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***Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.* and
In re Aimster Copyright Litigation:
Who Will Decide *Sony* Doctrine's Next Step?**

This year's peer-to-peer file sharing cases present new questions about the scope and future of the Supreme Court's *Sony* doctrine regarding secondary liability to producers of technologies that may be used to infringe copyright.¹ *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.* ("Grokster")² and *In re Aimster Copyright Litigation* ("Aimster")³ represent two different outcomes regarding the legality of distributing peer-to-peer file sharing technology that is widely used to share copyrighted music.⁴ *Grokster*, a California district court case decided in April and pending appeal, and *Aimster*, a June court of appeals decision by the Seventh Circuit's Judge Posner, offer differing interpretations, limitations, and expansions of secondary copyright infringement jurisprudence that raise timely questions regarding the development of technology law between the judiciary and legislative branches that may inform the outcome of the immediate cases and many more to come. This Note tracks the development of this jurisprudence since the *Sony* decision, summarizes its application in the peer-to-peer

¹ See *Sony Corp. of America, Inc. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

² *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 259 F. Supp. 2d 1029 (9th Cir. 2003).

³ *In re Aimster Copyright Litigation*, 252 F. Supp. 2d 634 (N.D. Ill. 2002), *aff'd* 334 F.3d 643 (7th Cir. 2003).

⁴ See Jeffrey R. Armstrong, *Sony, Napster, and Aimster: An Analysis of Dissimilar Application of the Copyright Law to Similar Technologies*, 13 DEPAUL-LCA J. ART & ENT. L. 1 (2003).

context, and suggests that an open and often anonymous Internet may strain traditional contributory liability beyond its bounds.

I. *SONY* DOCTRINE IN THE PEER-TO-PEER AGE: LEGAL AND TECHNICAL ISSUES

A. Legal Background: Secondary Liability, Digital Copyright, and P2P

Secondary liability for copyright infringement is a judge-made doctrine based in common law and as yet not addressed by Congress.⁵ Traditionally, common law divides secondary liability for copyright infringement into two categories: contributory and vicarious infringement. The elements of contributory infringement, which derive from patent law, are (1) knowledge of and (2) material involvement in the third party's infringing conduct. Vicarious infringement, rooted in respondeat superiore doctrine that holds employers liable for the illegal conduct of their employees, requires (1) the right and ability to supervise the infringing conduct, and (2) a direct financial interest therein.

Sony was the first and only Supreme Court case to apply secondary liability to technology—the capabilities of machines rather than the conduct of people.⁶ Decided in 1984, *Sony* represents a limitation on common-law secondary liability that has governed adjudication of technology cases for nearly twenty years since. Faced with the novel proposition that a seller of technology capable of infringing copyright should be held liable for the conduct of its users and absent any guidance in copyright law, the Sony Court drew on the “staple article of commerce” doctrine codified by Congress in patent

⁵ Note re how though we've had statutory copyright essentially since the nation's birth, Congress has never addressed secondary liability—including for the nearly twenty years since the Supreme Court decided *Sony*—except for the safe harbor provision of the DMCA.

⁶ *See Sony*, 464 U.S. 417.

law⁷ to decide that the Sony Corporation was not liable for secondary copyright infringement where its product, the Betamax videocassette recorder, was “capable of commercially significant noninfringing uses.”⁸ Since the Betamax was capable of the fair use of time shifting,⁹ the Court held that Sony was not liable for infringing use of the machine by consumers even where the record showed that such use was widespread.¹⁰ Noting that the movie industry’s lawsuit was “an unprecedented attempt to impose copyright liability” on technology makers, the Court declined to extend the copyright monopoly to products in the stream of commerce.¹¹

Courts have applied *Sony* doctrine to determine secondary liability in a number of subsequent technology cases,¹² first reaching the question of music file sharing over peer-to-peer networks in *A&M Records, Inc. v. Napster, Inc.* (“Napster”) in the year 2000.¹³ Peer-to-peer technology (“P2P”) has pressed several difficult questions about copyright in the digital age to the fore. As P2P enables potentially unfettered digital distribution of content across the Internet by unrelated individual users, the so-called “digital dilemma”

⁷ 35 U.S.C. § 271(c). “Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.” *Id.* The Court did not take up § 271(b), which assigns direct liability to “whoever actively induces infringement of a patent.” § 271(b).

⁸ *Sony*, 464 U.S. at 442.

⁹ Recording a program to view once at a later time.

¹⁰ 464 U.S. at 428, 442.

¹¹ 464 U.S. at 421.

¹² *See, e.g.*, *Vault Corp. v. Quaid Software, Ltd.*, 847 F.2d 255, 262 (5th Cir. 1988); *Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.*, 964 F.2d 965, 971 (9th Cir. 1992); *Recording Industry Ass’n of America v. Diamond Multimedia Systems, Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999) (check).

¹³ *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, (N.D. Cal. 2000), *aff’d in part and vacated in part*, 239 F.3d 1004, 1020-21 (9th Cir. 2001).

arises in full: Analogue copyright law, based on the built-in limitations of making and distributing physical reproductions in a relationship context, no longer works.¹⁴

Pre-digital copyright law relied on the gatekeeping function that the physical limitations of analogue imposed.¹⁵ In a gatekeeper regime, the law attaches liability not only to direct miscreants, but also to providers who can control distribution of the protected or suspect good—doctors dispensing prescription drugs, for example, or, in the case of traditional copyright, publishers, record companies, and film studios.¹⁶ While gatekeeper liability was once primary—a book publisher that copied someone else’s work was clearly a direct infringer—digitization, the Internet, and technology that avails both have opened the gate door wide.¹⁷ The new game is secondary liability, which seeks to find and sanction those who open the gate even when others do the copying.

Music file sharing currently presents a particular threat to the gatekeeping legal regime due to the small size of single song file and the advanced state of digital music file compression, which enable fast file transfers over the Internet and extensive file storage on home hard drives.¹⁸ However, music copyright holders may share their woes soon; the movie industry also sees peer-to-peer sharing as a looming piracy threat. Users are already sharing some movie files, and increasingly effective compression

¹⁴ See, e.g., Peter S. Menell, *Envisioning Copyright Law’s Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 98-103 (2002-03); NATIONAL ACADEMY OF SCIENCES, *THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE* (2000)

¹⁵ See Tim Wu, *When Code Isn’t Law*, 89 VA. L. REV. 679, 711-12 (describing the pivotal role of gatekeepers in enforcing pre-digital copyright law).

¹⁶ Wu, *supra* note 15, at 711-12.

¹⁷ See Wu, *supra* note 15, at 716-17.

¹⁸ See Menell, *supra* note 14, at 110-11. The MP3 format, for instance, compresses data at a 1:12 ratio with no significant loss in quality. See *id.*; Fraunhofer Institut, *at* <http://www.iis.fhg.de/amm/techinf/layer3/index.html>. Home CD burners also make it easy for file sharers to turn shared files into personalized music compilations; sales of blank CDs, among the uses for which are such compilations, have recently surpassed sales of pre-recorded CDs. Menell, *supra* note 14, at 114-15.

technologies and wider access to broadband Internet connections will likely enable further movie file sharing in the future.¹⁹

Meanwhile, statistics suggest that most Americans have few moral qualms about sharing copyrighted files online,²⁰ and consumers may even see using peer-to-peer technology as a form of protest over a copyright law they had no role in shaping.²¹ Others perceive less of a crisis in how digital technology might alter the parameters of copyright protection than in how potential countervailing measures might chill technological innovation and/or shrink the public domain.²² Critics of current alarmist statements by copyright holders often contrast the infamous congressional testimony of Motion Picture Association of America president Jack Valenti in 1982, characterizing the Sony Betamax as a serious threat to the film industry's viability, with the enormously profitable market for prerecorded tapes the Betamax engendered.²³ Predicting that the technology would wreak "devastation" and "hemorrhage" in the marketplace, Valenti asserted that "the VCR is to the American film producer and the American public as the Boston strangler is to a woman home alone."²⁴ Instead of draining profits from copyright holders' pockets as the plaintiffs in *Sony* contended it would, the Betamax proceeded to

¹⁹ See Menell, *supra* **Error! Bookmark not defined.**, at 117, 111-12.

²⁰ See *infra* note 140.

²¹ Wu, *supra* note 15, at 747-48.

²² See, e.g., LAWRENCE LESSIG, *THE FUTURE OF IDEAS* (2001); JESSICA LITMAN, *DIGITAL COPYRIGHT* (2001); SIVA VAIDHYANATHAN, *COPYRIGHTS AND COPYWRONGS: THE RISE OF INTELLECTUAL PROPERTY AND HOW IT THREATENS CREATIVITY* (2001); Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. CHI. L. REV. 263 (2002); ADD Tragedy of the Commons article.

²³ See JAMES LARDNER, *FAST FORWARD: A MACHINE AND THE COMMOTION IT CAUSES* 297-300 (1987).

²⁴ Menell, *supra* note 14, at 102, note 134 (original source?).

enable a market for prerecorded videos that became a leading source of revenue for the movie industry.²⁵

As in *Sony*, the file sharing at issue in the current P2P cases consists of individual home copying. In the past, Congress has viewed this as an area outside the scope of copyright law, stating in discussions leading up to the Copyright Act of 1976 that the law was never meant to restrain home recordings.²⁶ In the 1976 Act, Congress excluded private performances from copyright, even accounting for nascent VCR technology. As the House discussion went, “New technical devices will probably make it practical in the future to reproduce televised motion pictures in the home. We do not believe the private use of such a reproduction *can or should be* precluded by copyright.”²⁷ However, digital technology’s ability to create perfect copies and distribute them endlessly is clearly changing the equation.²⁸ In a break with tradition, the *Napster* court declared private home copying to be “commercial” where it conveyed an item of value that must otherwise be purchased on the market.²⁹ If the market substitution effect the Ninth Circuit feared in *Napster* plays out in fact into the future, it will be hard to deny that the unregulated use of P2P and like technologies could threaten the incentive structure that copyright law is constitutionally charged to create.³⁰

²⁵ See HAROLD L. VOGEL, ENTERTAINMENT INDUSTRY ECONOMICS: A GUIDE FOR FINANCIAL ANALYSIS 62 (5th ed., 2001). Copyright has survived similar challenges from analog technologies in the form of the player piano, radio broadcast, and audio cassette tapes. Menell, *supra* note 14, at 101-03. Consumers’ use of cassette tapes, for instance, for “space shifting”—copying music they owned to play in the car or on portable devices—did not harm the recorded music market. United States Office of Technology Assessment, *Copyright and Home Copying Technology Challenges Law* (Oct. 1989); Menell, *supra* note 14, at 108.

²⁶ H.R. Rep. No. 92-487, at 7 (1971).

²⁷ Register of Copyrights, 87th Cong., Report of the Register of Copyrights on the General Revision of the U.S. Copyright Law 30 (Comm. Print 1961).

²⁸ See Menell, *supra* note 14, at 103.

²⁹ Get cite and check wording.

³⁰ See U.S. Const., art. I, cl. 8.

B. Technical Background: Peer-to-Peer Architecture and Exchanges on the Network's Edge

Peer-to-peer technology involves individual computers communicating over the Internet on custom networks that route search requests and conduct direct file transfers among the network's users. Unlike the centralized architecture of a client-server relationship—for instance a Web site, where many users visit a single location to use the resources there—a peer-to-peer network connects many computers at the Internet's edge and uses search functions to direct requesters to the resources they seek.

To join a P2P network, users download software that, when launched, locates and connects to other users online at the time using an underlying network protocol. This software searches for files the user wants on other network members' computers, makes designated user files available to the network, and transfers files between users upon request.³¹

While P2P networks exhibit varying degrees of centralization, their common characteristic is the ability to cut out the gate-keeping middleman, a cause of great concern to copyright holders. Designers consider trade-offs between “purity” and performance in deciding how much to centralize the network, with decentralization being the conceptual goal but some degree of centralization offering many performance advantages.³² Increasingly, coders also consider legal liability in determining how many centralizing features to build into a P2P system.

³¹ Wu, *supra* note 15, at 717-18.

³² The less centralized the network the more pure the peer-to-peer model, but generally the lower the performance level in terms of speed, control, and usability. Searching for files on each individual community on the network is inefficient and lacks the community features that encourage users to share and share alike, and abstain from anti-social behavior such as sending around “spoofs”—fake or misnamed files. By the same token, the more centralized the network is via specialized servers and/or peer nodes, the

As *Napster* (and now *Aimster*) showed, the more centralized a P2P network, the more legal liability is likely to accrue to the network providers for users' copyright infringements due to the knowledge and control such centralization provides.³³ *Napster*'s network employed a mix of client-server and peer-to-peer architecture³⁴ The music files resided on peers—user computers at the edges of the network—while a centralized server facilitated file searches and transfers by gathering the names and IP addresses of files available to be shared. By leaving copyrighted files on users' computers, the peer design enabled *Napster* to escape the liability for direct copyright infringement that brought down My.MP3.³⁵ However, the *Napster* court found that the centralized file index—the client-server aspect of the architecture—satisfied the control and material contribution elements required to establish secondary liability.³⁶

Peer-to-peer coders quickly learned to write around the *Napster* decision, creating decentralized networking protocols without the hallmarks of secondary liability.³⁷ These new networks used temporary host caches of IP addresses on user “nodes”—select individual computers strategically located along the network—to effect connections. System servers supplied graphic interface and monitored the number of users, but exerted no control over the software or how users used it, and collected no information regarding

better the system performance (file location and transfer) and the easier it is to create a sense of network community. Wu, *supra* note 15, at 717, 722.

³³ See *Napster*, 239 F.3d 1004; *Aimster*.

³⁴ Wu, *supra* note 15.

³⁵ See *UMG Recordings v. MP3.com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000) (holding that making copies of music files onto a central Internet server violated copyright even when the copies were only available to users who already owned the music).

³⁶ *Napster*, 239 F.3d 1004. The *Napster* court relied on the Ninth Circuit's elaboration of the requirements for contributory and vicarious liability in *Fonovisa* five years before. *Fonovisa v. Cherry Auction*, 76 F.3d 259 (9th Cir. 1996).

³⁷ *Napster* taught coders that copyright law loathes gatekeepers gone wrong, and that the way around the law was to instead simply give away the gate's key. Peer-to-peer networks needed to look more like the copying technologies condoned by the *Sony* court: photocopiers and videocassette recorders. See *Sony*, 464 U.S. at ____.

what users shared. Among this new generation of P2P protocols were FastTrack (utilized by Grokster and KaZaA software) and StreamCast (the protocol run by Grokster co-defendant Morpheus). The *Grokster* case represents the first legal challenge to this sort of network.

Of the P2P protocols currently under scrutiny, Morpheus runs the least centralized network. The StreamCast protocol that underlies Morpheus is based on Gnutella, an open-source, “pure” peer-to-peer network that relays search requests from one user to the next until it makes a hit. FastTrack was developed by programmers of the file sharing software KaZaA as an effort to improve upon the pure Gnutella model with “supernodes,” temporary gathering spots for network information on user computers self-selected by user software according to network needs.³⁸ Centralized servers maintain user registration and log-ins and help users find peers upon logging on, but do not track file traffic.³⁹ FastTrack is not open source and charges a fee to access the network with other client applications; Grokster is one such subscriber.⁴⁰

The software at issue in Aimster is significantly different. The Aimster server creates a “network” by connecting to America Online’s Instant Messaging service (AIM).⁴¹ Using the client-server connections provided by AIM, Aimster’s software searches the shared files of either the user’s designated buddies or, absent a buddies designation, all Aimster users online to fulfill the user’s request. Upon locating the file, the software again uses the AIM connection to send an encrypted e-mail to the requester with the requested file attached. This innovative use of an instant message service

³⁸ Wu, *supra* note 15, at 735.

³⁹ Wu, *supra* note 15, at 735.

⁴⁰ Wu, *supra* note 15, at 734-35. Morpheus was also a FastCast customer before switching to StreamCast.

⁴¹ Aimster changes its name to Madster following legal pressure from America Online regarding use of the AIM moniker.

provides an interesting example of how deeply the concept of interconnectivity has permeated our understanding of the Internet; when the infrastructure of one of the world's largest content providers (AOL-Time Warner) can effectively be hijacked to enable copyright infringement, peer-to-peer technology looks less like a containable problem and more like the new model.

II. THE *GROKSTER* AND *AIMSTER* CASES

A. *Metro-Goldwyn-Mayer, Inc. v. Grokster, Ltd.*

In *Grokster*, numerous plaintiffs from the recording industry sued peer-to-peer software distributors Grokster, StreamCast Networks (also known as Morpheus), and KaZaA (since purchased by the Australian company Sharman Networks and removed from the case by a default judgment) for contributory and vicarious copyright infringement based on defendants' distribution of such software. The California district court granted the defendants' motions for partial summary judgment and denied the plaintiffs' prayer for injunctive relief. The matter is currently on appeal.

The *Grokster* court, noting that *Napster* established that downloading and uploading copyrighted music files constitutes *prima facie* copyright infringement and that the defendants had ceded that users did so with their software, assessed the charges in light of such undisputed infringing conduct by the software's end users. The court went on to consider the question of secondary liability.

In ruling on contributory infringement, the court cited *Sony* to assert that where a technology is capable of substantial noninfringing uses, no contributory liability accrues even where the technology's distributor may have constructive knowledge of infringing

conduct; actual knowledge is required. Furthermore, the court said, the holding in *Napster* required active facilitation of infringement and subsequent failure to prevent infringing conduct in order to show contributory liability. The defendant must have “actual knowledge of specific infringement...at a time when...Defendant materially contributes to the alleged infringement, and can therefore do something about it.”⁴² The decision distinguished the defendants’ products and services from Napster’s in that they provided no centralized file-sharing index or network, and thus did not facilitate infringement.

As to vicarious infringement, the court found that though the defendants did benefit financially from distribution of their products, they did not have the requisite right or ability to supervise infringing conduct. Comparing peer-to-peer technology with the counterfeit swap meet at issue in *Fonovisa*, the court found that the defendants did not control access to or patrol the space its product created—an apt description of the end-to-end Internet—and thus could not be held vicariously liable for copyright infringement that took place there.

Applying the *Sony* test and echoing that Court’s enumeration of copying technologies protected by the staple article of commerce doctrine, the district court concluded that “Grokster and StreamCast are not significantly different from companies that sell home video recorders or copy machines, both of which can be and are used to infringe copyrights.”⁴³ The *Grokster* court concluded with a call for legislative guidance on whether and how the state should regulate the design of software susceptible to

⁴² 259 F. Supp. 2d at 1038.

⁴³ 259 F. Supp. 2d at ?. *See Sony*, 464 U.S. at 1043.

unlawful use, while specifically declining to “expand existing copyright law beyond its well-drawn boundaries,” treading the line drawn by *Sony*.

B. *In re Aimster Copyright Litigation*

In *Aimster*, the Seventh Circuit heard an appeal of an injunction the district court granted the recording industry upon finding that Aimster’s peer-to-peer file-sharing network was likely to be found liable for contributory and vicarious copyright infringement. Writing for the Seventh Circuit, Judge Posner affirmed the contributory infringement charge and the district court’s injunction, leaving the vicarious liability charge aside.

The *Aimster* decision destabilized a good deal more of existing *Sony* and *Napster* doctrine than did *Grokster*. Noting that Aimster offered not just a product but an ongoing service, Judge Posner held that Aimster was contributorily liable in that it (1) proffered an “invitation to infringement” through a tutorial that used only copyrighted music files as examples, and “Club Aimster,” which charged a monthly fee for expedited access to the most popular downloads, these points going to material involvement, and 2) willfully blinded itself to infringing activity—conduct that the company could have observed and controlled but for an encryption process apparently designed primarily to exculpate the proprietor from the knowledge requirement. Given contributory liability, Judge Posner deemed the question of vicarious liability “academic” and affirmed the district court without specifically addressing the latter charge in detail.⁴⁴

⁴⁴ *Aimster*, 334 F.3d at 654. Judge Posner postulated that the *Sony* Court used vicarious and contributory infringement interchangeably and thus the legal question was a single inquiry into secondary liability. *Id.*

As to Aimster's defense against contributory liability under *Sony*,⁴⁵ Judge Posner stated that the *Sony* substantial noninfringing use test is not a controlling factor in assessing secondary liability. The court found that in any event the defendant had failed to show substantial non-infringing uses of the Aimster software and thus under the court's interpretation of burden of production was not entitled to invoke the defense. Even if Aimster had made such a showing, Judge Posner proposed that a balancing test would apply: "If the infringing uses are substantial then to avoid liability as a contributory infringer the provider of the service must show that it would have been disproportionately costly for him to eliminate or at least reduce substantially the infringing uses."⁴⁶

In the course of his opinion, Judge Posner raised a number of novel propositions regarding copyright law. Among them was that under *Sony*, using a VCR to skip commercials creates an infringing derivative work,⁴⁷ while despite the holding in *MP3.com*, space-shifting may constitute a fair use of digital music files.⁴⁸ Judge Posner

⁴⁵ Whether *Sony* represents a defense or plays some other procedural role in assessing secondary liability is further addressed *infra*.

⁴⁶ 334 F.3d at 653.

⁴⁷ Reviewing the uses of the Betamax the *Sony* court considered, Judge Posner reported that the Court concluded time shifting was fair use, building a library of taped television programs generally was not, and "[t]he third use, commercial-skipping, amounted to creating an unauthorized derivative work." 334 F.3d at 647. To support the latter proposal, Posner's opinion cites three circuit court opinions but not the *Sony* decision itself. *Id.* Compare with *Huntsman v. Soderbergh*, Civil Action No. 02-M-1662 (MJW) (D. Colo., filed Sept. 9, 2002), available at <http://news.findlaw.com/hdocs/docs/copyright/cflixstud102802cmp.pdf> (a declaratory judgment action filed by Clean Flicks, Clearplay, and others against various movie industry defendants and the Directors Guild of America asking the court, in Clearplay's case, to find that technology that enables consumers to create real-time, content-based edits of DVDs during private viewing does not violate copyright law by creating an infringing derivative work). See also James M. Burger and Kathleen E. Fuller, *The Last (Unaltered) Picture Show? A Discussion of Copyright Issues in Huntsman v. Soderbergh*, COPYRIGHT COLLOQUIUM, at <http://www.mediainstitute.org/colloquium/articles/2003/article16/article.html> (last visited Nov. 17, 2003).

⁴⁸ 334 F.3d at 652-53; see also *Recording Industry Assn' of America v. Diamond Multimedia Systems, Inc.*, 180 F.3d 1072, 1079 (9th Cir. 1999) (holding space-shifting of music files to be fair use). *But see* *UMG Recordings v. MP3.com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000) (holding that downloading music files from a central server on the Internet after proof of having purchased the songs on CD—"space-

also proposed that *Sony* suggests that where a technology has potentially substantial infringing uses, the court should apply a cost-benefit balancing test that would require the technology producer to take all measures that are not “disproportionately costly” to prevent or substantially reduce such infringing use. Finally, despite language in *Sony* that looks to not just present but potential non-infringing uses of a technology, the court found that Aimster’s failure to offer evidence of any current non-infringing uses fatally weakened its non-infringing capability argument.

III. DISCUSSION: THE CURRENT STATE OF *SONY* AND THE FUTURE OF SECONDARY LIABILITY DOCTRINE

In the nearly twenty years since *Sony*, the lower courts have been struggling to adopt the doctrine the Supreme Court announced there to new technologies and fact patterns. Peer-to-peer technology has taxed judges in this endeavor to the extent that the instant cases represent two apparently irreconcilable outcomes⁴⁹—and, if the Ninth Circuit affirms *Grokster*, an incipient circuit split. The following discussion tracks *Sony* doctrine through *Napster*, *Grokster*, *Aimster*, and the propositions on the table in the *Grokster* appeal in an attempt to elucidate the evolution and current state of the rules for secondary copyright infringement. This effort may in turn suggest analytical paradigms for considering what the future might or should hold in this contentious area of the law. To what degree should producers of technology products or systems be secondarily liable

shifting”—was not fair use). Posner argues that space-shifting via P2P might be fair use “by analogy to the time shifting approved as fair use in the *Sony* case,” suggesting that the *MP3.com* court’s decision would have been better grounded on a finding that the service’s system for proving ownership was too lax. 334 F.3d at 652-53.

⁴⁹ See Armstrong, *supra* note 4, at 16 (“The logical and legal distinctions that have been made thus far in this line of cases are sharply inconsistent and can therefore be criticized as arbitrary.”).

for infringing conduct by their users, and what tests strike the proper balance between technological innovation and copyright holders' rights?

The peer-to-peer cases have applied three sets of interrelated rules: the substantial noninfringing uses standard of *Sony*, and the common law doctrines of contributory and vicarious liability. Table 1 summarizes how the courts have enunciated and applied these rules and the results they reached for each, along with current proposals from both sides for developing the rules in the future.

TABLE 1: Current and Proposed Rules for Secondary Copyright Infringement Liability

Element	<i>Sony</i>	<i>Napster</i>	<i>Grokster</i>	<i>Aimster</i>	Proposed
Substantial noninfringing use(s)	<p>Must “merely be capable of substantial noninfringing uses”.</p> <p>Result: Not liable. Noninfringing use was private, noncommercial time-shifting.⁵⁰</p>	<p>Substantial noninfringing use invokes the <i>Sony</i> defense.</p> <p>Result: None. Issue was not the technology’s structure, but rather Napster’s conduct.⁵¹ Moved to knowledge.</p>	<p>Substantial noninfringing use, current or future, invokes the <i>Sony</i> defense.</p> <p>Result: Not liable here; court moved to knowledge.⁵²</p>	<p>Not a controlling factor. Where noninfringing uses are possible, the court must weigh whether “the detection and prevention of the infringing uses would be highly burdensome.”⁵³</p> <p>Result: Liable. Burden is on defendant to show substantial noninfringing uses and Aimster failed to do so.⁵⁴</p>	<p>Technologists: <i>Sony</i> doctrine represents congressional intent and fulfills the constitutional mandate; courts may not substitute a cost-benefit or producer’s intent test for the technical capability one.⁵⁵</p> <p>Copyright holders: The <i>Sony</i> rule does not apply to P2P due to defendants’ knowledge of infringing conduct; technologists must design to reduce or prevent infringement.⁵⁶</p>

⁵⁰ 464 U.S. at 442.

⁵¹ 239 F.3d at 1020-21.

⁵² 259 F. Supp. 2d at 1035.

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⁵⁴ 334 F.3d at 652-53.

⁵⁵ See Appellee Streamcast Networks, Inc.’s Opening Brief, 259 F Supp. 2d 1029 (C.D. Cal. 2003) (No. 03-55894 and 03-55901); Brief Amici Curiae of 40 Intellectual Property and Technology Law Professors Supporting Affirmance, Samuelson Law, Technology and Public Policy Clinic, 259 F Supp. 2d 1029 (C.D. Cal. 2003) (No. 03-55894 and 03-55901); Brief of Amici Curiae American Civil Liberties Union, American Civil Liberties Union of Northern Cal., American Library Association, Association of Research Libraries, American Ass’n of Law Libraries, Med. Library Ass’n, Special Libraries Ass’n, Internet Archive, and Project Gutenberg in Support of Defendants-Appellees and Urging Affirmance of the District Court’s Grant of Partial Summary Judgment, 259 F Supp. 2d 1029 (C.D. Cal. 2003) (No. 03-55894 and 03-55901); Andrew Bridges, *Contributory Infringement Liability in Recent U.S. Peer-to-Peer Copyright Cases*, paper presented at Copyright and the Music Industry: Digital Dilemmas, University of Amsterdam Institute for Information Law and Buma-Sterma, Amsterdam, the Netherlands (July 2003), available at <http://www.wsgroup.com/common/wsgprg.asp?sub=/library/index.asp§ion=1..>

⁵⁶ See MGM Plaintiffs-Appellants’ Opening Brief, 259 F Supp. 2d 1029 (C.D. Cal. 2003) (No. 03-55894 and 03-55901).

Contributory Liability (common law)

Element	<i>Sony</i>	<i>Napster</i>	<i>Grokster</i>	<i>Aimster</i>	Proposed
(1) Knowledge	<p>Rejected constructive knowledge of infringement as basis for secondary liability.</p> <p>Result: Not liable. No actual knowledge even though copying was “the most conspicuous” or “the major” use of the product.⁵⁷</p>	<p>Required actual knowledge—(1) specific knowledge at time of the infringement, and (2) failure to act upon that knowledge.</p> <p>Result: Liable. Napster’s centralized file index satisfied the knowledge test and rendered the <i>Sony</i> rule irrelevant.⁵⁸</p>	<p>Required actual knowledge of specific infringement when defendant materially contributed to and could prevent such infringement (echoing <i>Napster</i> test).</p> <p>Result: Not liable. Network’s structure did not provide actual, specific knowledge.</p>	<p>Rejected Napster’s holding that actual knowledge establishes secondary liability. Still, willful blindness is knowledge.</p> <p>Result: Liable. Encryption designed to shield Aimster from infringing activity did not also shield it from liability.⁵⁹</p>	<p>Technologists: Liability should not rely on subsequent relationship between producer and user; “[t]he character of the product itself should be the touchstone.”⁶⁰</p> <p>Copyright holders: The law does not require knowledge at a time when defendants can prevent infringing conduct.⁶¹</p>
(2) Material involvement/control	<p>Rejected advertising the product’s infringing uses as a basis for liability.⁶²</p> <p>Result: Not liable.</p>	<p>“Site and facilities test” from <i>Fonovisa</i>.</p> <p>Result: Liable. Napster’s integrated service provided site and facilities for infringement; duty to police.⁶³</p>	<p>A close-the-doors test for providing the site and facilities.</p> <p>Result: Not liable. Users could continue to infringe after defendants ceased operations.⁶⁴</p>	<p>Borrows aiding and abetting test from criminal law.</p> <p>Result: Liable. Software tutorial and Club Aimster encourage the downloading of copyrighted songs—“the invitation to infringement that the</p>	

⁵⁷ 464 U.S. at 439.

⁵⁸ 239 F.3d at 1020-21.

⁵⁹ 334 F.3d at 649-50.

⁶⁰ Bridges, *supra* note 55, at 7.

⁶¹ MGM Br. at 32.

⁶² Universal City Studios v. Sony Corp. of America, 480 F. Supp. 429, 436 (C.D. Cal. 1979).

⁶³ 239 F.3d at 1022.

⁶⁴ 259 F. Supp. at 1041.

				Supreme Court found missing in Sony. ⁶⁵	
Vicarious Liability (common law)					
Elements	<i>Sony</i>	<i>Napster</i>	<i>Grokster</i>	<i>Aimster</i>	Proposed
(1) Right and ability to supervise infringing conduct (2) Direct financial interest in infringing conduct	The Court arguably conflates contributory and vicarious liability into a single theory of secondary liability . ⁶⁶ Result: None.	<i>Sony doctrine does not shield against vicarious liability.</i> Result: Liable. Napster satisfied both prongs of the test.	Implicitly echoes <i>Napster</i> : no <i>Sony</i> shield against vicarious liability. Result: Not liable: Though defendants derived a financial benefit from infringement, they did not have the right and ability to supervise infringing conduct. ⁶⁷	Follows the Sony Court in joining vicarious and contributory liability into a single question. Result: None. Held Aimster liable on the basis of contributory infringement alone. ⁶⁸	Technologists: The DMCA's general safe harbor against secondary liability recognized contributory and vicarious infringement as a single question and declined to exempt vicarious liability from the Sony ruling. ⁶⁹ Copyright holders: Technologists can design to gain the right and ability to prevent infringing conduct. ⁷⁰

⁶⁵ 334 F.3d at 651.

⁶⁶ See Sony, 464 U.S. at 434-35; Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at 2-3, note 2.

⁶⁷ 259 F. Supp. at 1043-46.

⁶⁸ 334 F.3d at 654

⁶⁹ Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at 5, note 5.

⁷⁰ MGM Br. at 58-63.

A. *Sony*: Substantial Noninfringing Use

The *Sony* Court framed the secondary liability question entirely within the staple article of commerce doctrine borrowed from patent law. In formulating the substantial noninfringing use standard, the Court presented this technical capability as a shield against secondary liability that appeared to pre-empt any further analysis under the contributory and vicarious liability tests of common law.

Especially when compared to common law, *Sony* presents a fairly liberal standard for technology producers designed to maintain the limits on the copyright monopoly mandated by the Constitution. The Court evoked the classic economic incentive behind American intellectual property regimes in explaining its rule: Even where infringing use is possible or proven, “if an article is also adapted to other and lawful uses, it is not enough to make the seller a contributory infringer. Such a rule would block the wheels of commerce.”⁷¹ Thus, said the court, rights holders may not control distribution of an article unless it is “unsuited for any commercial non-infringing use.” This language suggests that a single such use will suffice.⁷²

Purpose and proportion of infringing use are not relevant under the original *Sony* rule. In its decision, the Court explicitly overturned the Ninth Circuit’s ruling that *Sony* infringed because the record showed that the company sold VTRs for the “primary

⁷¹ *Sony*, 464 U.S. at 441; *see also* *Bridges*, *supra* note 55, at 2.

⁷² Though the Court initially requires that the suspect device “be capable of commercially significant noninfringing uses,” the opinion goes on to assert that the adjudicator “need not explore all the different potential uses of the machine,” but rather “consider whether on the basis of the facts... a significant number of them would be non-infringing.” With regards to the *Betamax*, the Court said, “[I]n order to resolve this case we need not give precise content to the question of how much use is commercially significant. For one potential use of the *Betamax* plainly satisfies this standard, however it is understood: private, non-commercial time-shifting in the home.” 464 U.S. at 442.

purpose” of copying protected works and that “virtually all” of the recorded material was copyrighted.⁷³

These principles have become central to current debates about what the rule should be. *Napster* and *Grokster* closely followed *Sony*’s refusal to examine the ratio between infringing and noninfringing uses. In *Napster*, the Ninth Circuit disagreed with the district court’s holding that the proportion of infringing uses rendered the Sony defense inapplicable; instead, citing *Vault v. Quaid*,⁷⁴ the court noted that a single non-infringing use invoked the *Sony* shield against liability in terms of the technology’s architecture. However, the court went on to say that the technology was not the issue; rather the question was of Napster’s conduct under the common law standards for contributory and vicarious liability.⁷⁵

The California district court followed *Napster* in deciding the substantial noninfringing use question in *Grokster*. Finding that the defendants showed and plaintiffs did not dispute substantial non-infringing uses for the Grokster and Morpheus software,⁷⁶ the court moved on to evaluate the defendants’ conduct under contributory

⁷³ 464 U.S. at 428.

⁷⁴ *Vault Corp. v. Quaid Software, Ltd.*, 847 F.2d 255, 264-67.

⁷⁵ At first the Ninth Circuit appeared to collapse the question of substantial non-infringing uses under *Sony* and knowledge under common-law contributory infringement into one: “The *Sony* Court declined to impute the requisite level of knowledge where the defendants made and sold equipment capable of both infringing and ‘substantial noninfringing uses.’ We are bound to follow *Sony*, and will not impute the requisite level of knowledge to Napster merely because peer-to-peer file sharing technology may be used to infringe plaintiffs’ copyrights....To enjoin simply because a computer network allows for infringing use would, in our opinion, violate *Sony* and potentially restrict activity unrelated to infringing use.” 239 F.3d at 1020-21 (citations omitted) (check order of these quotes). However, the court went on to take up the knowledge question separately based on Napster’s conduct in maintaining the index of files. “Napster’s actual, specific knowledge of direct infringement renders *Sony*’s holding of limited assistance to Napster. We are compelled to make a clear distinction between the architecture of the Napster system and Napster’s conduct in relation to the operational capacity of the system.” 239 F.3d at 1020.

⁷⁶ These included “distributing movie trailers, free songs or other non-copyrighted works; using the software in countries where it is legal; or sharing the works of Shakespeare” as well as facilitating and searching for “public domain materials, government documents, media content for which distribution is authorized, media content as to which the rights owners do not object to distribution, and computer software for which distribution is permitted.” *Grokster*, 259 F. Supp. 2d at 1035.

and vicarious liability analyses. Notably, the court pointed out that the question “turns not only on the product’s *current* uses, but also on potential *future* noninfringing uses,”⁷⁷ thus explicitly applying the *Sony* Court’s pronouncement on this principle to the P2P context.

In deciding *Aimster*, the Second Circuit was not nearly as solicitous to *Sony* doctrine as was the Ninth in *Napster* or the California district court in *Grokster*; in fact, one could argue that the court departed from traditional judicial deference altogether. Judge Posner’s opinion frames the issue as how much the Supreme Court decided in *Sony* and goes on to propose a balancing test not elucidated there.⁷⁸ Acknowledging that *Sony* established that “the producer of a product that has substantial noninfringing uses is not a contributory infringer merely because some of the uses actually made of the product ... are infringing,” Posner continued, “How much more the Court held is the principal issue that divides the parties; and let us try to resolve it, recognizing of course that the Court must have the last word.”⁷⁹

Judge Posner’s treatment of *Sony* departs from previous case law in both procedure and substance. First, and fatally to *Aimster*, he proposes that the burden to show substantial noninfringing uses falls on the defendant, and that absent such a showing, liability lies.⁸⁰ This placement of the burden is not articulated in *Sony*, and in fact may directly contravene language there suggesting that it was the plaintiff’s burden to show that there was no noninfringing use: “[R]espondents failed to demonstrate that time-shifting would cause any likelihood of nonminimal harm to the potential market for,

⁷⁷ 259 F. Supp. 2d at 1035.

⁷⁸ 334 F.3d at 653.

⁷⁹ *Aimster*, 334 F.3d at 647.

⁸⁰ *Aimster*, 334 F.3d at 652-53.

or the value of, the copyrighted works. The Betamax is, therefore, capable of substantial noninfringing uses. Sony's sale of such equipment to the general public does not constitute contributory infringement of respondent's copyrights."⁸¹ Applying such reasoning may, as a procedural matter, have precluded Judge Posner from affirming the injunction against Aimster without a trial on the merits. Judge Posner did not think so: "[T]he evidence is sufficient, especially in a preliminary-injunction proceeding...to shift the burden of production to Aimster to demonstrate that its service has substantial noninfringing uses...Because Aimster failed to show that its service is ever used for any purpose other than to infringe the plaintiffs' copyrights...the magnitude of the resulting loss, even whether there is a net loss, becomes irrelevant to liability."⁸²

The Aimster opinion also stated that improbable noninfringing uses do not satisfy the *Sony* rule,⁸³ which represents another departure from the "current or future use" test set forth in *Sony* and *Grokster*.⁸⁴

On the substantive side, Judge Posner noted that the *Sony* majority did not address the measures Sony could have taken to prevent infringing uses, then continued that in the instant case, "we agree with the recording industry that the ability of a service provider to prevent its customers from infringing is a factor to be considered in determining whether

⁸¹ 464 U.S. at 456. See also Bridges, supra note 55, at 3 (former Morpheus lawyer contending that *Sony* places the burden on the plaintiff to show that the suspect technology is not capable of substantial noninfringing use). While the *Sony* Court invoked fair use doctrine to show that time-shifting was a substantial noninfringing use, courts have found peer-to-peer file sharing to have substantial noninfringing uses without needing to rely on fair use per se. See *Napster*, ___; *Grokster*, ___.

⁸² 334 F.3d at 652-53.

⁸³ The court reviewed and dismissed five such uses: downloading uncopyrighted music from start-up bands or those whose copyright has expired; distributing music for promotion; exchanging information among fans; exchanging off-color information among Aimster users who desire privacy; and space shifting for CD owners who wanted to listen to the music they owned while away from their collection. 334 F.3d at 652. Judge Posner suggested that peer-to-peer technology might enable this last proposition despite the decision in *MP3.com*, where the court rejected space shifting as a fair use because the defendant made unauthorized copies of protected works on its servers, see *UMG Recordings v. MP3.com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000); peer-to-peer technology obviates the need for intermediary copying. 334 F.3d at 652-53.

⁸⁴ Get pages.

the provider is a contributory infringer. Congress so recognized with the [DMCA].”⁸⁵

Thus, the opinion continued, substantial noninfringing uses were not a controlling factor in judging secondary liability, but rather must be weighed against whether “the detection and prevention of the infringing uses would be highly burdensome.”⁸⁶

The *Aimster* decision proceeds to propose a balancing test for P2P services (ostensibly distinguishable from software itself) to replace or augment the *Sony* standard: “Even where there are noninfringing uses of an Internet file-sharing service ... if the infringing uses are substantial then to avoid liability as a contributory infringer the provider of the service must show that it would have been disproportionately costly for him to eliminate or at least reduce substantially the infringing uses.”⁸⁷ Absent any such language in *Sony*, Judge Posner’s pronouncement can only be viewed as dicta without precedential weight. Nonetheless, the court proceeded to apply this new balancing test to condemn the encryption software that shielded Aimster from knowledge of copyright infringement over its network: Since Aimster failed to present evidence that its encryption feature added important value or saved significant cost, Aimster as a whole fell outside of the *Sony* shield against secondary liability.⁸⁸

Stakeholders in this issue are staging a lively debate on how the *Sony* rule applies and ought to apply to providers of P2P technology and services, with the two sides well illustrated by the opinions in *Grokster* and *Aimster*. While technologists seek to preserve Sony’s broad ruling and, as the *Grokster* court did, apply it to all new technologies

⁸⁵ 334 F.3d 648.

⁸⁶ 334 F.3d at 648.

⁸⁷ 334 F.3d at 653.

⁸⁸ 334 F.3d at 653. This finding may be rendered superfluous by the court’s earlier conclusion that Aimster’s willful blindness constituted knowledge of the infringing conduct. *Id.* at 650-51. (“[A] service provider that would otherwise be a contributory infringer does not obtain immunity by using encryption to shield itself from actual knowledge of the unlawful purposes for which the service is being used.”).

including P2P, copyright holders argue that the *Sony* court could not have foreseen the challenges of digital media in general and P2P technology in particular, and like Judge Posner in *Aimster*, call for further elaboration of the test that may place affirmative duties on technology providers to prevent infringement by users.

On the technology side, proponents argue that *Sony* doctrine expresses congressional intent, as embodied in patent law and affirmed in nearly two decades of inaction against the decision, to prevent misuse of intellectual property monopolies and fulfill the constitutional mandate in the copyright clause.⁸⁹ According to this argument, the substantial noninfringing use standard trumps the common law tests for secondary liability.⁹⁰ Furthermore, this viewpoint directs courts to look only for the technical capability for noninfringing use, leaving aside any consideration of the purpose of a product or service or the intent of its provider.⁹¹

Copyright holders, on the other hand, have proposed a number of alterations to the *Sony* rule. One is a no infringing use standard that would require technology

⁸⁹ See 35 U.S.C. § 271(c) (exempting from secondary liability inventions “suitable for noninfringing uses”); 2 Paul Goldstein, Copyright § 6.1.2 (2d ed. 2002) (“Congress passed section 271(c) for the specific purpose of clarifying the long-troubled boundary between actions for contributory infringement and patent misuse”); U.S. Const., art. I, cl. 8 (granting limited monopolies “to Promote the Progress of Science and useful Arts”); Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at 6-7 (“The *Sony* test... is consistent with the contributory infringement rule of patent law...[and] similarly clarifies the boundary between contributory infringement and copyright misuse, which limits the power of copyright owners to obtain an unjustified monopoly over technologies”).

⁹⁰ “To the extent the Ninth Circuit subordinated the substantial noninfringing use requirement to the knowledge requirement, the *Napster* court necessarily undermined the object of the doctrine: to ensure that consumers not be required to pay monopoly tribute for unpatented or otherwise unprotected goods or equipment.” Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at 13, citing Goldstein, *supra* note __, Supplement, § 6.1.2 (internal quotations omitted). Despite this view that finding substantial noninfringing uses should end the inquiry, no court considering P2P technology has completely subsumed common law liability to the *Sony* rule.

⁹¹ Patent law does assign liability where a product is “especially adapted” for infringing use (cite), but the test of such special adaptation is the substantial noninfringing use capability. See *Sony*, 464 U.S. at 441; Bridges, *supra* note 55, at 7.

producers to take all possible steps to prevent infringement by users.⁹² Another approach, which parallels the district court's reasoning in *Napster*, would require that the product's primary use be non-infringing to avoid liability to producers.⁹³ At the arguable extreme of proposals to augment *Sony* is the intent test, which would examine whether the technology producer intended for users to infringe copyright with the product.⁹⁴ All

⁹² Bridges at 10; plaintiffs' briefs, Samuelson brief. Andrew Bridges argues that this standard would allow copyright holders to control product architecture and thus expand the scope of copyright in the way specifically deemed impermissible by the *Sony* Court. Bridges at 10.

⁹³ Bridges at 10, plaintiffs' briefs, Samuelson brief; Wu, *supra* note 15, at 739 ([T]he ratio of infringing to non-infringing uses must be at the forefront of the ultimate policy judgment in this area."). This fact-finding approach has been critiqued as indeterminate and chilling to technology development, as the results in each instance would depend on the time of the inquiry and how primary use is defined. Bridges at 10; Samuelson and Quilter at 7-8 ("Uses of a technology may evolve significantly over time.... Peer-to-peer technologies, which promise significant benefit, e.g. relieving network congestion and increasing security and fault tolerance... will not evolve over time if progress in the field is stymied by expansive secondary liability"). This approach arguably contradicts the *Sony* Court's holding in the face of a clear factual record showing that *Sony* sold Betamax for the "primary purpose" of copying protected works and that "virtually all" material copied by Betamax was copyrighted. *See* 464 U.S. at 428. However, the *Sony* Court went on to find that these otherwise infringing uses were protected under the fair use defense for time-shifting, and thus it remains unclear that *Sony* doctrine precludes any factual inquiry into technology uses. Still, the idea that Xerox could be held liable for producing photocopiers in a future trial under this test points to the problems of notice, repose, and neutral application inherent in such a rule.

⁹⁴ Bridges at 10, plaintiffs' briefs, Samuelson brief. This proposal seems to rest on a deterrent and punitive model of punishing technology producers for profiting on infringing activity. Critics point to the difficulty of identifying intent to begin with—especially where the intent must lie with a corporation—and potential resulting due process hurdles, as well as to the fact that consumers often use technology for unintended purposes—for instance, VCRs to play prerecorded tapes sold by copyright holders. *See* JAMES LARDNER, *FAST FORWARD: A MACHINE AND THE COMMOTION IT CAUSES* 297-300 (1987). Instead of draining profits from copyright holders' pockets as the plaintiffs in *Sony* contended it would, the Betamax proceeded to enable a market for prerecorded videos that became a leading source of revenue for the movie industry. *See* HAROLD L. VOGEL, *ENTERTAINMENT INDUSTRY ECONOMICS: A GUIDE FOR FINANCIAL ANALYSIS* 62 (5th ed., 2001). CD sales have indeed been falling since 2001 (*Napster* launched in 1999). Menell, *supra* note 14, at 119; Brad King, *Slagging Over Sagging CD Sales* (Apr. 17, 2002), at <http://www.wired.com/news/mp3/0,1285,51880,00.html> (reporting a record industry trade association's announcement of a 5% decline worldwide in 2001); COMPARE with Netanel. Yet it is unclear how courts could expect to assess the harm done to record sales from music file sharing, as other variables include economic conditions, the match between industry releases and consumer tastes, rising CD prices, consolidation in the radio industry, traditional "hard copy" piracy, competition from other forms of entertainment. *See* Netanel?; James K. Willcox, *Where Have All the CDs Gone?*, *SOUND & VISION* (Oct. 26, 2003), at http://soundandvisionmag.com/article.asp?section_id=2&article_id=453&page_number=1&preview=. The data on what percentage of file sharers purchase less or more music is conflicting. *See* Edison Media Research, National Record Buyers Study II, at <http://www.edisonresearch.com/R&RRecordBuyersII.htm> (last visited October 26, 2003) (study sponsored by music industry trade publication finding that 41-51% of downloaders are buying less music). *Compare with* Noah Shachtman, *Report Refutes Anti-Trade Debate*, *WIRED NEWS* (May 3, 2003), at <http://www.wired.com/news/business/0,1367,52305,00.html> (reporting a study from Jupiter Research finding that experienced file traders were 75% more likely to purchase music than average online music fans).

these tests require extensive fact-finding and/or subjective inquiries into the defendant's state of mind that would preclude deciding secondary infringement cases on summary judgment—as, for instance, *Grokster* was.

B. Contributory Liability: (1) Knowledge

The *Sony* decision, both implicitly in the rule it stated and explicitly in the Court's opinion, rejected constructive knowledge of infringement as a basis for secondary liability.⁹⁵ In the proceedings below, the Ninth Circuit held Sony liable for secondary infringement because the trial court's findings of fact showed that copying was “the most conspicuous” or “the major” use of the product. The Supreme Court reversed on this point, refusing to thus extend the copyright monopoly to distribution of technology products without congressional authorization.⁹⁶

The *Sony* Court's rejection of constructive knowledge as a basis for secondary liability has survived P2P adjudication. *Napster* refined this element of contributory liability to require actual knowledge of infringement to find liability under a two-part test: (1) specific knowledge at the time of the infringement, and (2) failure to act upon that knowledge.⁹⁷ *Napster*'s system architecture failed the actual knowledge test; in order to search for files, users had to access a real-time database of files currently available on the network on *Napster*'s servers. The plaintiffs had notified *Napster* that many of these files infringed. Thus, the court wrote, “*Napster*, by its conduct, knowingly encourages

⁹⁵ *Sony*, 464 U.S. at 439.

⁹⁶ 464 U.S. at 439. “The Court of Appeals’ holding that respondents are entitled to enjoin the distribution of VTRs, to collect royalties on the sale of such equipment, or to obtain other relief, if affirmed, would enlarge the scope of . . . statutory monopolies to encompass control over an article of commerce that is not the subject of copyright protection. Such an expansion of the copyright protection is beyond the limits of the grants authorized by Congress.” 464 U.S. at 421.

⁹⁷ *Napster*, 239 F.3d at 1021.

and assists the infringement of plaintiffs' copyrights. . . . [I]f a computer system operator learns of specific infringing material available on his system and fails to purge such material from the system, the operator knows of and contributes to direct infringement."⁹⁸

Grokster followed *Napster's* two-part specific knowledge test⁹⁹ with a different result, due to the absence of any central hub where the defendants could monitor the exchange of copyrighted content.¹⁰⁰ Echoing *Sony*, the court stated that knowledge "that [Defendants'] products will be used illegally by some (or even many) users" did not itself lead to contributory liability.¹⁰¹ Because users could share files with no involvement from the defendants' computers, the defendants had no actual knowledge under this test.¹⁰² Furthermore, knowledge by notification from the plaintiffs after infringement took place did not render the defendants liable.¹⁰³ In short, the decentralized architecture of FastTrack and StreamCast spared the defendants knowledge of illegal conduct—likely by design, but not by the more suspect willful blindness.

Such deliberate blindness spelled Aimster's demise under this element. Perhaps surprisingly, Judge Posner's opinion presents the most exacting knowledge requirement of the three P2P cases. Noting that in *Sony*, the technology provider had ample knowledge of infringing conduct, Judge Posner wrote that the "[t]he Court was unwilling

⁹⁸ 239 F.3d at 1020-21. By contrast, "a computer system operator cannot be liable for contributory infringement merely because the structure of the system allows for the exchange of copyrighted material." *Id.* at 1021 (citing *Sony*, 464 U.S. at 436). Though the centralized file index was inherent to the Napster network, court clearly considered the question to be one of knowing conduct rather than mere system capability. "Napster's actual, specific knowledge of direct infringement renders Sony's holding of limited assistance to Napster." 239 F.3d at 1020.

⁹⁹ *Grokster*, 259 F. Supp. 2d at 1036, citing *Napster*, 239 F.3d at 1021.

¹⁰⁰ The court noted that the defendants were clearly generally aware of user infringement. "The question, however, is whether *actual knowledge of specific infringement* accrues at a time when either Defendant materially contributes to the alleged infringement, and can therefore do something about it." *Grokster*, 259 F. Supp. 2d at 1038.

¹⁰¹ 259 F. Supp. at 1043.

¹⁰² 259 F. Supp. at 1042.

¹⁰³ "Plaintiffs' notice of infringing conduct are irrelevant if they arrive when Defendants do nothing to facilitate, and cannot do anything to stop, the alleged infringement."

to allow copyright holders to prevent infringement effectuated by means of a new technology at the price of possibly denying noninfringing consumers the benefit of the technology,” and went on the posit that the *Napster* court erred “in suggesting that actual knowledge of specific infringing uses is a sufficient condition for deeming a facilitator a contributory infringer.”¹⁰⁴

However, this statement may represent less a move to lift the knowledge requirement from defendants’ backs than to further the case for a balancing test. Judge Posner continued directly from his knowledge discussion to a call for a cost-benefit analysis instead: “[W]hen a supplier is offering a product or service that has noninfringing as well as infringing uses, some estimate of the respective magnitudes of these uses is necessary for a finding of contributory infringement.”¹⁰⁵

The court proceeded to hold that Aimster failed the knowledge test regardless of the infringement ratio, as the software’s encryption feature did not save the defendant from the knowledge such encryption blocked. “Willful blindness is knowledge,” and “a contributory infringer does not obtain immunity by using encryption to shield itself from actual knowledge of the unlawful purposes for which the service is being used.”¹⁰⁶

C. Contributory Liability: (2) Material Contribution or Involvement

¹⁰⁴ 334 F.3d at 649 (agreeing with Professor Goldstein, 2 Paul Goldstein, COPYRIGHT § 6.1.2, p. 6:12-1 (2d ed. 2003)). Posner’s decision on this point represented an about-face from the district court’s finding that the *Napster* knowledge requirement was too liberal: “[T]here is absolutely no indication in the precedential authority that such specificity of knowledge is required in the contributory infringement context.” 252 F. Supp. 2d 634, 651 (N.D. Ill. 2002).

¹⁰⁵ 334 F.3d at 649. Nonetheless, plaintiffs need not show any financial damage to assert contributory infringement. 334 F.3d at 649 (noting that the market harm analysis in *Sony* pertained to fair use, not contributory infringement).

¹⁰⁶ 334 F.3d at 650-51.

The second prong of common law contributory liability calls for the court to assess the defendant's degree of involvement in infringing conduct. The decision in *Sony* offers little guidance on this element. The California district court held that Sony's advertising of the product's infringing uses could not serve as a basis for liability, and the Supreme Court did not dispute the finding.¹⁰⁷ By implication, such a standard may preclude aspects of proposed balancing tests that look to a provider's intent or representations.

The Internet platform on which P2P operates presents quite a different question regarding material contribution. Because the P2P providers at issue were or are present on the Internet and thus connected to the network and its users, they may well materially contribute to copyright infringement in a way Sony could not by simply selling VCRs. Indeed, the Ninth Circuit found that Napster did so, applying a "site and facilities test" borrowed from *Fonovisa Inc. v. Cherry Auction, Inc.*¹⁰⁸ Just as the proprietors of a swap meet materially contributed to copyright infringement when vendors used the swap meet's site and facilities to sell pirated goods, so the court found that Napster's integrated service provided the site and facilities for infringement and thus materially contributed.¹⁰⁹ In both cases the Ninth Circuit found that with providing premises comes the duty to police them. Since Napster had only to look at the file names on its own server to see that its users were exchanging copyrighted works, its failure to prevent such activity constituted a contribution to its consummation.

¹⁰⁷ *Universal City Studios v. Sony Corp. of America*, 480 F. Supp. 429, 436 (C.D. Cal. 1979).

¹⁰⁸ 76 F.3d 259 (9th Cir. 1996).

¹⁰⁹ 239 F.3d at 1022.

By contrast, the *Grokster* court found no material involvement of the defendants in direct infringement by its users.¹¹⁰ Applying a close-the-doors test, the court concluded that since users could continue to infringe after the defendants (hypothetically) ceased operations, the defendants did not provide the site and facilities for infringement.¹¹¹ “Neither Streamcast nor Grokster facilitates the exchange of files between users in the way Napster did. Users connect to the respective networks, select which files to share, send and receive searches, and download files, all with no material involvement of Defendants. If either Defendants closed their doors and deactivated all computers within their control, users of their products could continue sharing files with little or no interruption.”¹¹²

The court deemed this close-the-doors quality “a seminal distinction” between the Grokster and Streamcast technologies and Napster, likening the *Grokster* defendants to Xerox and Sony—mere providers of products that may be used to infringe. The court continued that providing “support services and refinements that indirectly support such [infringing] use” did not change the calculus; an ongoing customer service relationship does not independently establish material contribution.¹¹³

In *Aimster*, Judge Posner emphasized the ongoing relationship between Aimster and its users throughout his opinion, seeming to imply resulting contributory liability to

¹¹⁰ *Grokster*, 259 F. Supp. 2d at 1041.

¹¹¹ *Id.*

¹¹² 259 F. Supp. 2d at 1041.

¹¹³ 259 F. Supp. 2d at 1041. “Defendants distribute and support software, the users of which can and do choose to employ it for both lawful and unlawful ends. Grokster and Streamcast are not significantly different from companies that sell home video recorders or copy machines, both of which can be and are used to infringe copyrights. While Defendants, like Sony or Xerox, may know that their products will be used illegally by some (or even many) users, and may provide support services and refinements that indirectly support such use, liability for contributory infringement does not lie merely because peer-to-peer file-sharing technology may be used to infringe plaintiffs’ copyrights. Absent evidence of active and substantial contribution to the infringement itself, Defendants cannot be liable.” *Id.* at 1043.

the defendant on this basis—but never making such a finding explicit. In a twist on the material contribution prong, Judge Posner called contributory infringement the [civil] counterpart to criminal aiding and abetting.¹¹⁴ Under this analysis, the court found that Aimster’s software tutorial essentially aided and abetted infringing use because it listed only copyrighted songs in its examples: “The tutorial is the invitation to infringement that the Supreme Court found missing in *Sony*.”¹¹⁵ The court likewise found material contribution (or aiding and abetting) in Club Aimster, which enabled subscribers to download the network’s most shared songs for a small monthly fee. A paying club member could download these favorite songs by clicking on the titles on Aimster’s Web site, which initiated a search of the network to locate and transmit the file. These songs were invariably copyrighted, making each click on the Club Aimster list the first step in infringement. This functionality is arguably similar to the centralized file index that was fatal to Napster’s case—yet Judge Posner drew no such comparison, arguing instead that since the monthly club fee was Aimster’s sole revenue source, the very provision of the software was implicated in this infringing conduct.¹¹⁶

Peer-to-peer networks pose an important question regarding what role an ongoing relationship might play in contributory infringement. Does a relationship weigh toward material contribution? If so, what constitutes a relationship? *Grokster* held that customer service and product refinements did not, while *Aimster* implies that monthly club fees from select users creates a relationship with all. Could distribution of pop-up ads to users or utilization of their computing resources via the P2P network, both of which generate

¹¹⁴ 334 F.3d at 651. Add re slinky dress analogy.

¹¹⁵ 334 F.3d at 651.

¹¹⁶ “Because Aimster’s software is made available free of charge and Aimster does not sell paid advertising on its Web site, Club Aimster’s monthly fee is the only means by which Aimster is financed and so the club cannot be separated from the provision of the free software” 334 F.3d at 652.

revenue to the provider, constitute a relationship?¹¹⁷ Proponents of “pure” Sony doctrine argue against assessing any subsequent relationship between a provider and user when gauging liability for provision of the product. “The character of the product itself should be the touchstone.”¹¹⁸

D. Vicarious Liability: (1) Right and Ability to Supervise and (2) Direct Financial Interest

Whether vicarious liability has a separate role to play in assessing secondary copyright infringement remains a subject of debate. Though the *Sony* Court acknowledged both contributory and vicarious liability, commentators have noted that its analysis conflated them into a single theory of secondary liability for infringement committed by others.¹¹⁹ This may be true from the standpoint of the majority’s intent. However, a literal reading of the *Sony* opinion, with its emphasis on contributory liability language, leaves open the question of whether Sony’s substantial noninfringing uses doctrine shields defendants from vicarious liability too.

The *Napster* court asserted that it did not.¹²⁰ Applying both contributory and vicarious liability analysis to reach the same conclusion in that case may have appeared to be legal overkill; however, a court willing to grant a *Sony* defense to contributory liability must still confront whether the potential ambiguity in *Sony*’s scope has legal

¹¹⁷ KaZaA, which currently derives its sole income from pop-up ads, has noted that advertising does not supply adequate revenue and plans to augment its income by selling the computing resources of network users. Erick Schonfeld, *The True Cost of Free Music*, BUSINESS 2.0 (May 24, 2002), at <http://www.business2.com/articles/web/print/0,1650,40816,00.html>, cited in Wu, *supra* note 15, at 749.

¹¹⁸ Bridges, *supra* note 55, at 7.

¹¹⁹ See *Sony*, 464 U.S. at 434-35; see also Aimster at ___; Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at ___.

¹²⁰ *Napster*, 239 F.3d at 1022. Some have critiqued this analysis as lacking support. See, e.g., Samuelson and Quilter *Grokster* amici brief at 3, note 2.

meaning—or ought to gain such meaning as contributory liability breaks down on the open Internet.

The common law notion of *respondeat superior*, literally “let the superior make answer,” that underlies vicarious liability seems to contain the seeds of potential liability to technology producers that content providers seek to bring to flower. *Respondeat superior* traditionally holds employers liable for employee infractions under common law; however, a broader view of “the superior” may impute such a relationship between technology producer and users. There are obvious flaws to this argument—unlike employers, technology providers can set only (hackable) rules of code, not of conduct; they do not have paycheck-writing power to create incentives for compliance; they exert little ongoing influence on community norms, and so on—but the peer-to-peer decisions so far may reflect glimmers of this argument.

The first prong of vicarious liability is the right and ability to supervise infringing conduct. *Aimster* noted that the *Sony* Court could have used vicarious liability to find Sony liable for failing to reduce the likelihood of infringement through a design change, presumably based on this prong: Through design, technology producers have the right and ability to supervise future user conduct. Such a finding of course would gut the *Sony* holding, as Judge Posner acknowledged in stating that the Court treated the two doctrines “interchangeably” and thus absolved Sony of vicarious liability.¹²¹ Without ruling on the question, he went on to propose that any attempt to hold *Aimster* vicariously liable for

¹²¹ “The Court, treating vicarious and contributory infringement interchangeably, ... held that Sony was not a vicarious infringer either.” *Aimster*, 334 F.3d at 654

failing to better prevent infringement through system design and policing would be “notwithstanding the outcome in *Sony*.”¹²²

The second prong of vicarious liability is a direct financial interest in the infringing conduct. This could carve out a “financial interest” exception to the *Sony* shield against secondary liability that may, in one view, approach the sort of balancing test the content industries seek, or in another, chill development of the very technologies the market values most.

An argument against vicarious liability falling outside the scope of *Sony* is found in the safe harbor provision of the Digital Millennium Copyright Act (DMCA). In the DMCA, which postdated *Sony* by fourteen years, Congress provided a general safe harbor to Internet service providers against any secondary liability for copyright infringement.¹²³ Proponents of this view argue that Congress thus recognized contributory and vicarious as a single question and specifically declined to exempt vicarious liability from the *Sony* ruling.¹²⁴

E. Who Acts Now and How?

The *Sony* decision is nearly twenty years old. In the rapidly changing context of technology law, does this pedigree render the rule time-tested or outmoded? Arguably, the VCR and P2P systems are significantly different technologies. In *Sony*, the district court found and the Supreme Court agreed that copyright holders wished to allow private

¹²² 334 F.3d at 654-55. “By eliminating the encryption feature and monitoring the use being made of its system, Aimster could like *Sony* have limited the amount of infringement. Whether failing to do so made it a vicarious infringer notwithstanding the outcome in *Sony* is academic, however; its ostrich-like refusal to discover the extent to which its system was being used to infringe copyright is merely another piece of evidence that it was a contributory infringer.” *Id.*

¹²³ See 17 U.S.C. § 512.

¹²⁴ See Br. Amici Curiae of 40 Intellectual Property and Technology Law Professors at 5, note 5.

time-shifting and believed this use of the technology would enhance the value of the copyrighted works.¹²⁵ Furthermore, the Court found that time-shifting did not harm the market for television shows.¹²⁶ While these findings went to the fair use (time-shifting) that constituted the substantial noninfringing use rather than the rationale for the doctrine itself, one could argue that these facts shaped the holding, and that no court would find that either the recording and publishing industries condone the most common use of peer-to-peer technology (infringing on recorded music copyrights), or that file sharing poses no threat to the market for recorded music.

Some have also argued that unlike the VCR, P2P is not only a copying but also a distribution technology, which implicates another exclusive right under the Copyright Act. The district court in *Aimster* distinguished this distributional capacity from copying to say that *Sony* did not apply to P2P. However, technologists claim that this argument turns *Sony* around; the question is whether there are substantial noninfringing uses, not whether another infringing use can be found.¹²⁷ Furthermore, it is not clear that uploading music files violates the distribution right in the Copyright Act. Under the statute's plain language, this right is "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending."¹²⁸ There is no sale, rental or lease, or loan of copies in making a file available on a P2P network; "other transfer of ownership" is as yet a legal wild card.

Many argue that Congress is the appropriate body to weigh the competing interests involved in regulating peer-to-peer technology—or perhaps any technology at

¹²⁵ 464 U.S. at ___ (IVA).

¹²⁶ 464 U.S. at ___ (IVB).

¹²⁷ Bridges at 7.

¹²⁸ 17 U.S.C. § 106(3).

all.¹²⁹ Congress has acted in limited capacities by enacting the No Electronic Theft Act in 1997¹³⁰ and the Digital Millennium Copyright Act in 1998.¹³¹ However, these and other recently proposed bills¹³² have many observers concerned that if the question is left to Congress, lobbying pressures from the content industry and essential misunderstanding of the nature of technological development will combine to reach an unfortunate result in the current political climate.

In response to this concern, a number of legal scholars and practitioners have put forth propositions for alternative compensation schemes to make P2P music file sharing legal, following existing, new, or hybrid models for compulsory or collective licensing, levies, subscriptions, and so on.¹³³ Proponents of this approach note parallels to solutions to previous crises arising between technology and content, which date back to the turn of the twentieth century.

¹²⁹ Pamela Samuelson and Laura Quilter, Brief Amici Curiae of 40 Intellectual Property and Technology Law Professors Supporting Affirmance, *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 2 (stating that “this [the Grokster] Court is not the appropriate forum in which to change the Sony rule....Congress...alone has the institutional competence necessary for a broad inquiry into the benefits and detriments of these technologies”). See also Wu, *supra* note 15, at 739-40 (proposing that affirmance of the *Grokster* case would be in the tradition of “settlement-forcing” decisions, from the piano roll to cable broadcasting, in which courts have prompted Congress to settle disputes raised by new technology).

¹³⁰ 17 U.S.C. §§ 101-803 (2000). The “NET” Act provides criminal penalties for copyright infringements that yield “private financial gain,” which may include “receipt, or expectation of receipt, of anything of value, including the receipt of other copyrighted works”—potentially most music file sharing. See Wu, *supra* note 15, at 742.

¹³¹ 17 U.S.C. §§ 512, 1201. The anti-circumvention provision in Section 1201 of the DMCA “can be understood as an effort to restore an eroding gatekeeper system” by “return[ing] content owners to the 1970s, when they were free to sit back and police the few intermediaries licensed to access the copy-protected content.” Wu, *supra* note 15, at 741. Section 512 et. seq. holds ISPs liable for copyright infringement taking place across their portals subject to a safe harbor takedown period. CHECK.

¹³² See, e.g., Consumer Broadband and Digital Television Promotion Act, at <http://thomas.loc.gov/cgi-bin/query/D?c107:1:./temp/~c107HYEVYC::> (introduced in March, 2002 by Senator Fritz Hollings and requiring copy-protection mechanisms in all digital media technology); To amend Title 17, United States Code, to limit the liability of copyright owners for protecting their works on peer-to-peer networks: Hearing on H.R. 5211 Before the House, 107th Cong. (2002) (the “Berman Bill”) (proposing legal endorsement of technological self-help measures by copyright holders to disrupt P2P networks). Compare with the Consumers, Schools, and Libraries Digital Rights Management (DRM) Awareness Act of 2003, at <http://thomas.loc.gov/cgi-bin/query/D?c108:1:./temp/~c108g56bn4::> (introduced by Senator Sam Brownback in September, 2003 and prohibiting government technology mandates while protecting the identity of Internet users and certain fair uses of digital media).

¹³³ Fisher, Netanel, Nadel, Ku, Eckersley.

While others debate the future of secondary liability law and new statutes that might address the latest dilemma, the recording industry has moved to enforce old law. In the wake of the *Grokster* district court loss, the RIAA instituted a campaign to subpoena peer-to-peer user names from Internet service providers and sue those it accuses of uploading copyrighted music files for direct infringement.¹³⁴ This initiative raises additional legal issues—namely, the extent of the DMCA’s safe harbor provision for ISP providers; and due process, privacy and the “new spam” generated by a rash of identity subpoenas unchecked by judicial oversight.¹³⁵ Many in the field expect a new round of peer-to-peer technology that masks users’ identity, raising additional enforcement issues for any outcome of these cases.

Indeed, where law fails other forces frequently step in, and some believe that the courts and Congress are less equipped to find answers to the questions P2P poses than—depending on your viewpoint—markets or coders. Enthusiasts of the market model point to the preliminary success of Apple’s iTunes, the pay-per-download service that gathers catalog from many (but by no stretch of the imagination all) record companies. There are large potential advantages to digital distribution of music and other content: significant cost reductions in production, distribution, and marketing; more routes for promotion and new artist exposure; and seamless interaction between supply and demand.¹³⁶ The resulting question is whether consumers will accept label-driven digital distribution, or is

¹³⁴ As recently as June 2003, commentators noted that copyright owners have declined to sue consumers of infringing copyrighted works because such a move would be “costly and unpopular,” especially in light of the traditionally small scale of such infringement. *See, e.g.*, Wu, *supra* note 15, at 713. Or as Judge Posner said in *Aimster*, the recording industry opted to sue the technology producers instead, “recognizing the impracticability or futility of a copyright owner’s suing a multitude of individual infringers.” *Aimster*, 334 F.3d at 645. This view became obsolete in August of 2003 when the RIAA filed its first lawsuits against music file sharers, turning former customers into legal adversaries.

¹³⁵ Swire.

¹³⁶ See Menell, *supra* note **Error! Bookmark not defined.**, at 122-23.

the cat too far out of the bag? No existing service offers anywhere near the breadth of selection a P2P network can provide. As previously noted, consumers don't necessarily think of free downloading as wrong, and many are incensed by what a small share of revenues record companies pay to artists. Furthermore, P2P offers the economic efficiencies of letting consumers dedicate their own computing resources and word of mouth to digital content distribution.

Potentially more subversive yet perhaps more likely to succeed than traditional capital markets are the coders. Some have proposed that code can bust or even create law.¹³⁷ Noting that copyright law is a gatekeeper-reliant regime particularly vulnerable to non-compliance by mechanisms that enable non-compliance, Tim Wu has suggested that coders can adapt technology (specifically peer-to-peer) not so much to rewrite the law as to avoid it, and this may undermine the existing legal system enough to exert some political influence.¹³⁸ With an estimated sixty million people sharing music files,¹³⁹ most of whom feel that making non-commercial copies of music is not wrong,¹⁴⁰ the gap between law and social norms may well drive coders to continue to design around the law and consumers to embrace the results without moral qualms.¹⁴¹

¹³⁷ See, e.g., Wu, *supra* note 15, at 680-81; Lawrence Lessig, *CODE AND OTHER LAWS OF CYBERSPACE* 89 (1999).

¹³⁸ Wu, *supra* note 15, at 682, 711-13. In this model, "the code designer acts like a tax lawyer ... look[ing] for loopholes or ambiguities in the operation of law (or, sometimes, ethics)." *Id.* at 708.

¹³⁹ Get source.

¹⁴⁰ See, e.g., Amanda Lenhart et al., *The Pew Internet & Am. Life Project, Downloading Free Music: Internet Music Lovers Don't Think It's Stealing* 5 (Sept. 28, 2000), available at <http://www.pewinternet.org/reports/toc.asp?Report=23> (finding that 78% of downloaders do not consider file sharing to be stealing and 61% are indifferent to copyright, and that 53% of Internet users and 40% of Americans believe it is not wrong to share music over the Net); Office of Tech. Assessment, U.S. Cong., *Copyright and Home Copying: Technology Challenges the Law* 163 (Oct. 1989), available at http://www.wws.princeton.edu/~ota/disk1/1989/8910_n.html (pre-P2P study finding that 63% of consumers found that making taped copies of music was acceptable but 76% found selling copies to be unacceptable).

¹⁴¹ See Wu, *supra* note 15, at 725-26. So-called "charismatic code" enables illegal activity while tapping social norms of reciprocity to create an impression of cooperative community to users. Lior Jacob

If the battle boils down to coders versus copyright holders, it could be hard to pick a winner. Since 1995, coders have developed My.MP3, Napster, Gnutella, FastTrack, and StreamCast as user-directed means to distribute digital music over the Internet.¹⁴² Apparently to combat this threat, the RIAA has more than tripled its budget (from \$15 million to \$44 million),¹⁴³ successfully lobbied Congress to pass the DMCA and NET Act, and filed ___ lawsuits in federal courts against alleged music file sharers. Despite this energy and expenditure, some commentators predict that copyright law can never triumph over conflicting social norms, and that copyright holders should turn their attention from legal reform and enforcement to normative change.¹⁴⁴

IV. CONCLUSION

The outcome of the *Grokster* appeal and the adjudication following the *Aimster* decision will have significant effects on the legal landscape regarding secondary copyright liability for peer-to-peer and other technology providers. Whether addressed by the Supreme Court, Congress, or extra-legal forces, the fate of the *Sony* doctrine in the near future is likely to reveal much about how the legal system can and should respond to emerging technologies and the novel issues they raise.

Strahilevitz, *Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks*, 89 VA. L. REV. 505, 507-08 (2003). As digital commentator John Perry Barlow said of P2P and copyright, “No law can be successfully imposed on a huge population that does not morally support it and possesses easy means for its invisible evasion.” John Perry Barlow, *The Next Economy of Ideas*, WIRED 8.10 (Oct. 2000), available at http://www.wired.com/wired/archive/8.10/download_pr.html. Three years later, however, there is little evidence to support Barlow’s prediction that there will be no property in cyberspace. See *id.*

¹⁴² Wu, *supra* note 15, at 727-28, 731, 734-35. NEED re StreamCast.

¹⁴³ Bill Holland, *Performers Give Testimony before Judges and Lawmakers*, BILLBOARD, Sept. 22, 2001, available at 2001 WL 24692410.

¹⁴⁴ E.g. Strahilevitz, *supra* note 141, at 595 (“[A] wiser strategy for the RIAA and its allies might be to think about ways in which they could weaken the cooperative norms that have arisen among users of these networks.”).