IN RE AIMSTER & MGM, INC. v. GROKSTER, LTD.:  
PEER-TO-PEER AND THE SONY DOCTRINE

By Elizabeth Miles

For the last twenty years, the Supreme Court’s decision in Sony Corp. of America, Inc. v. Universal City Studios, Inc. has guided lower courts’ analysis of the potential liability of technology providers whose products may be used to infringe copyrights.1 The application of the Sony rule to digital technologies, however, has been less than straightforward. Two recent decisions regarding the legality of distributing peer-to-peer file sharing software, Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.2 and In re Aimster Copyright Litigation,3 reached sharply different outcomes and thus left open the question of the correct legal standard to apply in assessing secondary liability for copyright infringement over the Internet.4

Taken together, Grokster (a California federal district court case decided in April 2003, whose appeal is pending) and Aimster (a June 2003 decision by the Seventh Circuit) constitute a schism in secondary copyright infringement jurisprudence that invites further guidance from the Supreme Court, Congress, or both. This Note tracks the development of secondary copyright infringement doctrine in the peer-to-peer context and proposes that while the secondary liability limitations articulated in Sony advance important policy goals for technological development, analysis of the instant cases and their predecessors reveals crucial gaps and conflicts in the doctrine that make it difficult for courts to surmise the current legal rules and consistently apply them to digital technologies. Thus the Sony rule as it stands is inadequate to guide uniform adjudication among circuits.
The Note poses the open doctrinal questions that press upon how courts should apply *Sony* doctrine in the digital age: (1) whether the common law encompasses (in fact, not just in form) two distinct theories of secondary liability that yield different results for any given Internet-based technology; (2) whether *Sony* serves as an absolute shield against contributory liability or instead shapes the knowledge requirement; and (3) whether the *Sony* rule applies to vicarious liability claims. By examining the dispositions of these questions in the peer-to-peer ("P2P") cases and discussing the interests and proposals of stakeholders, the Note seeks to illuminate the issues that must be addressed in order to clarify and lend coherence to copyright law for Internet technology.

I. COPYRIGHT ADJUDICATION IN THE PEER-TO-PEER AGE: LEGAL AND TECHNICAL ISSUES

A. Secondary Liability and the *Sony* Shield

Secondary liability for copyright infringement is a judge-made doctrine, never codified by Congress,\(^5\) that holds a second party liable for direct infringement by others. The common law divides secondary copyright liability into contributory and vicarious infringement. Derived from tort law, the elements of contributory infringement are (1) knowledge of and (2) causation, inducement, or material involvement in a second party's infringing conduct.\(^6\) Vicarious infringement, rooted in *respondeat superior*

5. Though Congress enacted the first copyright statute soon after the nation's birth, it has never directly defined secondary liability. Legislative history suggests that Congress added the phrase "to authorize" to the list of copyright holders' rights in the 1976 amendment to the Copyright Act to in some way endorse contributory liability. See 17 U.S.C. § 106 (2000); H.R. REP. No. 75-1476, at 61 (1975), reprinted in 1976 U.S.C.C.A.N. 5659, 5674. Congress stated in its report:

Use of the phrase 'to authorize' is intended to avoid any questions as to the liability of contributory infringers. For example, a person who lawfully acquires an authorized copy of a motion picture would be an infringer if he or she engages in the business of renting it to others for purposes of unauthorized public performance.


6. *See*, e.g., *Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971) ("[O]ne who, with knowledge of the infringing activity, in-
doctrine that holds employers liable for the illegal conduct of their employees or agents, requires (1) the right and ability to supervise the infringing conduct, and (2) a direct financial interest in that conduct.\textsuperscript{7} Vicarious liability differs from contributory infringement in that the defendant need not be directly aware of the infringement, but rather only hold an economic stake.\textsuperscript{8} Courts have extended vicarious liability for copyright infringement beyond the confines of employer-employee relationships to other arrangements that satisfy the two enumerated elements—for instance, franchise owner-concessionaire,\textsuperscript{9} dance hall-dance band,\textsuperscript{10} talent agency-concert promoter,\textsuperscript{11} and swap meet proprietor-vendor.\textsuperscript{12}

\textit{Sony} was the first and remains the only Supreme Court decision to apply secondary liability to technology—the capabilities of machines rather than the conduct of people.\textsuperscript{13} Resolved in 1984 in a 5-4 vote, \textit{Sony} is the principal authority governing adjudication of secondary liability for copyright infringement by technology manufacturers. Faced with the then-novel proposition that a seller of technology should be held liable for the conduct of its users and lacking any statutory guidance in the Copyright

\textsuperscript{7} See, e.g., Shapiro, Bernstein & Co. v. H.L. Green Co., 316 F.2d 304 (2d Cir. 1963) (holding the owner of a department store chain liable for the sale of counterfeit recordings by a concessionaire); see also Buck v. Jewell-LaSalle Realty Co., 283 U.S. 191, 198-99 (1931); Dreamland Ball Room, Inc. v. Shapiro, Bernstein & Co., 36 F.2d 354, 355 (7th Cir. 1929) (holding dance hall proprietors liable for hiring bands that played infringing music). The hirer-hiree relationship in these cases presents the classic context for \textit{respondeat superior} liability.

\textsuperscript{8} See Shapiro, 316 F.2d at 307.

\textsuperscript{9} Id.

\textsuperscript{10} Buck, 283 U.S. 191.

\textsuperscript{11} Gershwin, 443 F.2d at 1162 (holding talent agency that printed and sold programs of infringing musical works to be performed at concerts liable for the infringement by their musician clients).

\textsuperscript{12} Fonovisa v. Cherry Auction, 76 F.3d 259 (9th Cir. 1996) (finding the proprietors of a swap meet liable for the sale of pirated recordings by their vendors).

Act, the *Sony* Court drew on the "staple article of commerce" doctrine codified by Congress in patent law. This provision prevents patentees from extending their exclusive rights to control over the sale of articles that might be used to infringe a patent, but that also have other legitimate uses. Patent law protects free trade in such staple items by exempting them from contributory infringement liability. The *Sony* Court went on to create a parallel exemption for contributory copyright infringement: "[T]he sale of copying equipment, like the sale of other articles of commerce, *does not constitute contributory infringement* if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial noninfringing uses."

Applying this standard, the Court found Sony not liable for contributory liability. The Court concluded that the Betamax was capable of the fair use of time shifting (recording a program for later viewing), a noninfringing use.

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14. The case began in a California federal district court on allegations by two movie studios that because Sony's Betamax videocassette recorder could be used to tape movies and television programs, Sony was liable for contributory copyright infringement. See Universal City Studios, Inc. v. Sony Corp. of America, 480 F. Supp. 429 (C.D. Cal. 1979) [hereinafter *Sony I*].

15. *Sony*, 464 U.S. at 440; see also 35 U.S.C. § 271(c) (2000). The patent statute states:

> 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.


17. See 35 U.S.C. § 271(c). For instance, though a flashlight can be used in a patented process for exercising a cat with a beam of light, the patentee does not gain the sole right to control distribution of flashlights. See U.S. Patent No. 5,443,036 (issued Aug. 22, 1995). The Court adopted the staple article of commerce analysis from the district court's decision below. See *Sony I*, 480 F. Supp. at 461.

18. *Sony*, 464 U.S. at 442 (emphasis added). It remains a point of hot contention whether the *Sony* shield relies upon the "widely used for" standard of the first sentence or the "merely be capable of" language in the second.

19. Id. Though the Court initially stated that the suspect device must "be capable of commercially significant noninfringing uses," the opinion went on to assert that the adjudicator "need not explore all the different potential uses of the machine," but rather "co-
fringing use sufficient to satisfy the exemption from contributory liability even though the record showed that other, infringing uses of the Betamax were widespread.\textsuperscript{20} The analysis framed the secondary liability question entirely within the staple article of commerce doctrine, presenting the technical capability for noninfringing use as a complete shield against contributory liability.\textsuperscript{21} The machine’s purpose and the proportion of infringing use were not relevant; in fact, the Court explicitly overturned the Ninth Circuit’s ruling that Sony infringed because the record showed that the company sold video cassette recorders (VCRs) for the “primary purpose” of copying protected works and that “virtually all” of the recorded material was copyrighted.\textsuperscript{22}

The Sony decision is marked by a concern for technology policy and the Court’s reluctance to extend the copyright grant without congressional approval.\textsuperscript{23} The Court called upon the economic rationale for copyright in explaining that even where infringing use is possible or proven, holding the seller of a device with lawful uses liable for contributory infringement “would block the wheels of commerce.”\textsuperscript{24} The majority rejected the dissent’s arguments that copying technology had upset the balance in the traditional intellectual property bargain\textsuperscript{25} and that a better test would look to a technology’s purpose and the proportion of noninfringing uses.\textsuperscript{26} Noting the plaintiffs’ “fear that with any Betamax usage, invisible boundaries are

\textsuperscript{20} Id. at 428, 442. Infringing uses included accumulating libraries of tapes for repeat viewing. \textit{Id.} at 423.

\textsuperscript{21} \textit{Id.} at 442. Whether the Sony Court also intended the staple article of commerce rule to serve as a shield against vicarious liability is an open question, discussed \textit{infra} Part III.C.

\textsuperscript{22} \textit{Id.} at 428.

\textsuperscript{23} Noting that the lawsuit was an “unprecedented attempt to impose copyright liability” on technology makers, Justice Stevens wrote that finding such liability “would enlarge the scope of respondents’ statutory monopolies to encompass control over an article of commerce that is not the subject of copyright protection. Such an expansion of the copyright privilege is beyond the limits of the grants authorized by Congress.” \textit{Id.} at 421.

\textsuperscript{24} \textit{Id.} at 441 (citations and internal quotations omitted); \textit{see also} Andrew Bridges, \textit{Contributory Infringement Liability in Recent U.S. Peer-to-Peer Copyright Cases} 2 (July 2003), available at http://www.wsgr.com/common/wsgrpg.asp?sub=/library/index.asp&section=1.

\textsuperscript{25} \textit{See Sony}, 464 U.S. at 467 (Blackmun, J., dissenting).

\textsuperscript{26} \textit{Id.} at 491 (Blackmun, J., dissenting).
passed,” the Court arguably set a boundary, based on the staple article of commerce doctrine, to the ambit of copyright.

The Sony Court’s analysis did not separate contributory liability from vicarious liability, stating that the lines between the two were not clearly drawn. This conflation has posed problems for subsequent applications of the Sony rule, creating an unanswered riddle that remains at the center of current debates.

B. Application of Sony to Peer-to-Peer Technologies

Until recently, courts applied Sony doctrine to a variety of new technologies with little controversy. Applying Sony and other traditional copyright principles to P2P, however, has proven to be more contentious. The problem stems in part from the special nature of P2P, which provides a decentralized, user-driven distribution platform that eradicates an important mechanism in copyright enforcement: copying and distribution control.

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—such as a website, where many users visit a single location to use the resources stored there—a P2P network directly connects many individual computers without any centralized server. To join a P2P network, users download software that, when launched, locates and connects to other users online at the time via an underlying network protocol. This software searches for files the user

27. Id. at 451 (internal quotations marks omitted).
28. Id. at 435 n.17.
29. See, e.g., Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1079 (9th Cir. 1999) (holding that MP3 players enable the fair use of space shifting under Sony and thus do not infringe); Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., 964 F.2d 965, 970-71 (9th Cir. 1992) (holding no “authorization” liability for a device that enabled alteration of a copyrighted video game display); Vault Corp. v. Quaid Software, Ltd., 847 F.2d 255, 262 (5th Cir. 1988) (finding no contributory liability for a computer program that defeated anti-copying software).
wants on other network members’ computers, makes designated user files available to the network, and transfers files between users upon request.\textsuperscript{32} Not all P2P networks are completely decentralized. Designers consider trade-offs between the “purity” of decentralization and the performance advantages of centralized architecture.\textsuperscript{33} Increasingly, coders also consider legal liability in determining how many centralizing features to build into a P2P system.

The first P2P system to be accused of copyright infringement was Napster, which employed a mix of client-server and peer-to-peer architecture.\textsuperscript{34} The music files resided on peers—user’s computers—while a centralized server facilitated file searches and transfers by indexing the names and locations of files available to be shared. Leaving copyrighted files on individual users’ computers allowed Napster to escape liability for direct copyright infringement, which brought down the centralized music file server My.MP3.com.\textsuperscript{35}

Without a central site to sue for direct infringement, the recording industry plaintiffs turned to secondary liability, alleging that Napster committed contributory and vicarious infringement by enabling the unauthorized sharing of copyrighted music.\textsuperscript{36} The Ninth Circuit agreed, affirming the district court’s finding of liability on both counts.\textsuperscript{37} In reaching its decision, the court applied a limited interpretation of the \textit{Sony} rule, declining to interpret the “substantial noninfringing use” test as an absolute shield against secondary liability. Instead, the court applied the rule in a much

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\item 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 computer on the network is inefficient, and a network with no center lacks the community features that encourage users to share and abstain from antisocial 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 better the system performance (file location and transfer) and the easier it is to create a sense of network community. \textit{Id.} at 717, 722.
\item \textit{Id.} at 722.
\item See UMG Recordings, Inc. 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 files were only available to users who already owned copies of the music).
\item \textit{Napster}, 239 F.3d 1004. The court began by establishing that uploading and downloading copyrighted music files constitutes direct infringement, the first requirement for finding secondary liability. \textit{Id.} at 1013-14.
\end{enumerate}
more limited context, as a test for the knowledge prong of contributory liability.\textsuperscript{38} The court declared that \textit{Sony} forbade it to “impute the requisite level of knowledge to Napster merely because peer-to-peer file sharing technology may be used to infringe plaintiffs’ copyrights,” but asserted that “Napster’s actual, specific knowledge of direct infringement renders \textit{Sony}’s holding of limited assistance.”\textsuperscript{39}

The \textit{Napster} court essentially created a two-step \textit{Sony} analysis for contributory liability: (1) a defendant whose product is found to have substantial noninfringing uses will not be charged with \textit{constructive} knowledge of infringement arising from the technology’s design, but (2) the court may examine the record for evidence of defendant’s \textit{actual} knowledge arising from the defendant’s conduct. Under this standard, the court found that the Napster service did have substantial noninfringing uses, but also found actual knowledge of infringing conduct based on Napster’s centralized file index and the notices of infringement it had received from the plaintiffs.\textsuperscript{40} With the first prong of contributory infringement thus established, the court turned to the second: causation, inducement, or material involvement. Here the Ninth Circuit endorsed the district court’s application of the rule in \textit{Fonovisa} to find that Napster provided the “site and facilities” for infringement in the form of its “integrated service” for locating and downloading files, and thus had a concomitant duty to police the premises.\textsuperscript{41}

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38. \textit{Id.} at 1020-21.
39. \textit{Id.} Professor Goldstein has criticized this conflation of the \textit{Sony} rule: The substantial noninfringing use doctrine serves a purpose entirely separate from the knowledge requirement, and by subordinating it to the knowledge requirement, the \textit{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 and equipment.

2 \textsc{Paul Goldstein}, \textsc{Copyright § 6.1.2-1} (2d ed. 2004).
40. \textit{Napster}, 239 F.3d at 1020-22 (citing Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc., 907 F. Supp. 1361, 1371 (N.D. Cal. 1995), suggesting that “in an online context, evidence of actual knowledge of specific acts of infringement is required to hold a computer system operator liable for contributory copyright infringement”). The actual knowledge standard the court applied was in contrast to suggestions throughout the opinion that constructive knowledge suffices outside the online context. \textit{E.g.}, \textit{id.} at 1020 (“Contributory liability requires that the secondary infringer ‘know or have reason to know’ of direct infringement.”).
41. \textit{Id.} at 1022; \textit{see also} \textit{Fonovisa}, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 264 (9th Cir. 1996) (finding that swap meet proprietors provided the site and facilities for the sale of infringing recordings). A number of scholars have criticized the cyberspace-as-
The court next found Napster liable for vicarious copyright infringement. It did so without addressing Sony, asserting that the substantial non-infringing use rule applied only to contributory, not vicarious liability. Following Fonovisa and other precedent, the court found that Napster had the ability to supervise and control infringing conduct through its file index, and received financial benefit from the customer draw the infringing capability supplied.

As Napster and now Aimster have shown, the more centralized a P2P network, the more legal liability is likely to accrue to the network providers for users' copyright infringement, due to the knowledge, contribution, and control such centralization provides. Thus in Napster's wake, peer-to-peer coders designed systems they hoped would satisfy the Ninth Circuit and like-minded courts. These second-generation networks used decentralized networking protocols, such as temporary host caches of IP addresses on user "nodes"—select individual computers strategically located along the network that stored the information needed to make connections. System services supplied graphic interfaces to the network and monitored the number of users, but once the software was downloaded, the network exerted no control over its configuration or how customers used it, and collected no information regarding 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.

II. THE GROKSTER AND AIMSTER CASES

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

In Grokster, numerous recording industry plaintiffs sued peer-to-peer software distributors Grokster and StreamCast Networks (also known as Morpheus) for contributory and vicarious copyright infringement. The
district court granted Grokster's motion for summary judgment and StreamCast's motions for partial summary judgment as to contributory and vicarious infringement. The matter is currently on appeal.

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. The Grokster protocol FastTrack, on the other hand, 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 selected by the software according to network needs. Centralized servers maintain user registration and logins and help users find peers upon logging on, but do not track file traffic. FastTrack is not open source and charges a fee to access the network with other client applications; Grokster is one such subscriber.

Relying extensively on both Sony and Napster, the district court found that the Grokster defendants were not liable for either contributory or vicarious infringement. In assessing contributory infringement, the Grokster court followed Napster and applied the Sony rule only under the knowledge inquiry. The court found a number of current and potential future noninfringing uses for the defendants' software, then announced its interpretation of the knowledge rule in Napster: "[D]efendants are liable by the Australian company Sharman Networks and removed from the case by a default judgment. Id. at 1031 n.2.

47. Id. at 1046.
49. Wu, supra note 30, at 731-33.
50. Id. at 735.
51. Id.
52. Id. at 734-35. Morpheus was also a FastTrack customer before switching to StreamCast.
53. Grokster, 259 F. Supp. 2d at 1035-36. This conflation of the substantial noninfringing use standard and the knowledge requirement is discussed further infra Part III.A.
54. 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." Id.
55. "In order to be held liable for contributory infringement, the secondary infringer must know or have reason to know of the direct infringement. Evidence of actual knowledge of specific acts of infringement is required for contributory infringement liability."
for contributory infringement only if they (1) have specific knowledge of infringement at a time at which they contribute to the infringement, and (2) fail to act upon that information.\(^\text{56}\)

The court likewise followed Napster's material contribution rule, echoing the site and facilities test from Fonovisa. Analyzing knowledge and material contribution together, the court examined the technology in detail to distinguish Grokster's and StreamCast's products and services from Napster's in that the Grokster defendants provided no centralized file-sharing index and received no information regarding file transfers.\(^\text{57}\) Furthermore, the court found, that file sharing could continue unabated even if the defendants could in fact close the defendants' doors and deactivate their computers.\(^\text{58}\) As a result, the court concluded that no ongoing legal relationship existed between the software providers and their users.\(^\text{59}\)

As to vicarious infringement, the court found that the defendants did benefit financially from distribution of their products, but they did not have the requisite right or ability to supervise infringing conduct. Again evoking the Fonovisa swap meet, the court found that without the centralized search index and mandatory registration at issue in Napster, the defendants could not control access to or patrol the premises its software created, and thus could not be held vicariously liable for copyright infringement that took place there.\(^\text{60}\) The court did not apply Sony in its analysis of this claim, nor did it state whether Sony provides a vicarious liability defense.

\(^{56}\) Id. at 1035 (citing A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1020 (9th Cir. 2001)).

56. Id. at 1036 (citing Napster, 239 F.3d at 1021).

57. Id. at 1041.

58. Id.

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.

59. Id. at 1043. "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," and "[a]bsent evidence of active and substantial contribution to the infringement itself, Defendants cannot be liable." Id.

60. Id. at 1045.
The *Grokster* court concluded with a call for legislative guidance on permissible designs for software susceptible to unlawful use. Meanwhile, like the *Sony* Court, the *Grokster* court specifically declined to "expand existing copyright law beyond its well-drawn boundaries."

**B. In re Aimster Copyright Litigation**

In *Aimster*, the Seventh Circuit upheld an injunction issued by the district court against the defendant Johnny Deep and his companies (including Aimster), concluding that the service was likely to be found liable for contributory infringement. In doing so, the court destabilized a good deal more of existing *Sony* and *Napster* doctrine than did *Grokster*.

The software at issue in *Aimster* is significantly different from the systems in *Grokster*. Aimster operated on the client-server platform provided by America Online (AOL), creating a "network" by connecting to AOL’s Instant Messaging service ("AOL IM," the "AIM" from which Aimster took its name). AOL IM connects users across AOL servers to send messages and files in real time. Each user downloads IM software to her own computer, which then locates other users she has designated as "buddies" when they’re online, and provides the connection for instant messaging and file transfers. The AOL IM software also allows users to designate files on their hard drives to make available for transfer to any buddy who asks.

Over this platform, Aimster’s software used the client-server connections provided by AOL IM to search the shared files of all Aimster users for matches to the user’s request. Upon locating the file, the software sent an encrypted e-mail to the requester with the requested file attached, again over the AOL IM connection. Aimster also offered a feature called Club Aimster, which enabled subscribers to download the network’s most shared songs for a small monthly fee. A paying club member needed only

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61. *Id.* at 1046 ("While the Court need not decide whether steps could be taken to reduce the susceptibility of such software to unlawful use, assuming such steps could be taken, additional legislative guidance may be well-counseled.").

62. *Id.*

63. *Aimster*, 334 F.3d 643 (7th Cir. 2003).

64. AOL has no relationship with Aimster and was not party to the lawsuit. *Aimster I*, 252 F. Supp. 2d 634, 656 (N.D. Ill. 2003).

65. *Id.* at 642. Aimster changed its name to Madster following legal pressure from America Online regarding use of the AIM moniker.

66. *Id.* at 640.

67. *Id.* at 642-43.
to visit Aimster’s website, view the “Aimster Top 40” list, and click on a title to initiate a search of the network to locate and transmit the file.\textsuperscript{68}

In essence, Aimster added three features to the existing AOL architecture: (1) encryption, which protected the anonymity of users and what they transferred,\textsuperscript{69} (2) the capability to search and transfer files between all other Aimster users (not just designated buddies),\textsuperscript{70} and (3) Club Aimster, which as a centralized file index potentially similar to Napster’s (albeit much smaller) may set Aimster apart from the Grokster and StreamCast systems.\textsuperscript{71} As with other P2P systems, the Aimster network did not centralize files, which remained on users’ computers in their shared directories.

The Seventh Circuit’s analysis of Aimster’s secondary liability relied less on the structure of the software than Aimster’s failure to show any noninfringing uses for it. Finding no evidence of noninfringing use in the record,\textsuperscript{72} the court concluded that Aimster had failed to meet its burden of production and therefore was not entitled to invoke the \textit{Sony} defense.\textsuperscript{73} The court accordingly found Aimster liable for contributory infringement under the traditional analysis. In a spin on the material contribution prong, Judge Posner called contributory infringement the (civil) counterpart to criminal aiding and abetting, and found that Aimster’s software tutorial aided and abetted infringing use because it listed only copyrighted songs in its examples: “The tutorial is the invitation to infringement that the Su-

\begin{itemize}
\item \textsuperscript{68} \textit{Id.} at 644-45.
\item \textsuperscript{69} While users can create and search personal profiles detailing their interests or the names of their files available for sharing, the Aimster software encrypts user identities and all information transferred over the network. \textit{Id.} at 641.
\item \textsuperscript{70} \textit{Id.} at 640-41. It appears that users can conduct the very same infringing file transfers with AOL IM that they can with Aimster; the advantages of the Aimster system are anonymity and the ability to connect with people the user does not personally know, thus yielding a larger pool of available files. \textit{See id.} at 640, 656.
\item \textsuperscript{71} The district court declined to rule on this issue, citing insufficient evidence and stating that its decision rested on other grounds. \textit{Id.} at 642 n.6.
\item \textsuperscript{72} The court, however, proposed five such potential uses of its own accord, perhaps providing a legal roadmap for future P2P providers: 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. \textit{Aimster}, 334 F.3d 643, 652 (7th Cir. 2003). Judge Posner suggested that peer-to-peer technology might enable this last proposition because it obviates the need for intermediary copying. \textit{Id.} at 652-53.
\item \textsuperscript{73} Whether \textit{Sony} represents a defense or plays some other procedural role in assessing secondary liability is further addressed \textit{infra} Part III.A.
\end{itemize}
The court likewise found material contribution (or aiding and abetting) in Club Aimster. The songs listed in the Aimster Top 40 were invariably copyrighted, making each click on the Club Aimster list a quick step to infringement; as an expert testified before the district court, Club Aimster “takes the search out of searching.” Judge Posner also pointed to the monthly fee for Club Aimster as further evidence of liability, though he did not specify the legal theory behind this point. He simply noted that since the club fee was Aimster’s sole revenue source, Club Aimster (and the alleged infringing conduct there) could not be separated from the overall system—assuming, perhaps, that without the ability to charge subscribers for Club Aimster, the service as a whole would cease to operate.

The court also found that Aimster’s activities satisfied the knowledge prong by applying a “willful blindness” test. Though the encryption of transfers prevented actual knowledge, Judge Posner concluded that Aimster 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.

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

P2P technology appears to mark a point of divergence in the application of Sony doctrine to new technologies and fact patterns. Indeed, "Grok-
ster and Aimster represent two apparently irreconcilable outcomes—and if the Ninth Circuit affirms Grokster, a circuit split is unavoidable. The following discussion tracks the Sony doctrine through Napster, Grokster, and Aimster, as well as 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. Fundamentally, the issue is to what degree producers of technology products or systems should be found secondarily liable 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 use 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 under each rule. The table also presents current proposals from technologists, the content industries, and public interest groups for developing the rules in the future.

79. 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 criti-
cized as arbitrary.").
TABLE 1: Current and Proposed Rules for Secondary Copyright Infringement Liability

<table>
<thead>
<tr>
<th>Rule/Test</th>
<th>Substantial noninfringing use(s)</th>
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</thead>
<tbody>
<tr>
<td><strong>Sony</strong></td>
<td>Sale of staple articles of commerce capable of substantial noninfringing uses “does not constitute contributory infringement.” Result: Not liable, use was private, noncommercial time-shifting.</td>
</tr>
<tr>
<td><strong>Napster</strong></td>
<td><strong>Substantial noninfringing use</strong> invokes the <strong>Sony</strong> defense on the knowledge prong of contributory liability but is not an absolute shield. Result: Liable. Issue was not the technology’s structure, but rather Napster’s conduct. The <strong>Sony</strong> defense thus did not apply.</td>
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<tr>
<td><strong>Grokster</strong></td>
<td><strong>Substantial noninfringing use, current or future,</strong> merits the <strong>Sony</strong> defense; follows <strong>Napster</strong> in deploying the test under the knowledge prong of contributory liability. Result: Not liable.</td>
</tr>
<tr>
<td><strong>Aimster</strong></td>
<td>A balancing test is required. Where noninfringing uses are possible, the court must weigh whether “the detection and prevention of the infringing uses would be highly burdensome.” Result: Liable. Burden was on defendant to show substantial noninfringing uses, and Aimster failed to do so.</td>
</tr>
<tr>
<td><strong>Proposed</strong></td>
<td>Technologists: <strong>Sony</strong> doctrine represents congressional intent and fulfills the constitutional mandate$^{80}$ and precludes consideration of a technology’s purpose, its producer’s intent, or the proportion of noninfringing uses.$^{81}$ Copyright holders: The <strong>Sony</strong> rule does not apply to P2P because (1) defendants have knowledge of infringing conduct, and (2) P2P is not a staple article with substantial noninfringing uses.$^{82}$ Courts should look to (1) intent, (2) primary actual use, and (3) defendant’s ability to prevent infringing conduct.$^{83}$ The burden is on defendants to show the extent of noninfringing uses.$^{84}$</td>
</tr>
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80. See Appellee StreamCast Networks, Inc.’s Opening Brief, Metro-Goldwyn-Mayer v. Grokster, Ltd., 259 F. Supp. 2d 1029 (C.D. Cal. 2003) (Nos. 03-55894 & 03-55901) [hereinafter StreamCast Brief]; Brief of Amici Curiae of 40 Intellectual Property and Technology Law Professors, Grokster (Nos. 03-55894 & 03-55901) [hereinafter Professors’ Brief]; Brief of Amici Curiae American Civil Liberties Union et al., Grokster (Nos. 03-55894 & 03-55901) [hereinafter ACLU Brief]; Bridges, supra note 24.

81. StreamCast Brief, supra note 80, at 24.

82. Brief in Support of Reversal by Amici Curiae Law Professors and Treatise Authors Neil Boorstyn et al. at 20-24, Grokster (Nos. 03-55894 & 03-55901) [hereinafter Boorstyn Brief] (noting the ongoing relationship and calling for a three-part test for **Sony** immunity); Lieber Plaintiffs-Appellants’ Revised Reply Brief at 2-3, 12-14, Grokster (Nos. 03-55894 & 03-55901) [hereinafter Lieber Brief] (calling evocation of the **Sony** shield for any non-infringing use an “extreme interpretation” that “would eviscerate the doctrine of contributory liability”; asserting that **Napster** made clear that “the **Sony-Betamax** defense does not apply if defendants have actual knowledge of the infringe-
Contributory Liability

<table>
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<tr>
<th>Rule/Test</th>
<th>(1) Knowledge</th>
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<tbody>
<tr>
<td>Sony</td>
<td>Rejected constructive knowledge of infringement as basis for secondary liability. Result: Not liable. No actual knowledge even though copying was “the most conspicuous” or “the major” use of the product.</td>
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<tr>
<td>Napster</td>
<td>Required actual knowledge—(1) specific knowledge at time of the infringement, and (2) failure to act upon that knowledge. Result: Liable. Napster’s centralized file index satisfied the knowledge test and rendered the Sony rule irrelevant.</td>
</tr>
<tr>
<td>Grokster</td>
<td>Required actual knowledge of specific infringement when defendant materially contributed to and could prevent such infringement (echoing Napster test). Result: Not liable. Network’s structure did not provide actual, specific knowledge.</td>
</tr>
<tr>
<td>Aimster</td>
<td>Rejected Napster’s holding that actual knowledge establishes secondary liability. Still, willful blindness is knowledge. Result: Liable. Encryption designed to shield Aimster from infringing activity did not also shield it from liability.</td>
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</table>

ments taking place”; and proposing that defendants do not purvey staple articles of commerce but rather instructions for creating specialized piracy networks, generating ongoing revenues and thus constituting a relationship); MGM Plaintiffs-Appellants’ Opening Brief at 24, 39-40, Grokster (Nos. 03-55894 & 03-55901) [hereinafter MGM Brief] (citing Napster’s reasoning that actual knowledge of infringement eliminates Sony immunity, and distinguishing the ongoing relationship created by defendants’ networks from the one-time sale of a Betamax). Plaintiffs also contend that the policy concerns for technological innovation present in Sony are absent here because a finding of liability would not make P2P technology illegal, but merely its infringing uses. MGM Brief, supra, at 43.

83. Boorstyn Brief, supra note 82, at 21-24. Plaintiffs’ amici in the Grokster case contend defendants fail all three parts of this test. Id.

84. Lieber Brief, supra note 82, at 15. This assessment should address magnitude, substantiality, and commercial significance, id., and mere capability does not suffice. Id. at 17 (“To accept that contention effectively reads the word “substantial” out of the Sony-Betamax defense . . . . Such a radical view simply cannot be reconciled with the plain language of Sony-Betamax.”).
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<th>Rule/Test</th>
<th>(2) Material involvement/control</th>
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| **Sony**  | **Required control and authorization** of infringing conduct to impose liability.  
             Result: Not liable because the only contact between Sony and users was at the moment of sale. |
| **Napster** | **Site and facilities** test from *Fonovisa*.  
              Result: Liable. Napster’s integrated service provided site and facilities for infringement; duty to police. |
| **Grokster** | **A close-the-doors** test for providing the site and facilities.  
                 Result: Not liable. Users could continue to infringe after defendants ceased operations. |
| **Aimster** | **Aiding and abetting** test borrowed from criminal law.  
                 Result: Liable. Software tutorial and Club Aimster encouraged the downloading of copyrighted songs—an “invitation to infringement.” |
Proposed

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<tr>
<td>Technologists:</td>
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<tr>
<td><strong>General knowledge</strong> (actual or constructive) is <strong>not enough</strong> where the <em>Sony</em> rule applies.(^8^5)</td>
</tr>
<tr>
<td>Liability should not rely on subsequent relationship between producer and user; &quot;[t]he character of the product itself should be the touchstone.&quot;(^8^6)</td>
</tr>
<tr>
<td>Copyright holders:</td>
</tr>
<tr>
<td>Follow <em>Napster</em> with a <strong>conduct-based</strong> test.(^8^7) Reject need for actual knowledge of specific infringement when able to prevent it; <strong>constructive knowledge</strong> is enough,(^8^8) and to require more would encourage <strong>willful blindness</strong> and failure to design the product to monitor users.(^8^9)</td>
</tr>
<tr>
<td>Intent to induce infringement implies actual knowledge.(^9^0)</td>
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85. StreamCast Brief, supra note 80, at 27. A general knowledge requirement would render Sony, Xerox, and CD burner manufacturers liable for infringements by their equipment. *Id.* at 28.

86. Bridges, supra note 24, at 7; *see also* StreamCast Brief, supra note 80, at 42-46.

87. "Regardless of the ways in which Defendants have tinkered with their peer-to-peer technology, their **conduct** has remained the same. The networks of infringing users that Defendants created would not exist and grow without Defendants’ myriad contributions.” MGM Brief, *supra* note 82, at 23.

88. Boorstyn Brief, *supra* note 82, at 13-15, 18; MGM Brief, *supra* note 82, at 23, 32-33 (citing cases in which general knowledge sufficed to establish contributory liability, and asserting that the specific knowledge and ability to prevent requirement improperly imports the control prong of vicarious liability into contributory liability). Defendants distinguish the cases the plaintiffs cite as not involving secondary liability to technology producers, or as turning on technology specifically designed for piracy. StreamCast Brief, *supra* note 80, at 30.

89. Boorstyn Brief, *supra* note 82, at 14-15; Lieber Brief, *supra* note 82, at 7-8. Defendants’ alleged efforts to encourage infringement while avoiding knowledge include using blurred titles of infringing works in marketing materials, avoiding use of a centralized file index, and encrypting communications. Lieber Brief, *supra* note 82, at 7-9. Plaintiffs contend that defendants’ changes to their services to prevent future knowledge also evidence willful blindness. *Id.* at 9-10. The plaintiffs’ amici forcefully reject the *Grokster* court’s interpretation of *Napster*’s knowledge requirement (actual knowledge of specific infringements at a time defendants can stop them), averring that this is not the law and such a requirement would obliterate secondary liability online, where transactions are instant. Boorstyn Brief, *supra* note 82, at 15-19.

90. Lieber Brief, *supra* note 82, at 7 (asserting that evidence that the defendants sought to emulate *Napster* “is directly relevant to MusicCity’s and Grokster’s actual knowledge—which is dispositive of their *Sony-Betamax* defense—because it shows they acted with *intent* to induce infringement”). Even as plaintiffs propose that intent constitutes knowledge, their amici assert that intent is not necessary to find liability, as copyright is a strict liability regime. Boorstyn Brief, *supra* note 82, at 9.
Vicarious Liability

| Rule/Test | (1) Right and ability to supervise infringing conduct  
(2) Direct financial interest in infringing conduct |
|---|---|
| **Sony** | Notes that “the lines between direct infringement and vicarious liability are not clearly drawn” and that the plaintiffs made no vicarious liability claim.  
Result: Addressed contributory infringement only and found Sony not liable. |
| **Napster** | Sony doctrine does not shield against vicarious liability.  
Result: Liable. Napster satisfied both prongs of the test. |
| **Grokster** | Implicitly echoes Napster: no Sony shield against vicarious liability.  
Result: Not liable. Though Grokster and StreamCast derived financial benefit from infringement, they did not have the right and ability to supervise infringing conduct. |
| **Aimster** | 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. |
| **Proposed** | Technologists:  
Sony provides a shield against contributory and vicarious liability, affirmed by Congress in the DMCA’s general safe harbor against all secondary liability.  
The duty to police extends only to premises as defined by current architecture.  
The duty to modify design is only prospective after vicarious liability is established.  
Copyright holders:  
The Sony defense does not apply.  
Right and ability to control is enough to establish liability, regardless of provider’s choice to exercise such control; contemporaneous control is not |

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91. Professors’ Brief, supra note 80, at 5 n.5.
92. StreamCast Brief, supra note 80, at 42. StreamCast argues that because it has no ongoing contractual or practical relationship with users, it has no such duty to police. Id. at 42-43 (distinguishing the case from Napster and Fonovisa).
93. Id. at 47. To require infringement-preventing software design would be to radically increase the scope of vicarious liability and chill technological innovation. Id. at 20-21, 47. Furthermore, Sony rejected a design requirement in favor of the noninfringing use standard, which was reiterated by Napster’s limitation of liability to a system’s current architecture. Id. at 47-48.
94. Boorstyn Brief, supra note 82, at 19-20 nn.8-9; Lieber Brief, supra note 82, at 18 n.56; MGM Brief, supra note 82, at 53.
95. Lieber Brief, supra note 82, at 18-19; MGM Brief, supra note 82, at 62-63. Defendants have the contractual right to ban users and/or block infringing content via their terms of service, as well as the practical ability to do so. MGM Brief, supra note 82, at 57. Features of a previous version of the software can evidence such right and ability even if absent in the disputed version. Id. at 62-63.
Technologists must control infringing use to the fullest practical extent.\footnote{\textsuperscript{96}}

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A. \textit{Sony}: Substantial Noninfringing Use & \\
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\textit{Sony} presents a fairly liberal standard for technology producers, which the Court explicitly crafted to maintain the constitutional limits on copyright exclusivity: A technology’s capability for any substantial noninfringing use serves to shield its providers from contributory liability, without regard to the technology’s purpose or the proportion of actual infringing use. However, the four justices who dissented in \textit{Sony} questioned whether this patent-derived principle provided an appropriate standard for copyright liability.\footnote{\textsuperscript{98}} The dissent expressed concern that the ability of an imaginative producer to demonstrate noninfringing uses “essentially eviscerates the concept of contributory infringement.”\footnote{\textsuperscript{99}}

This doctrinal split has become central to current debates about what role the noninfringing use inquiry should play in assessing secondary copyright infringement. \textit{Napster} and \textit{Grokster} closely followed \textit{Sony}’s refusal to examine the ratio between infringing and noninfringing uses. The \textit{Napster} court noted that a single noninfringing use activated the \textit{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. Whether \textit{Sony} governs not only technology but conduct—services as well as products—is difficult to discern from existing precedent. Indeed, whether \textit{Sony} should control in an era where ongoing communication over the Internet turns many software “products” into services, conduct, and relationships is the question at hand.

The \textit{Grokster} court followed \textit{Napster} in finding substantial noninfringing use for Grokster and StreamCast software, but nonetheless proceeded to evaluate the defendants’ conduct under contributory and vicarious li-

\footnote{\textsuperscript{96}} Lieber Brief, \textit{supra} note 82, at 24-25. Defendants’ ability to filter or block infringing files creates a duty to police. \textit{Id.} at 25, 58-60.

\footnote{\textsuperscript{97}} Boorstyn Brief, \textit{supra} note 82, at 27-28 (proposing that such means for Internet technologies include filtering and blocking).

\footnote{\textsuperscript{98}} \textit{Sony}, 464 U.S. 417, 491 (1984) (Blackmun, J., dissenting). As Justice Blackmun stated, “I do not agree that this technical judge-made doctrine of patent law, based in part on considerations irrelevant to the field of copyright law, should be imported wholesale into copyright law.” \textit{Id.} (Blackmun, J., dissenting). Justice Blackmun appears to believe that Congress’ codification of the doctrine in the Patent Act does not render it less “technical” or “judge-made.”

\footnote{\textsuperscript{99}} \textit{Id.} at 498 (Blackmun, J., dissenting).
ability analyses. The court did not predicate this second step analysis on "conduct" by the defendants, but did exert considerable effort in explaining that while the products' architecture enabled an ongoing relationship, it was at arm's length, with no information exchange between providers and users. Furthermore, the architecture also allowed the service to shut down without impairing on product use. One reading of this analysis is that Grokster and StreamCast escaped liability by being like the Betamax: For legal purposes, the relationship ended upon download of the software as Sony found it did with sale of the VCR. Thus perhaps the Grokster software, unlike Napster's, fell within the Sony rule because the programs were articles of commerce, unburdened by a continuing legal relationship.

Judge Posner's treatment of Sony departed from previous case law in both procedure and substance. First, and fatally to Aimster, he proposed that the burden to show substantial noninfringing uses falls on the defendant. This allocation of the burden is not articulated in Sony. Indeed, the Sony decision suggests that it is the plaintiff's burden to show that there is no noninfringing use. Applying such reasoning may, as a procedural matter, have precluded Judge Posner from affirming the injunction against Aimster without a trial on the merits.

Perhaps the most notable aspect of the Aimster decision was Judge Posner's call, in extensive dicta, for an entirely new version of the Sony rule. 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 in-

100. The Grokster court pointed out that the substantial noninfringing use question "turns not only on the product's current uses, but also on potential future noninfringing uses," thus explicitly applying the Sony Court's pronouncement on this principle to the P2P context. Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 259 F. Supp. 2d 1029, 1035 (C.D. Cal. 2003).


102. [R]espondents failed to demonstrate that time-shifting would cause any likelihood of nonminimal harm to the potential market for, 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.

Sony, 464 U.S. at 456; see also Bridges, supra note 24, 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).

103. Judge Posner did not think so. He concluded that "[b]ecause Aimster failed to show that its service is ever used for any purpose other than to infringe the plaintiffs' copyrights," there was no need to balance the harms in deciding to issue the injunction. Aimster, 334 F.3d at 652-53.
fringing," Judge 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." Judge Posner proceeded to propose a balancing test that focuses on infringing use and the cost of reducing it: "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." To posit immunity on the mere capability of noninfringing use, the court argued, was to prevent liability for a seller of a product or service used solely to facilitate copyright infringement, and "such an extreme result" was "not envisaged by the Sony majority." 

It is not clear whether Aimster calls for technology producers to anticipate infringing use and engineer around it in advance, or for service providers to police their premises as required in Napster. Since the court did not apply the proposed rule to reach its decision, that question awaits adjudication. What is clear is that in the Seventh Circuit, improbable noninfringing uses do not satisfy the Sony rule, a departure from the "current or future use" test set forth in Sony and Grokster.

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 ser-

104. Id. at 647.

105. In this discussion, Judge Posner asserted that the Ninth Circuit erred in Napster "in suggesting that actual knowledge of specific infringing uses is a sufficient condition for deeming a facilitator a contributory infringer." Id. at 649 (agreeing with GOLDSTEIN, supra note 39). Presumably Judge Posner was aware of Napster's analysis of the material contribution prong, and meant to suggest that a more specific knowledge standard should apply along with the contribution requirement. See A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1022 (9th Cir. 2001). The court did not elaborate on the proper knowledge standard or further requirements for finding contributory infringement. Judge Posner's statement on this point represented an about-face from the Aimster 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." Aimster I, 252 F. Supp. 2d 634, 651 (N.D. Ill. 2003).

106. Aimster, 334 F.3d at 653. The court agreed with the record industry briefs that "the ability of a service provider to prevent its customers from infringing is a factor to be considered in determining whether the provider is a contributory infringer." Id. at 648.

107. Id. at 650.

108. See id. at 653 ("It is not enough . . . that a product be physically capable, as it were, of a noninfringing use.").
The two sides are well illustrated by the Grokster briefs. While technologists seek to preserve Sony’s broad ruling and, as the Grokster court did, apply it to all new technologies including P2P,109 copyright holders argue that the Sony court could not have foreseen the challenges of digital media in general and P2P technology in particular.110 Like Judge Posner in Aimster, they call for further elaboration of the test that may place affirmative duties on technology providers to prevent infringement by users.111

Technology proponents argue that the Sony doctrine fulfills a constitutional mandate and congressional intent. The substantial noninfringing use test prevents copyright owners from asserting control over goods and services not eligible for copyright protection, as required by the Constitution.112 Congress has also implicitly blessed substantial noninfringing use doctrine through two decades of inaction. According to this argument, the substantial noninfringing use standard trumps the traditional tests for secondary liability.113 Courts should look only for the technical capability for noninfringing use, leaving aside any consideration of the purpose of a product or service, the intent of its provider,114 or the proportion of in-

110. See supra notes 80-81.
111. See supra notes 82-83.
112. See id.
113. See U. S. CONST. art. I, § 8, cl. 8 (granting limited monopolies “to Promote the Progress of Science and useful Arts”); Professors’ Brief, supra note 80, 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 the evolving doctrine of copyright misuse, which limits the power of copyright owners to obtain an unjustified monopoly over technologies.”).
114. As one brief urging affirmance of the Grokster district court’s decision stated, “[t]o 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.” Professors’ Brief, supra note 80, at 13 (citing GOLDSTEIN, supra note 39, § 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 secondary liability to the Sony rule.
115. See Sony, 464 U.S. 417, 441 (1984); Bridges, supra note 24, at 7. Patent law does assign liability where a product is “especially adapted” for infringing use, but the test of such special adaptation is the substantial noninfringing use capability. 35 U.S.C. § 271(c) (2000).
fringing to noninfringing uses.\textsuperscript{116} In support of this contention, technologists note that providers of, for instance, e-mail and web browsing software could design their products to prevent infringing conduct, but the courts have never required them to do so.\textsuperscript{117}

Librarians and archivists have also joined with civil liberties groups to urge that P2P’s ability to promote information exchange and free speech not be abridged. One major Internet-based archive of public domain material already uses P2P to store and distribute materials, and libraries laud the significant cost savings and bandwidth efficiency P2P can provide.\textsuperscript{118}

Copyright holders, on the other hand, have proposed a number of alterations to the \textit{Sony} rule, claiming that the rule is in essence a technological loophole that allows coders to design products that “skirt responsibility for causing infringement” and thus defeat the purpose of secondary liability.\textsuperscript{119} These alternations include a “no infringing use” standard, evaluation of a technology’s primary use, and analysis of the producer’s intended use for the technology.\textsuperscript{120}

The no infringing use standard would require technology producers to take all possible steps to prevent infringement by users.\textsuperscript{121} Such a requirement would be unprecedented in copyright law, and seemed unnecessary the last time Congress overhauled the Act, as evidenced by testimony from the Copyright Office at that time pertaining to the VCR:

\begin{quote}
[S]ooner or later there is going to be a crunch here. But that is not what this legislation is addressed to, and I do not see the crunch coming in the immediate future . . . . I do not see anybody
\end{quote}

\textsuperscript{116} StreamCast Brief, \textit{supra} note 80, at 24. Advantages of such a rule include its amenability to summary judgment and settled expectations for technology developers. \textit{Id.} The \textit{Sony} Court reversed the Ninth Circuit in refusing to consider the proportion of infringing to noninfringing use, an approach followed in \textit{Napster}. \textit{Id.} at 24-25.

\textsuperscript{117} \textit{Id.} at 14, 38.

\textsuperscript{118} ACLU Brief, \textit{supra} note 80, at 10-11 (describing the Internet Archive and Gutenberg Project).

\textsuperscript{119} Boorstyn Brief, \textit{supra} note 82, at 2-3, 9-11. Amici for the \textit{Grokster} appellants assert that “[b]y misjudging the elements of contributory and vicarious liability, [the \textit{Grokster} court] has created a gaping technological loophole that jeopardizes the ability of long-standing copyright principles to redress viral infringement online.” \textit{Id.} at 3.

\textsuperscript{120} See \textit{supra} note 83.

\textsuperscript{121} \textit{Id.} 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 \textit{Sony} Court. Bridges, \textit{supra} note 24, at 10.
forcing legislation that would engineer a piece of equipment not to allow home taping.\textsuperscript{122}

However, the crunch has arguably arrived, and some believe that such engineering laws are the best solution.

Another proposed approach would require that the product’s primary use be noninfringing to avoid liability to producers.\textsuperscript{123} This fact-finding approach has been criticized 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.\textsuperscript{124} A primary use standard also 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.\textsuperscript{125} 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 the 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.

The final (and arguably most extreme) approach the content industries advocate is the intent test, which would examine whether the technology producer intended for users to infringe copyright with the product. Critics

\begin{footnotesize}
\begin{enumerate}
\item\textsuperscript{122} \textit{Sony}, 464 U.S. 417, 471 (1984) (citing \textit{Hearings on S. 646 and H.R. 6927 before Subcomm. No. 3 of the House Comm. on the Judiciary, 92d Cong. 22-23 (1971)).
\item\textsuperscript{123} GOLDSTEIN, supra note 39, § 6.1.2. As Goldstein writes: [S]o long as the fundamental requirements of knowledge and concert of action are met, contributory infringement should be found any time the materials or equipment in issue have a substantial \textit{infringing} use in copying the plaintiffs’ work. The reason, simply, is that, to the extent that materials and equipment have a substantial noninfringing use, consumers will be willing to pay a price for them that reflects their value in copying the plaintiffs’ work.
\item\textsuperscript{124} Professors’ Brief, supra note 80, at 7-8 (“Uses of a technology may evolve significantly over time . . . . Peer-to-peer technologies, which promise numerous benefits, 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.”); Bridges, supra note 24, at 10.
\item\textsuperscript{125} \textit{See Sony}, 464 U.S. at 428.
\end{enumerate}
\end{footnotesize}
point to the difficulty of identifying intent, especially where the intent must lie with a corporation, and to the 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. Furthermore, this test may beg the question of what constitutes infringing use of a technology.

These three proposed tests contravene the plain language of the *Sony* holding, in which the Court seemed to require only “one” “potential” non-infringing use of the Betamax to find it eligible for the liability shield. Nonetheless, the Court went on to note that the primary purpose of the Betamax for “most owners” was time-shifting. The Court found this activity to be a fair use that served First Amendment values, leaving open the question of whether the Court actually applied the rule it announced. *Sony* is rife with explanations of how home taping with the Betamax failed to harm the content owners’ interest and furthered the public good, perhaps suggesting that the finding of fair use overshadowed the substantial noninfringing use standard in shaping the Court’s decision.

Another concern regarding the copyright holders’ proposed tests is judicial efficiency. Such evaluations 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. While *Sony* required a five-week district court trial before ascending the chain of ap-

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126. Professors’ Brief, supra note 80, at 15-16; Bridges, supra note 24, at 10. This echoes the test Justice Blackmun proposed in his *Sony* dissent: “[I]f a significant portion of the product’s use is noninfringing, the manufacturers and sellers cannot be held contributorily liable for the product’s uses,” but “if no one would buy the product for noninfringing purposes alone, it is clear that the manufacturer is purposely profiting from the infringement, and that liability is appropriately imposed.” 464 U.S. at 491 (Blackmun, J., dissenting). One might question the presumption that either a majority of a product’s use would be noninfringing or it would have no takers for noninfringing use alone, and wonder how such a complex measure could be calibrated.


128. Fair use doctrine, ambiguous provisions of the copyright law pertaining to digital technology, and uncertainty regarding what constitutes distribution over the Internet can make it difficult to define infringing use in the first instance.

129. See *Sony*, 464 U.S. at 442 (stating “[o]ne potential use of the Betamax clearly satisfies this standard” of commercially significant infringing use).

130. Id. at 454-55.

131. See id.

132. Id. at 443-56.
peals to the Supreme Court, the court decided Grokster on a motion for summary judgment by applying the Sony rule.\footnote{133} 

B. Contributory Liability 

One point on which courts interpreting Sony in the P2P context seem to agree is that the Sony rule does not provide an absolute shield against contributory liability, but does eliminate constructive knowledge as a basis for that liability. None of the P2P courts has made the basis for this interpretation explicit, leaving open the question of precisely how to proceed with the knowledge analysis where substantial noninfringing uses are present, as discussed in Part III.A.

Application of the material contribution prong of contributory infringement has also proven difficult in the P2P context. Because P2P providers 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, by simply selling VCRs, could not. The Sony Court noted that lower court cases had only applied contributory infringement to “cases involving an ongoing relationship between the direct infringer and the contributory infringer at the time the infringing conduct occurred,” and that this relationship provided the lynchpin of control and authorization required for liability.\footnote{134} Noting that “[t]he only contact between Sony and the users of the Betamax disclosed by this record occurred at the moment of sale,” the Court found no such relationship between Sony and its customers.\footnote{135}

Peer-to-peer networks arguably create the relationship absent in Sony. Certain behaviors within that relationship appear to establish liability: compiling information regarding infringing content, creating features that aid and speed infringement, and collecting monthly fees.\footnote{136} P2P developers can design around these pitfalls, as represented by the second-
generation systems defended in Grokster. Under its close-the-doors test, the Grokster 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.\textsuperscript{137} 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 by stating 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.\textsuperscript{138} Thus under current law, P2P providers may maintain relationships with users within certain bounds without contributing to copyright infringement.

The question is whether those bounds are now established or still in the making. Could distribution of pop-up ads to users or utilization of their computing resources via the P2P network constitute an impermissible relationship because such measures generate revenue to the provider?\textsuperscript{139} 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."\textsuperscript{140} However, the instant cases suggest that a relationship analysis is inevitable when the product at hand is an Internet-based network.

C. Vicarious Liability

The role of vicarious liability in secondary copyright infringement claims against technologists remains a subject of debate. Though the Sony Court acknowledged both contributory and vicarious liability, its analysis seems to conflate the two.\textsuperscript{141} As a result, it is unclear whether the Court


\textsuperscript{138} Id. at 1043.

\textsuperscript{139} KaZaA, which as of 2002 derived 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, \textit{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.

\textsuperscript{140} Bridges, \textit{supra} note 24, at 7.

\textsuperscript{141} See Sony, 464 U.S. 417, 434-35 (1984) (noting that "the lines between direct infringement, contributory infringement, and vicarious liability are not clearly drawn"); \textit{see also} Aimster, 334 F.3d at 654; Professors' Brief, \textit{supra} note 80, at 2-3 n.2. Even the dissent in Sony noted that "[t]he doctrine of contributory copyright infringement . . . is not well defined," causing the district court and Ninth Circuit to reach opposite results in
intended the substantial noninfringing use rule to apply to both types of liability or solely to contributory infringement, which was the only claim raised by the Sony appellants. There is good reason, however, to believe that the Court intended to apply a unified theory of secondary liability. Noting that "vicarious liability is imposed in virtually all areas of the law," the Court continued that "the concept of contributory infringement is merely a species of a broader problem of identifying the circumstances in which it is just to hold one individual accountable for the actions of another." 142

The Napster court asserted that the Sony shield did not reach vicarious liability, but did not provide any particular rationale for its interpretation. 143 As a result, technology providers could be liable for vicarious infringement even where substantial noninfringing uses shield them from a contributory infringement claim. This dual inquiry is particularly troubling in predicting outcomes for Internet technologies, where providers may have certain rights and abilities to supervise conduct by virtue of their network services, 144 and under Napster, mere "customer draw" may serve to satisfy the financial interest prong.

Unlike Napster and Grokster, the Aimster opinion acknowledged that the Sony Court treated the two doctrines interchangeably 145 and that any attempt to hold Aimster vicariously liable for failing to prevent infringement through system design and policing would be "notwithstanding the outcome in Sony." 146 However, Judge Posner also speculated that the

applying the Gershwin rule to Sony. See 464 U.S. at 487-89 (Blackmun, J., dissenting); Gershwin Publ'g Corp. v. Columbia Artists Mgmt. Inc., 445 F.2d 1159, 1162 (2d Cir. 1971). Justice Blackmun then went on to discuss contributory and vicarious liability cases interchangeably. See Sony, 464 U.S. at 487-89 (Blackmun, J., dissenting).

142. Sony, 464 U.S. at 435; see also Professors' Brief, supra note 80, at 2-3 n.2.

143. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1022 (9th Cir. 2001) (citing 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §§ 12.04[A][2]-[A][2][b] (2000); Anne Hiaring, Copyright Infringement Issues on the Internet, 617 PLI/PAT 455, 528 (2000)). Some have criticized this conclusion as lacking support. See, e.g., Professors' Brief, supra note 80, at 3 n.2.

144. Requiring such supervision would, of course, raise privacy concerns.

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

146. Id. 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
Court could have found Sony vicariously liable for failing to reduce the likelihood of infringement, presumably based on the right and ability to supervise prong; through design, technology producers conceivably could create the right and ability to supervise future user conduct.

One argument that the Sony defense applies to claims of vicarious liability may be found in the safe harbor provision of the Digital Millennium Copyright Act (DMCA). The DMCA, which postdates Sony by fourteen years, provides a safe harbor to Internet service providers against secondary liability for copyright infringement in § 512. Proponents of this view argue that Congress thus recognized contributory and vicarious liability as a single question and specifically declined to exempt vicarious liability from the Sony ruling. Though § 512 does not appear to shelter P2P providers from secondary liability because of the repeating nature of the infringing conduct on their networks, it is the congressional conflation of contributory and vicarious liability that supports the argument for placing vicarious liability beneath the Sony shield. Of course, Congress did not make the Sony rule and has never commented on it, which may attenuate the connection between the scope of Sony and the provisions of the DMCA.

*infringe copyright is merely another piece of evidence that it was a contributory infringer.*

*Id.*

147. *Id.*

148. *Aimster* does not address the lack of technology enabling general recognition of copyrighted content.


151. *See 17 U.S.C. § 512(i)(1)(A)* (providing a safe harbor to any Internet service provider that, inter alia, “provides for the termination in appropriate circumstances of subscribers and account holders of the service provider’s system or network who are repeat infringers”); *Aimster*, 334 F.3d at 655.
D. Who Acts Now and How?

The *Sony* decision is nearly twenty years old, which could render its rule and principle either time-tested or outmoded. There are reasons to think *Sony* inapplicable to present realities. The VCR and P2P systems are significantly different technologies, arguably calling for different legal rules. In *Sony*, the district court found, and the Supreme Court agreed, that many copyright holders wished to allow private time-shifting and believed this use of the technology would enhance the value of the copyrighted works.\(^1\) Furthermore, the Court found that time-shifting did not harm the market for television shows.\(^2\) The Court’s extensive findings of fair use for the VCR, though ostensibly separate from the rationale underlying the substantial noninfringing use doctrine, may have shaped the holding. No court addressing P2P today would find that the content industries similarly condone the most common use of the technology (infringing on recorded music copyrights), or that file sharing poses no threat to the market for recorded music.\(^3\)

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153. Id. at 425.
154. Estimates of actual harm to music sales resulting from file sharing vary, with a number of factors confounding efforts to give such statistics meaning. CD sales have indeed been falling since 2001 (Napster launched in 1999). See Menell, *supra* note 30, at 119; Brad King, *Slagging Over Sagging CD Sales*, WIRED NEWS, 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). 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, and competition from other forms of entertainment. See James K. Willcox, *Where Have All the CDs Gone?*, SOUND & VISION, June 2003, at http://www.soundandvisionmag.com/article.asp?section_id=2&article_id=453&page_number=1. The data on what percentage of file sharers purchase less or more music is conflicting. See National Record Buyers Study II, Edison Media Research, at http://www.edisonresearch.com/R&RRRecordBuyersII.htm (last visited Feb. 11, 2004) (study sponsored by music industry trade publication finding that 41-51% of downloaders are buying less music). Cf. Noah Shachtman, *Report Refutes Anti-Trade Debate*, WIRED NEWS, May 3, 2003 (reporting a study from Jupiter Research finding that experienced file traders were 75% more likely to purchase music than average online music fans), at http://www.wired.com/news/business/0,1367,52305,00.html. Recent studies suggest that most Americans have few moral qualms about sharing copyrighted files online. See, e.g., Amanda Lenhart et al., *The Pew Internet & American Life Project, Downloading Free Music: Internet Music Lovers Don’t Think It’s Stealing* 5-6 (Sept. 28, 2000) (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), available at http://www.pewinternet.org/reports/toc.asp?Report=23. Consumers
Another potentially significant difference between the VCR and P2P systems is that P2P (arguably) implicates another exclusive right under copyright law: distribution. Because Sony involved only unauthorized copying, its protections might not extend beyond that context. This was in fact the approach the district court took in Aimster—end users who made copies of copyrighted works available for download acted as distributors and thus rendered Sony inapplicable.

Technologists dispute this approach, arguing that it turns Sony on its head; the question is whether there are substantial noninfringing uses, not whether another infringing use can be found. 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.” There is no sale, rental, 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. No court has decided whether the delivery of electronic bytes constitutes the transfer Congress contemplated in 1976.

Many commentators assert that Congress is the appropriate body to weigh the competing interests involved in regulating peer-to-peer technology—or perhaps any technology at all. The Sony Court noted that the “difficult balance” between stakeholder interests in intellectual property has required numerous amendments to the patent and copyright statutes. “From its beginning, the law of copyright has developed in response to significant changes in technology,” and Congress is charged with this

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157. Professors’ Brief, supra note 80, at 2 (stating that “[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”); StreamCast Brief, supra note 80, at 53-54; see also Wu, supra note 30, 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).
158. Sony, 464 U.S. at 429.
task; it has long been "settled that the protection given to copyrights is wholly statutory." Congress has addressed select Internet copyright issues by enacting the No Electronic Theft Act in 1997 and the Digital Millennium Copyright Act in 1998. However, these and other recently proposed bills 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 unbalanced result.

For its part, Congress appears less than eager to step into the fray. A group of legislators recently issued a call to P2P providers to regulate themselves. This effort is already underway in the form of P2P United,

159. Id. at 430-31.
160. Id. at 431 ("The judiciary's reluctance to expand the protections afforded by copyright without explicit legislative guidance is a recurring theme.").
162. 17 U.S.C. §§ 512, 1201 (2000). The anti-circumvention provision in § 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 30, at 741.
165. John Borland, Senators Ask P2P Companies to Police Themselves, CNET NEWS.COM, Nov. 21, 2003, at http://news.com.com/2100-1028_3-5110785.html. Lindsey Graham (R-N.C.), Dianne Feinstein (D-Calif.), and four other senators wrote a letter to the leading P2P companies (including Grokster and Streamcast) requesting that they (1) provide clear, conspicuous warning regarding the legal risks of using their products, (2) install filters in their software to help prevent the transmission of files containing copy-
an alliance of P2P providers, including Grokster and Morpheus, that has adopted a "code of conduct" requiring members to provide information regarding copyright law, protect user privacy, and prevent inadvertent file sharing. 166 Meanwhile, those who oppose the Sony rule chasten courts who apply it in defendants' favor in the name of awaiting congressional guidance. 167 As the dissent in Sony said, even while the Court chafed under an "ill-fitting" copyright regime, "in the absence of a congressional solution, courts cannot avoid difficult problems by refusing to apply the law." 168

In response to concerns about what form congressional guidance might take, 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, or subscriptions. 169 Proponents of this approach note parallels to solutions to previous crises arising between technology and

righted materials or pornography, and (3) set the software's default to share no user files with the network unless the user actively chooses to do so. Id.


167. See, e.g., Boorstyn Brief, supra note 82, at 3 (saying of the Grokster court's unwillingness to expand the boundaries of copyright without more legislative guidance, "[s]uch an abdication was not justified."); MGM Brief, supra note 82, at 64.


It is no answer, of course, to say and stress, as the Court does, this Court's consistent deference to Congress whenever major technological innovations appear. Perhaps a better and more accurate description is that the Court has tended to evade the hard issues when they arise in the area of copyright law.

Id. at 457 (Blackmun, J., dissenting) (internal quotations and citations omitted).

content, which date back to the turn of the twentieth century. Indeed this idea was seeded in Sony, in which the Ninth Circuit suggested a judicially created compulsory license as a solution to the problem below, and the plaintiffs/respondents proceeded to propose compulsories as an acceptable remedy to the Court.

While others debate the future of secondary liability, the recording industry has returned to a primary approach. In 2003, the Recording Industry Association of America 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. As a result, many in the field expect a new round of peer-to-peer technology that masks users' identity. Indeed, P2P coders have already exhibited great ingenuity in designing around developments in the law and its enforcement. As the gap between law and social norms drives demand for technology that enables consumers to follow the version of the law they prefer, we surely require a much deeper solution to the digital copyright

171. Universal City Studios, Inc. v. Sony Corp. of Am., 659 F.2d 963, 976 (9th Cir. 1981) [hereinafter Sony II].
172. 464 U.S. at 441 n.21. The Sony dissent also voiced approval for considering a royalty scheme or other alternative remedy, id. at 493 (Blackmun, J., dissenting), noting that such a solution may pose less of a threat to commerce than an injunctive standoff. Id. at 499 (Blackmun, J., dissenting). Professor Goldstein has also proposed that injunctions give copyright holders excessive bargaining power and that licenses may provide a better solution. GOLDSTEIN, supra note 39, § 6.1.2.
173. See Alice Kao, RIAA v. Verizon: Applying the Subpoena Provision of the DMCA, 19 BERKELEY TECH. L.J. 405 (2004) (discussing the RIAA’s use of the DMCA’s subpoena provision to obtain the identities of two Verizon Internet subscribers). 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 30, 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 643, 645 (7th Cir. 2003). This view became obsolete in August, 2003, when the RIAA filed its first lawsuits against music file sharers.
174. Some argue that coders shape or even make law with such efforts. See, e.g., LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 89 (1999); Wu, supra note 30, at 680-81.
dilemma than the current P2P decisions provide. Some commentators predict that copyright law will never triumph over conflicting social norms, and propose that copyright holders should turn their attention from legal reform and enforcement to normative change.¹⁷⁶

IV. CONCLUSION

The outcome of the Grokster appeal and the adjudication that shall follow 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 private actors, the fate of the Sony doctrine in the near future is likely to reveal much about how copyright law can and should respond to emerging technologies and the novel issues they raise.

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¹⁷⁶ 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 MAG., Oct. 2000, http://www.wired.com/wired/archive/8.10/download_pr.html. Even now, however, there is little evidence to support Barlow’s prediction that there will be no property in cyberspace. *See id.*

¹⁷⁶ E.g., Strahilevitz, *supra* note 175, 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.”).