THREE REACTIONS TO MGM V. GROKSTER

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It was prescient of the Michigan Telecommunications and Technology Law Review to have organized a conference to discuss the Supreme Court’s decision in Metro-Goldwyn-Mayer, Inc. v. Grokster, Inc. 1 As the articles in this issue reveal, commentators have had somewhat mixed reactions to the Grokster decision. 2 Perhaps I am the most mixed (or mixed up) about Grokster among its commentators, for I have had not just one but three reactions to the Grokster decision. 3

My first reaction was to question whether MGM and its co-plaintiffs really won the Grokster case, or at least won it in the way they had hoped. 4 This question arose because MGM had propounded several theories on which it had hoped to win the case, and the Court’s unanimous decision endorsed none of them. My second reaction was to worry that courts would take too literally the off-handed dicta in Grokster about the

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2. See, e.g., the comments of Michael Carroll, Niva Elkin-Koren, and Anthony Reese in this volume.
3. If one counts the huge sigh of relief I breathed upon first reading the Court’s decision, that would make four reactions.
4. See Pamela Samuelson, Did MGM Really Win the Grokster Case?, Comm. ACM, at 19 (Oct. 2005). Part I of this Article derives from that essay. For the sake of simplicity, this essay will refer to MGM as though it was the sole plaintiff in the Grokster case; I am, however, well aware that MGM was one of many co-plaintiffs.
relevance of filtering technologies and would impose obligations upon makers of peer to peer and other distribution-enabling software to filter for infringing content, even though filtering technologies cannot do the task well enough to be worth the effort. Conferring with technologists knowledgeable about filtering led me to conclude that filtering technology is unlikely to ever be good enough to achieve the intended goal. My third reaction emerged as I reflected upon various developments in the first year or so after the Grokster decision, which suggested that my fears about court-ordered technology mandates had not been borne out. The safe harbor for technologies with substantial non-infringing uses, established more than twenty years ago in Sony Corp. of America v. Universal City Studios, survived its toughest challenge yet in the Grokster decision, and seems likely to continue to be the default rule for judging secondary liability of technology developers for infringing acts of others for the foreseeable future.

I. FIRST REACTION: DID MGM REALLY WIN THE GROKSTER CASE?

MGM’s media blitz after the Supreme Court announced its decision in Grokster in late June 2005 gave the impression that the entertainment industry won an overwhelming and broad victory against peer to peer (p2p) file sharing and file sharing technologies. MGM can, of course, point to the 9–0 vote that vacated the Ninth Circuit Court of Appeals’ decision that Grokster could not be charged with contributory infringement because it qualified for a safe harbor established by the Supreme Court in 1984 in Sony. The safe harbor protects technology developers who know, or have reason to know, that their products are being widely used for infringing purposes, as long as the technologies have, or are

8. See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 380 F.3d 1154 (9th Cir. 2004), vacated, 125 S. Ct. 2764, 2783 (2005), remanded to 419 F.3d 1005 (9th Cir. 2005).
capable of, substantial noninfringing uses (SNIUs). The Court in Grokster saw no need to revisit the Sony safe harbor. However, it directed the lower courts to consider whether Grokster actively induced users to infringe copyrights, a different legal theory.

MGM did not really want to win Grokster on an active inducement theory. It had been so wary of this theory that it did not actively pursue it in the lower courts. What MGM really wanted in Grokster was for the Supreme Court to overturn or radically reinterpret the Sony decision and eliminate the safe harbor for technologies capable of SNIUs. MGM thought that the Supreme Court would be so shocked by the exceptionally large volume of unauthorized up- and downloading of copyrighted sound recordings and movies facilitated by p2p technologies, and so outraged by Grokster’s advertising revenues—which rise as the volume of infringing uses goes up—that it would abandon the Sony safe harbor in favor of one of the stricter rules proposed by MGM. These stricter rules would have given MGM and other copyright industry groups much greater leverage in challenging disruptive technologies, such as p2p software. Viewed in this light, MGM actually lost the case for which it was fighting. The copyright industry’s legal toolkit to challenge developers of p2p file-sharing technologies is only marginally greater now than before the Supreme Court decided the case.

The Grokster case was sent back to the lower courts for further proceedings consistent with the Supreme Court’s opinion. Yet, even if the Court had ruled in Grokster’s favor, further proceedings would have happened anyway. The only issue on which the lower courts had ruled was whether Grokster qualified for the Sony safe harbor defense to MGM’s contributory infringement claim as to current versions of its software. Liability theories predicated on earlier versions of its software or other conduct had not yet been considered. Upon remand, Grokster settled with MGM, although StreamCast did not. StreamCast could not have been surprised by the trial court finding that it was liable for inducing copyright infringement.

10. Grokster, 125 S. Ct. at 2778.
Had Grokster won before the Supreme Court, MGM and copyright industry groups would have gone immediately to Congress to insist on technology-hostile legislation akin to the INDUCE Act sponsored by Senators Hatch and Leahy in 2004. There would have been a big fight between the technology industry and the entertainment industry over what the legislation should look like, but some legislation would almost certainly have ensued. Frankly, any law that would have come out of that sausage factory would have been a lot less technology–friendly than the Grokster decision the Supreme Court issued. Thus, the narrow victory MGM won before the Supreme Court has deprived it—for now—of its strongest argument for legislation to put p2p and other disruptive technology developers out of business. Insofar as MGM’s goal in the Grokster case was to persuade the courts or the Congress to give it much stronger legal protection, it did not succeed.

A. Justice Souter’s Majority Opinion

All nine Justices joined the Grokster opinion written by Justice Souter. The opinion began with the Court’s statement of the question presented by the case: “under what circumstances [is] the distributor of a product capable of both lawful and unlawful use liable for acts of copyright infringement by third parties using the product.” (Compare this to the question that MGM had asked the Court to address: “Whether the Ninth Circuit erred in concluding . . . that the Internet-based ‘file sharing’ services Grokster and StreamCast should be immunized from copyright liability for the millions of daily acts of copyright infringement that occur on their services and that constitute at least 90% of the total use of the services.” MGM had been hoping that the Court would say that the Sony defense didn’t apply to “services” such as Grokster’s and that the estimated 90% of infringing uses on Grokster’s p2p system attested to by MGM’s expert was intolerable.)

Justice Souter then succinctly stated the Court’s conclusion: “one who 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, is liable for the resulting acts of infringement by third parties.” The Court accepted that the Sony decision limited technology developer liability insofar as it was predicated on the design,
distribution, and uses made of an infringement-enabling technology. The court noted, however, “where evidence goes beyond a product’s characteristics and uses, and shows statements or actions directed to promoting infringement, Sony’s staple-article rule will not preclude liability.”

(The Court drew upon patent law for this principle. Active inducers of patent infringement cannot escape liability by showing that they are selling a technology suitable for non-infringing uses. However, merely selling a technology suitable for non-infringing uses does not establish active inducement of patent infringement. The Court, thus, borrowed patent law’s staple article of commerce rule in Sony, as well as its active inducement rule in Grokster.)

Concerning evidence of inducement, the Court said that “the record was replete with evidence that from the moment Grokster and Stream-Cast began to distribute their free software, each one clearly voiced the objective that recipients use it to download copyrighted works, and each took active steps to encourage infringement.” Stream-Cast, for example, “monitored both the number of users downloading its [] program and the number of music files they downloaded” and promoted Stream-Cast’s software “as the #1 alternative to Napster.” Stream-Cast’s executives “aimed to have a larger number of copyrighted songs available on their networks than other file-sharing networks” and provided users with the ability to search for “Top 40” songs. Grokster “sent users a newsletter promoting its ability to provide particular copyrighted materials.”

Grokster and Stream-Cast sought to avoid the taint of these “bad” facts by, in effect, bifurcating the lawsuit into “then” and “now” time periods. Grokster and Stream-Cast asked the lower court to rule that they qualified for the Sony safe harbor as to current versions of their software. Grokster and Stream-Cast were hoping that evidence of earlier misconduct would not spill over to the more recent period during which they had arguably cleaned up their acts. A successful Sony safe harbor defense as to current technologies would mean that these defendants could continue to operate while the legal proceedings dragged on as to earlier versions of the software and other conduct. Money damage awards subsequently imposed as to earlier versions of the software might

19. Id. at 2779.
21. Id. § 17.04[3]. See also 35 U.S.C. § 271(c).
22. Grokster, 125 S. Ct. at 2772.
23. Id. at 2773.
24. Id. at 2773–74.
25. Id. at 2774.
Eventually force them to shut down, but a successful Sony defense would give them an opportunity to sell ads to display to their users in the meantime.

During oral argument, Justice Souter expressed skepticism about this legal strategy:

I don’t understand how you can separate the past from the present in this fashion. One, I suppose, could say, ‘Well, I’m going to make inducing remarks Monday through Thursday, and I’m going to stop Thursday night.’ The sales of the product on Friday are still going to be the result of inducing remarks Monday through Wednesday. And you’re asking [us], in effect, . . . to ignore Monday through Thursday. 27

Grokster’s lawyer responded that the trial court could consider whether “past acts were themselves illegal” and whether “the causal consequences of those past acts should somehow reach forward into the current acts.” 28 Justice Souter then questioned the point of the lower court’s ruling and characterized as “bizarre” the bifurcated theory of the case. 29

Given this exchange, it was not at all surprising that the Court sent the case back to consider an active inducement theory of liability. Insofar as the Ninth Circuit’s ruling in favor of Grokster could be construed as precluding liability for current versions of the defendants’ software on any secondary liability theory because their software was capable of SNIUs, the Court decided that the Ninth Circuit had interpreted Sony too broadly. 30

B. Why Inducement May Not Solve MGM’s Problems

MGM is not all that keen to pursue inducement claims against developers of p2p and other infringement-enabling technologies because such claims are tough to prove. Although copyright law does not have a secondary liability provision, it was foreseeable that, when presented with an appropriate copyright inducement case, courts would borrow an inducement liability standard from patent law, just as the Supreme Court had borrowed the safe harbor for SNIU technologies from patent law in Sony. Patent law requires proof of overt acts of inducement, 31 such as advertising that actively promotes infringing uses or instruction manuals.

28. Id. at 44.
29. Id. at 45.
30. Grokster, 125 S. Ct. at 2778–79.
31. See, e.g., Chisum, supra note 20, § 17.04[4].
that show users how to infringe, as well as proof of a specific intent to induce infringement.\(^{32}\) In addition, there must be underlying infringing acts that were induced by this defendant.\(^ {33}\) Merely making or selling an infringement-enabling technology will not suffice to trigger inducement liability, even if the technology is widely used for infringing purposes.\(^ {34}\) The public interest in access to the technology’s non-infringing uses is protected by the SNIU safe harbor. Moreover, some authority supports the proposition that active inducers can continue to sell technology with SNIUs after they stop overt acts of inducement.\(^ {35}\) This strict standard will often be difficult for the entertainment industry to meet.

MGM has been concerned that developers of p2p software will articulate a plausible substantial non-infringing use for their technologies, such as downloading open source software, and will be careful not to say anything that directly encourages infringing uses. MGM believes that they will nonetheless secretly intend to benefit from infringing uses that ensue. If there are no overt acts of inducement and no proof of specific intent to induce infringement, and if the \textit{Sony} safe harbor continues to shield technology developers from contributory liability, MGM will find itself on the losing side of challenges to technology developers for infringing acts of their users. That is why MGM did not really want to win the \textit{Grokster} case on this theory.

\textbf{C. Justices Ginsburg and Breyer on the Sony Safe Harbor}

Although the Court was unanimous about remanding the case to consider active inducement, the Justices appear to be in three camps about the \textit{Sony} safe harbor for technologies with SNIUs. Justice Ginsburg, writing a concurring opinion for herself and Justices Kennedy and Rehnquist, questioned whether there was sufficient evidence in the record to conclude that Grokster’s software had or was capable of SNIUs.\(^ {36}\) Her opinion suggests that she construes the \textit{Sony} safe harbor more narrowly than other Justices.\(^ {37}\) Justice Breyer, writing for himself and Justices Stevens and O’Connor, used his concurrence to explain why he supports preserving the \textit{Sony} safe harbor.\(^ {38}\) Justice Souter’s decision for the Court says some positive things about the \textit{Sony} safe harbor, such as

\begin{itemize}
  \item [32.] \textit{Id.} § 17.04[2].
  \item [33.] \textit{Id.} § 17.04[1].
  \item [34.] \textit{Id.} § 17.04[3].
  \item [35.] \textit{Id.}
  \item [37.] \textit{Id.} at 2784 n. 1.
  \item [38.] \textit{Id.} At 2787–96.
\end{itemize}
that “it leaves breathing room for innovation and vigorous commerce.”

But whether Justices Souter, Scalia and Thomas would be willing to revisit the *Sony* safe harbor in a different case remains to be seen.

Justice Ginsburg agreed with MGM that *Sony* was a very different case than *Grokster* and that the *Sony* decision did not unequivocally establish blanket immunity for technologies capable of SNIUs. If the *Grokster* case was not resolved on an active inducement theory, Justice Ginsburg thought the lower courts should consider whether Grokster and StreamCast should be held contributorily liable for user copyright infringements because their products “were, and had been for some time, overwhelmingly used to infringe copyrights” and “infringement was the overwhelming source of revenue from the products.” Justice Ginsburg questioned whether the evidence really established, as the lower courts had opined, that Grokster had and was capable of non-infringing uses. While she did not endorse the “primary use” standard of contributory liability for which MGM argued, Justice Ginsburg seemed willing to leave less breathing room for developers of infringement-enabling technologies than other members of the Court.

Justice Breyer accepted that Grokster had qualified for a *Sony* safe harbor defense to charges of contributory infringement because the technology had SNIUs. His concurrence mainly considered whether “MGM has shown that *Sony* incorrectly balanced copyright and new-technology interests.” He posed three further questions to inform his answer to the larger question: “(1) Has *Sony* (as I interpret it) worked to protect new technology? (2) If so, would modification or a strict interpretation significantly weaken that protection? (3) If so, would new or necessary copyright-related benefits outweigh such weakening?”

Justice Breyer concluded that *Sony* did indeed protect new technologies “unless the technology in question will be used *almost exclusively* to infringe copyrights.” The *Sony* safe harbor “shelters VCRs, typewriters, tape recorders, photocopiers, computers, cassette players, compact disc burners, digital video recorders, MP3 players, Internet search engines, and peer-to-peer software,” but not cable descramblers. The latter may be theoretically capable of non-infringing uses, but they do not have and are not capable of plausible SNIUs. The *Sony* safe harbor is good in

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39. *Id.* at 2778.
40. *Id.* at 2784–85.
41. *Id.* at 2786.
42. *Id.* at 2785–86.
43. *Id.* at 2787–89.
44. *Id.* at 2791.
45. *Id.*
46. *Id.* at 2791.
47. *Id.* at 2792.
part because it is clear and in part because it is forward-looking. “It does not confine its scope to a static snapshot of a product’s current uses (thereby threatening technologies that have undeveloped future markets),” citing VCRs as an example of a technology whose uses evolved considerably over time. Moreover, the Sony safe harbor avoids ill-informed judicial second-guessing of technology design decisions.

Justice Breyer concluded that modifications of the Sony safe harbor “would significantly weaken the law’s ability to protect new technology.” Requiring technology developers to produce “business plans, profitability estimates, projected technological modifications, and so forth” would increase “the legal uncertainty that surrounds the creation or development of a new technology capable of being put to infringing uses.” Innovators “would have no way to predict how courts would weigh the respective values of infringing and non-infringing uses; determine the efficiency and advisability of technological changes; or assess a product’s future market.” Because copyright law requires imposition of statutory damages—which range from $750 to $30,000 per infringed work even in the absence of actual damages—“the price of a wrong guess” could be so costly that technological innovation would be chilled.

Justice Breyer found most difficult his third question about whether benefits to copyright owners from a modification of Sony outweighed the new technology interests that the Sony safe harbor had thus far protected. While “a more intrusive Sony test would generally provide greater revenue security for copyright holders,” it was less clear that “the gains on the copyright swings would exceed the losses on the technology roundabouts.” Because Sony has been the law for more than two decades, Justice Breyer thought that its longevity “imposes a serious burden upon copyright holders like MGM to show a need for change in the current rules of the game, including a more strict interpretation of the test.” Although unauthorized p2p copying probably had diminished copyright industry revenue, Justice Breyer noted that studies of the effects of p2p file sharing were unclear as to the extent of harm and whether creative output had diminished. Moreover, lawsuits against individual file-sharers appear to be having some deterrent effects, and there is evidence

48. Id.
49. Id.
50. Id.
51. Id. at 2792–93.
52. Id. at 2793.
53. Id.
54. Id.
55. Id.
56. Id. at 2794.
of a steady migration of users to licensed services such as iTunes.\footnote{Id. at 2794–96.} In view of these factors, Justice Breyer concluded that MGM had not made a persuasive case for modifying the Sony safe harbor.

**D. The Court Rejected MGM’s Alternative Tests**

The Court’s decision not to revisit the Sony safe harbor for technologies having or capable of SNIUs was very good news for the technology community. This aspect of the Court’s decision was, in itself, a considerable defeat for MGM and the entertainment industry which believed the “bad” facts of the Grokster case would be compelling enough to induce the Court to reinterpret Sony.

Also a defeat for MGM was the Court’s disinclination to adopt any of the numerous alternative tests for secondary that MGM and those who supported its position had proffered for the Court’s consideration, such as whether the primary use of a technology was for infringement, whether it had been intentionally designed for infringement, whether Grokster had a duty to build technology to thwart user infringement, whether technology developer liability should depend on cost/benefit analyses weighing how much infringement could have been averted by alternative designs, whether Grokster could be held liable because its business model was infringement-driven, and whether to use multi-factor balancing tests in secondary liability cases.\footnote{See, e.g., Reply Brief for Motion Picture and Recording Company Petitioners, supra note 11; Brief for the United States As Amicus Curiae Supporting Petitioners, Grokster, 125 S. Ct. 2764 (No. 04-480), available at http://www.eff.org/IP/P2P/MGM_v_Grokster/; Brief of Professors Peter S. Menell, David Nimmer, Robert P. Merges, and Justin Hughes, as Amicus Curiae in Support of Petitioners, Grokster, 125 S. Ct. 2764 (No. 04-480), reprinted in 20 Berkeley Tech. L.J. 509 (2005).} Although Justice Souter’s opinion indicated that when there is other evidence of inducement, courts can consider technology design and business models in considering whether active inducement of infringement has occurred,\footnote{Grokster, 125 S. Ct. at 2781–82.} it also makes clear that technology design and business models alone will not establish inducement liability.\footnote{Id.} Hence, as long as technology developers do not actively induce user infringements, they can continue to innovate and rely on the Sony safe harbor.
III. SECOND REACTION: WILL COURTS IMPOSE FILTERING OBLIGATIONS ON SOFTWARE DEVELOPERS?

The second phase of my reaction to Grokster began with the worry that courts would give too much weight to the dicta in Justice Souter’s opinion that a technology developer’s decision not to install filtering technologies to guard against infringement may be considered if there is other evidence of inducement, and too little weight to the cautionary footnote which said that failure to install filters would, by itself, be insufficient to establish secondary liability. This is troublesome given that no one knows how much evidence of inducement must exist before courts will start looking at technical design. Litigation threats have caused some p2p developers to start redesigning their systems. LimeWire, for example, has begun reconfiguring its p2p technology to block the exchange of files for which it cannot verify authorization. SNOCAP is one of a number of firms offering services to help p2p developers filter infringing files from their systems.

Before bowing to RIAA pressure to install filters, technologists and technology lawyers should realize that courts in the US have not imposed a duty to embed filters or other infringement-inhibiting features in general purpose information technologies. Although MGM sprinkled its briefs with references to Grokster’s failure to filter, there was no evidence before the Court about the feasibility or effectiveness of filtering technologies. There are many reasons to doubt whether filters will prevent copyright infringement to a meaningful degree. Courts should be very cautious in considering technical design, including decisions not to filter, as a factor in secondary liability cases.

65. StreamCast argued that filtering was infeasible, but the court responded: “Even if filtering technology does not work perfectly and contains negative side effects on usability, the
A. Arguments for Requiring P2P Developers to Install Filters

Filtering came up in the Grokster case in several ways: MGM argued that Grokster was vicariously liable for user infringements because it could have designed its technology to inhibit user infringements by installing filters. An amicus curiae brief submitted by several economists urged the Supreme Court to impose liability on technology developers if their failure to adopt alternative technical designs, such as filtering, enabled a large volume of infringement. SNOCAP and Audible Magic argued in amicus curiae briefs that they could provide filtering capabilities for p2p developers.

The main argument for filtering goes like this: Technologists are well-positioned to design products to prevent or inhibit infringing uses. Developers of p2p technologies, in particular, have reason to know their products will be used for infringing purposes. By not designing products that block infringing uses, technology developers impose huge costs on copyright owners. Making technologists build products that limit unauthorized copying would force them to internalize costs they are imposing on the copyright owners.

The entertainment industry also believes technology firms should be responsible because they make substantial profits from selling technologies that they have reason to know will be widely used to infringe copyrights. The market for information technology products is substantially larger because these products enable infringements. The more infringing uses or users there are for a technology, the larger will be its revenues. The entertainment industry considers much of the technology industry as “infringement-driven.”

B. Computer Scientist Brief Argument Against Filtering

Seventeen computer scientists—including luminaries such as Hal Abelson, Dan Boneh, David Clark, David Farber, Edward Felten, and

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67. See Reply Brief for Motion Picture and Recording Company Petitioners, supra note 11, at 44–49.
70. Reply Brief for Motion Picture and Recording Company Petitioners, supra note 11, at 2.
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Eugene Spafford—submitted an amicus brief to the Supreme Court in the Grokster case. The brief pointed out that the filtering technology for which MGM was arguing was as yet untested and unproven. Apart from self-interested assertions in the SNOCAP and Audible Magic briefs, there was no evidence that filters would be “effective in distinguishing infringing and non-infringing files if deployed in conjunction with software such as [Grokster’s].”

MGM’s suggested filtering strategy would, the brief noted, “require filtering software to be installed on users’ computers.” The brief questioned whether users would adopt updates of software with filters built in. Even after uploading filtering software, users might uninstall it. “End users ultimately have control over which software is on their computers.”

The brief also raised concerns about the distorting effects that a filtering obligation would have on the technical design decision-making. “To order network designers to add functionality to the network to avoid liability is to force significant inefficiencies into network design.” Peer to peer technologies offer some important advantages for communications networks, such as enhanced robustness, which filters will undermine. Omitting filters from one’s technology “may represent good conservative engineering.”

The brief predicted that a filtering obligation would “kick off an open-ended arms race between the filter designers and non-compliant users [to defeat the filters].” Filters can be defeated. Napster, for example, made intensive efforts to develop filtering software to block exchanges of infringing files after the Ninth Circuit said that it would be liable for infringements it did not block. Users easily evaded file-name filters (e.g., by typing N-i-r-v-a-n-a instead of Nirvana). Napster also filtered for fingerprints and hashes, but they too were evaded by technically sophisticated users. Napster argued that it was doing its best to upgrade its filters in response to evasion by users, but the trial judge overseeing the case ordered Napster to shut down unless it could filter at or near perfection (even though the Ninth Circuit had said perfection was

72. Id. at 14–15.
73. Id. at 14.
74. Id.
75. Id. at 6.
76. Id. at 9.
77. Id. at 16.
78. See, e.g., A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091, 1096 (9th Cir. 2002).
79. Id. at 1097.
not necessary).\textsuperscript{80} Notwithstanding the concerted efforts of Napster’s engineers and many highly skilled consultants, Napster was unable to consistently filter at this level and it shut down.\textsuperscript{81}

Filtering technology has since advanced. Today’s filters focus on fingerprints (unique samples from audio files) or watermarks (hidden information to identify a file). Yet, given the technical sophistication of many users of digital information and the availability of digital networks to share information and electronic tools, it is foreseeable that watermark- and fingerprint-based filters will be defeated without undue difficulty.\textsuperscript{82}

Justice Breyer’s concurring opinion in \textit{Grokster} mentioned the computer scientist brief as casting doubt on filters as a workable solution to peer to peer file sharing.\textsuperscript{83} But Justice Souter and others on the Court seem to have taken MGM at its word that filtering is possible. If some developers adopt filtering systems, judges may believe that filters have some utility in limiting infringement. To the arms race issue, judges may respond that efforts to defeat watermarks and fingerprints may violate the Digital Millennium Copyright Act (DMCA),\textsuperscript{84} and so can be regulated by this law.

\section*{C. Other Reasons to Doubt Filtering Can Work}

The problems with filtering go beyond those discussed in the computer scientist brief. Among other problems are these: (1) when developers should consider filters and why; (2) the interdependence of software components and implications of filters for redesigns; (3) figuring out what to filter; (4) where filters should reside in software; (5) whether to allow unmarked files to be exchanged (as iMesh is doing with its “grey stars” program);\textsuperscript{85} (6) what to do with legacy data; (7) how to keep filters adequately up-to-date; (8) whether a developer would have to extend the filters to all forms of copyrighted works; (9) the global nature

\textsuperscript{80.} Id. at 1098.
\textsuperscript{81.} Id. at 1099.
\textsuperscript{84.} 17 U.S.C. § 1201(a)(1).
of the Internet and the local nature of any US requirement for filtering; (10) and uncertainty about who should bear the costs of filtering.

Let’s say a firm is developing a p2p technology for some legitimate purpose (e.g., to enable faster downloads of open source software), but it knows the technology is capable of infringing uses. It can take comfort in the Supreme Court’s Grokster decision insofar as it recognizes advantages of p2p technology and states that a developer has no duty to install filters. Should the firm consider installing filters solely out of concern that its technology might be misused or out of fear that RIAA will sue it?

If the firm builds in filters, it will cost a lot more to develop the technology and may make it perform less well. Insofar as filters over-block content (e.g., block files that lack authorization mark-up, but are non-infringing) or insofar as filters slow down the performance of the technology, a developer may worry that users will choose alternative technologies that perform better because they do not filter. Insofar as the firm’s filters under-block content (e.g., files with watermarks that the filter did not catch), it might worry that RIAA will still sue it. There may be little point in building filters if it means having fewer customers or if doing so will not protect a firm against a lawsuit. How well will filters have to work before a company will be insulated from liability?

Now assume the firm developed a great technology without filters that becomes widely adopted. Assume further that fans start using it to download a large volume of copyrighted movies or sound recordings. At this point, does the firm say to itself “hey, I didn’t induce any of this infringement and my technology has a substantial non-infringing use, so I’ve got nothing to worry about,” or does it start thinking about how it could redesign the technology to install filters or whether the firm should strike a deal with a commercial filtering service?

To redesign the technology to install filters would be costly and time-consuming. The developer would have many decisions to make, including what to filter for, whether to allow unmarked materials to pass through the filter (because they could be infringing copies), whether to use a commercial firm such as SNOCAP as a filtering service, how filters will work with other components of the technology, and how much redesign of other components will be necessary to accommodate the filters. It will not be simple to figure out how much such a redesign will cost, but assume this could be done.

Can the developer also figure out how much copyright infringement the filters will avert and how much filtering would reduce entertainment industry losses? Judge Posner’s cost-benefit test in Aimster calls for such

86. Brief Amicus Curiae of Computer Science Professors, supra note 71, at 12–13 (giving BitTorrent as an example).
The comparative losses are to be weighed against the costs of installing infringement-inhibiting technologies such as filters. If the cost of installing infringement-inhibiting technology is not “disproportionately costly” as compared with infringement averted, \textit{Aimster} says a technology developer that chooses not to adopt the inhibiting design should be secondarily liable for user infringements.\footnote{In re\textit{ Aimster Copyright Litigation}, 334 F.3d 643, 649–50 (7th Cir. 2003).}

If a firm is not confident its filters will be perfect (and how could they be?), it will soon discover how difficult it is to calculate the losses a filter would avert. Should the developer measure possible copyright damages by figuring out how much it would have cost users to buy swapped songs on iTunes or Rhapsody, by the average settlement amount per infringement obtained in lawsuits that RIAA has brought against individual file-sharers, or by copyright law’s statutory damages rules? \footnote{Id.}

Copyright law says that courts must award statutory damages if copyright owners want to receive them.\footnote{The Supreme Court did not endorse, but did not explicitly repudiate, the \textit{Aimster} cost-benefit test.} Against non-willful infringers, courts can award damages anywhere between $750 and $30,000 \textit{per infringed work}, as it deems just. Against willful infringers, courts can award damages up to $150,000 \textit{per infringed work}.

If the technology is used by millions of people and billions of files are exchanged through its use, it doesn’t take a genius to realize that possible copyright “losses” measured in terms of statutory damages—what RIAA will argue for—would yield a very large number. The cost of redesigning a technology to install filters, in comparison, would almost certainly be much smaller.

Insofar as courts followed Judge Posner’s analysis in \textit{Aimster}, a non-filtering technology developer would likely flunk the disproportionately costly test. If a judge decided that the firm should have installed filters, those same statutory damages will be sought against the technology’s developer. This does not seem fair, especially if the firm made a good faith judgment that filters will not be effective.

Then there is the update issue. How can a developer build a filter that will stay up to date with identifying information for all copyrighted works released in the future? RIAA firms may install watermarks into their existing inventory of sound recordings. Even if a developer could incorporate them into its filters, it would have a never-ending job of

\footnote{See 17 U.S.C. § 504(c)(1).}
\footnote{17 U.S.C. § 504(c)(3).}
keeping up with all the watermarks for works released in the future. A similar update problem would arise as to fingerprints.

SNOCAP wants to solve the update problem by providing filtering services for p2p and other developers. It has obtained identifying information for many digital recordings. There are, of course, some advantages if one firm is able to provide filtering technology for p2p developers. SNOCAP may aspire to become a proprietary standard in this market. But will one filtering company really be able to filter all files transmitted via p2p networks? Who will be responsible if copyrighted works are not successfully filtered out? What if SNOCAP’s servers crash? Is a single technology a magnet for hacker attacks to defeat it? Would such a firm be in the position to charge monopoly rents and otherwise abuse monopoly power?

Attention thus far has mainly been focused on p2p sharing of sound recordings, but p2p technologies can be used to download motion pictures, software and other digital works. Perhaps all commercial copyrighted works in digital form will need to be fingerprinted or watermarked. It will be daunting, if not impossible, to filter for all commercially distributed copyrighted content available on the Internet.

The task of building effective filters is even more daunting when one considers that the Internet is a global communications network. The laws of some nations might require p2p developers to install filters, but other nations may not. This simple fact has consequences for whether local laws can be effective.

The only existing international consensus about secondary liability for copyright infringement is that liability should not be imposed merely because a firm provided the facilities used for infringement, whether those facilities are Internet access or p2p technology. Some nations have no secondary liability rules; some have more limited rules than the US. A Dutch court, for example, rejected a secondary liability claim against the KaZaa p2p service for user infringements. Yet, an Australian trial court recently held Sharman Networks, KaZaa’s owner, liable for user copyright infringements, finding that KaZaa had a duty to filter for copyrighted materials under Australian law. The latter ruling is on appeal.)

92. There is also a serious legacy issue with watermarks because of the enormous volume of copies of sound recordings out there that are not watermarked.


Firms can respond to conflicting national rules by moving their development facilities to a jurisdiction where technologists can not be held responsible for user infringements. They would then be free to design innovative technologies without filters. They could still disseminate the technology throughout the world cheaply and rapidly via the Internet because software can be downloaded from a site where it is lawful.95

Even if a developer doesn’t relocate, and even if it installs filters, new versions of the technology minus the filters, or open source clones of the technology minus the filters, may still crop up and be disseminated via the Internet. eMule, for example, is a new open source version of the eDonkey technology. Moreover, as the lower courts realized in Grokster,96 users who already have p2p software on their hard drives can continue to use it to file-share even if Grokster and other p2p developers are forced to shut down.

There are, in sum, many reasons to question whether filtering is a workable solution to limiting copyright infringement by users of p2p or other distributional technologies. The courts should, therefore, give little weight to the Supreme Court’s off-hand and ill-informed statement about inferring inducement of infringement from failure to install filtering technologies.

III. THIRD REACTION: NO CRISIS SO FAR

As Section I explained, my immediate reaction to the Grokster decision was to question whether MGM had won as much of a victory as it claimed. By the winter of 2005–06, the bleak aftermath of the Court’s filtering dicta struck me like an ice storm. I then spent several months worrying that courts would mandate installation of filtering features in infringement-enabling technologies. As I prepared to give the talk on which this Article is based at the Michigan conference on Grokster and as I reflected on what had (and had not) happened in the year or so since the Grokster decision, things did not seem so bad.

One important development is that a number of p2p file sharing companies whose products had been widely used for infringement have shut down, including Grokster, StreamCast, LimeWire, and eDonkey. But in light of the Court’s analysis of inducing acts in Grokster, these


shutdowns were to be expected. Technology developers who induce copyright infringement should not expect to be treated any differently than those who induce patent infringement. Yet, the entertainment industry has neither sued nor shut down all of p2p file sharing services. It appears, moreover, that the *Grokster* decision has not stopped or even slowed down p2p file-sharing.

Larry Lessig, among others, has suggested that the *Grokster* decision will have a chilling effect on innovation. I respectfully disagree. Many technology companies are continuing to offer innovative products and services in the industry, the entertainment industry has generally refrained from challenging new technologies that can make or distribute copies of copyrighted works. Moreover, legislation to overturn or modify the Supreme Court’s inducement standard has not been introduced in Congress.

As long as the courts apply high standards for inducement liability—requiring proof of overt acts of inducement, underlying acts of infringement, and a specific intent to induce infringement, as patent law requires and *Grokster* directs—there should be ample room for innovative technologies to continue to thrive. Engineers will need to watch what they say during the development process, and firms will need to think carefully about how they should go about building markets for their products and services. But these firms should probably be exercising such care even without the Court’s guidance about inducement liability.

Technologists and technology lawyers must recognize that the entertainment industry still wants courts to closely scrutinize many technical design decisions that arguably facilitate copyright infringement, including those that enable faster transmissions of data, larger data storage capacity, anonymous file transfers, and playful uses of content that arguably allow creation of derivative works. For example, the entertainment industry

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97. BitTorrent, for example, is still in operation, even though some had worried it might be vulnerable to litigation after *Grokster*. For a discussion as to why, see, e.g., Mark Schultz, *What Happens to BitTorrent After Grokster?*, TECHNOLOGY AND MARKETING LAW BLOG, June 28, 2005, http://blog.ericgoldman.org/archives/2005/06/what_happens_to.htm.


101. See supra notes 18–21 and accompanying text.
charged ClearPlay with secondary infringement because its software enabled people to bypass sex, violence, and indecent language in DVD movies; this lawsuit was dismissed after Congress created a safe harbor for such software.\footnote{102}

The entertainment industry is especially determined to regulate infringement-enabling digital technologies. Its plans suffered one setback in \emph{Grokster} and another when a federal appellate court struck down the FCC’s “broadcast flag” rule on grounds that the FCC lacked jurisdiction to impose a requirement on makers of technologies capable of processing digital TV signals to conform to the “flag” (encoded information about authorized uses of the content).\footnote{103} But this industry has not given up on regulating infringement-enabling technologies. It has asked Congress to give the FCC jurisdiction to impose technical protection mandates for technologies capable of receiving or processing digital radio and television signals.\footnote{104}

\emph{Grokster} may thus be only the first step in the next stage of the ongoing legal and policy debate about whether technical design should be regulated to protect the entertainment industry. If so, it may be too early to be complacent about the preservation of the \emph{Sony} safe harbor for technologies with substantial non-infringing uses and capabilities, because the entertainment industry is still at war against it. Yet, for now and for some years to come, the \emph{Sony} safe harbor will stand. In fact, \emph{Sony} stands firmer now than before the \emph{Grokster} decision because a unanimous Court perceived no need to revisit it, and recognized its importance in promoting innovation and commerce.

\footnote{103} \textit{Am. Library Ass’n v. Fed. Comm’cns Comm’n}, 406 F.3d 689 (D.C. Cir. 2006).