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PEER-TO-PEERING BEYOND THE HORIZON: CAN A P2P NETWORK AVOID LIABILITY BY ADAPTING ITS TECHNOLOGICAL STRUCTURE?

MATTHEW G. MINDER*

INTRODUCTION

For the last several years, technology developers have been in a tug of war with copyright owners over the distribution of copyrighted works over the Internet through peer-to-peer (P2P) networks. In P2P networks, an individual computer user connects directly to another, and copies electronic files, often containing copyrighted works, from the other user's computer onto his own. Files are not stored on, and do not pass through, a central server, so the P2P network does not directly violate any of a copyright owner's exclusive rights. Therefore, to assert their rights against P2P networks, rather than against individual network users, copyright owners must rely on secondary infringement, which holds one person liable for the infringement of another. For convenience, distributors of software that allows users to access P2P networks, network developers, network owners, and network administrators are hereafter referred to simply as “administrators.”

Administrators have consistently attempted to design a network around the legal tests for secondary liability, and courts have consistently held that those administrators are liable under those tests. The first of this line of cases was A&M Records v. Napster, Inc. There, the Court of Ap-

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2. Napster, 239 F.3d at 1012.
3. Id.
5. See Napster, 239 F.3d at 1014, 1019.
6. See, e.g., Grokster, 545 U.S. at 919, 922; In re Aimster Copyright Litig., 334 F.3d 643, 650 (7th Cir. 2003).
7. Napster, 239 F.3d at 1011.
peals for the Ninth Circuit upheld a preliminary injunction against Napster, holding that the plaintiffs were likely to prevail in showing that Napster knowingly encouraged and assisted its users in infringing the plaintiffs' copyrights.\(^8\) Napster's system created search indices on its own servers, which the program's search engine used to locate songs that a searching user wanted to download.\(^9\) Napster's servers then directed the searching user to another user's computer where the indices indicated that song was saved, and the searching user connected to and downloaded the song directly from the other user's computer.\(^10\)

As a result of the preliminary injunction, Napster ceased to operate as a P2P network, and ultimately reinvented itself as a noninfringing, licensed, online music store.\(^11\) Shortly thereafter, new P2P networks appeared to supply the demand for free music.\(^12\) Those networks attempted to develop a new technological structure that would allow them to avoid liability, essentially using the *Napster* opinion as a blueprint.\(^13\)

Aimster was one such network.\(^14\) The court had held Napster liable because its unencrypted search indices provided knowledge of infringement and the ability to supervise the infringing activity.\(^15\) Aimster therefore used encryption software in an attempt to avoid that knowledge and ability to supervise.\(^16\) The Court of Appeals for the Seventh Circuit rejected Aimster's position, stating that "willful blindness is knowledge."\(^17\) Like *Napster*, *Aimster* affirmed a preliminary injunction that effectively shut down the service.\(^18\)

Grokster and Morpheus were two other P2P networks that attempted to fill Napster's shoes.\(^19\) The technology employed in these programs built

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8. *Id.* at 1013, 1020, 1029.
9. *Id.* at 1012.
10. *Id.*
14. In re Aimster Copyright Litig., 334 F.3d 643, 645 (7th Cir. 2003). Aimster continued to use indices on servers that were under the network developer's control. *Id.* at 646.
16. *Aimster*, 334 F.3d at 646.
17. *Id.* at 650.
18. *Id.* at 645, 656.
networks without indices on servers under the administrators’ control. Instead, the programs created the necessary indices directly on users’ computers. Thus, the defendants had attempted to avoid knowledge and control by relegating the search indices to users’ computers. This position prevailed in the trial court, and was affirmed on appeal. The United States Supreme Court, however, adopted a new type of secondary infringement, resting liability on the defendants’ promotion, or active inducement, of infringement. The Supreme Court reversed summary judgment for Grokster and StreamCast (Morpheus’s administrator), and even suggested that summary judgment in favor of the plaintiffs might be in order.

P2P administrators have continued to try to avoid liability by changing the technological structure they employ. For example, BitTorrent technology breaks a file into smaller pieces, obtaining each piece independently of the others, and from different sources. The best shield for this model is the heavy disaggregation and consequent practical difficulty of identifying defendants, rather than any legal defense.

This comment also attempts to develop a model by which P2P networks can avoid copyright infringement. However, where prior administrators seem to have addressed only one element of one legal test at a time, this comment addresses all theories of liability, and attacks each element of the test for each theory. In attempting to find a satisfactory solution, this comment develops and analyzes two potential models that future P2P networks could employ to avoid liability for copyright infringement. Part I describes those two models in detail. Part II then explains the law of secondary infringement, applies the two models to the relevant legal tests, and

20. Grokster, 545 U.S. at 922.
21. Id. at 921. Some versions of the programs created indices on supernodes, which were also computers owned by individual users, and not under the control of the defendants. Id.
25. Grokster, 545 U.S. at 936–37 (2005); see discussion infra Part II.B.3.
26. Id. at 941.
28. Id. at 267.
29. Id. at 270.
analyzes whether a P2P network operating on each model could avoid liability for copyright infringement.

I. POTENTIAL MODELS

This comment develops and analyzes two main fact patterns, which reflect the two main perspectives of users who argue in favor of P2P networks. Namely, (1) that users should be allowed to share copyrighted works with impunity, and (2) that P2P networks serve legitimate, noninfringing purposes that benefit society, and should continue to operate in order to serve those purposes. The first model, the "Commentary Model," is designed to fall within a safe harbor, which would allow an administrator to avoid liability despite its users' sharing of copyrighted works. The second model, the "Filter Model," would allow users to share only authorized or public domain works, and thus would not infringe.

A. The Commentary Model

If P2P networks are to avoid infringement while still copying or distributing copyrighted works, they must bring themselves squarely under the safe harbor adopted in *Sony Corp. of America v. Universal City Studios, Inc.* As discussed in more detail below, that safe harbor provides that, if a product that can be used to infringe is also capable of substantial noninfringing uses, the distributor of that product is not liable for contributory infringement. One way to fall within the *Sony* safe harbor is to build the network's technological structure around the fair use doctrine. While

30. E.g., Posting of Jonathan to Michael Geist, *CRIA's Own Study Counters P2P Claims*, http://www.michaelgeist.ca/component/option,com-content/task,view/id,1168/itemid,85/ (Mar. 21, 2006, 02:17:15 EST). This view is based largely on general contempt for copyright law, and a belief that the entertainment industry makes more money than it deserves. Id.


32. As discussed below, a Commentary Model P2P can avoid liability for the infringement of its users; however, the users themselves will be liable for their own infringement. Direct liability of individual users is beyond the scope of this comment, and is therefore discussed only insofar as it is relevant to administrators' secondary liability.

33. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 492 n.43 (1984) (Blackmun, J., dissenting) ("Noninfringing uses would include, for example, recording works that are not protected by copyright, recording works that have entered the public domain, recording with permission of the copyright owner, and, of course, any recording that qualifies as fair use.").

34. See *Sony Corp.*, 464 U.S. at 442 (majority opinion).

35. Id.

some courts have been generous with the fair use doctrine,\textsuperscript{37} that generosity has not extended to P2P networks.\textsuperscript{38} Therefore, P2P networks must fit into traditional notions of fair use at every turn in order to fall within the doctrine. Traditionally-protected fair uses include “criticism, comment, news reporting, teaching . . . , scholarship, [and] research.”\textsuperscript{39} In addition, the fair use doctrine extends greater protection to uses that are “productive” and “transformative.”\textsuperscript{40}

The Commentary Model is based on criticism and comment, but in some situations may also qualify as research and scholarship. This system would center on sharing not the works themselves, but users’ comments about those works. A software program to implement the Commentary Model would create a set of fields to be filled in by the user, such as artist or author, title of the work, compilations in which the work is included, synopsis of the story line (if applicable), the work’s subject matter or inspiration, and comments or criticism of the work. For simplicity, this set of fields is hereafter collectively referred to as a “Commentary.” After filling in the relevant fields, the user would click a link to attach a file to the Commentary, which would contain an excerpt, quotes, or the entire work.

The program would also create an index, like most post-Napster P2Ps,\textsuperscript{41} directly on the user’s computer. However, instead of indexing the files the user is willing to share, it would index the Commentaries the user has created or downloaded. Indeed, the user would be unable to share any files directly, only Commentaries and any files attached to those Commentaries. Other users would therefore search for Commentaries about the particular work, rather than for the work itself. They would then download the posting user’s Commentary about that work, along with any attached file.

\section*{B. The Filter Model}

This comment also discusses a model based not on avoiding liability for unauthorized copying of a work, but on creating a network that shares only authorized or public domain works. This model is similar to the system recently implemented, even if unperfected, by YouTube,\textsuperscript{42} and to the

\begin{itemize}
\item \textsuperscript{37} \textit{E.g.,}\textsuperscript{\textsuperscript{,}} \textit{Sony Corp.,} 464 U.S. at 448–56 (holding that “time shifting” is a fair use).
\item \textsuperscript{38} \textit{See, e.g.,}\textsuperscript{\textsuperscript{,}} A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1019 (9th Cir. 2001) (rejecting “space shifting” as a fair use); UMG Recordings, Inc. v. MP3.com, Inc., 92 F. Supp. 2d 349, 351 (S.D.N.Y. 2000) (same).
\item \textsuperscript{39} 17 U.S.C. § 107 (2006).
\item \textsuperscript{40} \textit{4 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 13.05[A][1][b] (2007).}
\item \textsuperscript{41} \textit{See, e.g., Grokster,} 545 U.S. at 921.
\item \textsuperscript{42} YouTube Video Identification Beta, http://www.youtube.com/t/video_id_about (2008) (an-
system the District Court for the Central District of California has ordered StreamCast to implement. Under this model, a copyright owner would provide the administrator with a copy or a digital fingerprint of works the owner does not want shared on the P2P network. The filtering program, which would be included in the network software installed on the user’s computer, would prevent files that match that work or digital fingerprint from being transferred through the network. How such a filter functions technologically is beyond the scope of this comment. However, that similar filters have been implemented, and that others are currently under development, indicate that such a filter is technologically feasible.

One of the greatest benefits of this model is that it would allow copyright owners to decide whether and how to use their works to their greatest advantage. For example, for those owners who benefit most from preventing the free sharing of works in order to sell more authorized copies, the filter would prevent users from sharing those works. For others who prefer to share their works for free, such as beginning musicians trying to expand their audiences, they could continue to do so.

Perhaps the most exciting option, however, is that copyright owners can use their works to generate revenue through the P2P network. YouTube currently offers the ability for copyright owners to partner with it to generate revenue, although it does not further describe such an arrangement. In the P2P network format, however, an administrator could employ several methods to create revenue for the copyright owner.

One method would be to employ encryptions similar to those used by the file-sharing system Weed, which “lock” an audio file after it is played a certain number of times, and require the user to make a payment to “un-


44. A digital fingerprint is a “unique combination of digital sound values or video picture elements[,]” which can be compared very quickly to an entire library of stored files, to identify files that match the work from which the digital fingerprint was made. Patrick Turner, Digital Video Copyright Protection with File-Based Content, 16 MEDIA L. & POL’Y 165, 178–79 (2007).

45. Nate Anderson, Filter This: New YouTube Filter Greeted by Concerns over Fair Use, ARS TECHNICA (2007), http://arstechnica.com/news.ars/post/20071016-youtube-launches-beta-video-filter-digital-rights-groups-shed-tear.html (“Plenty of third-party companies (such as MotionDSP, which we profiled earlier this year) are also developing similar systems . . . .”); Steve Bryant, Two Big Reasons Why a YouTube Filter Will Lead to More Problems, GOOGLE WATCH (2007), http://googlewatch.eweek.com/content/youtube/two_big_reasons_why_a_youtube_filter_will_lead_to_more_problems.html (indicating that SNOCAP, Inc. and Audible Magic are working on similar filters).

46. YouTube Video Identification Beta, supra note 42.
lock” the copy. Thus, the filter would allow users to share files that match a particular work’s digital fingerprint only if the files include the encryption code, allowing a copyright owner to sell its works over a P2P network, while preventing unauthorized, free copies from being distributed.

Another method would be a more traditional licensing arrangement. Some P2P networks, such as KaZaA, have entered licensing agreements to allow their users to share copyrighted works over their networks. The proposed filter would allow any copy of licensed works to be freely shared, while still preventing users from sharing unlicensed works. In addition, a network could feasibly track the popularity of various works, so that the copyright owner and the administrator could base licensing fees on the amount of advertising revenue those works generate, like a traditional percentage of revenue royalty rate.

The Filter Model is not a perfect solution, however. One problem is the burden it would place on copyright owners. This model would require owners to take the affirmative steps of registering with a P2P network, and providing either a copy of the work or the digital fingerprint the filter requires. In addition, with the proliferation of similar filtering tools through various networks, a copyright owner would have to take this action with each network. As yet, no central database is under development. To help counter this detraction, an administrator implementing the Filter Model should adopt a policy of requesting, both before launching the network, and periodically thereafter, authorization or digital fingerprints from each of the major record companies and movie studios. Another problem is that the Filter Model would not adequately protect fair use, because it would block all sharing, including that which would be noninfringing despite being unauthorized.

In sum, a filter system that prevents unauthorized works from being shared on P2P networks, although imperfect, would allow P2P networks to continue to accomplish their legitimate purposes, and could also create new sources of revenue for copyright owners.

49. See Anderson, supra note 45.
50. Id.
51. Id.
52. See id.
II. DISCUSSION

A. P2P Networks Can Serve Legitimate Purposes that Are Consistent with the Goals of Copyright Law

While P2P networks can be used to infringe copyrights, they can also be used for legitimate, lawful purposes that are entirely consistent with the goals of copyright law. For example, dissemination of authorized works does not constitute infringement. Many musicians authorize the sharing of their works through P2P networks. Both new and established artists recognize the benefits of sharing their works on P2P networks, such as broadening audience bases and rejuvenating interest in back catalogs. Likewise, various publishers authorize the sharing of electronic books and other works. In addition, many software developers distribute open source software and program updates, such as Blizzard’s World of Warcraft video game and Linux operating system updates, through P2P networks. P2P networks are also used to disseminate public domain works.

Although these legitimate uses of P2P networks have not yet allowed a P2P network to avoid liability, the fact that they serve the goals of copyright law indicates that they are worth protecting. The main goals of copyright are to motivate authors to create by compensating them for their work, and to encourage dissemination of those works to the public. After a work passes into the public domain, however, copyright law is no longer concerned with compensating the author, and dissemination becomes the only goal. P2P networks serve the goal of public dissemination by widely distributing works, and exponentially increasing the availability of those works. Moreover, for artists who benefit from increased audiences and rejuvenation of interest in back catalogs, P2P networks can actually in-
crease the compensation for creative activity. Likewise, software developers who can distribute software updates through P2P networks save the expense of additional hardware and bandwidth to support those downloads, thus increasing profit margins, or passing the savings on to consumers to increase sales. Thus, P2P networks are not inherently unlawful, but instead serve legitimate purposes that further the goals of copyright law, and should continue to operate to serve those purposes.

B. How the Law Applies to P2P Networks

Once it is established that P2P networks are not inherently unlawful, it becomes necessary to determine how they can operate free from liability for infringement, so that they can accomplish their legitimate purposes. As discussed in more detail below, P2P networks connect users directly to each other to transfer files, so the files do not pass through a centralized server. Thus, only the users directly violate any of the copyright owner’s exclusive rights, leaving the administrators free from liability for direct infringement. For this reason, P2P networks, including the Commentary Model and Filter Model developed in this comment, do not directly infringe, and a plaintiff would have to rely on secondary infringement.

According to the Supreme Court, secondary infringement is a form of vicarious liability, the goal of which is to “identify[] the circumstances in which it is just to hold one individual accountable for the [infringement] of another.” Of course, for one individual to be liable for another’s infringement, someone must have infringed. Therefore, direct infringement by a third party is a threshold element of secondary infringement.

A plaintiff would likely be able to prove direct infringement by a third

62. Id. at 14 (35% of musicians surveyed believe free downloading of their music has helped their careers).
64. Seth A. Miller, Peer-to-Peer File Distribution: An Analysis of Design, Liability, Litigation, and Potential Solutions, 25 REV. LITIG. 181, 191–92 (2006). This is true even if the search indices are located on the network’s central servers. See id.
65. While users’ liability for direct infringement remains an issue, this note focuses on the liability of network administrators, and does not address direct user infringement here. Nevertheless, direct user infringement is relevant to administrator liability, and is addressed in that context in the next section.
66. In re Aimster Copyright Litig., 334 F.3d 643, 646–47 (7th Cir. 2003) (“But because copies of the songs reside on the computers of the users and not on Aimster’s own server, Aimster is not a direct infringer of the copyrights on those songs.”).
party in a suit against a network employing the Commentary Model, but not the Filter Model. To establish direct infringement, a plaintiff must prove: (1) that the plaintiff owns a valid copyright in the material; and (2) that a party has violated “at least one exclusive right granted to copyright holders.”

First, suits against P2P networks are generally brought by the Recording Industry Association of America (RIAA), record companies, movie studios, or publishers, all of which are in the business of owning copyrights. Therefore, this comment assumes that a plaintiff in such a case would be able to prove ownership of a valid copyright.

A plaintiff could also prove that users of a Commentary Model P2P violated an exclusive right. Users who provided works to others would violate the exclusive rights to distribute the work and perhaps to perform the work publicly. In addition, users who downloaded a work would create a copy on their hard drive, violating the exclusive right to reproduce the work. However, as discussed in greater detail below, that model is designed around the fair use doctrine. Depending on the depth of each individual Commentary, and the portion of the original work that is attached to that Commentary, every single use in the Commentary Model could potentially be a fair use.

Realistically, however, regardless of any guidelines the administrator may provide to aid users in deciding how much of a work they could safely include, some users would disregard those guidelines. Moreover, within a doctrine that requires a balancing of factors in light of the objectives of copyright law, on which Supreme Court Justices can disagree, it would defy reason to think that, even with adequate guidelines, every user would

70. See, e.g., Grokster, 545 U.S. at 913; Aimster, 334 F.3d at 645; Napster, 239 F.3d at 1004; Interscope Records v. Leadbetter, No. C05-1149-MJP-RSL, 2007 WL 1217705 at *1 (W.D. Wash. Apr. 23, 2007).
72. 17 U.S.C. § 106(1); Napster, 239 F.3d at 1014. P2P technology generally does not involve preparing derivative works (17 U.S.C. § 106(2)) or publicly displaying a work (17 U.S.C. § 106(5)); however, which rights are violated does not change the analysis for the defendant’s liability for violating those rights.
73. See Malla Pollack, Rebalancing Section 512 to Protect Fair Users from Herds of Mice—Trampling Elephants, or a Little Due Process Is Not Such a Dangerous Thing, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 547, 553 (2005–2006).
75. Compare Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 455 (1984) (“home time-shifting is a fair use”) with id. at 486 (Blackmun, J., dissenting) (“time-shifting cannot be deemed a fair use”).
strike a balance with which every court would agree. Thus, at least some Commentaries would inevitably fall outside of the fair use doctrine. Users who shared or downloaded those Commentaries would violate the exclusive right of the copyright holder to reproduce, to distribute, and to publicly perform a work. Therefore, users of a Commentary Model P2P who shared Commentaries that fall outside the fair use doctrine would be direct infringers. A plaintiff would thus be able to show the threshold requirement of direct infringement by a third party.

The Filter Model, on the other hand, would prevent any unauthorized works from being shared on the network. As the Supreme Court stated in Sony, "anyone who is authorized by the copyright owner to use the copyrighted work . . . is not an infringer of the copyright . . . ." Therefore, under that model, no direct infringement would occur. A plaintiff's case against a P2P employing the Filter Model would therefore fail at this threshold issue.

This is true only to the extent that copyright owners provided the digital fingerprint necessary to prevent the sharing of unauthorized works. That fact emphasizes the need for a policy of periodically requesting either authorization or digital fingerprints from the major entertainment companies. Even where some unauthorized works would not be filtered, the expense of litigation compared to the expense of providing a copy of the work or a digital fingerprint would likely cause any copyright owner to choose the latter course. For this reason, combined with the benefits outlined supra Part I.B., it seems reasonable to assume that copyright owners would generally comply with such requests rather than sue. If the sharing of all unauthorized works could thus be prevented, a P2P employing the Filter Model would not be liable for secondary infringement. Accordingly, this comment will apply the other elements of secondary infringement only to the Commentary Model.

Courts have developed three types secondary infringement:

77. Sony, 464 U.S. at 433.
79. 3 NIMMER, supra note 40, at § 12.04[A][2]–[4]. While this comment applies the "better," and more widely accepted, approach to secondary liability, the "inducement" theory could also be seen as a further elaboration of contributory infringement, resulting in only two types of secondary infringement, one of which has two subcategories. Id. § 12.04[A][4][b]; Perfect 10, Inc. v. Amazon.com, Inc., 487 F.3d 701, 726 (9th Cir. 2007).
(1) contributory infringement; (2) active inducement; and (3) vicarious infringement. Each type is directed at a different mode of culpable behavior that would justify holding a P2P administrator liable for user infringement.

1. Contributory Infringement

One type of secondary liability that a P2P network must avoid is contributory infringement. The landmark Sony case adopted contributory infringement from patent law, holding that a defendant could be held liable for knowingly distributing a product that is used to infringe copyrights. However, Sony also adopted, as a safe harbor, patent law's "staple article of commerce doctrine." The Sony safe harbor provides that the sale of such a product "does not constitute contributory infringement if the product is . . . capable of substantial [or commercially significant] noninfringing uses." The Supreme Court held that the Betamax video tape recorder in that case satisfied that test.

Defendant P2P networks have often invoked Sony's safe harbor, but so far, to no avail. In Napster, the Ninth Circuit held that Napster "knowingly encourages and assists the infringement of plaintiffs' copyrights." The court interpreted Sony as simply declining to impute knowledge of direct infringement from the product's design alone. Because the plaintiffs had provided Napster with actual notice of infringing files, however, Napster had the requisite knowledge, and was thus precluded from Sony's safe harbor. The court did not decide whether Napster was capable of substantial noninfringing uses, because it had proof of the requisite knowledge, and did not need to impute that knowledge from the design of the

80. E.g., Sony, 464 U.S. at 442.
82. E.g., id. at 930.
83. Id. at 942 (Ginsburg, J., concurring).
84. Sony, 464 U.S. at 442.
85. Id. at 439, 442. However, the concept of "contributory infringement" had already begun to develop in copyright law long before this. See, e.g., Kalem Co. v. Harper Bros., 222 U.S. 55, 63 (1911).
86. Sony, 464 U.S. at 440–42.
87. Id. at 442.
88. Id. at 456.
89. E.g., In re Aimster Copyright Litig., 334 F.3d 643, 651 (7th Cir. 2003); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1020, 1022 (9th Cir. 2001).
90. Napster, 239 F.3d at 1020.
91. Id. at 1020–21.
92. Id. at 1021.
In *Aimster*, the Court of Appeals for the Seventh Circuit disagreed with *Napster*, creating a circuit split on the application of *Sony*. *Aimster* held that actual knowledge of specific infringing uses is not sufficient to hold the distributor of a product liable for contributory infringement. Based in part on its belief that the *Sony* defendant would have fallen outside of *Sony*’s safe harbor under *Napster*’s test, the Seventh Circuit required more. The court found that *Aimster*’s tutorial gave copyrighted works as its only examples of file sharing, and that an add-on feature allowed users easier access to invariably copyrighted top forty songs. This, the court held, was the “invitation to infringement that the Supreme Court found was missing in *Sony*. [*Aimster* had also attempted to avoid the requisite knowledge by incorporating an encryption feature that would prevent the administrator from knowing what files were being shared on the network. The court rejected that position, holding that “[w]illful blindness” is sufficient to satisfy the knowledge requirement.

*Aimster* also held that, even if a product has noninfringing uses, if the infringing uses are substantial, the defendant must also show that “it would have been disproportionately costly for him to eliminate or at least reduce substantially the infringing uses.” [*Aimster* also failed to show that it would have been disproportionately costly to reduce infringe-

93. *Id.* While this reading of *Sony* calls into question whether its rule is indeed a “safe harbor,” or merely a rebuttable defense, the Supreme Court has subsequently characterized the rule as a safe harbor. Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 545 U.S. 913, 936 (2005) (“For the same reasons that *Sony* took the staple-article doctrine of patent law as a model for its copyright safe-harbor rule, the inducement rule, too, is a sensible one for copyright.”).

94. *Aimster*, 334 F.3d at 649.
95. *Id.*
96. *Id.*
97. *Id.* at 651–52.
98. *Id.* at 651.
99. *Id.* at 650.
100. *Id.* (“Willful blindness is knowledge, in copyright law (where indeed it may be enough that the defendant should have known of the direct infringement) as it is in the law generally.” (internal citations omitted)).
101. *Id.* at 653.
102. *Id.* at 651.
103. *Id.* at 653.
ment.\textsuperscript{104} Thus, the court held, Aimster did not fall under Sony's protection.\textsuperscript{105}

Subsequently, Grokster and StreamCast (Morpheus’ administrator) attempted to avoid the requisite knowledge by creating a more decentralized architecture for their networks, by relegating search indices to users’ computers.\textsuperscript{106} In that case, the district and appellate courts found the defendants’ position convincing, granting and affirming, respectively, partial summary judgment for the defendants.\textsuperscript{107} The Ninth Circuit acknowledged Aimster's disagreement as to how to apply Sony, but noted that it was bound by Napster.\textsuperscript{108} Nevertheless, the court’s rule appears to lie somewhere between Napster and Aimster. The court concluded that, if a product is capable of substantial noninfringing uses, the plaintiff’s burden is raised.\textsuperscript{109} The plaintiff must then show that the defendant had actual knowledge of specific infringing uses, and failed to act on that knowledge.\textsuperscript{110} The Ninth Circuit held that the plaintiff did not contest that the software was capable of substantial noninfringing uses, and that the decentralized architecture prevented actual knowledge of infringement.\textsuperscript{111} The Ninth Circuit then concluded that the defendants could not be liable under any theory.\textsuperscript{112}

The Supreme Court vacated summary judgment, limiting Sony’s holding to imputing knowledge under contributory infringement, but not displacing other theories of vicarious liability.\textsuperscript{113} The Court ultimately adopted and resolved the case on a new theory of liability: active inducement, which is discussed \textit{infra} Part II.B.2.\textsuperscript{114} Thus, the Court declined to address the Ninth Circuit’s holding under contributory infringement.\textsuperscript{115}

In fact, Sony’s boundaries are further obscured by the concurring opinions, which, evenly split, arrive at different outcomes under Sony’s safe harbor.\textsuperscript{116} Moreover, those opinions address only the standard for finding

\textsuperscript{104} Id.
\textsuperscript{105} Id.
\textsuperscript{107} Id.
\textsuperscript{108} Id.
\textsuperscript{109} Id. at 1161.
\textsuperscript{110} Id.
\textsuperscript{111} Id. at 1162–63.
\textsuperscript{112} Grokster, 545 U.S. at 934.
\textsuperscript{113} Id. at 933–34.
\textsuperscript{114} Id. at 935.
\textsuperscript{115} Id. at 934.
\textsuperscript{116} Id. at 942 (Ginsburg, J., with whom Rehnquist, C.J., and Kennedy, J., join, concurring); id. at
substantial noninfringing uses, and not the result thereof, upon which the Ninth Circuit and Seventh Circuit are still split.\textsuperscript{117} Thus, it appears that the Ninth Circuit's holding that Grokster's and Morpheus's decentralized architectures prevented the requisite knowledge, and that therefore the defendants were not liable for contributory infringement, as opposed to any other theory, still stands in the Ninth Circuit.\textsuperscript{118} In addition, \textit{Aimster}'s holding that substantial noninfringing uses would be a complete bar to contributory infringement still stands in the Seventh Circuit.\textsuperscript{119} Thus, substantial noninfringing uses, combined with decentralized indices, would allow a Commentary Model P2P to avoid contributory infringement in any jurisdiction.\textsuperscript{120} Therefore, the standard for finding substantial noninfringing uses is crucial.

In his concurring opinion in \textit{Grokster}, Justice Stephen Breyer, joined by two other Justices, applied a low standard for substantial noninfringing uses.\textsuperscript{121} Justice Breyer found that \textit{Sony} was satisfied because the plaintiffs' survey showed that 10\% of the uses of the defendants' networks were noninfringing, a percentage comparable to that in \textit{Sony}, and because that percentage was likely to increase.\textsuperscript{122} Justice Ruth Bader Ginsburg, however, also joined by two other Justices, would require a stronger showing of substantial noninfringing uses.\textsuperscript{123} Justice Ginsburg was particularly persuaded by the fact that there was "no finding of any fair use and little beyond anecdotal evidence[,]" some of which was hearsay, that authorized and public domain works were shared on the defendants' networks.\textsuperscript{124} Still, Justice Ginsburg's opinion is unclear as to what is quantitatively "substantial" under \textit{Sony}.\textsuperscript{125}

What is clear, however, is that the more noninfringing uses a P2P network can show, the more likely it will fall within \textit{Sony}.\textsuperscript{126} \textit{Sony}'s hold-

\textsuperscript{117} See id. at 943 (Ginsburg, J., concurring); id. at 949 (Breyer, J., concurring).
\textsuperscript{118} See id. at 934 (majority opinion) (declining to address the Ninth Circuit's application of \textit{Sony}, other than to hold that other theories of secondary liability still apply).
\textsuperscript{119} In \textit{re Aimster Copyright Litig.}, 334 F.3d 643, 652–53 (7th Cir. 2003).
\textsuperscript{120} Research fails to uncover any other jurisdictions applying the \textit{Sony} safe harbor to products capable of substantial noninfringing uses.
\textsuperscript{122} Id. at 952–54.
\textsuperscript{123} See id. at 945 (Ginsburg, J., concurring).
\textsuperscript{124} Id.
\textsuperscript{125} See id. at 948 ("[Defendants'] products were, and had been for some time, overwhelmingly used to infringe . . . .").
\textsuperscript{126} See id.
ing was based on findings that time-shifting was a fair use, and that some
copyright owners authorized home copying of their works.\textsuperscript{127} The absence
of a fair use finding and insufficiency of evidence on authorization are the
bases for Justice Ginsburg’s ability to distinguish \textit{Sony}.\textsuperscript{128} Therefore, in
order to convince a majority of the Court\textsuperscript{129} that a Commentary Model P2P
would fall within \textit{Sony}’s safe harbor, these facts are crucial. Thus, a P2P
network must show, by persuasive and direct evidence, (a) that some of a
product’s uses qualify as fair uses;\textsuperscript{130} and (b) that the product is used to
share authorized and public domain works.\textsuperscript{131}

\textbf{a. Fair Use}

The Commentary Model is designed around the fair use doctrine, and
therefore much of the copying, distribution, and public performance that
would take place on such a network would qualify as a noninfringing use
under \textit{Sony}.\textsuperscript{132} The Copyright Act of 1976 (the Act) codifies the common
law doctrine of fair use, which the Supreme Court has described as “per-
mit[ting] courts to avoid rigid application of the copyright statute when, on
occasion, it would stifle the very creativity which that law is designed to
foster.”\textsuperscript{133} Section 107 of the Act provides that the fair use of a work, such
as criticism, comment, news reporting, teaching, scholarship, and research,
does not constitute infringement.\textsuperscript{134} That list is not exhaustive, however,
and courts have added to it where appropriate to maintain the proper bal-
ance between innovation and protection.\textsuperscript{135} Additionally, in order to deter-
mine whether a use is a fair use, section 107 provides four nonexclusive
factors:

(1) the purpose and character of the use, including whether such use is of
a commercial nature or is for nonprofit educational purposes;

\begin{itemize}
\item \textsuperscript{127} \textit{Sony} Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 456 (1984).
\item \textsuperscript{128} \textit{Grokster}, 545 U.S. at 945 (Ginsburg, J., concurring).
\item \textsuperscript{129} Three Justices felt strongly enough that \textit{Sony} was not satisfied to write separately to say so. \textit{Id.}
at 942 (Ginsburg, J., concurring). Three others felt strongly enough that \textit{Sony} was satisfied to write in
opposition to those three. \textit{Id.} at 949 (Breyer, J., concurring). The other three apparently did not feel
strongly enough either way to address that issue. \textit{Id.} at 918 (majority opinion). While the makeup of the
Court has changed since this opinion, satisfying the requirements that the most copyright-owner-
friendly Justices pressed should also convince the more technology-friendly Justices.
\item \textsuperscript{130} \textit{Id.} at 945 (Ginsburg, J., concurring); \textit{Sony}, 464 U.S. at 447.
\item \textsuperscript{131} \textit{Grokster}, 545 U.S. at 945 (Ginsburg, J., concurring); \textit{Sony}, 464 U.S. at 446.
\item \textsuperscript{133} Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539, 550 n.3 (1985) (internal
citations and quotation marks omitted).
\item \textsuperscript{134} 17 U.S.C. § 107.
\item \textsuperscript{135} \textit{E.g.}, \textit{Sony}, 464 U.S. at 454–55 (holding that “time-shifting” is a fair use).
\end{itemize}
(2) the nature of the copyrighted work;
(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
(4) the effect of the use upon the potential market for or value of the copyrighted work.136

i. Purpose and Character of the Use

The first factor to determine whether a use is a fair use is the “purpose and character of the use,” including whether it is commercial or nonpro-
fit.137 The Supreme Court has held that “[t]he enquiry here may be guided by the examples given in the preamble to § 107 . . . .”138 The Court of Ap-
peals for the Second Circuit has held further that “there is a strong pre-
sumption that factor one favors the defendant if the allegedly infringing work fits the description of uses described in § 107.”139 For example, NXIVM Corp. v. Ross Institute held that the use of quotations from a semi-
nar manual was a fair use in an online criticism of that seminar.140 Similarly, Wright v. Warner Books, Inc. held that incorporating portions of unpublished letters into a biography fit within scholarship or research, and therefore qualified as a fair use.141

The Commentary Model fits several of the descriptions in section 107. The Commentaries created and shared on the network are intended to comment on or criticize a prior work. Furthermore, the Commentary Model can be used for research or scholarship, if users include factual information in the Commentary, such as compilations in which the work can be found, dates or locations of prior or subsequent versions, dates of creation or publication, events of the author’s life surrounding authorship of the work, source of inspiration, and so on. Thus, the guidance from section 107’s preamble, which states that criticism, comment, research, and scholarship are fair uses, strongly favors a finding of fair use for the Commentary Model.142

In addition to the uses enumerated in section 107’s preamble, the purpose and character factor is comprised of two additional sub-factors: the

139. NXIVM Corp. v. Ross Inst., 364 F.3d 471, 477 (2d Cir. 2004) (internal citations and quotation marks omitted).
140. Id.
142. See Campbell, 510 U.S. at 578.
extent to which the new use is "transformative," and whether the new use is commercial or non-profit.  

A use is transformative, according to the Supreme Court, if it "adds something new, with a further purpose or different character, altering the first with new expression, meaning, or message . . .". A transformative use is not necessary to find a fair use, but because it promotes the purpose of copyright, which is the creation of new works, such a use is likely to be a fair use. Uses that have been deemed transformative include parodying a prior work, placing photos of concert posters in a biography of the artist promoted in the posters, and quoting from a prior literary work in order to criticize it. The Commentary Model is based on the creation of a new work, the Commentary, which comments on a prior work. The text of the Commentary would add something new, the purpose of which would be to describe, analyze, or criticize the original work. In most cases, the purpose of the original work is to entertain through music, so the purpose would be changed.

In Bill Graham Archives v. Dorling Kindersley, Ltd., the Second Circuit held that placing poster images "in chronological order on a timeline is transformatively different from the mere expressive use of images on concert posters or tickets." There, the defendant wrote a biography on the Grateful Dead, and, without authorization, included poster images for illustration. While an individual Commentary would not constitute such a chronology, a single search result could. For example, if one or several users commented on several Grateful Dead posters, including the date of each poster’s use and the circumstances surrounding its use, another user could search for Commentaries on Grateful Dead posters, and the search results would be something very similar to the defendant’s chronology in Bill Graham Archives. Indeed, depending on the depth of treatment of each Commentary, the search could render something similar to a biography of

144. Campbell, 510 U.S. at 579.
145. Id.
146. Id.
147. Bill Graham Archives, 448 F.3d at 612.
149. See 17 U.S.C. § 102(a) (2006) (providing copyright protection to “original works of authorship fixed in any tangible medium of expression”). The Act does not define “work of authorship,” but merely provides an illustrative list, which includes literary works. 17 U.S.C. § 102(a)(1). The text of the Commentaries, as well as which field to fill out and how, are “original” to the author of the Commentary, and the work is “fixed in [a] tangible medium of expression” by saving it in the software.
150. Bill Graham Archives, 448 F.3d at 609.
151. Id. at 607.
the Grateful Dead. The same is true for several Commentaries on a musician's songs that create a timeline for the composition, performance, and recording of each of those songs, or that describe the events in the musician's life that inspired those songs. Thus, such a use in the Commentary Model would be transformative.

Another sub-factor of the purpose or character of the use is whether it is commercial or non-profit. If a use is commercial, that fact weighs against a finding of fair use. The primary inquiry for commerciality is whether the defendant stands to profit from exploitation of the copyrighted material without paying the customary price. Of course, in the Commentary Model, the individual users would receive no financial benefit from writing and sharing Commentaries on various works. Nevertheless, according to Napster, "repeated and exploitative copying of copyrighted works, even if the copies are not offered for sale, may constitute a commercial use," if copies are made to save the expense of purchasing authorized copies. Even so, in the Commentary Model, the purpose of attaching the original work, or a portion thereof, is to give context to the comments on that work, and not to save the expense of purchasing multiple authorized copies. Any subsequent copying of the original work would be merely incidental to users downloading and understanding the Commentary.

In addition, in Grokster, the Supreme Court found it particularly relevant that more users led to greater advertising income, and that more infringing files led to more users. While that fact was relevant only to the Court's conclusion on intent, if such facts were true of a P2P using the Commentary Model, it could also lead to a finding of commercial use. Moreover, the Supreme Court has stated that the commercial use of copyrighted material is presumptively unfair.

Nevertheless, the Supreme Court has since tempered that statement, holding that commercial use is not conclusive, but merely a fact to be con-

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153. Id.
154. Id.
156. One may argue that this would be more true if users had the option to download only the Commentary, without the attached work. However, as will become clear infra Part II.B.3.a), the extent to which separating the Commentary from the attached work would weaken the vicarious infringement supervision argument outweighs the extent to which it would strengthen the Sony fair use argument.
158. Id. at 940.
sidered along with the other factors.\textsuperscript{160} Moreover, it has held that "the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use."\textsuperscript{161} Thus, even if the Commentary Model is found to be commercial because the administrator would likely sell advertising, or because users save the expense of purchasing authorized copies, the transformative nature of the use would reduce the effect of that finding.

In sum, the Commentary Model incorporates several of the uses enumerated in the preamble to section 107, which would weigh in favor of fair use. The transformative nature of the use would also weigh in favor of fair use. The commerciality would weigh against a fair use, but the transformative nature would reduce the effect of that sub-factor. Thus, in total, the first factor, purpose and character of the use, would favor a finding of fair use.

\textbf{ii. Nature of the Copyrighted Work}

The second factor to determine whether a use is a fair use is the "nature of the copyrighted work."\textsuperscript{162} Creative works, as opposed to informational or factual works, are the core of intended copyright protection, making fair use of those works more difficult to establish.\textsuperscript{163} P2P litigation generally focuses on musical compositions or other entertainment industry works.\textsuperscript{164} While no court has clearly defined what constitutes a creative work, the law is clear that musical compositions and other entertainment industry works are creative works.\textsuperscript{165} Therefore, this factor would weigh against a finding of fair use.

\textbf{iii. Substantiality of the Portion Used}

The third factor to determine whether a use is fair is the "amount and substantiality of the portion used in relation to the copyrighted work as a whole."\textsuperscript{166} This factor looks at whether the quantitative and qualitative portion that was copied from the original work is reasonable in relation to

\textsuperscript{160} Campbell, 510 U.S. at 585.
\textsuperscript{161} Id. at 579.
\textsuperscript{165} Campbell, 510 U.S. at 586; A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1016 (9th Cir. 2001).
\textsuperscript{166} 17 U.S.C. § 107(3).
the purpose of the copying.\textsuperscript{167} Copying the original work in its entirety does not necessarily weigh against fair use.\textsuperscript{168} However, even copying a small portion of a work can be substantial if it copies the "heart" of the work.\textsuperscript{169} Ultimately, the extent of copying that is permissible varies with the purpose and character of the use.\textsuperscript{170} If the defendant copied the minimum amount necessary for the intended transformative use, this factor would favor a finding of fair use.\textsuperscript{171}

In the Commentary Model, therefore, the amount of the original work that a user could attach to the Commentary would depend on the amount of that work that is necessary to put the comments about the work in context.\textsuperscript{172} In some instances, a user could attach the entire work to the Commentary, while in others a user could attach only a few quotes or a short clip. Determining whether the user copied too substantial a portion would therefore require a case-by-case analysis of the depth of the Commentary and the amount copied. In some Commentaries, the amount and substantiality of the portion used would weigh against fair use, and in some, it would weigh in favor of fair use.

iv. Effect of the Use on the Market

The fourth factor to determine whether a use is fair is "the effect of the use on the potential market for or value of the copyrighted work."\textsuperscript{173} Courts consider not only the extent of market harm that the defendant's actions caused, but also the extent of harm that would result if the defendant's conduct became unrestricted and widespread.\textsuperscript{174} While some language from \textit{Sony} has been interpreted to create a presumption of market harm where the use is commercial, such harm will not be inferred when the use is trans-
Moreover, while this factor also looks at the market for derivative works, according to the Supreme Court, only uses that copyright owners "would in general develop or license others to develop" are relevant. Thus, "there is no protectible derivative market for criticism," and any suppression of demand because of a Commentary's biting criticism would not be relevant to this factor.

Whether unlimited copying through P2P networks actually has an effect on the market value of musical works has been an issue of great contention. In the first trial against a P2P user, Sony BMG’s head of litigation testified that the plaintiff record companies had not "stopped to calculate the amount of [actual] damages [they have] suffered due to downloading . . . ." The estimates of sales lost to P2P networks range from several billion dollars per year, to virtually zero, depending on how the decrease in record sales is explained. However, because the attachments to Commentaries would not necessarily contain the entire work, these general estimates, as precise as they appear to be, cannot adequately address this factor for the Commentary Model.

A general guideline for market harm is whether the new use serves as a substitute for the original work on the market. In addition, market harm is a question of degree, and the importance of this factor will vary with both the amount of harm and the relative strength of the other factors.

In the Commentary Model, the effect on market value, like the substantiality of use, would require a Commentary-by-Commentary analysis. If

175. Id. at 590–91.
176. Id. at 592; 17 U.S.C. § 101 (2007) ("A 'derivative work' is a work based upon one or more preexisting works, . . . [in any] form in which a work may be recast, transformed, or adapted.").
180. Petition for a Writ of Certiorari at 8, Grokster, 545 U.S. 913 (2005) (No. 04-480), 2004 WL 2289200. While the petition does not explain how this estimate was reached, it appears to attribute the entire 31% decrease in record sales to P2P networks. Id.
181. John Schwartz, A Heretical View of File Sharing; New Report Says Downloading Doesn’t Cut Into CD Sales, N.Y. TIMES, Apr. 5, 2004, at C1 (discussing a study by Professors Felix Oberholzer-Gee and Koleman S. Strumpf, which examined the correlation between free P2P downloads and the decrease in album sales). The study compared spikes in downloading activity to record sales during the same period, finding essentially no correlation. Id. at C4. The study also concludes that most users who download music would not have purchased that music if they were unable to download it. Id.
182. See Campbell, 510 U.S. at 591.
183. Id. at 590 n.21.
a commentator attached only a few quotes from a large literary work\textsuperscript{184} or a small cropped image of a visual work,\textsuperscript{185} that copying would likely have no effect on market value at all, even if such use becomes unrestricted and widespread.\textsuperscript{186} On the other hand, if a commentator attached an entire song, and that song served as a substitute for purchasing it, then unlimited copying by users could have a substantial effect on the market value of that song. While it is possible, indeed likely, that many commentators would attach the entire work to their Commentaries, this factor would weigh in favor of fair use in the cases where they do not. Thus, in some Commentaries, the market effect would favor a finding of fair use; in others, it would weigh against fair use.

Considering the factors together, the ultimate conclusion depends largely on the specific Commentary, and one cannot reach a general conclusion. The purpose and character of the use would favor a fair use finding. The nature of the copyrighted work would weigh against fair use. The substantiality of the portion used and the effect of the use on the market would both require particularized inquiries into the specific Commentaries. Depending on the Commentary, the ultimate conclusion of whether the use is fair could come out either way. For this reason, one must conclude that, while many Commentaries would fall outside of fair use, many would also fall within it. Because many of the Commentaries would fall within the fair use doctrine, sharing those Commentaries would be a noninfringing use of a P2P employing the Commentary Model.\textsuperscript{187} Thus, a Commentary Model P2P could support a finding of fair use, as found in \textit{Sony}\textsuperscript{188} and required by Justice Ginsburg's concurrence in \textit{Grokster}.\textsuperscript{189} Therefore, the Commentary Model would likely fall within the \textit{Sony} safe harbor.

\textbf{b. Authorized and Public Domain Works}

In addition to fair use, a Commentary Model P2P could establish substantial noninfringing uses through authorization to share works. As \textit{Sony}
held, one copyright owner has “no right to prevent other copyright holders from authorizing” the copying, distribution, or performance of their own works through a given product.\textsuperscript{190}

In his concurring opinion in \textit{Grokster}, Justice Breyer, writing for two other Justices, accepted the defendants’ evidence that many of the files traded on those networks were authorized or in the public domain.\textsuperscript{191} Justice Ginsburg, however, also writing for two other Justices, referred to it as “mostly anecdotal evidence, sometimes obtained second-hand . . . .”\textsuperscript{192} She appears to require testimony directly from copyright owners that sharing is authorized, and may even require the percentage of authorized works to be comparable to the percentage of allegedly infringing works.\textsuperscript{193} Ultimately, the result of this disagreement is that more voluminous and more direct evidence of authorization is necessary to sustain a claim of substantial non-infringing uses.

Copyright owners can use P2P networks to broaden audiences and rejuvenate back catalogs.\textsuperscript{194} Many musicians therefore authorize the sharing of their works through P2P networks.\textsuperscript{195} Various publishers also authorize the sharing of electronic books and other works.\textsuperscript{196} Software developers often distribute software and updates through P2P networks to save expense in support systems.\textsuperscript{197} P2P networks can also be used to disseminate public domain works, for which authorization is unnecessary.\textsuperscript{198} All of these noninfringing works could be shared freely through a Commentary Model P2P, even without a detailed Commentary. A sharing user could list only minimal identification information in the Commentary, and attach the entire work. Thus, the evidence of authorized and public domain works is available, but diligence in collecting it would be necessary for a Commentary Model P2P to prevail.

In sum, the Commentaries that fall within the fair use doctrine, com-

\textsuperscript{190.} \textit{Sony}, 464 U.S. at 442.
\textsuperscript{191.} \textit{Grokster}, 545 U.S. at 952–53 (Breyer, J., concurring) (joined by Justice Stevens and Justice O’Connor).
\textsuperscript{192.} \textit{Id.} at 946 (Ginsburg, J., concurring) (joined by Chief Justice Rehnquist and Justice Kennedy).
\textsuperscript{193.} \textit{See id.} at 947 n.3 (noting that the \textit{Sony} plaintiff owned approximately 10% of copyrighted television programs, and that the \textit{Sony} defendant presented owners of approximately the same percentage of copyrighted television programs to testify that they authorized such copying).
\textsuperscript{194.} Brief for Sovereign Artists et al. as Amici Curiae Supporting Respondents, \textit{supra} note 31, at 18–19.
\textsuperscript{195.} \textit{Grokster}, 545 U.S. at 952 (Breyer, J., concurring).
\textsuperscript{196.} \textit{Id.} at 952.
\textsuperscript{197.} \textit{Id.} at 953; Posting of Oren to Oren Sreebny’s Weblog, \textit{supra} note 57.
\textsuperscript{198.} \textit{Grokster}, 545 U.S. at 953 (Breyer, J., concurring).
bined with the works that copyright owners authorize to be shared, would likely satisfy the requirement of substantial noninfringing uses. Therefore, the Commentary Model would likely fall within the *Sony* safe harbor. The Ninth Circuit held in *Grokster* that decentralized search indices prevented the actual knowledge of infringement required for a plaintiff to overcome *Sony*, and the Supreme Court did not overrule that portion of the holding.\(^{(199)}\) In addition, the Seventh Circuit implicitly held that substantial noninfringing uses would destroy a contributory infringement claim entirely.\(^{(200)}\) Therefore, because the Commentary Model would fall within *Sony*'s safe harbor, and because it would also use decentralized search indices, the administrator of such a network would not be liable for contributory infringement.

Nevertheless, reliance on the Commentary Model to avoid liability for contributory infringement is not without risk. The fair use doctrine can be unpredictable.\(^{(201)}\) Of greater concern, the boundaries of the *Sony* safe harbor have not been defined sufficiently to know whether any given percentage of noninfringing uses qualifies as substantial.\(^{(202)}\) This risk sits in stark contrast to the Filter Model, which, assuming copyright owner cooperation, prevents direct infringement by third parties. In the absence of direct infringement, the administrator of the Filter Model would not be liable for contributory infringement.\(^{(203)}\)

2. Active Inducement

Having avoided liability for contributory infringement, the Commentary Model must also escape liability for active inducement. As stated in *Grokster*, a defendant is liable for active inducement if it “distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement . . . .”\(^{(204)}\) “Thus, where evidence goes beyond a product’s characteristics or the knowledge that it may be put to infringing uses, and shows statements or actions directed to promoting infringement, *Sony*’s [safe har-

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199. See id. at 934 (majority opinion).
200. See Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd., 380 F.3d 1154, 1162 n.9 (9th Cir. 2004).
202. Compare Grokster, 545 U.S. at 942 (Ginsburg, J., concurring) with id. at 949 (Breyer, J., concurring).
203. See id. at 936 (majority opinion).
204. Id. at 936–37.
Active inducement thus looks to a defendant’s course of personal conduct, rather than simply to the product’s design.\(^{206}\)

In *Grokster*, the Supreme Court held three findings sufficient to show active inducement.\(^{207}\) “First, each company showed itself to be aiming to satisfy a known source of demand for copyright infringement, the market comprising former Napster users.”\(^{208}\) Second, neither company attempted to develop ways to limit infringement through use of its software.\(^{209}\) Third, the defendants made more money from advertising through increased use of their software, and infringement was the greatest use of the software.\(^{210}\) The Court noted, however, that the second and third factors would not be dispositive alone, but simply bolstered the conclusion drawn from the first.\(^{211}\) Evidence to support these features came from the defendants’ advertisements that aimed at capturing former Napster users and promoted the software’s ability to access copyrighted popular music, and from internal correspondence that indicated the intent to cause direct infringement.\(^{212}\)

Avoiding liability for active inducement under *Grokster* is simple in theory, but likely difficult in practice. A P2P network simply must avoid advertisements that promote infringement, must ensure that discoverable internal correspondence is free of evidence of intent to induce infringement, and should attempt to develop ways to limit infringement. In the Commentary Model, all advertisements should focus on the sharing of Commentaries about works, which may incidentally have copies of the works attached. As to limiting infringement, detailed tutorials on the relationship between the depth of the Commentary and the amount of the work that can be attached would likely satisfy that obligation. For instance, users should be advised that song clips should be as short as possible while still allowing a person reading the Commentary to understand it. Another way to limit infringement is to adopt a policy of immediately suspending any accounts sharing a Commentary that the administrator believes may cross into infringement.

205. *Id.* at 935.

206. *Id.* at 937 (“The inducement rule, instead, premises liability on purposeful, culpable expression and conduct, and thus does nothing to compromise legitimate commerce or discourage innovation having a lawful purpose.”).

207. *Id.* at 939, 941.

208. *Id.* at 939.

209. *Id.*

210. *Id.* at 939-40.

211. *Id.* at 939 n.12, 940.

212. *Id.* at 937-38.
This theoretically simple solution has been complicated by one post-
Grokster case, however. In *Perfect 10, Inc. v. Amazon.com, Inc.*, instead of
viewing *Grokster* as a new theory of liability, the Ninth Circuit engaged in
an extended discussion of common law principles of intent, in order to
reconcile prior Ninth Circuit contributory infringement case law with the
Supreme Court’s active inducement theory in *Grokster*. Ultimately, the
Ninth Circuit formulated a rule, under *Grokster’s* active inducement prin-
ciple, that a computer system operator would be liable “if it has actual
knowledge that specific infringing material is available using its system . . .
and can take simple measures to prevent further damage to copyrighted
works . . . yet continues to provide access to infringing works.” This
formulation is very similar to both the Ninth Circuit’s and the Seventh
Circuit’s rule for contributory infringement. However, by articulating
this rule under *Grokster’s* active inducement theory, the court rendered the
*Sony* safe harbor inapplicable.

A policy of immediately suspending any accounts sharing a Commentary
that may be infringing would allow a Commentary Model P2P to escape
this formulation of active inducement, as well. If the network
administrator gains actual knowledge of specific Commentaries that are
infringing, it must take simple measures to prevent further infringement.
Suspending users who share that Commentary would be a simple measure
that would prevent further damage to the copyrighted work. If the adminis-
trator does so, it would not continue to provide access to infringing works.
Thus, strict adherence to a suspension policy would allow a Commentary
Model P2P to avoid liability for active inducement under *Perfect 10, Inc.*

Even so, the difficulty of ensuring that no evidence of intent to induce
infringement is ever manifested in any discoverable internal document
highlights the risk inherent in the Commentary Model. By contrast, an admin-
istrator of the Filter Model, if properly implemented, could not be held
liable for active inducement because that model prevents direct infringe-

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214. *Id.* at 729 (citations and internal quotation marks omitted).
one who, with knowledge of the infringing activity, induces, causes or materially contributes to the
infringing conduct of another, may be held liable as a contributory infringer.”).
216. *See In re Aimster Copyright Litig.*, 334 F.3d 643, 650, 653 (7th Cir. 2003) (holding a network
liable if it has knowledge of direct infringement, and cannot show that it would have been disproportio-
nately costly to eliminate or reduce infringing uses).
218. *See Aimster*, 334 F.3d at 648, 653.
ment of all works registered with the administrator.\textsuperscript{219}

3. Vicarious Infringement

The third and final type of secondary infringement the Commentary Model must escape is vicarious infringement. Vicarious infringement is an "outgrowth" of \textit{respondeat superior}.\textsuperscript{220} A defendant is liable for vicarious infringement if it (a) has the right and ability to supervise the infringing activity, and (b) acquires a direct financial benefit from the infringement.\textsuperscript{221}

\textit{a. Supervision}

The first element is satisfied if a defendant has "both a legal right to stop or limit the directly infringing conduct, as well as the practical ability to do so."\textsuperscript{222} In \textit{Napster}, the legal right to limit infringing conduct was established by Napster's contractual right to refuse service and terminate accounts at its discretion.\textsuperscript{223} The practical ability to do so was established by evidence that Napster had in fact blocked users, coupled with its ability to search the network for infringing files, just as users search for files they want to download.\textsuperscript{224}

By contrast, in \textit{Perfect 10, Inc.}, the search engine Google did not have the right and ability to stop direct infringement by third party websites that copied, displayed, and distributed the plaintiff's copyrighted images.\textsuperscript{225} This is because Google could not "terminate those third-party websites or block their ability to host and serve infringing full-size images on the Internet."\textsuperscript{226}

Professor Nimmer argues that vicarious infringement can be easily avoided by simply not retaining a right to block users.\textsuperscript{227} However, simultaneously avoiding liability for both the \textit{Perfect 10, Inc.} brand of active inducement and vicarious infringement is not so easy, because the control necessary to avoid liability under the former\textsuperscript{228} satisfies one of the elements

\textsuperscript{220} \textit{Napster}, 239 F.3d at 1022.
\textsuperscript{221} \textit{Grokster}, 545 U.S. at 930; \textit{Perfect 10, Inc.}, 487 F.3d at 729–30.
\textsuperscript{222} \textit{Perfect 10, Inc.}, 487 F.3d at 730.
\textsuperscript{223} \textit{Napster}, 239 F.3d at 1023.
\textsuperscript{224} \textit{Id.} at 1023–24.
\textsuperscript{225} \textit{Perfect 10, Inc.}, 487 F.3d at 730.
\textsuperscript{226} \textit{Id.} at 731.
\textsuperscript{227} NIMMER, supra note 40, at § 12.04[A][3][b].
\textsuperscript{228} See \textit{Perfect 10, Inc.}, 487 F.3d at 729 (holding that a computer system operator must take simple measures to stop continued access to infringing material to avoid liability under \textit{Grokster}).
of the latter.\textsuperscript{229} Furthermore, \textit{Aimster} held that an encryption feature that prevented the defendant from policing the service, which would destroy a claim for vicarious infringement, was “merely another piece of evidence that it was a contributory infringer.”\textsuperscript{230} Therefore, simply declining to reserve a right to terminate access to the network, or building the network in a way that prevents that ability, would not allow a network to escape liability under all theories.

Nevertheless, a Commentary Model P2P has one argument that, despite its weaknesses, may disprove the element of control over the directly infringing conduct. Like in \textit{Napster}, a P2P using the Commentary Model would have the right and ability to terminate users’ access to the network.\textsuperscript{231} However, unlike in \textit{Napster}, the user of such a P2P incorporates the original copyrighted work into a new work, the Commentary.\textsuperscript{232} The work that is shared on the network is the Commentary, not the original copyrighted work upon which the Commentary is based. Because Commentaries are initially offered onto the network by their authors, sharing a Commentary is not infringement.\textsuperscript{233} Instead, the infringing act is writing the Commentary in such a way that it infringes the original work, rather than in a way that qualifies as a fair use.\textsuperscript{234} The Commentary Model’s administrator would retain no right or ability to control the amount or substantiality of the portion of the original work that the Commentary author incorporated into his Commentary, because that conduct would be done entirely locally on the user’s computer.

The Commentary Model is thus at least somewhat analogous to \textit{Bridgeport Music, Inc. v. WM Music Corp.}\textsuperscript{235} There, a plaintiff alleged vicarious infringement against the publisher of an allegedly infringing song.\textsuperscript{236} The court held that, because the publishing contract granted to the publisher only the right to own and exploit the works, but not the right to control

\textsuperscript{229} \textit{Id.} at 730 (holding that the right and ability to stop infringement is an element of vicarious infringement).

\textsuperscript{230} \textit{In re Aimster Copyright Litig.}, 334 F.3d 643, 654–55 (7th Cir. 2003).

\textsuperscript{231} \textit{See} A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1023–24 (9th Cir. 2001).

\textsuperscript{232} \textit{See} 17 U.S.C. § 102(a) (2006). The text of the Commentaries, as well as which field to fill out and how, are “original” to the author of the Commentary, and the work is “fixed in [a] tangible medium of expression” by saving it in the software.

\textsuperscript{233} \textit{See} 17 U.S.C. § 106 (“the owner of copyright under this title has the exclusive rights to do and to authorize” the enumerated acts); 17 U.S.C. § 201 (“Copyright in a work protected under this title vests initially in the author or authors of the work.”). If an author submits his work to a P2P, he assuredly would at least implicitly authorize other users to further share that work.

\textsuperscript{234} \textit{See} discussion supra Part II.B.1.a).

\textsuperscript{235} \textit{Bridgeport Music, Inc. v. WM Music Corp.}, 508 F.3d 394, 400 (6th Cir. 2007).

\textsuperscript{236} \textit{Id.}
the song writing activities, the publisher did not have the right or ability to
to control the infringing conduct of writing the infringing song. Likewise, a
Commentary Model P2P would retain the right and ability to control the
distribution of the infringing work, but not the infringing conduct of writ-
ing the infringing Commentary. Therefore, a Commentary Model P2P
would not be liable for vicarious infringement.

Nevertheless, this argument has its weaknesses. The entire argument is
based on viewing a Commentary and the attachment embodying the origi-
nal copyrighted work as one new and inseparable work. The administrator
has no control over the infringing creation of this work. However, if a court
viewed the Commentary as a separate work, independent from the attached
copyrighted work, then sharing the copyrighted work attached to the Com-
mentary would constitute infringement. The administrator would have
the right and ability to limit access to the network, and thus to stop the
sharing of that attached copyrighted work. Thus, if a court were not per-
suaded by the analogy to a publisher, a plaintiff would be able to prove the
administrator had the right and ability to stop or limit the infringement.

b. Financial Benefit

The second element of vicarious infringement is a financial benefit. A
financial benefit exists where the infringing material acts as a draw for
customers. In Napster, the court held that the financial benefit element
was satisfied where the defendant’s revenue depended on increases in its
user base, and its user base increased with the availability of infringing
music files.

The simplest and strongest way to attack this element of vicarious in-
fringement is to have no financial benefit; in other words, to make no mon-
ney. This is, of course, not the most profitable business model. Whether a
Commentary Model P2P makes money through advertising revenue or
through charging subscription fees, a greater user base would mean greater
profits, like in Napster. The more material that is available through a P2P
network, the greater would be the draw for a user base. This is likely true

237. Id.
(9th Cir. 2001); See David, supra note 71, at 1203.
239. See Perfect 10, Inc. v. Amazon.com, Inc., 487 F.3d 701, 730 (9th Cir. 2007).
240. Napster, 239 F.3d at 1023.
241. Id.
for both infringing and noninfringing material.\textsuperscript{243} Thus, regardless of the draw of noninfringing material, more infringing material would also increase the user base, and consequently the revenue. Therefore, essentially any P2P model that makes money is indistinguishable from \textit{Napster} on this element.

However, both elements of vicarious infringement must be satisfied to impose liability.\textsuperscript{244} Thus, if a Commentary Model P2P were able to convince a court that the infringing act is the authorship of a Commentary, an act over which it has no control, it could escape liability for vicarious infringement. As noted above, however, this argument is somewhat tenuous. This again highlights the advantage of avoiding direct infringement by employing the Filter Model.

CONCLUSION

P2P networks serve legitimate purposes that are consistent with the goals of copyright law. For that reason, the legal community should advise the technology community of a way to design a P2P network that can avoid liability for secondary infringement, and thus continue to operate in order to serve those legitimate purposes.

One way to avoid liability is to design the P2P network around the fair use doctrine. The Commentary Model does so, and therefore would likely fall within the \textit{Sony} safe harbor. If all advertising and office communications were diligently guarded so that they did not contain evidence of intent to encourage infringement, a Commentary Model P2P could also avoid liability for active inducement. In addition, the Commentary Model is designed so that an administrator implementing it would have no control over the infringing authorship of a Commentary. By analogizing to the publisher of an infringing work,\textsuperscript{245} a Commentary Model P2P may also be able to avoid liability for vicarious infringement. However, the Commentary Model would operate close to the line of infringement, and therefore would have some risks.

Another, far less risky way to avoid liability is to develop a filter to prevent sharing unauthorized works. A defendant is not liable for contributory infringement, active inducement, or vicarious infringement in the absence of direct infringement.\textsuperscript{246} Thus, by preventing direct infringement, a

\textsuperscript{243} See \textit{id.} at 954 (Breyer, J., concurring).
\textsuperscript{244} \textit{Napster}, 239 F.3d at 1022–23.
\textsuperscript{245} \textit{Bridgeport Music, Inc. v. WM Music Corp.}, 508 F.3d 394, 400 (6th Cir. 2007).
\textsuperscript{246} See \textit{Grokster}, 545 U.S. at 930.
P2P employing the Filter Model would be able to avoid liability under any theory. This model is not perfect, however, because it would impose significant burdens on copyright owners, and would not adequately protect fair uses.

Previously, P2P administrators have designed networks around the features of their predecessors that led to liability. This comment has continued this process, and developed two potential models for P2P networks to avoid liability under current case law.\(^{247}\) The ability of these two models to avoid liability indicates that technological structure is one potential solution to the P2P problem. While no solution herein devised is perfect, if we continue peering towards the horizon, we may find a way to peer-to-peer beyond it. We may even find an island of author compensation along the way, and make honest sailors of pirates.

\(^{247}\) Even so, it must be recognized . . . that the three strands of secondary liability discussed above are not necessarily exclusive. . . . [A] party intent on avoiding responsibility, even if it assiduously avoids respondent superior vicarious liability, contributory infringement under Sony, and inducement under Grokster, is not automatically out of the woods. Nothing forecloses yet another doctrine from arising in future cases where appropriate analogy to common law can fill the gaps left by existing species of secondary liability.

NIMMER, supra note 40, at § 12.04[A][3][a].