fair use.¹²³ In *Sony*, the Court held that copying an entire work was more likely to be fair use when performances of the entire work are made available to the public free of charge by the copyright owner.¹²⁴ Performances of the works copied by P2P downloaders are readily available, free of charge, in radio broadcasts and via noninteractive, nonsubscription digital transmissions.¹²⁵ Such performances can be (and are) legally recorded by consumers for personal use. The principal advantages of downloading via a P2P network are (a) that the resulting musical recording is digital, with high audio fidelity; (b) the resulting file is small, due to the compression of the musical information in the MP3 format; and (c) downloading is interactive, meaning that the downloader can choose when and what to receive. None of these differences, however, are relevant to whether copying of the entire work is or is not fair use. Because copyright owners make performances of their works, in their entirety, available to the public free of charge, copying of the entire work by downloaders does not weigh against fair use.

The fourth factor, considered by the Supreme Court as a crucial factor in fair use,¹²⁶ is the effect of the use on the market for the copied work. The weight given to this factor depends, however, on the relative strength of the other factors.¹²⁷ The evidence of

120. *Napster*, 239 F.3d at 1016.

121. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 449-50 (1983).

122. *See Worldwide Church of God v. Philadelphia Church of God, Inc.*, 227 F.3d 1110, 1118 (9th Cir.2000).

123. *Sony*, 464 U.S. at 449-50.

124. *Id.*

125. *See supra* notes 44-58 and accompanying text.

126. *See Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 566-67 (1985).

127. *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 591 n. 21 (1994).

market effect in *Napster* was in conflict. The plaintiffs introduced expert evidence, and the district court held, that Napster use harmed the market for copyrighted musical compositions and sound recordings in two ways: First, it allegedly reduced CD sales among college students, and second, it “raises barriers to plaintiffs’ entry into the market for the digital downloading of music.”¹²⁸ This second element of “harm” is questionable. Every use, including fair use, can be said to raise a barrier to the plaintiff’s ability to market that use. Fair use photocopying in a public library, for example, might raise a barrier to the plaintiff’s entry into the market either for providing photocopies of its articles, or for selling back issues of its publications. Accepting this as a relevant factor presupposes that the copyright owner is presumptively entitled to compensation for every use of its work, a conclusion belied by the highly specific nature of the rights conferred by copyright (with others left to the public).

The other item of harm, reduced CD sales, is more in line with traditional fair use analysis. The testimony on this point was in conflict, and the district court, as it was entitled to do, credited the plaintiffs’ testimony rather than the defendant’s.¹²⁹ It is worth noting, however, that in the first half of 2001, after the Napster injunction went into effect, retail sales of CDs declined by five to ten percent, compared with the same period a year earlier, when Napster was in full swing.¹³⁰ This might suggest that the record companies were too hasty in predicting dire consequences from the advent of P2P services like Napster. If so, it would not be the first time that the entertainment industry was wrong about new technology: The movie studios’ lawsuit against Sony for distributing the Betamax VCR was similarly founded on predictions that VCRs

128. *A & M Records, Inc. v. Napster, Inc.*, 114 F.Supp. 2d 896, 913 (N.D. Cal. 2000).

129. *See A & M Records Inc. v. Napster, Inc.*, 239 F.3d 1004, 1016 (9th Cir. 2001).

130. Jeff Leeds, *Album Sales Test the Napster Effect*, L.A. TIMES, June 20, 2001, at C1, available at 2001 WL 2496877; <http://www.thedailycamera.com/business/25bnaps.html>. Record company profits also declined. *See Reuters, Music Sales Slide Despite Napster Demise*, REUTERS, July 19, 2001, available at <http://www.siliconvalley.com/docs/news/tech/083036.htm>. Official figures released in August 2001 by the Recording Industry Association of America confirmed a decline of 4.4 percent in the dollar value of goods shipped in the first half of that year. Leila Cobo, *Shipments Decline, Value Grows In Mid-2001*, BILLBOARD, Sept. 29, 2001, at 32, available at 2001 WL 24692329; *Music Product Shipments Fall 4.4%*, HOUS. CHRON., Aug. 22, 2001, at 3, available at 2001 WL 23623118.

spelled doom for the film industry.¹³¹ Instead, VCRs opened a new market for Hollywood, without diminishing box office receipts.¹³²

Because the other factors are relatively strong in favor of fair use, and the district court's finding of harm to the plaintiff's market is based in part on "barriers to entry," a questionable foundation, the fourth factor weighs only slightly against fair use.

To summarize, the copies of musical works and sound recordings made by downloading P2P users should be protected under the fair use doctrine. The first factor is neutral; the second weighs in favor of fair use; the third is neutral; and the fourth weighs at most only slightly against fair use. Under *Sony* and subsequent cases, application of the fair use factors of section 107 results in the conclusion that these copies are not infringing.¹³³ Even if one disagrees with the fair use analysis, however, the question of home recording infringement was decided by the Audio Home Recording Act of 1992.¹³⁴

b. *Audio Home Recording Act*

Section 1008 of the Copyright Act, added by the Audio Home Recording Act of 1992, discussed above,¹³⁵ states

No action may be brought under [the Copyright Act] alleging infringement of copyright based on the manufacture, importation,

131. Jack Valenti, president of the Motion Picture Association of America, testified before Congress that the Betamax "is to the American film producer and the American public as the Boston Strangler is to the woman alone." Sam Costello, *VCRs May Help Napster's Legal Fight*, CNN.COM, July 26, 2000, at <http://www.cnn.com/2000/TECH/computing/07/26/vcr.napster.idg> ; Adam Liptak, *Is Litigation the Best Way to Tame New Technology?*, N.Y. TIMES, Sept. 2, 2000, at 9B, available at <http://www.nytimes.com/library/tech/00/09/biztech/articles/02napster.html>.

132. In fact, videocassette sales now rival box-office receipts—mostly to enterprises that rent them to consumers. *Id.*

133. Not everyone agrees that home taping is fair use. The Nimmer treatise, for example, argues the contrary, 2 NIMMER ON COPYRIGHT, *supra* note 31, § 8B.01[D], but notes also that the issue has never been definitively resolved. *Id.* at §§ 8B.01[A], 8B-6. Nimmer relies heavily on a single word in the legislative history of the 1976 Act, "judicial," as evidence that the fair use doctrine codified in section 107 intended to incorporate the case law of fair use, and not the legislative history of the Sound Recording Amendment of 1971 (which can be read to support fair use protection for home recording). *Id.* at §§ 8B.01[D][2], 8B-21. In any case, Nimmer and this author agree that the Audio Home Recording Act definitively resolved the status of home recording. *Id.* at §§ 8B.07[C], 8.23[B][4].

134. Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4248 (Oct. 28, 1992).

135. See *supra* notes 32-34 and accompanying text.

or distribution of a digital audio recording device, a digital audio recording medium, an analog recording device, or an analog recording medium, *or based on the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings.*¹³⁶

Section 1008 thus makes explicit that consumers do not infringe by making noncommercial digital or analog musical recordings. As such it would seem to foreclose any claim that P2P downloaders are infringing copyright. But section 1008 goes farther than that: By prohibiting “any action based on” consumer activity, it seems directly to prohibit actions for contributory infringement or vicarious liability for infringement, if based on protected consumer conduct. In *Napster*, however, the Ninth Circuit held that the exemption from liability under section 1008 is not available to downloaders, and hence, not to Napster itself.¹³⁷ The court reasoned that section 1008 permits users to make “digital musical recordings,” which are defined in section 1001 to exclude computer media (including disks).¹³⁸ Thus, a computer disk containing a musical recording is excluded from the definition of “digital musical recording” under the AHRA.¹³⁹

It is true enough that “digital musical recordings” as defined in the AHRA do not include musical recordings fixed on a computer disk. When the AHRA was adopted in 1992, computer manufacturers had successfully bargained for the exclusion of their products, because they did not want to be subject to the copy-protection requirement or the media royalty.¹⁴⁰ Content owners conceded the point. Nevertheless, it is clear that musical recordings fixed on a computer disk *are* musical recordings of some sort. The AHRA itself divided the universe of musical recordings into “digital” and “analog.” Only the former is defined; the latter presumably includes everything not within the definition of the former. If a computer disk containing a musical recording is not a “digital musical recording,” then it must be an “analog musical recording.” While it may seem strange to call a digital file “analog,” it is no more surprising than the conclusion that a digital recording

136. 17 U.S.C. § 1008 (2001) (emphasis added).

137. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1024 (9th Cir. 2001).

138. 17 U.S.C. § 1001(5)(B)(ii) (2001).

139. *Napster*, 239 F.3d at 1024-25 (citing Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1078 (9th Cir.1999)).

140. See *supra* note 38 and accompanying text.

of music is not a “digital musical recording.” Both of these odd results must be seen as artifacts of the process of copyright legislation, in which industries negotiate fantastically detailed provisions, rather than Congress providing broad guidance. In this case, Congress’s (and the affected industries’) intent in enacting the AHRA was clearly to exempt every form of home recording from infringement liability.¹⁴¹ Regarding MP3 files as analog musical recordings, then, simply gives effect to the legislative scheme that Congress enacted, at the request of the affected industries, ten years ago. If the industries are now unsatisfied with the compromise they reached in 1992, the burden (even under their rules of the game) is on them to submit a new compromise to Congress, not to press courts to remake the exemption provided to consumers by the AHRA.

There is another, basis, too, for the argument that noncommercial consumer recording of MP3 files on computers is immunized under section 1008. An MP3 file, while not a “digital musical recording,” is a “digital audio copied recording.” This term is defined in the Copyright Act to mean “a reproduction in a digital format of a digital musical recording, whether . . . made directly from another digital musical recording or indirectly from a transmission.”¹⁴² The term specifies a digital copy of a digital musical recording, which does not itself have to meet the definition of “digital musical recording” (otherwise there would be no need to define separately “digital audio copied recording”).¹⁴³ As such, it is at least plausible that section 1008, which talks in terms of consumers making “digital musical recordings,” should be interpreted to mean consumers making “digital audio copied recordings,” since the latter are defined as copies of the former, and consumer copying of digital originals is what section 1008 immunizes from liability. Under the AHRA, “digital audio recording devices,” which are required to include the SCMS copy control technology,¹⁴⁴ are devices primarily marketed to create

141. *Accord* 2 NIMMER ON COPYRIGHT, *supra* note 31, §§ 8B.07[C][2], 8B-90.

142. 17 U.S.C. § 1001(1) (2000).

143. The purpose of including the definition seems to have been to specify that devices “marketed for the *primary* purpose of . . . making a digital audio copied recording” are subject to the AHRA’s obligation to account. *See* 17 U.S.C. § 1001(3) (2001) (definition of “digital audio recording device”); *id.* at § 1003(a) (obligation to account).

144. *See supra* notes 37-38 and accompanying text.

digital audio copied recordings.¹⁴⁵ However, the Act does not preclude the possibility that other devices, such as computers, could make digital audio copied recordings (unlike digital musical recordings, which are defined to exclude fixations in computer media). If this reading is correct, then what is immunized under the AHRA is making “digital audio copied recordings,” not just “digital musical recordings.” As such, P2P downloaders would not infringe.

In any case, the fundamental issue in resolving the liability of P2P downloaders is whether consumers do, or do not, have the right to make home copies of recorded music for personal use. The industry compromise of 1992, enacted as the AHRA, was that *consumers have that right*. Any other conclusion produces the unintelligible result that, while a consumer may freely borrow a CD from a neighbor and copy it onto a digital audio tape, downloading the same content from his neighbor via Napster and then creating a digital audio tape of the content is copyright infringement. This is the kind of “logic” that makes the public give up on copyright, copyright owners, and copyright lawyers. It is singularly inappropriate in a case like *Napster*, in which the public interest in being able to make personal use copies was unrepresented before the court.¹⁴⁶

We may conclude, then, that the copying taking place by downloaders does not infringe; although clearly the recipients are reproducing both sound recordings and musical works, the reproductions are permitted both under the fair use doctrine and under the AHRA.

2. *Distributors*

To say that downloaders do not infringe, however, is not conclusive on the question of P2P user liability. In addition to downloading, many P2P users also permit others to download from them, thereby engaging in what the Digital Performance Right in Sound Recordings Act (“DPRSRA”) calls “digital phonorecord delivery.”¹⁴⁷ Digital phonorecord delivery is legally and, in most

145. 17 U.S.C. § 1001(3) (2001).

146. Napster, of course, had an interest in arguing the consumer’s right to copy for personal use. However, Napster’s position was complicated by the fact that its users were also engaging in distribution, which limited its argument before the court. See *infra* Part III.

147. See *supra* notes 63-67 and accompanying text.

respects functionally, the same as distributing tangible copies of a phonorecord to the public. This implicates the copyright owner's exclusive right of distribution under section 106(3).

The concept of electronic "distribution" has been criticized, chiefly on the ground that it does not involve the distribution of tangible objects.¹⁴⁸ Historically, distribution (which, when it is made to the public, is usually called "publication") has meant distribution of tangible copies (or phonorecords) by sale, rental, lease or lending.¹⁴⁹ Clearly, this is not what happens when a work is transmitted over the Internet to a user. First, no tangible object changes hands; and second, the originator of the transmission usually retains a copy of the transmitted content. But arguing that distribution *must* involve the transfer of tangible objects ignores the reality of content transmission which, at least when it results in an identifiable fixation on the recipient's computer, is for the recipient the functional equivalent of receiving a tangible copy. The argument needlessly anchors the concept of "distribution," by which copies are disseminated, to the past, when the only way copies *could* be disseminated was by dissemination of tangible objects. Any process by which reproductions are in fact disseminated, whether by dissemination of tangible objects or by the transmission of content to a remote place where it is fixed, should be regarded as "distribution" and therefore should implicate the right of distribution under section 106(3).

Another objection to considering digital phonorecord delivery to be a "distribution" for copyright purposes stems from the RAM copy doctrine, discussed above.¹⁵⁰ That is, courts may consider a temporary copy of a work made in the volatile random access

148. See, e.g., Reese, *The Public Display Right*, *supra* note 97, at 26-35 & nn.195-98 (collecting sources). "Distribution" for copyright purposes historically meant dissemination of tangible objects in which copyrighted works were fixed. In the mid-1990s, the so-called "Green Paper" recommended amending the Copyright Act to provide that a "distribution" could also take place by electronic means. Although the suggested amendment was never made, numerous cases since then have held that electronic distribution is "distribution" for copyright purposes. See, e.g., *Michaels v. Internet Entm't Group, Inc.*, 5 F.Supp.2d 823, 830-31 (C.D. Cal. 1998); *Marobie-FL, Inc. v. Nat'l Ass'n of Fire Equip. Distrib.*, 983 F.Supp. 1167, 1180 (N.D. Ill. 1997); *Playboy Enters., Inc. v. Russ Hardenburgh, Inc.*, 982 F.Supp. 503, 513 (N.D. Ohio 1997); *Playboy Enters., Inc. v. Webworld, Inc.*, 991 F.Supp. 543, 554 (N.D. Tex. 1997); *Playboy Enters., Inc. v. Chuckleberry Publ'g Inc.*, 939 F.Supp. 1032, 1039 (S.D.N.Y. 1996); *Religious Tech. Center, Inc. v. Netcom On-Line Communication Servs., Inc.*, 907 F.Supp. 1361, 1375 (N.D. Cal. 1995).

149. See 17 U.S.C. § 101 (2001) (defining "publication").

150. See *supra* note 100 (discussing the RAM copy doctrine).

memory of a computer and necessary in order to view, play or otherwise access the work, to be “fixed” and therefore a “copy” for copyright purposes. The objection may arise that if merely viewing a work involves its “reproduction,” then it is only a short step to find that the same viewing also requires a “distribution.” If so, then merely looking at a work in digital format might result in two separate acts of infringement: reproduction by the viewer, and distribution by the web site proprietor.

For visually perceptible works, at least, other legal analyses have been proposed to solve this problem. For example, rather than consider the RAM copy of an image to be a “reproduction,” and the transmission of the image to the viewer a “distribution,” the entire process could be collapsed into a “public display” of the work.¹⁵¹ Whatever the merits of this approach for works that can be visually perceived, however, the public display right is not useful to the owners of sound recordings (who have no right of public display in their works) or of music (copies of which are not “displayed” when a sound recording is transmitted).¹⁵² For recorded music, it is best to stay within the framework the industries themselves negotiated in 1995, and to recognize formally that digital phonorecord delivery constitutes the distribution of the phonorecord delivered.

We may conclude, then, that digital phonorecord delivery taking place by P2P Internet transmission of MP3 files constitutes “distribution” by the transmitter of the sound recordings and the musical works embodied in the files. As such, it violates the exclusive right of distribution in both works. As with reproduction, then, we can now proceed to examine whether the distributor has any defenses. This, however, is a much easier exercise than was the case with the distribution right: There are few defenses to a claim of infringing public distribution, and none that apply to P2P transmitters of recorded music.

First, neither of the defenses that protect the recipients of the transmission—fair use and the AHRA—apply to public distribution. In general the fair use defense is a defense to a claim of infringing

151. See Reese, *The Public Display Right*, *supra* note 97.

152. See 17 U.S.C. § 101 (2001) (“To ‘display’ a work means to *show a copy* of it”) (emphasis added). Although copyright owners of musical works do have an exclusive display right, see 17 U.S.C. § 106(5) (2001), it applies only to the display of copies (e.g., sheet music), and not to phonorecords, of the work. *Id.* § 101.

reproduction, not distribution. While it may not be inconceivable that the fair use defense could protect public distribution, it is extremely unlikely.¹⁵³ In the case of public distribution of MP3 files, if the record companies' testimony is believed, the distribution to tens of millions of users severely harms the market for recorded music, a factor highly relevant to fair use analysis. The analysis for the distributor differs from that for the downloader, who makes a single copy, for personal use. The distributor, by contrast, opens his disk for the entire world to copy, if they wish. The former is fair use; the latter is not.

Similarly, the AHRA, which provides a safe harbor for non-commercial copying for personal use, provides no defense at all for distribution. It is limited by its terms to reproduction.

Overall, then, I conclude that users of P2P networks infringe by distributing recorded music without permission, but they do not infringe by making personal use copies. This should come as no surprise, since at least in recent memory, control of distribution has been more important to content owners than control of reproduction. The technologies of reproduction—the photocopier, videocassette recorder, audio tape recorder (analog and digital), CD burner—are all facts of life, and despite content owners' occasional attempts to litigate them out of existence,¹⁵⁴ are likely to stay that way. What is so profoundly threatening about P2P technology is not that it facilitates copying; that is nothing new. Rather, it is P2P's *distribution* capability, which directly undermines content owners' control of their product, that is its most dangerous aspect. So it may be of some comfort to content owners that while they may have made some bargains during the 1990s that they wish they had not,¹⁵⁵ at least they have not traded away the right to control public distribution of their works.

IV. STRATEGIC CONSIDERATIONS

Unfortunately for content owners, having a legal right is not

153. See *A & M Records, Inc. v. Napster, Inc.*, 114 F.Supp.2d 896, 912 (D.C. Cal. 2000), where the district court said, "a host user sending a file cannot be said to engage in a personal use when distributing that file to an anonymous requester."

154. See *supra* notes 24-32 and accompanying text.

155. See LITMAN, *DIGITAL COPYRIGHT*, *supra* note 14, at 61 (suggesting that content owners would "take back," if they could, the right of consumers to make personal use copies).

the same thing as enforcing that right. In many applications of P2P technology, enforcement turns out to be very difficult. In the most basic version of P2P technology, described above,¹⁵⁶ copyright enforcement is very difficult. For example, Gnutella and FreeNet are software, widely available free of charge on the Internet, which users can install to participate in the network. There is no central entity responsible for content and data flow.¹⁵⁷

Now consider the prospects for copyright enforcement in such a system. The lack of any entity with control over the network requires copyright proprietors to monitor vast rivers of data as they are exchanged by users in order even to detect infringement. To accomplish this, copyright owners have deployed technology to track the IP addresses of persons exchanging files on P2P networks.¹⁵⁸ The next step is to seek, from the users' Internet service providers, the identity of the persons using the addresses. And even after infringers are detected and identified, enforcement by lawsuits against individual users is not economically feasible. There are simply too many such infringers, and their individual infringements are too small, to make such a strategy attractive. This of course still leaves the possibility that such users' ability to infringe could be cut off by demands made on their Internet service providers, and content owners have followed that strategy, albeit with limited success.¹⁵⁹

What content owners need is a central entity to sue, and Napster's solution to the technical problems of P2P—the centralized index—gave copyright owners a chokepoint at which to attack the system. Shut down the index, and you shut down the service. In turn, shutting down the index is easily accomplished via contributory and vicarious copyright infringement, once the primary infringement of P2P users is established.

A. *Behind the Napster Scenes*

I have devoted a considerable amount of ink to the

156. See *supra* notes 84-89 and accompanying text.

157. Defendant's Motion for Partial Summary Judgment, *MGM v. Grokster*, (Jan. 22, 2002), available at http://www.eff.org/IP/P2P/MGM_v_Grokster/20020122_streamcast_memo_sum_judg.pdf.

158. See, e.g., John Borland, *ISPs Wary of Role in Anti-Piracy Actions*, CNET NEWS.COM, June 8, 2001, at <http://news.com.com/2100-1023-268075.html>.

159. It's a difficult sell for the content owners: they must, in effect, demand that Internet service providers give up paying customers because those customers are violating content owners' rights. See *id.*

proposition that copying by Napster users is not infringing, but that their distribution of copyrighted works clearly does infringe. The copyright analysis is not very complicated, at least once one gets past the arcane ways in which the existing rights in recorded music are allocated. Nor is the technology of P2P networks especially complex. Why, then, did the *Napster* court not reach the same conclusion? With essentially no analysis, the Ninth Circuit's *Napster* opinion concludes, "Napster users who upload file names to the search index for others to copy violate plaintiffs' distribution rights. Napster users who download files containing copyrighted music violate plaintiffs' reproduction rights."¹⁶⁰ Perhaps it is because the parties, in arguing the case, did not separate copying from distribution.¹⁶¹ In fact, given their respective situations, it would have been foolish for them to do so. Each of the parties in *Napster* had its own commercial interests to protect, neither of which is fungible with (or even an acceptable substitute for) the public interest in being able to make personal use copies of recorded music *without* distributing those copies.

Consider the position of Napster, the defendant. Its liability depends on its users having committed some act of copyright infringement. It is clearly not a winning strategy to argue to the court that "Our users obviously do not infringe when they make personal use copies, but, Your Honor, they equally obviously *do* infringe when they engage in distribution." It does not really matter to Napster in what kind of infringement its users engage; what matters is whether they engage in any infringement at all. Once infringement by users is found, Napster's position becomes much harder to defend. Therefore, it would be a far sounder strategy to lump together copying and distribution, hoping perhaps that the court will be confused enough about what is actually happening (and impressed enough with the unequivocal language

160. *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1014 (9th Cir. 2001). In particular, the suggestion that uploading a file name violates the distribution right is entirely unworkable. File names are not copyrightable, and if they were, they would not be the creation (or the property) of the record companies. See *supra* note 100. Perhaps the court meant that permitting members of the public to *download the file designated by the file name* violates the record companies' distribution right; if so, that conclusion is correct. See *supra* notes 147-155 and accompanying text. However, that is not what the court said.

161. Archives of the court filings are available on the Internet. Many of Napster's filings are available at <http://www.napster.com/pressroom/legal.html>. (visited Feb. 10, 2002). The plaintiff's filings appear at <http://www.riaa.com/Legal.cfm>. (visited Feb. 10, 2002).

of the AHRA) that it will not focus on the distribution taking place, and find no infringement of any kind.

This is, of course, speculation, not at all based on inside knowledge of the Napster defense team's thinking, strategic or otherwise. But if this was the strategy, it worked—at least insofar as confusion was an objective. Ibeit. Both the Ninth Circuit and the district court were evidently confused about the distribution taking place.¹⁶² Of course, Napster ultimately lost; the Ninth Circuit affirmed the trial court's finding that Napster users had infringed (and to Napster, at least, it did not matter in what way they infringed). But had Napster's stellar legal team¹⁶³ tried to sort out the different acts—copying and distribution—that might be infringing, Napster would have lost anyway.

Consider then the position of the record company plaintiffs in *Napster*. Why didn't they simply acknowledge that personal use copying by consumers was legal, and focus on the distribution taking place? Here, the strategies are more complex. Not long before *Napster*, the record companies had sued a hardware manufacturer, Diamond Multimedia,¹⁶⁴ based on Diamond's manufacturing a portable device with headphones (the "Rio"), that allowed "a user to download MP3 audio files from a computer and to listen to them elsewhere."¹⁶⁵ The record companies claimed that the Rio violated the AHRA, because it did not incorporate the SCMS copy control technology. They lost, because "computers are not digital audio recording devices"¹⁶⁶ required by the AHRA to incorporate copy control. From the record companies' perspective, this was not good news, or so it seemed at first. After *Diamond*, the AHRA must have looked like a poor bargain for content owners: They traded away the right to base infringement actions on home recording, in exchange for—what? The right to receive royalties on a technology (DAT) that no one uses? The right to insist that hardware manufacturers incorporate copy controls into that same, irrelevant technology? No, this was not a good deal. But suppose

162. *Napster*, 239 F.3d at 1014-27; *Napster*, 114 F.Supp. 2d at 911-27.

163. Napster's attorneys included David Boies, one of America's finest litigators and a runner-up Time Magazine's "Person of the Year" in 2000. See Daniel Okrent, *Get Me Boies!*, TIME, Dec. 17, 2000, at 104, available at <http://www.time.com/time/poy2000/mag/boies.html>.

164. Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072 (9th Cir. 1999).

165. *Id.* at 1073.

166. *Id.* at 1078.

Diamond could be turned to record companies' advantage? The case might yet prove itself a way to snatch victory from the jaws of defeat.

And so it did. *Diamond's* holding that a computer hard disk containing an MP3 file was not a "digital musical recording"¹⁶⁷ freed the record companies to argue, in *Napster*, that consumers making non-commercial home recordings on their hard disks were not, after all, protected by the AHRA. From this perspective, *Napster* is not merely a win for the record companies; it's the biggest win they have had in quite some time. For the owners of musical content, the only consumer copying that matters any more is digital copying in the MP3 format. Under *Napster*, this copying is now excluded from the very section to which the record companies agreed in 1992, which was intended to immunize home copying. In effect, the record companies get to take back their negotiated agreement on personal use copying. This result is far more valuable to the record companies than a ruling on the essentially obvious proposition that public distribution of copyrighted works is infringement that is not subject to the fair use defense. Why separate copying from distribution, if there is a chance the court will rule that both infringe? Given the stakes, it is hard to believe that this was accidental.

B. *The Rights of the Public*

This discussion demonstrates quite tangibly why industry participants cannot be relied on to represent the interest of the public in using copyrighted works. Simply put, the interests of the affected industries are not the same as those of the public. *Napster* had good reason not to argue the public's right to copy, at the expense of its own third-party infringement that would result from a finding of infringement by user distribution. For their part, the record companies had every reason to try to take back their (in hindsight) poor bargain, made in 1992, in which they gave up the right to sue for home copying and received nothing of value in return. And when the chips were down, the public lost. Under *Napster*, the only kind of home copying that anyone cares about any more is apparently not within the AHRA.

It is, however, unfair to lay all of the blame on the courts. After all, the public has a representative that is supposed to protect its

167. *Id.* at 1081.

rights. As Jessica Litman has pointed out, that is Congress's job.¹⁶⁸ But for most of the last century, Congress has essentially thrown up its collective hands and delegated the task of copyright legislation to the affected industries. For most of that time, it did not seem to matter much: Copyright was seldom, if ever, enforced against members of the consuming public, and so the system seemed to be working quite nicely.

Today, however, while enforcement against individual members of the public has not begun in any organized way, there is reason to believe that it soon may. Talk of "piracy" fills the air; a term once reserved for large-scale commercial infringers for profit is now routinely applied to teenagers engaged in making copies for their own use.¹⁶⁹ This cannot bode well for the public. Content owners have already begun to deploy technology aimed at detecting P2P users who download files,¹⁷⁰ and proposals are afoot to require computer hardware to include copy prevention and infringement detection systems.¹⁷¹

V. CONCLUSION

In short, as matters stand, the right of the public to make noncommercial copies of recorded music for personal use, agreed to by the affected industries in 1992, is directly threatened by the

168. LITMAN, DIGITAL COPYRIGHT, *supra* note 14, at 52.

169. See, e.g., John Schwartz, *Trying to Keep Young Internet Users From a Life of Piracy*, N.Y. TIMES, Dec. 25, 2001, at C1, available at <http://www.nytimes.com/2001/12/25/technology/25HACK.html>. Again, I am indebted to Professor Litman, who emphasized the importance of the terms we use to describe public activities in her chapter, *Choosing Metaphors*. LITMAN, DIGITAL COPYRIGHT, *supra* note 14, ch. 5.

170. See, e.g., John Borland, *File-trading Pressure Mounts on ISPs*, CNET News.com, July 25, 2001, at <http://news.com.com/2100-1033-270568.html>; John Borland, *ISPs Wary of Role in Anti-piracy Actions*, CNET NEWS, June 8, 2001, at <http://news.com.com/2100-1023-268075.html>; Janelle Brown, *Who is Spying on Your Downloads?*, SALON.COM, March 27, 2001, at http://www.salon.com/tech/feature/2001/03/27/media_tracker/.

171. See, e.g., Mike Godwin, *A Cop in Every Computer*, Law.com, Jan. 16, 2000, at <http://www.law.com/cgi-bin/gx.cgi/AppLogic+FTContentServer?pagename=law/View&c=Article&cid=ZZZGFPVOGWC&live=true&cst=1&pc=0&pa=0&s=News&ExpIgnore=true&showsummary=0>; Declan McCullagh & Ben Polen, *A Call to End Copyright Confusion*, Wired News, Dec. 18, 2001, at <http://www.wired.com/news/politics/0,1283,49201,00.html>. Sen. Fritz Hollings has circulated a draft bill, the "Security System Standards and Certification Act," that would require most consumer electronic devices and computers to include "certified security technologies," in other words, copy controls. See Godwin, *supra*; Declan McCullagh & Ben Polen, *supra*.

Napster decision. This is the consequence of the *Napster* court's not being careful enough in analyzing and describing the specific nature of the infringement taking place on the Napster P2P network. Napster should indeed have lost the case, but not for the reasons given by the Ninth Circuit, which was far too quick to conclude that consumer copying, rather than distribution, was the problem. Courts must realize that copyright cases like *Napster* are not just copyright business as usual; they instead represent a new trend toward adjudicating the rights of the public in cases where the public is unrepresented before the court. In a copyright regime where the statutes are drafted by affected industries, and the courts adjudicate the rights of the public without the public being present, it is questionable whether the "progress of science and the useful arts" can be well served.

Finally, it is important to note that P2P technology itself is directly threatened by these trends.¹⁷² The exchange of copyrighted materials, including recorded music, on a P2P network is inevitable. If that alone is enough reason to shut down the technology, then we have sacrificed technological progress for the sake of pop music, a poor choice of technology policy at a time when technology has never held more promise.

But there may be some hope yet. The *Sony* case, discussed above,¹⁷³ extends beyond simply a holding that consumers have the fair use right to copy broadcast television programs for their own use. In *Sony*, the Supreme Court also held that distribution of a technology that is *capable of substantial noninfringing uses* is not contributory infringement.¹⁷⁴ This may not be helpful to Napster, which the evidence suggested was intentionally designed to facilitate infringing public distribution of copyrighted sound recordings. But it could, perhaps, save other implementations of P2P technology, notwithstanding that some may use them for

172. Record companies have wasted no time in suing other P2P networks. See Ronna Abramson, *Aimster Gets Full Napster Treatment*, *The Indus. Standard*, July 3, 2001, at <http://www.thestandard.com/article/0,1902,27687,00.html>; Michael Bartlett, *Movie Studios Attack File Swapping Service Aimster*, *NEWSBYTES*, July 3, 2001, at <http://www.newsbytes.com/news/01/167549.html>; John Borland, *Networks Promise Unfettered File Swapping*, *CNET NEWS*, June 19, 2001, at <http://news.com.com/2100-1023-268604.html>; Matt Richtel, *The Recording Industry v. Aimster*, *N.Y. TIMES*, June 1, 2001, at C2, available at <http://www.nytimes.com/2001/06/01/technology/01MUSI.html>.

173. See *supra* notes 24-28 and accompanying text.

174. *Sony, Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 & 456 (1983).

infringement. P2P technology is indeed capable of substantial noninfringing use, and *Sony* stands for the proposition that the Copyright Act cannot be used to shut down a technological innovation merely because some users of the technology will infringe copyrights.

It will require both confidence and courage from a court to resist the pressure of content owners to eliminate technology that could be used to infringe. In the past, maybe because the technology seemed more readily understandable, such confidence and courage was apparently in greater supply than it is today. A little more precision, however, might go a long way to making courts surer of themselves ruling on the claims of content owners, and is essential if the progress of science and the useful arts is to continue.