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From *Sony* to *Grokster*, the Failure of the Copyright Doctrines of Contributory Infringement and Vicarious Liability to Resolve the War between Content and Destructive Technologies

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CONTENTS

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† Assistant Professor of Law, University of Memphis School of Law; Associate Director for Law and Technology, The FedEx Institute of Technology, University of Memphis. The author wishes to thank the University of Memphis School of Law Foundation for its support of this article. The reader may wish to know that prior to becoming a commentator, the author was at one time General Counsel and then CEO of Scour, Inc., a leading multi-media search engine and file sharing network in its time. Scour managed a successful sale after the commencement of litigation by all the MPAA, RIAA and NMPA companies. My experience as a participant in the copyright wars of recent years has left me with no axes to grind other than a desire to explore and highlight what I believe to be inadequacies of the current law for all constituencies involved—content owner, technology innovator and consumer.

I. INTRODUCTION

THE HISTORY OF SECONDARY COPYRIGHT LIABILITY: FROM INTERSTITIAL GAP FILLER TO ARBITER OF THE CONTENT WARS (PART I REDUX)

Recent years have witnessed a stream of disputes between the major content owners, such as film studios and record labels, against the purveyors of new digital technologies. Copyright owners have challenged new devices like the portable MP3 player and digital video recorder and search and file sharing services, most notably P2P networks like Napster, Scour, and Kazaa. The film studios and record labels have cast the struggle as a moral crusade against "thievery," characterizing certain networks as a "21st century piratical bazaar," shaping the debate in clear terms of right and wrong, legitimate businesses against shady piracy operations, and the solid values of the past against wired youth who have no respect for property. While there is a great deal that is truly novel about digital media, distributed digitally over global networks, that will be explored in this article, there is nothing particularly new about this struggle.

Viewed in broader context, the string of disputes in the opening years of the 21st century is merely the most recent emanation of the generations-old battle between content and technology, in effect, the continuation of the same industrial turf war that pitted the film studios against the manufacturer of the VCR in the eighties, the record labels against purveyors of cassette tape systems and services in the seventies and the publishers against manufacturers of

photocopiers in the sixties.[1] In each case, the macro business issue is the same: a new device or system, now commonly termed a "destructive technology" by those on the content side, threatens the established modes of business and distribution controlled by content owners by virtue of their copyright ownership. In each case, the argument raised by the content owners is that their copyright monopoly in the popular content that will be played, recorded or distributed via this new technology extends to and therefore renders illegal the device or system at issue, whether it is a VCR, a photocopier or file sharing network. In each case, the legal theory argued by the content owners against the technologists is essentially the same, that although the purveyors of technology do not themselves directly violate copyright as they do not copy, distribute or otherwise tread on the statutory rights protecting film, music, and other works, they are contributorily infringing or vicariously liable for the infringements committed by users of their de-

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1. See generally, REPROGRAPHY AND COPYRIGHT LAW (Lowell H. Hattery & George P. Bush eds., 1964) for information and a variety of scholarly views on the efforts of the publishing industry to squelch the first automated, widely distributed photocopier, the Xerox 914, in 1960. Similarly, the recording industry fought the audio cassette recorder, unsuccessfully pushing for a royalty on cassette recorders and tapes. *See* Jon Pareles, *Grabbing for Royalties in the Digital Age,* N.Y. TIMES, Apr. 12, 1992, §2, at 26 (late edition, final). The recording industry did succeed in limiting the business arrangements made possible by the audio cassette recorder by statute with the Record Rental Agreement of 1984 which generally forbids the renting of phonorecords. *See* 17 U.S.C. § 109 (b) (2000). *Sony Corp. of America v. Universal City Studios, Inc.,* 464 U.S. 417 (1984), stands as the seminal case ruling on the legality of the first relatively inexpensive consumer VCR, the Sony Betamax. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001), *remanded sub nom. Leiber v. Napster, Inc.*, 2001 WL 789461 (N.D. Cal. 2001), *aff'd, A & M Records, Inc. v. Napster, Inc.*, 284 F.3d 1091 (9th Cir. 2002), is the result of the recording industry's war against the first mover in P2P file sharing networks. The Ninth Circuit recently remarked on the seeming inability of the music industry to meet a technology they like:

> From the advent of the player piano, every new means of reproducing sound has struck a dissonant chord with musical copyright owners, often resulting in federal litigation. This appeal is the latest reprise of that recurring conflict, and one of a continuing series of lawsuits between the recording industry and distributors of file-sharing computer software.

MGM Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1158 (9th Cir. 2004), cert. granted, 125 S.Ct. 686 (2004).

vice or service.[2]

The doctrines of secondary copyright liability themselves are designed to pin liability on those who do not actually violate the copyright statute, that is, those who do not directly infringe copyright rights, but, who, as a matter of fairness or to serve some other overarching policy concern, should nonetheless be liable for the copyright infringement of others taking place within their ambit. The doctrines have been an essential tool to break through organizational structures designed to skirt liability, to attack the bad actor in a scheme that may involve a number of players more directly involved with actual copying and distribution of works and to hold the person in charge accountable, even if he has studiously avoided trespassing the rights enumerated in the Copyright Act. The history of the doctrines is thus the story of judicial efforts to stretch the law to capture succeeding generations of always-inventive business people and pirates looking to skirt liability.

The lawyer's drive to rationalize, the copyright owners' vigilance in exploiting every opportunity to expand their rights, and the courts' need to fashion rules broad enough to meet the challenges of succeeding generations of pirates have pushed the doctrines from limited, fact-specific holdings to extremely broad equitable principles. In effect, copyright law has adopted the concepts of liability for joint tortfeasors while jettisoning the requirement of a joint enterprise and, likewise, confirmed the liability of the principal for the acts of his agent, even where no principal/agent relationship exists.

The net results of this evolutionary expansion to get at the bad guys are legal standards so lax that they no longer serve their intended policies, constrain judicial reasoning, or provide predictable results. The co-conspirator in a counterfeiting scheme, as well as someone providing parking, plumbing or other "support services" at a swap meet may be on the hook for copyright infringement. The dancehall owner who profits from the infringing performances of his

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2. There are, of course, notable exceptions where a technologist arguably engages in direct copyright infringement, most notably in recent years. *See* UMG Recordings, Inc. v. MP3.Com, Inc., 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

orchestra, as well as the organizer of a trade show whose participants may play infringing music in their booths are both liable for copyright infringement. Though there are a number of reasons for the expanding away of the limiting factors in these doctrines—knowledge and contributory acts for contributory infringement, right and ability to control and financial benefit for vicarious liability—the overall effect is rules that may extend copyright liability to those indirectly, even remotely involved with the actual reproduction or distribution of content.

A. *The Settled Rules and the Policies They Serve*

Notwithstanding the broad mandate of the doctrines and the several forces pushing their expansion, nearly a century of litigation has yielded settled verbal formulations of the rules for secondary copyright liability. Following the leadership of the Second Circuit, courts have expanded the concepts of respondeat superior and joint and several liability for tortfeasors deeply into the field of copyright,[3] creating two major sub-species of indirect copyright liability:

(1) "vicarious liability" which holds a party liable if "he has the right and ability to supervise the infringing activity and also has a direct financial interest in such activities"[4] and

(2) "contributory infringement" which holds a party liable if he has knowledge of the infringing activity and induces, causes or materially contributes to the infringing conduct of another.[5]

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3. As the Supreme Court explains, "vicarious liability is imposed in virtually all areas of the law, and the concept of contributory infringement is merely a species of the broader problem of identifying circumstances in which it is just to hold one individual accountable for the actions of another." *Sony*, 464 U.S. at 435.

4. Gershwin Publ'g Corp. v. Columbia Artists Mgmt., Inc., 443 F.2d 1159, 1162 (2d Cir. 1971).

5. *Id.* The nomenclature in this area can be confusing. Frequently, the broad concept of holding one liable for the infringements of another is termed "vicarious liability," with "contributory liability" being one subspecies of this broader concept. *See Sony*, 464 U.S. at 435. However, different standards for liability, with different rationales, have evolved in the case law under the headings of "vicarious liability" and "contributory liability." To avoid confusion,

Taken together, the rules serve several closely related policy interests. The rules promote fairness by holding liable those who knowingly assist infringement or have the power to stop infringement and fail to do so. By holding those with the power to stop infringement liable, the rules also encourage policing for copyright infringement. Likewise, by holding those who benefit from infringement liable, the rules for secondary liability serve a loss spreading function as well, requiring businesses who benefit from copyright infringement to internalize those costs.

The meaning of these rules is less clear than their broad mandate. Still, some generalizations may be gleaned from the significant body of precedent interpreting contributory infringement and vicarious liability in the context of traditional piracy and liability avoidance schemes in the old world of books, phonograph records and tapes.

B. *Breakdown of Contributory Infringement*

The concept of contributory infringement has existed for a long while in copyright, but up until the last two decades was quite limited in scope. In 1984, the Supreme Court summarized the precedent holding a third party liable for contributory infringement as those instances in which "the 'contributory' infringer was in a position to control the use of copyrighted works by others and had authorized the use without permission from the copyright owner."[6] Indeed, the concept of authorizing the exploitation

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this article treats "vicarious liability" and "contributory infringement" separately and refers to the broader concept of holding one party liable for the acts of another as "indirect liability."

6. *Sony*, 464 U.S. at 437. In encapsulating the precedent, the Court relied heavily on the opinion authored by Justice Holmes in *Kalem Co. v. Harper Bros.*, 222 U.S. 55 (1911). In *Kalem*, the Court held that the producer of an unauthorized film dramatization of the copyrighted novel, *Ben Hur*, was liable for sale of the motion picture to distributors who arranged for exhibition of the film. *Id.* When reviewing the case precedents in the *Sony* opinion, the Supreme Court characterized the precedents as situations in which "the 'contributory' infringer . . . authorized the use without permission from the copyright owner." *Sony*, 464 U.S. at 437. In fact, the Court in *Sony* went on to distinguish the sales of video tape recorders at issue in that case from the prior cases on the grounds that the case against the VTR rested on providing the "means" of

of another's work was so closely tied to the concept of "contributory infringement" that many courts and commentators viewed the addition of the new right "to authorize" exercise of other copyright rights in the 1976 Copyright Act as merely a confirmation of the doctrine of contributory liability as developed under the 1909 Act, the copyright statute which immediately preceded the present Act.[7]

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copying and "constructive knowledge" of that copying—a circumstance for which "[t]here is no precedent in the law of copyright." *Id.* at 436, 439. The Supreme Court summarized its own and lower court precedent: "In such cases, as in other situations in which the imposition of vicarious liability is manifestly just, the 'contributory' infringer was in a position to control the use of copyrighted works by others and had authorized the use without permission from the copyright owner." *Id.* at 437; *see also* Celestial Arts, Inc. v. Neyler Color-Lith Co., 339 F. Supp 1018, 1019 (E.D. Wis. 1971) (responding to defendant's argument that "contracting" with a third party to produce counterfeit copies does not constitute infringement, the court held, "[i]t is well settled that all parties who unite to produce counterfeit copies of copyrighted material are liable for damages"); Universal City Studios v. Nintendo Co., 615 F. Supp. 838 (S.D.N.Y. 1985) *clarified by* 726 F. Supp. 928 (S.D.N.Y. 1985), *aff'd*,797 F.2d 70 (2d Cir. 1986), *cert. denied*, 479 U.S. 987 (1986) (finding defendant liable for authorizing/licensing a third-party to breach another's copyright by making unauthorized copies or performances); *Sony*, 464 U.S. at 435 (indicating that "contributory infringement" was a fairly narrow concept).

7. *See* MELVILLE B. NIMMER & DAVID NIMMER, 3 NIMMER ON COPYRIGHT §12.04 [A] (2004) (reading the addition of the copyright right to "authorize" exercise of rights by others in 17 U.S.C. § 106 as confirming the established notions of indirect liability under the 1909 Copyright Act rather than creating a new, independent basis for infringement). Nimmer's interpretation is consistent with the view of the House Report on the '76 Act. The House Report explains that the "[u]se of the phrase 'to authorize' is intended to avoid any questions as to the liability of contributory infringers." H.R. REP. NO. 94-1476, at 61 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5674. The court in *Danjaq, S.A. v. MGM/UA Communications, Co.*, 773 F. Supp. 194, 201 (C.D. Cal. 1991), *aff'd sub nom.* Danjaq, S.A. v. Pathe Communications Corp., 979 F.2d 772 (9th Cir. 1992), likewise interpreted the use of "authorize" in the '76 Act as merely confirming the existing contributory liability doctrine, not establishing a new basis of direct infringement. *But see* ITSI T.V. Prod. v. Cal. Auth. of Racing Fairs, 785 F. Supp. 854, 860 (E.D. Cal. 1992) (holding that the right to "authorize" in 17 U.S.C. § 106 provides a new basis of direct infringement). In *ITSI*, the court found U.S. jurisdiction in a copyright matter because the "authorizing" took place in the U.S., even if other infringement took place in a foreign country. *Id.* at 854. The holding in *Columbia Pictures Industries, Inc. v. Aveco, Inc.*, 800 F.2d 59 (3d Cir. 1986), similarly found that "authorizing" public performance by renting rooms to watch videos is a direct infringement under the '76 Act.

Over the course of the last few decades, contributory infringement has expanded into a broader rule of general applicability, the touchstones for liability being knowledge and a material contribution to infringement.

1. *The Meaning of Knowledge.* It is now accepted with black-letter status that the standard for assessing knowledge is objective, that is, whether the defendant knew or had reason to know of the infringing activity.[8] This objective standard is alternatively phrased in cases as "actual or apparent knowledge"[9] or actual or "constructive knowledge".[10] An objective knowledge standard precludes people from shunting liability with studied and contrived, even if actual, ignorance.

The governing standard makes clear that the relevant object of the defendant's knowledge is "infringing activity." While there is no set verbal formulation or much explicit guidance on the meaning of "infringing activity," it is fair to say that courts historically tend to find the knowledge element satisfied if the defendant had a general understanding or belief that infringement of the sort alleged is likely taking place.[11] The plaintiff need not show that the defen-

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8. The objective standard for knowledge, here, as in most areas of the law, appears reasonable on its face. A defendant need not be rewarded for having a mind askew by nature, or, more importantly for theories of indirect liability, studiously maintained blank. An objective standard effectively modifies the standard from one prohibiting affirmative bad acts to one precluding negligent behavior. Instead of a negative injunction not to take action when one knows that it will aid or result in an illegal act, we have a positive requirement to meet an objective standard in those actions.

9. Cable/Home Communication Corp. v. Network Prod., Inc., 902 F.2d 829, 846 (11th Cir. 1990).

10. Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 262 (5th Cir. 1988).

11. More recent cases dealing with new technologies and computer networks in particular, which will be discussed at length in the sequel to this article, take a much tougher and ostensibly inconsistent line, requiring actual knowledge of a specific infringement at a time when remedial action is possible. *See* MGM Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1160-63 (9th Cir. 2004), *cert. granted*, 125 S.Ct. 686 (2004); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1021 (9th Cir. 2001), *aff'd*, 284 F.3d 1091 (9th Cir. 2002); Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc., 907 F. Supp. 1361, 1374 (N.D. Cal. 1995). These cases, from *Sony* forward, expressly reject the sufficiency of constructive knowledge. However, in practice, this tighter verbal formulation arguably has not raised the evidentiary hurdle for plaintiffs or

dant knew plaintiff's particular copyrights were being infringed or which specific acts resulted in the direct infringement at issue.[12]

Strangely, this broad reading of knowledge appears to be of rather recent origin or acceptance, even though it seems to be implicit in some of the most important, lawmaking precedent. In its *Sony* decision, the Supreme Court explained that defendant's liability would necessarily rest on a finding that the defendant sold equipment with "constructive knowledge [of the fact] that their customers might use the equipment to make unauthorized copies of copyrighted material" and later stated bluntly that, "[t]here is no precedent in the law of copyright for the imposition of vicarious liability [read secondary liability] on such a theory."[13]

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otherwise impacted ultimate results. The court, in *UMG Recordings Inc. v. Sinott*, 300 F. Supp. 2d 993, 998-99 (E.D. Cal. 2004), all but recognizes the divergent standards for knowledge, striving mightily to explain why the looser standard of knowledge developed in tangible media cases such as *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996) and finding expression with respect to technology in *Napster* ought to apply, while the more exacting standards expressed in *Religious Tech. Center* and more recently, *Grokster* should not apply. *See UMG Recordings*, 300 F. Supp. 2d at 998. The court does not address why it is appropriate to have different standards of knowledge in the same rule to be applied selectively depending on the technology or business arrangement at issue.

12. The Eastern District of California, the first court to rule on the merits of contributory infringement claim against a flea market operator, expressly rejected the defendant's contention that "actual 'knowledge of specific instances of infringement' are required to satisfy the 'knowledge' prong of contributory liability." *Sinott*, 300 F. Supp. 2d at 998. The court did not add much to the prior cases in stating affirmatively what type of knowledge will suffice as it based its finding that the knowledge prong was met largely on constructive knowledge and knowledge that ought to be imputed as a result of defendant's willful ignorance. *Id.* at 999. "Knowledge" in *Sinott*, as in the more widely cited flea market opinion *Fonovisa*, could only be disputed in the most legalistic sense as the facts revealed numerous cease and desist letters, visits from plaintiff's investigator's and other efforts to inform the defendant more fully. *Id.* at 999-1000. As the court put it, "Sinnott purposefully refused to witness the infringement, and chose not to act on the personal notification he received. This does not allow him to disavow knowledge of the infringement, however." *Id.* at 1000.

13. Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 418, 439 (1984).

2. *The Meaning of Contributory Acts.* The material contribution, cause or inducement of infringement may take the form of either (a) "personal conduct that encourages or assists the infringement" or (b) "provision of machinery or goods that facilitate the infringement."14 Alternatively, contributory acts have been parsed into (x) acts made with the purpose of providing direct assistance in expediting the underlying infringement or (y) acts to provide the means or facilities for the admitted copying.15 For the purposes of applying indirect liability theories to computer networks, providing the site and facilities for the infringement is to date the most important category of contributory acts under the current cases.[16]

Any limitations placed on the nature of contributory acts have been largely superseded in any jurisdiction that has embraced the Ninth Circuit's *Fonovisa* decision. In that decision, the court applied a "site and facilities" analysis to hold that a flea market operator was liable for the sale of counterfeit records by a third-party vendor who sold its wares at the flea market. The relevant contributory acts in the view of the court were the "support services" provided by the swap meet, including the "provision of space, utilities, parking, advertising, plumbing and customers."[17] The Ninth Circuit rejected the approach of the district court that required some showing that the defendant expressly promoted or encouraged the sale of counterfeit products. The decision does not directly address the issues of how substantial or directly related the contribution needs to be. It seems that *Fonovisa* establishes an implicit rule that providing the site or facilities for infringement is a substantial and direct enough participation for establishing contributory liability. While the *Fonovisa* approach certainly serves the interest of incentivizing self-policing, it does so by a tremendous loosening of the legal standard, presump-

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14. Matthew Bender & Co., Inc. v. West Pub. Co., 158 F.3d 693, 706 (2d Cir. 1998) (holding that use of West's "star pagination" system in Bender's CD-ROM versions of judicial opinions did not contributorily infringe West's copyright in the organization of its judicial opinion reporters).

15. Demetriades v. Kaufmann, 690 F. Supp. 289, 293 (S.D.N.Y 1988).

16. *See, e.g., Grokster*, 380 F.3d at 1154; *Napster*, 239 F.3d at 1004.

17. Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 264 (9th Cir. 1996).

tively roping in third-parties for providing services and facilities only tangentially related to the infringement at issue. Landlords and perhaps even gardeners, plumbers and trash collectors who offer their services to likely infringers may be on the hook for providing the "site and facilities" for infringement via their "support services."[18]

C. *Breakdown of Vicarious Liability*

The theoretical underpinnings for vicarious liability, as well as the problems the doctrine addresses, differs somewhat from those of contributory infringement. Instead of looking to a defendant's participation in an infringement operation and his culpability for that participation as contributory infringement, vicarious liability looks to the strict liability of rationales of respondeat superior liability to hold the person who is in charge and benefits from infringement liable, even if he wished to avoid infringement and took reasonable steps to avoid infringement. Much of the early precedent deals with whether dancehall operators are responsible for the unauthorized performance of musical works by independent contractor orchestras within the establishments. The cases produce a neat dichotomy still employed by courts today between dancehall proprietors who are liable for the infringing performances of orchestras, whether employee or independent contractor, on the one hand, and absentee landlords on the other hand, who are not liable for the copyright infringements of their tenants.

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18. One recent district court opinion indicates that there is only so far a court will go in hanging liability on third-party, content-neutral service providers, notwithstanding *Fonovisa*. In *Perfect 10, Inc. v. Visa International Service Assn*, No. C 04-0371 JW, 2004 WL 1773349 (N.D. Cal. Aug. 5, 2004), discussed *infra*, the court found that credit card service companies engaged in processing membership fees for a web site operator were too tangentially related to the posting of infringing photos on the site for contributory infringement liability to attach. That court, however, did not challenge the rule of *Fonovisa*. Instead, it attempted to distinguish the case on the facts. The opinion concluded that plumbing, parking and the type of support services at issue in *Fonovisa* "were directly tied to not only the business operations of the infringers, but specifically to their infringing conduct" where credit card processing was not. *Id.* at *3. The court also concluded that plumbing and the like are "essential" where credit card processing is not. *Id.* at *4. The court reached what most would consider an uncontroversial result, but the distinctions on which it relied, placing plumbing closer to the heart of a piracy operation than credit cards, is dubious. *See id.* at *1.

The elements of vicarious liability are easy to state—(1) the right and ability to control coupled with (2) a direct financial benefit. As explained below, understanding these elements in the context of the circumstances in which the cause of action arises is not such a simple matter.

1. *The Meaning of Right and Ability to Control.* Generally speaking, "defendants are found to have 'control' over a performance if they 'either actively operate or supervise the operation of the place wherein the performances occur, *or* control the content of the infringing program.' " [19] The focus is on the defendant's *potential* or as the standard puts it, "the right and ability to control," regardless of what the contract says and how the relationship actually works in practice.[20] Because the question is one as to ultimate, rather than practical operational control, the power to exclude suffices to establish the right and ability to control.[21] The ultimate right to preclude the infringing activity from taking place by simply precluding all activity of the sort at issue will also suffice.[22] The defendant's ultimate power to exclude or choose not to draw end customers also

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19. Polygram Int'l Publ'g, Inc. v. Nevada/TIG, Inc., 855 F. Supp. 1314, 1328 (D. Mass. 1994) (internal citation to the House Report omitted).

20. The RESTATEMENT (SECOND) OF AGENCY (1958) speaks in terms of the "right to control" as well, but for tort liability to pass not only must the control be much deeper (the physical conduct of the agent for it to be deemed a servant), but the inquiry is much more exacting taking into account all the factors of section 220.

21. In *Fonovisa*, the Ninth Circuit reasoned that a swap meet operator "had the right to terminate vendors for any reason whatsoever and through that right had the ability to control the activities of vendors on the premises." 76 F.3d at 262.

22. So, in *Polygram*, the trade show organizer's power to preclude all vendors at the show from playing any music whatsoever satisfied the right and ability to control prong with respect to infringing music played by a specific vendor in a rented booth. *Polygram*, 855 F. Supp. at 1329 (emphasizing that the trade show organizer's "Rules and Regulations" permitted it to "restrict exhibits that 'because of noise, method of operation, materials or any other reason become objectionable'" and "to police exhibitors during the show"); *see also Napster*, 239 F.3d at 1023 (stating that "[t]he ability to block infringers' access to a particular environment for any reason whatsoever is evidence of the right and ability to supervise").

satisfies the right and ability to control prong.[23]

It may not overstate the breadth of the right and ability to control element to say that any ongoing commercial relationship may suffice for vicarious copyright liability purposes, unless the infringement is wholly unrelated to defendant's business. If the relationship can be terminated or is otherwise subject to binding rules imposed in part by the defendant, the right and ability to control will likely be found.

2. *The Meaning of Financial Benefit.* The vicarious liability standard also requires "an obvious and direct financial interest in the exploitation of copyrighted materials."[24] The requirement of a financial benefit is presumably a stand-in for the requirement in agency that an agent act for the benefit of the principal.[25] Two interpretive strains in the case law emerge, one that actually requires that the link between the infringement and the financial benefit be "obvious and direct" and one that effectively reads these limiting terms out of the standard, permitting almost any hypothetical financial benefit, however amorphous, unquantifiable, and tenuously linked to the infringement, to suffice. The actual text of the standard aside, either rule arguably fits the dancehall paradigm.

Apparently viewing things in this way, a number of courts have overlooked the "direct and obvious" limitations, plausibly inserting an implicit limitation "however indirect and amorphous" to broaden the reach of liability. Indeed, the District Court of Massachusetts, in an uncommon act of intellectual honesty in its *Polygram* decision, expressly rejected the *Shapiro* standard requiring a "direct and obvious" financial benefit, adopting instead language from a

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23. The court in *Fonovisa* cited the swap meet promoter's control over the access of customers to the swap meet and its promotion of the swap meet to support its conclusion that the swap meet operator had the right and ability to control the vendor of counterfeit records. 76 F.3d at 262-263; *Polygram*, 855 F. Supp. at 1328 (also noting trade show organizers promotion of the trade show as a factor supporting a finding of a right and ability to control).

24. Shapiro, Bernstein & Co. v. H. L. Green Co., 316 F.2d 304, 307 (2d Cir. 1963).

25. RESTATEMENT (SECOND) OF AGENCY § 1 (1958).

Judiciary Committee report on the 1976 Copyright Act, which requires only that the defendant "expect commercial gain from the operation and either direct or *indirect* benefit for the infringing performance."[26] Under this approach, which the District of Massachusetts states "more nearly captures the standard that is currently applied by courts in copyright cases," the financial benefit requirement does not significantly limit vicarious copyright liability.

If the defendant is a for-profit venture and chooses to permit others to provide music or other copyrighted material to its patrons, one can safely presume that there is a sufficient financial benefit. Indeed, one must strain to identify any commercial situations involving the performance or distribution of copyrighted works that would not meet this lax standard.

In the end, the doctrine of vicarious copyright liability seems to be not so much a body of rules that provide foreseeable results as a flexible vehicle for courts to make ultimate policy judgments as to what type of enterprises should internalize the costs of copyright injuries occurring within its sphere of operations. It seems that as a policy matter the law holds liable businesses that have copyright infringement at their core (dancehalls), businesses that benefit in small ways that may be difficult to quantify (background music at racetracks and the like) and businesses engaged in leasing certain types of retail space (departments within stores, trade show booths and swap meet stalls). At the same time, the law seeks to provide amnesty for landlords as a general matter. Given this patchwork of broad and sometimes contradictory objectives, explanatory standards will be tough to find.

D. *The Challenges of Coupling Poor Rules with the Novelty of a Networked World*

The law as it evolved up to the precipice of the technology/content wars spawned by consumer electronics seems greatly over-tasked. Even taken on its own terms, in the context of its own tangible media problems, the rules

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26. *Polygram*, 855 F. Supp. at 1326 (emphasis added and citation omitted).

appear to be little more than loose guidelines that offer few interpretive constraints to courts. If any form of support services can constitute a material contribution to copyright infringement and the knowledge required is generalized knowledge that infringement of the sort alleged is taking place, how distant must a relationship be to avoid copyright liability? The same question may be posed with respect to vicarious liability. If the right to control may be established by the power to exclude or refuse to transact business with the infringer, and the financial benefit required is satisfied by the syllogistic logic that businesses do what is good for them, so if they maintain a business relationship with the infringer they must benefit financially, what commercial relationships are too loose to avoid the translation of copyright liability? The policy aim of fairness appears to be at the whim of the strict liability policy rationales of loss spreading and incentivizing policing.

Under the current expansive standards, one can reasonably argue that the doctrines of contributory and vicarious liability effectively impose an affirmative duty on technologists to put policing devices in every network client and on every central server. One could just as easily argue that these doctrines preclude the development of network protocols detached from a software client or other means of policing and limiting use of the network. While the mail and public square may be free zones of discourse, copyright may require the placement of censors, human or artificial, to screen the content and nature of every communication online. This apparently draconian and un-democratic result naturally leads one to question whether and to what extent the indirect liability standards in the context of computer networks serve the policies of fairness, incentivizing policing, and loss-spreading they are intended to effectuate. How the standards apply at all to a fully-distributed system or the technologist who merely provides open protocols and leaves it to others to implement the software and hardware that comprise the network is even less clear. In the end, the wired world seems to present problems without tangible media analogs.

The analysis that follows examines how the indirect liability doctrines have been applied to the VCR, bulletin board systems, online service providers and other technolo-

gies of the network age. This examination shows that the expansive standards for secondary copyright liability can result in unlimited liability for those engaged in providing the software, hardware, services, and perhaps even concepts, that power computer networks, without necessarily serving the policies of fairness, self policing, or loss spreading that the doctrines are intended advance. The reach of some cases would seem to make operation of broad computer networks impossible without incurring copyright liability, while others, particularly *RTC v. Netcom*, confront and reject this possibility with a more nuanced approach. This discussion of indirect copyright liability and its application to computer networks will conclude with a discussion of the somewhat inconsistent precedent dealing with P2P file sharing networks—Napster, Grokster and Aimster. In the final analysis, digital media distributed by digital means remains problematic under existing law. We are left with options that tend to tilt to the extremes of either stifling or permitting all forms of innovation regardless of their practical effect upon the rights and expectations of copyright owners.

E. *Summary of Possible Solutions*

With the problems of applying contributory infringement and vicarious liability precedent to new technologies thus framed, the discussion moves to consider several possible solutions that could break this current impasse and perhaps even the historical cycle that dooms each generation of technological innovation to litigation wherever content is concerned. The doctrines of contributory infringement and vicarious liability could be interpreted more narrowly, tightened back to the calibration of an earlier age. With respect to contributory infringement, for example, "knowledge" could mean actual knowledge of specific acts of infringement at a time when remedial action is possible. Likewise, vicarious liability could be interpreted to require a relationship far more akin to the traditional principle/agency relationship on which the doctrine is supposedly modeled. A focus on the accepted right, not just the ability, to control one's conduct by barring them from use of the machine or service at issue could go a long way toward

clarifying and limiting vicarious liability copyright claims.

In addition, Congress and/or the courts could elect to clarify and strengthen the countervailing forces in copyright law that accommodate the development of new technologies. The Supreme Court could explain in its upcoming *Grokster* decision the meaning and scope of its seminal *Sony* decision, which twenty years after its issuance still remains open to widely varying interpretations and has generated a split among circuits regarding its application to file sharing networks.

Ultimately, however, the old analogies and principles of contributory infringement and vicarious liability simply fail us when we begin to analyze the new relationships and functional powers enabled by global computer networks. These analogies may become even more strained as the unforeseeable possibilities of processing power, massive storage capacity and global wireless links begin to emerge.

When trying to determine what ought to be the relative liability of the consumer who owns a computer which serves as a node on a network, the electronics maker who provides the various devices that comprise the network, engineers who designed and published the protocols that define the network, and the communications companies that provide links among all the nodes, it does little good to ask if the relationship among the parties in question is more like an absentee landlord/tenant relationship or a dance hall owner/orchestra relationship.

The paradigmatic analogies of indirect copyright liability case law became loose metaphors long ago. Dissecting them to make policy judgments on computer networks which involve human and machine relationships of a type and on a scale without prior analogs makes little sense. The old dance hall, landlord, trade show, swap meet and other factual analogs do little to lead the courts to coherent, reasonable results.

The essential factors and policies underlying the tests for contributory infringement and vicarious liability seem to skirt or misdiagnose the basic problems presented by the manipulation of content over computer networks. While

"knowledge" is a significant, limiting factor in the tangible world of human beings, books, tapes and other widgets, it is no such limitation in the context of computer networks. If technology permits tracking the substance and details of every communication and transaction the concept of knowledge loses its limiting force. Moreover, it is not at all clear that the policies the "knowledge" requirement seeks to further, fairness and encouraging private policing, are furthered or even ought to be furthered online. If digital technology permits a service provider to have perfect knowledge regarding everything that transpires on its system, is fairness served by holding the service provider liable for all the illicit conduct that takes place on its system? If perfect knowledge is possible, do we really want a rule that encourages policing to that degree, effectively forcing private technology and service providers to identify the substance and nature of all communication over open networks in search of copyright infringements? Are there social costs to burdening channels of communication with such liability that the current rules do not adequately factor?

The same dynamic is present and questions are raised with respect to the "right and ability" to control the behavior of users on a network. Technology permits pervasive controls that could preclude illicit communications to a great degree by almost any party providing key services or equipment to the network. Hardware manufacturers, online service providers and even users who act as nodes on a distributed network, it seems, all have the right and ability to control traffic and illicit content to a great degree. Similarly, focusing on "site and facilities" as a material contribution to copyright infringement appears to do little other than drive network architectures away from the goal of efficiency and toward ever more distributed designs. The same functionality can be provided to the direct infringer and the copyright owner can be left just as aggrieved whether data is manipulated on one machine or another on the network. The key insight of P2P networks is that bandwidth, processing power, and storage capacities permit almost any household PC to operate as a server, i.e. a node on the network. Digital rights management and security technologies have not lagged far behind new network architectures. Audio "fingerprinting," watermarking and other technologies permit reasonably effective policing of even the most

open and distributed networks. In this context, focusing on which data is stored on what computers to determine liability makes little sense.

This article, therefore, concludes with a somewhat radical proposal for an entirely new means of resolving the seemingly intractable conflict between content and technology—a no-fault, comparative liability system. Perhaps the current problems may be resolved by a system which requires all those who provide products or services that assist or enable direct infringement to internalize a fraction of the actual cost of that infringement to the content owner, proportionate to the defendant's relative financial benefit from the infringement. In this way, we avoid the contention that necessarily surrounds our current all-or-nothing approach which either condemns a technology or gives it a free ride regardless of its role in powering copyright infringement. With the stakes thus reduced, technologists would be free to create and sell any kind of software, service, or device they can imagine, so long as they internalize the costs their works impose on content owners in the form of copyright infringement. Copyright owners would be assured of fair compensation for their loss from a broader range of potential defendants. Consumers would benefit from a marketplace of technologies unfettered by policy fights over the line between the copyright monopoly and the freedom to create. All constituencies involved, including investors, would benefit from the reduced risk variables and transaction costs of a regime that reduces the high-stakes, to-the-death litigation of today to a much simpler task of determining damages and apportioning liability.

II. THE HISTORY OF INDIRECT LIABILITY AND TECHNOLOGY FROM *SONY* TO *GROKSTER*

With the legal and factual groundwork thus laid, we can now turn to the application of these two indirect liability doctrines—vicarious liability and contributory infringement—to new technologies.

A. *The* Sony *Case—The Supreme Court Speaks*

The Supreme Court decision in *Sony*[27] remains the last and most complete word on the subject of secondary copyright liability and new technologies. The decision continues to dominate the field. In a five to four split with a well-reasoned dissent, the Court made what would strike most consumers as a totally uncontroversial call—companies can make VCR's and people can buy them.[28] At the dawn of the 1980s, the film and television industry faced an existential threat. The Sony Betamax and its later VHS competitors, we were told, would unhinge the entire economy surrounding the production of film and video entertainment. To the major film studios, suburban privateers would reduce Hollywood conglomerates to rubble with their newfound power to record television programming.[29] True to form, the major entertainment companies ran to the courts asking the federal government "in effect, to declare VTR's contraband."[30] Also true to form, the entertainment and media plaintiffs viewed the litigation as a tactical tool to expand the reach of the copyrights they owned. The plaintiffs did not necessarily seek to will the VCR out of existence as they apparently have tried to do with Internet technologies for so

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27. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).

28. *Id.*

29. The rhetoric and predictions from the film studios could not have been more dire or extreme. In his 1982 testimony before Congress, Jack Valenti, President of the MPAA, explained the threat of the evil box atop the TV, "I say to you that the VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone." *Home Recording of Copyrighted Works: Hearing on H.R. 4783, H.R. 4794, H.R. 4808, H.R.5250, H.R. 5488, and H.R.5705 Before the Subcomm. on Courts, Civil Liberties, and the Admin. Of Justice of the Comm. On the Judiciary*, 97th Cong. 8 (1983) (statement of Jack Valenti, President, Motion Picture Association of America, Inc.). Of course, the Hollywood plaintiffs that ganged up on overseas electronics manufacturer Sony (which at the time was not in the film and TV club) demonstrated their inability to gauge their own interests. The video rental market now far outweighs film box office receipts at roughly $9.5 billion domestic box office to $24.2 billion home video revenues. The depth of television entertainment has also grown with the number of channels multiplying several times since the fight over the VCR.

30. *Sony*, 464 U.S. at 441 n.21. The use of the discarded acronym "VTR" for Video Tape Recorder demonstrates how unsettled the technology and its place in society was, even as late as the Supreme Court decision in 1984.

many years, nor did they seek to clear the market of competitors so they could make VCR's themselves. The record is clear that they would have been perfectly content merely to be paid a royalty by Sony and other manufacturers on every VCR created.[31] Money and control of the controversial device were at stake.

The VCR, in a way, presented the classic contributory infringement case. If Sony was not liable for the infringements of the end users, content owners would be left only with the wholly unworkable option of pursuing the direct infringers, the growing millions of VCR users. From a copyright point of view, the case was not an easy one. The closely split Supreme Court reversed a well-reasoned Ninth Circuit opinion when it held that Sony could sell the VCR without incurring indirect copyright liability.[32] In doing so, the Court appeared to articulate a broad exception to the doctrines of indirect copyright liability that gave technologists free reign to develop devices without worrying about lawsuits from the content industries.

Using the staple of commerce doctrine in patent law as a rough guide, the Supreme Court ruled, "[T]he sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes."[33] The Court continued, "Indeed, it need *merely be capable of substantial non-infringing uses*."[34] If the specific result in this case no longer seems controversial, the sweeping generosity of the *Sony* standard remains awesome and continues to be the subject of much disagreement.[35]

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31. *Id.*

32. *Id.* at 456.

33. *Id.* at 442.

34. *Id.* (emphasis added).

35. As discussed in greater depth infra, the Ninth Circuit in *Napster* read severe limitations into the *Sony* standard, holding that actual knowledge vitiates a *Sony* defense and that *Sony* is not applicable to vicarious liability. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1022 (9th Cir. 2001) ("[W]e note that *Sony's* 'staple article of commerce' analysis has no application to Napster's potential liability for vicarious copyright infringement."). Judge Posner, writing for the Seventh Circuit in *In re Aimster Copyright Litig.*, 334 F.3d 643 (7th Cir. 2003), voiced his disagreement with the Ninth Circuit's

The import of the words merits close examination. A defendant need not show that the technology in question is used to a large extent for non-infringing purposes or that the technology is used anywhere for non-infringing purposes.[36] All that need be shown is that the technology is *capable* of some hypothetical use of substance. Even if it were demonstrably true that the technology at issue was used solely for illegal purposes, the *Sony* standard, if taken literally, would not find the technologist vicariously liable—remarkable.

The four dissenters struck what many might intuitively consider a better balance. They would have required that "a *significant* portion of the product's use [be] *non-infringing*."[37] Judge Blackmun, writing for the dissenters, explained further, "If virtually all of the product's use, however, is to infringe, contributory liability may be imposed; if no one would buy the product for non-infringing purposes alone, it is clear that the manufacturer is purposely profiting from the infringement, and that liability is appropriately imposed."[38] This standard probably would have killed the VCR as the Ninth Circuit effectively directed.

At the time the suit was filed, Blockbuster was still roughly six years away from its inception in Texas. The very companies that would later push their entire product to the VCR were the plaintiffs. Home video cameras as late as the Supreme Court decision were large, expensive, and just beginning to penetrate the market. Through most of the pendancy of the suit, the amount of content consumers legitimately copied was almost certainly minimal relative to the VCR's predominant use—recording copyrighted audio visual works produced and broadcast on television for commercial gain by the plaintiffs in the suit. The dissenters' test, as well as any other test that looked at what people were actually doing with their VCR's, would likely doom

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reading of *Sony* and in doing so, staked out a different, but equally controversial position. The Seventh Circuit is of the view that *Sony* cannot possibly mean that a mere capability of a non-infringing use is sufficient, notwithstanding the clear language of the opinion. Instead, the Seventh Circuit requires some evidence of an actual non-infringing use. *Aimster*, 334 F.3d at 651-53.

36. *See Sony*, 464 U.S. at 416.

37. *Id.* at 491 (Blackmun, J., dissenting).

38. *Id.*

this technology that one suspects may have already made it into the homes of some of the esteemed justices by the time the case reached them. In order for the VCR to get by, the rule arguably had to be as broad and permissive as that articulated by the majority. One had to look at capabilities and the potential of the thing at issue, not what it currently was or why people actually wanted it.

Indeed, there was not much else that one could do with a VCR except record plaintiffs' works, which raises a second truly remarkable aspect of the *Sony* standard. As the Ninth Circuit opinion in the case explained, "[v]ideotape recorders are manufactured, advertised, and sold for the primary purpose of reproducing television programming[,] [and] [v]irtually all television programming is copyrighted material."[39] Therefore, the lower court concluded, "videotape recorders are not 'suitable for substantial non-infringing use.'"[40]

Even the Supreme Court's permissive rule does not provide an easy route around this problem. On an honest review of the situation, it was difficult to see what exactly was the "substantial non-infringing use" to which the VCR might be put. Recording television programs and films protected by copyright seems to cut a very clear case of copyright infringement. So, using the arcane magic to which only the justices themselves are privy, the majority concluded that recording television broadcasts for later viewing at home or "time shifting" was not copyright infringement at all but a permissible fair use.[41] And thus, the VCR was permitted to grow into adulthood, and its technological progeny prospered.

As with almost any decision of this magnitude and scope, there are many plausible readings. However, to many commentators and influential courts, it appeared that by denying the Hollywood plaintiffs "the exclusive right to distribute VTRs simply because they may be used to in-

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39. Universal City Studios v. Sony Corp. of Am., 659 F.2d 963, 975 (9th Cir. 1981).

40. *Id.*

41. *See Sony*, 464 U.S. at 442.

fringe copyrights,"[42] the court was enforcing a policy "to prevent copyright holders from leveraging the copyrights in their original work to control distribution of (and obtain royalties from) products that might be used incidentally for infringement, but that have substantial non-infringing uses."[43] To a certain extent, the *Sony* decision made some progress toward tightening up the expanding contributory liability standard as well, definitively stating that, at least under Supreme Court precedent, providing the "means" to infringe and encouraging infringement were not sufficient to establish indirect liability.[44] Under this view, the *Sony* test was exported from the context of VCRs and "copying equipment" (the term the Supreme Court used in defining the scope of its test) to cover "products" more generally, including CD-ROMs,[45] software,[46] and even online services.[47]

To be sure, later courts grappling with the contrary demands of keeping a lid on apparent piracy and the laxity of the *Sony* standard articulated numerous limitations to permit a finding of liability in the post-VCR era. The same

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42. *Id.* at 441 n.21.

43. Matthew Bender v. West Publ'g Co., 158 F.3d 693, 707 (2d Cir. 1998); *see also*, PAUL GOLDSTIEN, COPYRIGHT § 6.1.2 (2d ed. 1996) (reading *Sony* as a means of keeping copyright owners from influencing goods not connected to copyrighted work).

44. *Sony*, 464 U.S. at 436 (distinguishing the prior Supreme Court contributory infringement case, *Kalem Co. v. Harper Brothers*, 222 U.S. 55 (1911), from the situation in *Sony* on the grounds that "[t]he producer in *Kalem* did not merely provide the 'means' to accomplish the infringing activity; the producer supplied the work itself . . ."). The Court termed plaintiffs' conclusion from *Kalem* that providing the means to infringe and encouraging infringement is sufficient to establish contributory liability a "gross generalization that cannot withstand scrutiny." *Id.*

45. *See Bender*, 158 F.3d at 693.

46. *See* Vault v. Quaid, 847 F.2d 255 (5th Cir. 1988) (applying *Sony* standard to software designed to crack floppy disk security); Realnetworks, Inc. v. Streambox, Inc., No. C99-2070P, 2000 U.S. Dist. LEXIS 1889 (W.D. Wash. Jan. 18, 2000) (applying *Sony* standard to "Ripper" software designed to convert content from proprietary Real format into other digital formats); Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc., 964 F.2d 965 (9th Cir. 1992) (concluding that *Sony* gives users the right to use programs in unintended ways beyond time shifting).

47. *See* A&M Records v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001) (applying *Sony* to P2P file sharing service).

tensions that push the expansion of the doctrines of contributory infringement and vicarious liability necessarily press for the limitation of *Sony*. Later courts limited *Sony* to machines and other general purpose equipment, seizing upon the Court's analogy to the staple articles doctrine in patent law.[48] Other courts have held that the existence of contributory acts vitiate a *Sony*-based defense.[49] Recent courts have held that the existence of knowledge vitiates a *Sony*- defense and that *Sony* is wholly inapplicable to vicarious liability.[50] In rejecting these views, another influential court has turned the standard on its head, holding that *Sony* demands evidence of a substantial non-infringing use.[51] Still other courts have sought to cut-off the reach of *Sony* with a tough reading of "substantial non-infringing use," distinguishing *Sony* on the patently thin basis that a great deal of public domain and other non-infringing content was available for copying on VCR's in the early 1980s where the presence of such abundant non-infringing material was lacking in the particular case at hand.[52]

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48. *See generally* RCA Records v. All-Fast Sys., Inc., 594 F. Supp. 335 (S.D.N.Y. 1984) (limiting the reach of *Sony* to the manufacture of machines only); A&M Records v. Abdallah, Inc., 948 F. Supp. 1449 (C.D. Cal. 1996) (limiting the reach of *Sony* to "staple articles" only).

49. *See generally* Cable/Home Communication Corp. v. Network Prod., Inc., 902 F.2d 829 (11th Cir. 1990) (distinguishing *Sony* on the grounds that the VTR manufacturer had not "influenced or encouraged" unlawful acts); *Abdallah*, 948 F. Supp. at 1456-57 (rejecting a *Sony*-type defense because the defendant went beyond selling blank tapes and actually assisted piracy operations of its customers by timing original cassettes for copying and referring would-be pirates to other necessary suppliers and even providing financing on occasion).

50. *See Napster* 239 F.3d at 1022.

51. *In re* Aimster Copyright Litig., 334 F.3d 643, 651-53 (7th Cir. 2003).

52. *See generally Abdallah*, 948 F. Supp. at 1449 (rejecting a *Sony* defense, in part, because time-loaded cassettes have no substantial non-infringing use). The court in *Sony* stated that the plaintiffs, though major content owners, represented only about 10% of all television broadcast programming. *Sony*, 464 U.S. at 443. *See also Streambox*, No. C99-2070P, 2000 U.S. Dist. LEXIS 1889, at *22 (holding that the Streambox product which permitted users to capture secure Real format streams, a sort of "digital VCR," was not saved by *Sony* because "The *Sony* decision turned in large part on a finding that substantial numbers of copyright holders who broadcast their works either had authorized or would not object to having their works time-shifted by private viewers"); *Sony*, 464 U.S. at 446.

Congress has also taken a bite out of the permissiveness of *Sony* with the anti-circumvention provisions of the DMCA. By forbidding all efforts to defeat anti-piracy protections, Congress effectively created an opt-out to *Sony*. Even if creation of a copy or reproduction would be permitted under *Sony*, the DMCA forbids the effort if the content-owner has placed any form of security on the content.[53]

Despite these on-and-off limitations of lower courts left to wrestle with the true meaning of the Supreme Court's authority, *Sony* remains the final word on the subject, articulating a test that severely limits the doctrine of contributory infringement in the context of new technologies and represents a strong policy statement that copyright monopolies may not be leveraged to prevent useful new technologies from reaching consumers. Only history will tell whether any adjustments or clarifications the Court chooses to make in *Grokster* will clarify matters. Predicting what the Supreme Court will do *ex ante* or what rules will work for unforeseeable technologies *ex ante* are both tricky businesses.

B. *The Doctrines Get Wired: Indirect Liability and Digital Information Networks in the 1990s*

1. *The Problem in a Nutshell: A Greater Need for the Doctrines but Greater Challenges in Application.* The Information Revolution spawned by the Internet doubtlessly carries with it some costs. Some of the information now so freely and easily obtained on such a massive scale may be protected by copyright and disseminated without a license. As the access to and ability to reproduce and distribute public domain and licensed materials scales in the Internet age, so too does the power to do the same with unencrypted copyrighted content. There is, accordingly, a vast new range of direct copyright infringements enabled by a host of technologies and services from hardware to software, to phone line, cable and satellite Internet access, raising the inevitable question of whether any of those engaged in providing such technologies and services may be

53. 17 U.S.C §§ 201-02 (2000).

held secondarily liable for the copyright infringements of the end users they, at least in part, enable. The need for effective doctrines becomes more acute. As direct infringement becomes more common and widespread, pursuit of the direct infringers becomes increasingly inefficient and impractical for content owners. If copyright owners are to tame the wild frontiers of the Internet, they must do so by first breaking the central intermediaries who provide the tools and lines of communication that make such free interchange of information possible.

a. *The Digital Frontier as a New Vista for Piracy.* The ability to access services, vast databases, and individuals made possible by the Internet has ushered in a wave of economic growth that may place the open computer network, along with prior innovations like steam power and electricity, as engines that powered a quantum leap in human discourse and commerce. However, these new technology-enabled freedoms carry with them an unprecedented threat to content owners as copies move from an unwieldy, fixed, tangible form to easily manipulated, flexible digital formats. Tangible copies carried inherent advantages for copyright owners that are lost online. Reproducing and distributing copies was a costly endeavor. Paper, vinyl, plastic, or celluloid stock has to be purchased and an operation of commercial scale set up to mechanically reproduce, bind, and package works in any significant number. In addition, tangible copies have mass. The more copies one has, the heavier the load, adding significant shipping costs to distribution. Lastly, mechanical reproduction from an off-the-shelf copy usually resulted in degradation increasing with each successive duplication, particularly with respect to any form of mechanical sound recording or magnetic tape. Often the more copies made, the greater the degradation, making illicit copies without the aid of master recordings perceptibly inferior.[54] Thus, the burdens of the Newtonian world of mechanical reproduction of permanent copies in tangible material put the brakes on casual piracy and raised high cost and technology barriers for pirates to

54. Anyone who listened to a bootleg Beatles recording or saw an illicit video tape of Star Wars in the 1970s can likely attest that the interest was the novelty of such a hard-to-get, taboo item. The records and tapes themselves tended to be so rife with static that they failed completely as entertainment.

overcome.

The same content that once required the film to be printed, a book to be copied, or a tape to be duplicated can now be duplicated and distributed on a massive scale at the push of a button at virtually no incremental cost to the person directing the operation or receiving the fruits thereof.[55] Piracy on a large, impersonal scale in the digital age has accordingly moved from the exclusive province of those willing to invest capital and labor in a significant, illegal commercial enterprise to the fingertips of everyone with a commodity PC and Internet access. Hundreds of millions of consumers are so empowered and many of them are actively engaged in efforts to find, download, store and distribute copyrighted materials. Major content industries claim the loss of billions in revenues from the traffic in illicit copies online. At the same time, content owners argue that they have a great need for an effective remedy, because seeking recompense from direct infringers seems wholly unworkable.

The need for effective secondary copyright liability doctrines thus seems as great today as the power of computer technology to empower consumers to enjoy content, and the costs of unlicensed distribution to copyright owners. No matter how multitudinous fly-by-night piracy operations may have been in the past, no matter how many grey market swap meets existed, no matter how many dancehall owners skirted BMI and ASCAP, the numbers would neces-

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55. Printing and distributing, for example, even 1000 copies of the Complete Writings of Abraham Lincoln would be a costly endeavor, necessitating the printing and shipping of hundreds of pounds of paper. Accomplishing the same task digitally requires *de minimus* effort. The entire work in digital form is roughly 1 MB in size. With CPU speeds exceeding 3 gigahertz and disk space exceeding 80 GB on household desktop machines, duplicating and storing, if necessary, 1000 copies of the work is a virtually instantaneous and cost free task, assuming one already owns a computer. Moreover all 1000 copies made can be distributed anywhere in the world via the Internet requiring only several minutes of bandwidth, assuming broadband connections on both ends. Again, there is no incremental cost, assuming one has already paid for Internet access. If one were to break down the actual cost of the bandwidth minutes consumed, it would be pennies at most. Lastly, each of those 1000 copies will be identical, with no degradation in quality from the first to the last.

sarily pale to the terabytes of unlicensed music and movies that traverse the wires and airwaves today.[56]

b. *The Challenge of Porting the Legal Standards.* As the problems of piracy and the need to hold third parties liable balloon, the similarities between the problems de jour and the inherited precedent grow increasingly tenuous. Perhaps the VCR was just another printing press or photocopier, and perhaps the standards evolved to deal with such copying equipment may even be applied to routers, hard drives, and other computer hardware that copies, stores and transmits information. However, the relationships among humans and machines in a digital, networked environment are without close precedent, some would argue without any reasonable analogs at all. Beyond the widgets that can copy and store copyrighted works, there is the software, the codes, and protocols that make the transformation, reproduction, distribution, display and storage of content possible. Much of the intermediate action takes place within and between machines in a form and manner that will not be perceived by a human. Information is cached, parsed, zapped here and there, and reassembled all without human intervention. Moreover, unlike prior information networks enabled, more or less, by a single core infrastructure such as phone or telegraph lines owned by a small number of companies, now the average citizen and his equipment play key roles, serving as important relay nodes on the network. In the P2P/distributed computing context,

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56. In addition to the obvious problems of unlicensed traffic in copyrighted content, the shift from analog to digital formats creates a great many more technical direct infringements. Every time data embodying a copyrighted work moves from a notebook computer back to the desktop, from the desktop to a handheld device or portable player and even from the hard disk into RAM to enable the viewing or playing of the work, a copy for purposes of copyright law has been made. *See* MAI Sys. Corp. v. Peak Computer Inc., 991 F.2d 511, 518 (9th Cir. 1993) (affirming that "'copying' for purposes of copyright law occurs when a computer program is transferred from a permanent storage device to a computer's RAM"). Without a license, or the statutory right under 17 U.S.C. § 117 (2000), which permits reproduction as an "essential step" in the execution of software, such manipulation and even viewing of content constitutes acts of copyright infringement. The technologist, software or service provider could be liable as vicarious or contributory infringers for the boundless numbers of infringements taking place within and between machines. The scope of this article, however, is limited to an examination of secondary liability for the more basic and obvious direct infringements.

each user can perform important computing and transmission functions essential for the operation of the whole network. These are the remarkable circumstances the inherited precedent of dancehalls and swap meets must address.

On the one hand, the broad doctrines of indirect copyright liability would seem to hold almost anyone involved in the creation, maintenance, or operation of computer networks liable for any copyright infringement which occurs on such a network. If the knowledge required for contributory infringement is merely knowledge that infringing activity of the sort alleged is likely taking place, it is difficult to see how knowledge could be avoided by anyone involved in running a computer network of any scale. If contributory infringement is to have some meaningful limitation, it seems that "knowledge" will have to require something more than the loose standard applied with respect to tangible media.

The presence of contributory acts are all but a given for any party providing essential hardware, software or connectivity. Anyone involved with computer networks, it would seem, is providing some sort of support services to the operation of the network and hence making a material contribution to the copyright infringement taking place over it under the inherited legal standard. Likewise, it is difficult to imagine how anyone in the networking business, whether providing hardware, software or even protocols, can avoid vicarious copyright liability. If the power to exclude or shut down satisfies the right of control prong, it would seem that anyone who retains any communication with and control over their technology, whether it be software or hardware, end user or commercial ISP, has the requisite control to keep third-party infringers from using their equipment or services. As discussed above, if the defendant is a commercial enterprise, financial benefit is essentially presumed, making vicarious liability difficult to avoid.

c. *How to Reconcile* Sony *and the Doctrines of Indirect Liability.* On the other hand, the *Sony* exception for new technologies would seem to undermine any effort at legitimate enforcement online. Almost any network is capable of non-infringing uses. Indeed, with the very rare possible

exceptions of Kazaa, Napster, and the like, legitimate uses of electronic communication, one would think or at least hope, predominate the use of business, education, and even open global networks in most important respects. If it was somewhere between tough and impossible to reconcile fully the broad policy mandate of *Sony* and the expansive standards for contributory infringement and vicarious liability in the world of tangible copies, it is even more difficult in the context of the Internet and other large computer networks where the problems of infringement exist on much a greater scale.

These conflicting forces of the doctrines of indirect liability and the broad policy exception arguably articulated in *Sony* push contrary holdings. The net result is a muddle of apparently irreconcilable case law dealing with indirect copyright liability and computer networks.

2. *The BBS Cases.* Before the Internet, before Usenet groups even, there were bulletin board systems, or BBS for short.[57] As the name suggests, a BBS permits users to post/upload and read/download messages and oftentimes files on a central server that serves as a forum for the group. Many, perhaps most BBS in the early years of home computing, were operated by individuals seeking merely to create their own online community. They provided hubs for those sharing common interests in science, religion, literature, current events, and, of course, illicit copies of copyrighted software, games, and other protected material. The early commercial online services, seeking to make membership in their network a one-stop gateway for all the

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57. The Free Online Dictionary of Computing (FOLDOC) provides a serviceable layperson's definition of "bulletin board system":

> <*communications*, *application*> (BBS, bboard /bee'bord/; after a physical piece of board on which people can pin messages written on paper for general consumption—a "physical bboard"). A computer and associated software which typically provides an electronic message database where people can log in and leave messages. Messages are typically split into topic groups similar to the newsgroups on Usenet (which is like a distributed BBS). Any user may submit or read any message in these public areas.

FOLDOC, *at* http://wombat.doc.ic.ac.uk/foldoc/index.html (last visited Feb. 26, 2005).

organic communities, began to aggregate and republish various BBS. Because BBS systems presented in a popular and widely adopted form so many of the core copyright issues posed by computer networks, the controversies produced a number of published, even if contrary and less than fully edifying, opinions. The reported cases exhibit the range of possible approaches.

a. Cubby v. CompuServe—*Welcoming the Information Revolution.* Picking up on the *Sony* ethos, a court can seek to accommodate the development of new forms of communication and technological experimentation. *Cubby, Inc. v. CompuServe, Inc.*,[58] for example, though a defamation and not a copyright action, addressed the issue of what knowledge should be attributed to an online service provider with respect to the allegedly defamatory comments posted in a section of a BBS made available through CompuServe, then one of the major online subscription services that aggregated a great many BBS.[59] Because knowledge of the BBS operator was the central issue, the case presents issues closely akin to those in a contributory infringement analysis. The court made its favorable reaction to the positive potential of the technology at issue, stating "[CompuServe] is in essence an electronic, for-profit library that carries a vast number of publications and collects usage and membership fees from its subscribers in return for access to the publications. CompuServe and companies like it are at the forefront of the information industry revolution."[60]

In keeping with its positive comparison of a commercial online service with libraries and the advancement of human knowledge, the court gave the somewhat novel technology generous treatment, holding that knowledge for purposes of contributory infringement could not be attributed to the online service provider, CompuServe, largely due to the policy imperative of permitting such a system to exist and thrive.[61] The court insisted that online service providers engaged in the dissemination of information must be

58. 776 F. Supp. 135 (S.D.N.Y. 1991).

59. *Id.*

60. *Id.* at 140.

61. *Id.* at 142.

afforded the same protections as traditional libraries and book distributors with respect to the distribution of defamatory publications, citing the First Amendment policy militating against holding book distributors strictly liable.[62] The court also rejected vicarious liability, finding the level of control required by basic agency principles lacking: "While CompuServe may decline to carry a given publication altogether, in reality, once it does decide to carry a publication, it will have little or no editorial control over that publication's contents. This is especially so when CompuServe carries the publication as part of a forum that is managed by a company unrelated to CompuServe."[63] Though not a copyright case, the *Cubby* opinion demonstrates one approach to the problem of indirect liability for the online publisher—let the technology grow and ensure that the same protections enjoyed by those in the information business in the tangible world are ported to computer networks.[64]

b. Sega v. Maphia—*Blasting Pirates in Every Harbor.* Instead of an electronic library, the same technology can also present itself as a "piratical bazaar."[65] In *Sega Enter. Ltd. v. MAPHIA*,[66] a major video game publisher sought to shut down a BBS over which illicit copies of its games were

62. *Id.* at 139.

63. *Id.* at 140. The case did not address the technological feasibility of screening content for copyright infringement and thus, arguably misses a key facet of any examination of "knowledge" in the context of computer networks.

64. *See generally id.*

65. Press Release, MPAA, Motion Picture and Recording Industries File Suits Against Music City and Others (Oct. 3, 2001), *available at* http://www.mpaa.org/Press/KaZaA_Press_Release.htm (last visited Feb. 26, 2005) (announcing the MPAA filing of copyright infringement suits against Music City Networks, Grokster, LTD, Fastrack (Kazaa)). The release attacked "MusicCity and others for copyright infringement, calling the service a '21st century piratical bazaar where the unlawful exchange of protected materials takes place across the vast expanses of the Internet.'" *Id.* (internal citation omitted). Although this language was crafted by the film industry to describe its more recent file-sharing bane, the florid description accurately expresses the sentiment of the entertainment industry regarding prior "destructive technologies."

66. 948 F. Supp. 923 (N.D. Cal. 1996).

regularly traded.[67] The MAPHIA BBS bore all the indicia of a piracy operation, then commonly called a "warez" board.[68] The system operator, Chad Scherman, went by his warez handle "Brujjo Digital" doing business as MAPHIA or Maphia Trading Company.[69] The users of the BBS frequently used similar aliases. The BBS was operated for the stated purpose of encouraging others to post protected video games for download by the Maphia BBS community.[70]

Given the illicit nature and purpose of the BBS at issue, the court had little difficulty in reaching a holding of contributory infringement and therefore did not see a need to wrestle with potential non-infringing uses or other arguments that might save the defendants.[71] As for knowledge, the court noted that the data regarding posted and downloaded files available to the system operator made the trade "particularly known" to the defendant.[72] As for contributory acts, the system operator specifically solicited this copying and expressed the desire that these video game programs be placed on the MAPHIA bulletin board for downloading, going so far as to discuss the trade in Sega SuperNintendo and SegaGenesis games he was seeking to foster.[73] The defendant offered Sega games for download for

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67. *Id.* at 926.

68. *Id.* at 927-28.

69. *Id.*

70. *Id.*

71. *See id.* at 939.

72. *Id.* at 933. Strangely, despite the ample evidence in the facts recited by the court from which a finding of actual knowledge could easily be inferred, the court refused to confront the knowledge element head on. *Id.* In fact, the court could even be read as suggesting that knowledge is not essential when it concludes that even if the defendants do not know exactly when games will be uploaded to or downloaded from the MAPHIA bulletin board, their "role in the copying, including provision of facilities, direction, knowledge, encouragement, and seeking profit amounts to a prima facie case of contributory copyright infringement." *Id.* Perhaps the defendants were so clearly bad guys that the court allowed itself some conclusory sloppiness in analysis. It is also worth noting that the opinion was the result of a preliminary injunction motion and, as such, could deal in terms of likelihood of success rather than ultimate merits per se.

73. In finding that the defendant's infringement was committed willfully, the court explained: "He knowingly allowed others to upload and download the Sega games, and expressly solicited others to upload games to his BBS." *Id.* at

a fee or barter, that is, the more Sega games one uploaded, the more he would be entitled to download free of charge.[74] If the stated purpose of the BBS were not enough, the defendant also advertised and offered for sale via the BBS all the tools necessary to hack games.[75]

c. *BBS and Web Cases in the Middle—Liability as the Path of Least Resistance.* In the case of a plain piracy operation as in *Sega*, a finding of indirect liability for the system operator seems sensible. The doctrines operate exactly as they should by slamming a bad actor trying to profiteer off another's property. Likewise, a court could follow the spirit of *Sony* and take a solicitous view of new information technologies pushed forward by businesses that may only incidentally, unintentionally, and tangentially be related to copyright infringement or other wrongs as in *Cubby*. This leaves the question of how to deal with cases in the middle, that are neither piracy operations nor an effort to develop a digital library of Alexandria, just one community of folk among countless others posting, downloading, ranting, flaming, and otherwise doing what humans do when they communicate in relative anonymity.

The purpose of these run-of-the-mill BBS typically is not copyright infringement for commercial gain, but, as a practical matter, copyright infringement happens via any BBS once users start posting articles for others to read, wish to propagate some funny thing they ran across, and otherwise seek to share material that they themselves did not author. Though the data sample is relatively small, it

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936.

74. *Id.* at 928–29.

75. *Id.* at 929. All the facts gleaned from the opinion reinforce the impression that the defendant was a pirate, and a brazen one at that, intent on establishing a scheme that would net him illicit profit in dollars and games. The defendant advertised, distributed, sold the video game copiers "Super Magic Drive" and "Multi Game Hunter," and boasted that he sells "everything from Copiers to Modems to Hard Drives to Calling Cards (off the record, hehe) and even Pentium Chips now." *Id.* It is interesting to note that in analyzing the import of the sale of copying software and other piracy accoutrements a full ten years after *Sony*, the court either through abject ignorance or willful noncompliance turned the *Sony* standard on its head, implicitly applying the dissent standard by stating that non-infringing uses "have not been shown to be the *primary use of such* copiers." Sega Enterprises, Ltd. v. MAPHIA, 857 F. Supp. 679, 685 (N.D. Cal. 1994) (emphasis added).

appears that when courts are faced with such run-of-the-mill BBS incidentally engaged in copyright infringement, the breadth of the doctrines of indirect liability have sway. Contrary to what many end users may consider to be part of their core democratic freedoms, the operator of a BBS dedicated to discussion of current events will be held contributorily liable for users who post news and other articles for user remarks and commentary.[76] Likewise, a BBS operator can be held liable for infringing pictures posted by its users, even if the operator, after receiving notice of the infringing pictures, removes such files and thereafter monitors the files posted to prevent any more of plaintiff's photographs from reappearing.[77]

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76. *See* L.A. Times v. Free Republic, No. CV 98-7840 MMM (AJWx), 2000 U.S. Dist. LEXIS 5669 (C.D. Cal. Apr. 5, 2000). The court correctly held that the posting of full-text copies of plaintiff's articles is copyright infringement. *Id.* at *80. The finding of contributory infringement was based on a finding that Free Republic induced such illicit reproduction and distribution of articles by providing guidelines and instructions for posting and by actively encouraging full-text copying. *Id.* at *19 n.29. Despite the manifest dissimilarity of the enterprises at issue, the court cited *Sega Enterprises Ltd. v. MAPHIA*, 948 F.Supp. 923 (N.D. Cal. 1996), to support its holding. *Id.* at *66-67. In the fact section of the opinion, the court significantly states that the BBS had the right and ability to control user postings, even though the finding of liability was based solely on a contributory infringement theory. *Free Republic,* No. CV 98-7840 MMM (AJWx), 2000 U.S.Dist LEXIS 5669 at *6–*7.

77. *See* Playboy Enters., Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993). In *Playboy*, we have a forum with a purpose that may be somewhat less lofty than that in *Free Republic.* Users of the BBS operated by defendant Frena posted proprietary Playboy photographs for viewing and download by the BBS community. *Id.* at 1554. The court gave no consideration to the fact that the automated nature of the BBS system did not permit any practical remedy other than monitoring files posted and removing those that are likely infringing, the very action that Frena apparently was taking in response to Playboy's notice of infringement. *Id.* The court reasoned, "There is no dispute that defendant Frena supplied a product containing unauthorized copies of a copyrighted work. It does not matter that defendant Frena claims he did not make the copies itself." *Id.* at 1556. The finding of liability was not based on a contributory or vicarious liability theory. Rather, the court found direct infringement by the BBS operator in distributing and displaying the plaintiff's photographs. *Id.* at 1559. It is difficult to find flaws in the logic of the holdings. The law seems reasonably clear that such direct infringement is taking place. However, the net practical effect of the holding would be to forbid the existence of BBS for any purpose. No matter what efforts the operator made to keep infringing works from being posted, s/he would be held liable for every infringing upload by a user without even the benefit of the modestly ameliorating "knowledge," "financial benefit," and other qualifying requirements for a finding of indirect liability.

3. *The Web Cases.* The few cases dealing with web sites also reinforce the conclusion that a finding of liability of the site or system operator is the path of least resistance under the broad doctrines of indirect liability. The World Wide Web arguably took off despite the demands of copyright law. Prior to the DMCA which contains an express safe harbor from copyright liability for such activity under certain circumstances, it was not at all clear that one could provide a hyperlink to a site that contained infringing material without incurring indirect copyright liability. As with the BBS cases, the easy answer is providing a link to infringing material can be the basis for copyright liability, and some courts had little difficulty finding such liability without considering the potentially devastating impact of such a holding to the existence of automated electronic communication systems of every kind.[78]

a. *The Problem with the Doctrines as Evolved and the Attempted Fix*—RTC v. Netcom. If one looks at matters from a purely legal perspective, taking the inherited precedent as it is passed down in the reporters, it is difficult to fault findings of indirect or even direct liability for operating a BBS where infringing material is posted, a web site or

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78. *See, e.g.,* Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc., 75 F. Supp. 2d 1290 (D. Utah 1999). In *Utah Lighthouse Ministry*, the court found a web site operator contributorily liable for providing links to material hosted elsewhere that the web site operator had reason to know was infringing. *Id.* at 1291. As with *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259 (9th Cir. 1996), *Utah Lighthouse Ministry* presents a case of a willful defendant goading a court into setting bad precedent with a reach that goes well beyond the defiant pirate. *Utah Lighthouse Ministry*, 75 F. Supp. 2d at 1294. The defendant in *Utah Lighthouse Ministry* had already been ordered to remove the infringing church materials from its own site. *Id.* Thinking that it had found a clever way around the court's directive, the defendant replaced the material itself with a link to the infringing material hosted on a third-party site accompanied by the text, "Church Handbook of Instructions is back online!" *Id.* at 1295. Given the facts of the case, defendant's knowledge that the material was infringing was plain (there was already a court order directed against the defendant effectively saying so). *See id.* The court found a contributory act not only in providing the link, but in defendant's active encouragement of users to click on it, reproduce it, and post it elsewhere in order to affect the outcome of defendant's case. *Id.* As with *Fonovisa*, the extreme facts of defendant's misconduct make the holding fair and suggest a rule limited to such willful behavior. However, because the courts ruling in those cases did not make such limitations explicit, these opinions provide later courts fodder for very broad holdings even where defendants are at most innocent infringers.

service that provides links to infringing material, or any similar automated technology that facilitates the sharing of information. While sweeping policy judgments like that which arguably lies behind *Sony* may be OK for those that are final and infallible, those inhabiting inferior courts are wise to stick with the clear direction of established precedent, and they generally do. One cannot say how far beyond the VCR, copying equipment, or even the facts of the case the *Sony* exception may reach, but it is clear what the general rule demands. Thus, when confronted with a new technical means of communication that implicates copyright, the safer path is to find the technologist or service provider at least indirectly liable.

Copyright is a strict liability statute. It does not matter for purposes of ordinary infringement what the technical limitations of a system are or what efforts within those limitations a defendant makes to prevent or remedy infringement. As soon as an unlicensed copy is uploaded into RAM, recorded to disk, or traverses wires or the airwaves to another user, infringement has occurred.[79] Notwithstanding the lesson of *Sony*, those who provide the enabling technology have apparently contributed to such acts with knowledge that infringement of the sort likely to happen on their system is happening. Likewise, even if *Sony* applies to vicarious liability claims (some courts have made clear that it does not), any defendant who maintains any level of oversight and control over the system or technology, such as a BBS operator, a webmaster, or a network operator, has the requisite level of control and, if part of a commercial enterprise, the necessary financial benefit as well. The judge who does not seek to subject his opinion to the policy whims of his appellate overseers is therefore likely to find a technologist or service provider engaged in providing or enabling any sort of computer network liable for any type of infringement that takes place over that network.

The problem with this result lies not in its logic or grounding in precedent. The problem lies with its practical impact on the development of tremendously valuable and

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79. MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).

useful technologies. It would seem that search engines which routinely provide links to web pages and files with infringing content, discussion boards where people are free to say and post what they wish, chat and other services—the whole of the wired computerized world, could not exist. The liability exposure of all those involved, from those who provide the software to those who produce the hardware to those who supply the concepts to those who supply the wires, would simply be too great if statutory damages were due every time a user engaged in an act of copyright infringement. Happily, the Internet and other aspects of the information technology revolution have occurred organically without strong interference from copyright, but eventually the copyright rules must accommodate reality, or reality must be modified to accommodate the rules.

The most thoughtful and far-reaching attempt to reconcile copyright with network technologies came in the form of Judge Whyte's seminal *RTC v. Netcom*[80] opinion. *Netcom* involved one of the many times the Church of Scientology (The Religious Technology Center) has gone to court to prevent its secret, sacred texts from being exposed, often by disgruntled former practitioners seeking to discredit the religion by publishing its core documents.[81] Netcom was an Internet service provider over which a private party ran a BBS where at least one user posted proprietary church documents without a license from the Church.[82] Netcom did not create or control the content of the information available to its subscribers.[83] Although the court believed it may have been possible to screen postings from particular individuals or screen postings containing particular words, Netcom took no action after receiving notice of the infringement, claiming it could not shut out the offending user without shutting out all users of the BBS at issue.[84] Rather than taking the easy way out by finding Netcom liable and letting Congress and the rest of the world go about

80. Religious Tech. Ctr. v. Netcom On-Line Communication Serv., 907 F. Supp. 1361 (N.D. Cal. 1995).

81. *See id.* at 1365–66.

82. *Id.*

83. *Id.* at 1366.

84. *Id.*

changing the technology or the law so that human communication as we know it can go on, Judge Whyte confronted the problem head on.[85]

b. Netcom *and Direct Infringement.* As with all decisions that seek to correct flaws with inherited precedent, Judge Whyte navigated new waters, crafting new rules in *Netcom.* First, Judge Whyte had to grapple with the nettlesome problem of the direct liability of the BBS operator.[86] Posted material is reproduced and stored on BBS servers and then distributed to those who wish to download it. The easy answer is that the BBS operator is directly liable for these reproductions and distributions. After all, even a copy existing only in computer-readable form in RAM is a copy for purposes of an infringement analysis. The problem, obviously, is that the Internet and other large computer networks could not exist if the analysis ends here. Email, web sites, listservs, FTP sites, and all the other forms of computer-based communication that rely upon automated systems to receive and route information to the appropriate place would be overly burdened by copyright liability.

Refusing to issue an opinion that further divorces the law from reality, Judge Whyte held that the incidental copies made on the BBS as part of an automated process initiated by a third party did not constitute direct copyright infringement.[87] The court reasoned that "designing or implementing a system that automatically and uniformly creates temporary copies of all data sent through it is not unlike that of the owner of a copying machine who lets the public make copies with it."[88] Without question, almost anyone would want to live in a world where those in control of servers permit their servers to support the network, routing emails, download requests, and other requests that necessarily involve reliance on third-party wires and hardware. How this can be done within the strictures of copyright is, however, not at all clear. The linchpin for Judge Whyte's conclusion is his forthright addition of a volitional element

85. *See id.* at 1361.

86. *See id.* at 1367.

87. *Id.* at 1373.

88. *Id.* at 1369.

to the law of copyright.[89] Although copyright is a strict liability statute, the court concluded that there "should still be some element of volition or causation."[90] "Where the BBS merely stores and passes along all messages sent by its subscribers and others, the BBS should not be seen as causing these works to be publicly distributed or displayed."[91] In sum, Judge Whyte was saying that while copyright still holds the innocent infringer liable, there is some class of truly innocent infringers who are not liable.[92] Whatever homage the opinion paid to the strict liability nature of copyright, the court held that it was not really strict liability in the context of automated network operations.[93]

The real force behind the decision was a policy judgment that open computer networks must be permitted to exist and thrive.[94] According to the *Netcom* court:

> [I]t does not make sense to hold the operator of each computer liable as an infringer merely because his or her computer is linked to a computer with an infringing file. It would be especially inappropriate to hold liable a service that acts more like a conduit, in other words, one that does not itself keep an archive of files for more than a short duration . . . it does not make sense to adopt a

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89. *Id.* at 1370.

90. *Id.*

91. *Id.* at 1372.

92. *See id.* at 1373.

93. *See id.* at 1370–71. The opinion makes some effort to distinguish *Playboy Enters., Inc. v. Frena*, 839 F. Supp. 1552 (M.D. Fla. 1993). *Netcom*, 907 F. Supp. at 1370–71. It argues that *Playboy* deals only with distribution rights where liability will be found regardless of whether defendant makes copies. *Id.* In *Netcom*, reproduction from storage and retransmission is at issue. *Id.* While it is true that the *Playboy* decision based its holding on the fact that the BBS operator is directly liable on the violation of Playboy's right to distribute its photographs (*see Playboy*, 839 F. Supp. at 1556), *Netcom* does not sharply draw a meaningful distinction between those who operate a BBS directly on their servers and those who provide access to such a BBS, reproducing and distributing the same material on the BBS to its end users. *See, e.g., Netcom*, 907 F. Supp. at 1371. One is more likely to be a broader and socially important service, and one is more likely closer to the content at issue and any editorial control that can be exercised, but like a specialty shop existing within a larger shopping center, each is dependent on the other in key respects.

94. *See id.* at 1372.

> rule that could lead to the liability of countless parties whose role in the infringement is nothing more than setting up and operating a system that is necessary for the functioning of the Internet. Such a result is unnecessary as there is already a party directly liable for causing the copies to be made."[95]

c. Netcom *and Contributory Infringement.* Although Judge Whyte gave ISPs a free pass on direct copyright liability, he did not grant them or any other service blanket immunity.[96] There are still the doctrines of indirect liability and the important policy interests they are intended to serve. If ISPs and others engaged in operating and providing connectivity to networks could store, reproduce, and transmit with absolute immunity, those seeking to game the system could become the system. The Internet could reduce copyright to irrelevancy. What was required, therefore, was a careful balancing of the large interest in the existence of the Internet and like networks and the legitimate intellectual property interests of content owners. Without discarding the doctrines and the vital policies they serve, Judge Whyte significantly reduced the reach of contributory infringement and vicarious liability in the context of online service providers and others in the business of keeping the network infrastructure of the land humming.

Netcom substantially limited the type of "knowledge" required from the generalized knowledge standard that predominated in prior cases.[97] Instead of a loose knowledge that infringing acts of the type alleged are taking place, the court framed the question as whether the defendant, Netcom, knew or should have known that the BBS operator at issue had infringed plaintiff's copyright following receipt of plaintiff's cease and desist letter.[98] The knowledge the court required is extremely specific. The defendant must

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95. *Id.* The court also noted that it is "practically impossible to screen out infringing bits from non-infringing bits." *Id.* at 1372–73. To the extent the court's conclusion was based on this ground, however, its rationale will necessarily grow increasingly weaker as DRM, acoustic and video fingerprinting, and other technologies improve the ability of service providers to screen material for copyright infringement on the fly.

96. *See id.* at 1373–77.

97. *See id.* at 1373–75.

98. *Id.* at 1374.

know the direct infringer's identity (or, perhaps more accurately, the end user or service who initiated or possesses the media on which such infringing copies were made) and that the plaintiff's rights, as opposed to the rights of copyright owners in some general way, were infringed.[99] Moreover, the court made clear that mere knowledge of the allegation or even knowledge that would constitute a prima facie case of infringement is not necessarily sufficient.[100] The mere receipt of a cease and desist letter with a copyright registration attached does not alone result in knowledge by the service operator.[101] The defendant must be able to *verify* reasonably a claim of infringement over a possible fair use defense, a defense arising from lack of a copyright notice, or even the copyright holder's failure to provide sufficient documentation.[102] Absent such verification, the operator's lack of knowledge will be found reasonable.[103]

The court let the reader know immediately that it would be taking a narrow view of the contributory acts prong with its first two words on the subject, titling the section on the subject not contributory acts, but "Substantial Participation."[104] Given the court's accommodating approach to the Internet, merely operating an essential, automated service that supports the network will not cut it as a contribution to copyright infringement.[105] If it does not matter that the defendant is making and transmitting unlicensed copies with its property for purposes of direct infringement, it follows that it should not be determinative for purposes of a contributory infringement analysis.[106] Because Judge Whyte believed that the business Netcom

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99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

103. *Id.*

104. *Id.* at 1375.

105. *See id.*

106. *See id.* The court distinguished *Sega*, 857 F. Supp. at 679, on the ground that the defendant actively solicited the uploading of the Sega games at issue and, in fact, profited from such uploads directly. *Netcom*, 907 F. Supp. at 1361.

was generally engaged in is socially beneficial, he defined the "acts" required in terms of omissions once the requisite knowledge of the infringement problem is obtained.[107] In the context of an ISP providing connectivity for a BBS, contributory infringement ought to be found if after having the requisite knowledge of the infringement, the defendant fails to "take simple measures to prevent further damage to plaintiff's copyrighted works."[108]

In short, as interpreted by *Netcom*, the doctrine of contributory infringement merely requires the service provider to behave responsibly when notified adequately of a specific act of infringement. If it does so, it will not be held liable. As re-interpreted in *Netcom*, even where the underlying copyright infringement is clear and made possible only through the acts or property of the defendant, the defendant, in effect, is entitled to a warning or a free pass on this first act of infringement, with liability existing only to incentivize proper, reactive behavior. Far from being a strict liability statute, the rules under this novel reading seem to grant every ISP a "get out of liability free card" with every dunning letter. This arguably represents a fair balance of the competing interests, allowing modern communication to go forth while still requiring good citizenship when it comes to assisting others to police their copyrights online. It is, however, a very long way off from the decades of precedent stating that as a matter of fairness, as well as for the policy reasons of incentivizing policing and loss

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107. *Id.*

108. *Id.* at 1375. This standard, requiring the service provider to take "simple measures" raises many questions. Of course, one wonders where "simple" lies along the continuum theoretically possible at unknown cost and routine at no added cost. It also raises the more interesting question of whether the "simple measures" that may be required must be accommodated in some fashion by everyone operating online. If a simple fix existed, for example, to stem one type of infringement on one type of system, would all parties have to adopt the architecture of such a system to make the simple fix possible? Or, could one architect deploy a system in which the known simple fix would not work? Would it matter whether this architecture was designed to solve legitimate technical or other problems or whether it was designed specifically to stymie the simple fix to copyright infringement that would otherwise be available?

spreading, the innocent infringer must pay. Here, if the ISP acts as it should, nobody will pay.[109]

d. Netcom *and Vicarious Liability.* The court limited its tinkering with the developed standard for vicarious liability. It found support for the contention that Netcom had the right and ability to control in the facts that Netcom had rules prohibiting copyright infringement, that Netcom had the ability and had in fact kicked users off its system, and that Netcom deleted specific postings on similar community services in the past.[110] The ability to exclude still sufficed to establish the right and ability to control prong. The court, however, applied a much more restrictive concept of direct financial benefit than the norm in the post-Fonovisa era.[111] The court concluded that Netcom could not have obtained a direct financial benefit from the infringing activity because Netcom offered a fixed-fee service.[112] Its

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109. *See generally id.* It may strike some as extraordinary that Judge Whyte appears to be crafting such specific notice and response procedures from generalized common law principles of third-party liability. Of course, such a specific approach is far more useful for folks in the field grappling with the practical problems of what action the law requires, although it brings the court much closer to a truly legislative function. Lest one think that Judge Whyte was making things up whole-cloth, the scheme the *Netcom* opinion establishes closely resembles the notice and response scheme established in the copyright statute for juke boxes. Under 17 U.S.C. § 116(a)(1) (1993), a proprietor is not liable for infringing performances on a juke box within his establishment unless he has failed or refused within one month after receipt by registered or certified mail of a request by the copyright owner to make full disclosure or identify the operator of the machine. The court also had the Passive Carrier Exemption of 17 U.S.C. § 111(a)(3) (1993) in mind when crafting its compromise solution for online communication. This provision protects those engaged in providing secondary transmissions of information if (1) they had no direct or indirect control over the content of the primary transmission or over the particular recipients of the secondary transmission and (2) the carrier's activities consist solely of providing wires, cables or other communications channels for the use of others. *Id.* An ISP like Netcom arguably fits this description. The court, however, refused to stretch the statutory concept of common carriers to include ISPs, explaining that ISPs "are not natural monopolies that are bound to carry all the traffic that one wishes to pass through them, as with the usual common carrier." *Netcom*, 907 F. Supp. at 1369 n.12. Faced with a very real gap between reality and the law, it appears the court chose to model a solution based on statutory provisions dealing with the most analogous problems it could find.

110. *Id.* at 1375–77.

111. *See id.*

112. *Id.* at 1377.

revenues under this logic are the same X dollars per month per customer regardless of whether or not any infringing material is accessible via the Netcom service.[113] The court distinguished this revenue model from those in *Shapiro, Bernstein & Co.*,[114] under which the defendant received incremental revenues as a direct result of the sale of bootleg records and the sale of tickets to unlicensed music performances respectively.[115]

Like many matters of economics, a difference in result can often be traced to a difference in starting assumptions. The predominant view of financial benefit, which presumes that a financial benefit exists if infringement takes place in the context of a commercial enterprise, begins from the assumption that the infringing activity would not have a place in the commercial enterprise if management did not believe that it added value to the business, resulting in some benefit, however hard to quantify, that would ultimately hit the bottom line with bigger profit numbers. Judge Whyte, on the other hand, began with the implicit assumption that, at least in the context of a broad service like that provided by an ISP, infringing activity is merely incidental and irrelevant to the business.[116] The opinion slammed the notion that Netcom received a financial benefit as a result of having a policy that attracted infringers to its system.[117] The opinion did leave open the possibility of vicarious liability if the infringing activity is a

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113. *Id.*

114. Shapiro, Bernstein & Co., Inc. v. H.C. Green Co., 316 F.2d 304 (2d Cir. 1963).

115. *See id. Netcom* cites the district court opinion in *Fonovisa* to support its view of financial benefit. *Netcom*, 907 F. Supp. at 1377. The district court in *Fonovisa* similarly held that the swap meet operation, in part because of the rent charged, does not scale with infringing activity. Fonavisa, Inc. v. Cherry Auction, Inc., 847 F. Supp. 1496 (E.D. Cal. 1994). The Ninth Circuit's reversal of *Fonovisa* and adoption of a very broad and diffuse notion of financial benefit calls into question the vitality of this portion of *Netcom* as anything more than persuasive authority for other jurisdictions, as the Ninth Circuit sits in review of the *Netcom* court, the Northern District of California, and its *Fonovisa* decision post-dates the *Netcom* decision. *See* Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259 (9th Cir. 1996).

116. *See Netcom*, 907 F. Supp. at 1376–77.

117. *Id.* at 1377.

draw for customers, but the implicit assumption of its irrelevance flipped the burden of proof. The court would not find a financial benefit in the absence of evidence that the infringement "enhances the value of Netcom's services to subscribers or attracts new subscribers."[118]

Netcom provided the model for the notice and take down regime established by the DMCA and arguably represents the right compromise over indirect copyright liability between the competing interests of content owners and those providing connectivity to, or otherwise facilitating the operation of, computer networks.[119] The decision and its reasoning, however, were not widely adopted as a general standard for contributory infringement or vicarious liability. It remains the activist, high-watermark for generosity to computer technology. Although important later courts have expressly adopted the Netcom standard for "knowledge" when performing a contributory infringement analysis, the field of Internet cases since Netcom remains inconsistent in result. The easiest path for the jurist presented with the conundrum of squaring the Internet with copyright liability remains finding the defendant contributorily or vicariously liable and often directly liable as well.

C. *File Sharing and Novel Network Architectures Smash Into the Doctrines—From Counterrevolution to Revolution and Incoherence in Four Short Years*

1. *What are P2P Networks and Why is Everyone So Excited About Them?*

a. *Same Fight, Different Decade.* In the latest high-profile round of the ongoing battle between content owners and technology providers, Hollywood regained much of the ground it lost in *Sony*.[120] The differences between the technology at issue in *Sony* (the VCR) and that at issue in *Napster* (a centralized P2P network) impact the legal

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118. *Id.*

119. *See* H.R. REP. NO. 105-551, pt. 1, at 11-12 (1998).

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

analysis. However, the differences have little to do with the industrial turf war that motivated the disputes. In both cases, Hollywood targeted what it believed was a "disruptive technology," i.e. one that required updating its accustomed modes of doing business. In both cases, the goal of the plaintiffs was not to vindicate their copyright rights per se, which could be accomplished with a damage award or avoided altogether by granting a license on reasonable terms, but to extend the copyright monopoly held with respect to their vast body of entertainment works to the new technology. Legal argument generally, and copyright liability more specifically, is merely the form in which the industrial battle over control of distribution in a new medium happened to be expressed because the content owners, as usual, chose the courts rather than the marketplace as the first, and for an inexplicable number of years, the only, place to fight.

b. *File Sharing as the "New New Thing."* In a sense, there is nothing new about file sharing. One can argue that the fundamental purpose of any computer network is the sharing of computer files. For many years, the computer savvy have carried on a significant trade in files, licit and infringing over BBS, FTP (File Transfer Protocol), SMB (Server Message Block), and other methods and protocols, many of which predate the rise of the Web. Indeed, file sharing to select individuals, within a closed network or with the wider world has been a standard feature in Windows for nearly a decade.[121] Accordingly, there is noth-

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121. Sharing of files within and between computer networks is possible using the Server Message Block file-sharing protocol which has been a standard feature of Microsoft Windows from Windows 95 onward. One online networking dictionary (paraphrasing definitions offered in "The Encyclopedia of Networking and Telecommunications"), defines "Server Message Blocks" as:

> SMB is a high-level file-sharing protocol for exchanging information in the Microsoft Windows network environment. It is the native file-sharing protocol for Windows 95, Windows 98, Windows NT, and OS/2 operating system environments. It is also used in pre-Windows 95 versions of the Windows operating system for file sharing across networks. The new CIFS (Common Internet File System), which allows file sharing across the Internet or intranet, is based on SMB. SMB is also widely available in the UNIX and VMS environments in the form of Samba.

ing terribly new about piracy on a massive scale online. For more than twenty years, the software industry has faced a major online piracy problem.

What is new are the types of files available online and the industry affected. Beginning in the late nineties the confluence of the MP3 format for audio files, processing power, hard disc storage, and cheap bandwidth enabled the efficient duplication, storage, enjoyment, and transmission of music files via the PC. The problem of software piracy online still dwarfs music and other content piracy, relegating Hollywood's problem to a mere rounding error in dollar terms. However, because the files shared embodied popular entertainment media, file sharing became the latest front in the entertainment industry's incessant war with technology. Even though the commercial problem was not significant relative to other challenges online, the victim was new and its litigious tactics made the problem both a question of law and a mass media news story.

Far more important to human progress and the shape the law should take (and far too often occluded by the hype of entertainment litigation) are the novel and promising features of P2P architectures and distributed computing. The key insight of P2P is that the average commodity PC with a DSL connection now has the power to perform core network functions that once were the exclusive domain of centralized servers run by businesses, universities and other data and hardware hubs. Every client can be a server. Moreover, all the power of the networked, connected computers can be harnessed for a single project, in effect, turning all the Internet-connected computers which participate into a single, super computer, with the processors distributed on the various desktops, dorms and living rooms around the world. This is not fantasy. There is a significant history of distributed computing projects. Users around the world have donated their unused CPU cycles to SETI to help search for intelligent life in the cosmos, "to the Rothenberg Institute for Childhood Diseases to find a cure for Tuberous Sclerosis Complex and to the Drug Design

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See Tom Sheldon's Linktionary, *at* http://www.linktionary.com/s/smb.html (last visited Feb. 25, 2005).

Optimization Lab to design medicines to cure Anthrax, Ebola and SARS."[122]

Of course, the success of Napster and its progeny demonstrated that vast quantities of data can be efficiently distributed without any centralized service hosting and distributing files. The world's largest conceivable library can be created by individuals choosing to "share" all the works already sitting in their home libraries with others connected by the network. The full promise of this technology is likely still beyond our imagination. The inventors of the Kazaa file sharing system have architected a P2P IP-based telephone system permitting free calls to any other user, anywhere in the world.[123] The users provide the infrastructure that once only AT&T, Bell, and state-owned monopolies could provide. The phone company could become a relic. Where the power of all the computers in the world may lead now that they can begin to speak and cooperate with each other is unknowable, but surely exciting.

c. *How P2P File Sharing Works.* The P2P file sharing systems that have been at the center of the entertainment litigation have come in three basic varieties—centralized, fully-distributed, and hybrid systems.[124] In a centralized system, such as Napster, each user selects which files on her computer she wishes to share with the community. A centralized server tracks which users are online at any given moment, and what files they have made available to share, compiling direct links to those files in a database. Other users may query the database and receive a list of

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122. *See* http://distributedcomputing.info/ (last visited Feb. 14, 2005), and http://www.distributed.net (last visited Feb. 27, 2005), for lists of prior and active distributed computing projects ranging from pure mathematics to climate prediction, from particle accelerator design to drug design.

123. *See* Daniel Roth, *SKYPE: Catch Us If You Can,* FORTUNE, Feb. 9, 2004, at 64.

124. For more thorough explanations of the various P2P architectures that have been at issue in reported opinions, see *Napster I,* 239 F.3d at 1011-12 (describing the Napster centralized P2P file sharing system); Metro-Goldwyn-Mayer Studios, Inc. v. Grokster Ltd., 380 F.3d 1154, 1163-65 (9th Cir. 2004); *In re* Aimster Copyright Litig., 334 F.3d 643, 645-48 (7th Cir. 2003) (describing a P2P system that piggybacks on AOL Instant Messenger). For general technical and community news regarding the fully-distributed system Gnutella, see Gnutella News, *at* http://www.gnutellanews.com (last visited Feb. 15, 2005).

responsive links from the central server. When the querying user clicks on a link provided from the central database, the file is transferred directly from the computer of the user who is making the file available to the user searching for that file over the Internet. The file is never reproduced, stored or even routed through the centralized server. In effect, a centralized P2P system operates much like a standard search engine, the primary differences being that users supply the database of links to be searched, not the search tool provider, and the links refer to files resident on user computers, rather than the Web sites or media assets located on Web sites.

A fully-distributed system, such as Gnutella and its progeny, takes greater advantage of the computing power of user computers, doing away with the central database of links. There is no client-server hierarchy at any level. User computers perform all network functions. So, in a fully-distributed or "pure" P2P system a user's query propagates throughout the system, hopping from one computer to the next, and so on until a suitable number of responsive links are collected, which are then reported back to the user who submitted the query. As with a centralized system, once the querying user clicks on a link, the transfer of the file takes place directly from peer to peer.

Fully-distributed systems proved to have some practical limitations. In order to find enough responsive links to a query, the query may need to propagate out to a great many users. The systems could be slow, bog down, and even hang due to the inefficiencies inherent in keeping the desired information fully distributed in small bits and pieces across the breadth of the network. Hybrid systems, such as Kazaa and Grokster, split the difference between the elegance of the pure, fully-distributed system and the efficiency of a centralized database. In a hybrid system, some user computers, whether by the user's choice or designation by the rules that run the network, serve as "super nodes," aggregating links to files being shared by a great many computers on the one super node. In this way, an ordinary query need not propagate out through thousands of user computers to find responsive links. Most queries will be satisfied by links collected on one or a few super nodes and only the exceptional, off-the-wall query will need to trek

through a multitude of user computers hoping to find something responsive.

These technical differences have produced a range of results in file sharing cases that remains as varied and inconsistent as those in Web, Internet, and BBS cases. The broad standards seem neither to constrain results nor provide clear guidance to courts faced with the task of judging new technologies and the personal and economic relationships they enable.

2. *The* Napster *Reconquista—Hollywood Briefly Recaptures the Ground Lost Over the VCR.* Though the legal battle was much the same as that fought over the VCR, the legal result in *Napster* was quite different, substantially rebalancing the relative rights of content owners and those developing technologies related to the distribution and use of content online.[125] The district court imposed a sweeping preliminary injunction in a very poorly reasoned opinion that tortured some of the key legal standards and appeared at times to be more of an emotional outpouring of antipathy toward Napster than a reasoned court order.[126] The Ninth Circuit corrected the flaws in the district court's order, applying the correct legal standards without significantly modifying the net result.[127] With respect to contributory infringement, the Ninth Circuit adopted the *Netcom* notice and take-down standard and remained true to the Supreme

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

126. *See id.* The district court judge at one point referred to the Napster technology as a "monster." *Id.* at 924. When questioned as to how Napster should go about implementing the broad injunction given the technical constraints of the Napster system and the limitations of existing technology, the judge, in effect, told defendant Napster that, having created the monster, issues of implementation were its problem. Kevin Featherly, *Music Industry On Napster Appeal: 'Crisis? What Crisis?'* (July 14, 2001), *available at* http://in.tech.yahoo.com/010714/11mlz.html (on file with author). The district court also grossly erred in misstating the *Sony* standard for contributory infringement, adopting the standard articulated by the dissent. *See id.* at 916–17. Incredibly, the district court also found (although it was overturned by the Ninth Circuit) that Napster's system was incapable of commercially significant non-infringing use, notwithstanding the excitement over the P2P network architecture that Napster pioneered throughout the technology community and markets. *See id.* at 912.

127. *See generally* 239 F.3d 1004 (9th Cir. 2001).

Court directive in *Sony*.[128] A "computer system operator" like Napster, the court reasoned, is contributorily liable if he discovers "specific infringing material available on his system and fails to purge such material from the system . . . . Conversely, absent any specific information which identifies infringing activity, a computer system operator cannot be liable for contributory infringement merely because the structure of the system allows for the exchange of copyrighted material."[129]

The court cited the technology-embracing standards that, as applied in *Netcom* and *Cubby*, recognize that an online service provider cannot examine every bit of information that traverses its wires or is routed by its software or hardware.[130] Although the Ninth Circuit did not expressly adopt it, the court cited with some approval the *Netcom* standard for knowledge "that in an online context, evidence of actual knowledge of specific acts of infringement is required to hold a computer system operator liable for contributory copyright infringement."[131] Despite the generous approach to technology with the legal standards adopted, the court upheld the district court conclusion that Napster had sufficient knowledge, stating that the record supports the finding that "Napster has actual knowledge that specific infringing material is available using its system, that it could block access to the system by suppliers of the infringing material and that it failed to remove the material."[132]

Despite the "abuse of discretion" standard of review applied by the court, the affirmation of the district court's conclusion that Napster had knowledge could be significant. The factual petard from which the top officers at Napster chose to hang themselves consisted primarily of emails acknowledging that much of the content on the system was

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128. *See id.* at 1021.

129. *See id.* (citations omitted).

130. *See id.*

131. *Napster I*, 239 F.3d at 1021 (summarizing the knowledge standard in Religious Tech Ctr. v. Netcom On-line Communication Servs., Inc., 907 F. Supp. 1361, 1371 (N.D. Cal. 1995)).

132. *Id.* at 1022 (emphasis omitted).

infringing, infringing downloads by Napster executives, and a refusal to take sufficient remedial action in the face of RIAA complaints.[133] Unfortunately, the Ninth Circuit did not tell us which facts supported its conclusion that Napster knew that "specific infringing material is available using its system." To the extent the Ninth Circuit was affirming the district court's decision, which looked largely to the damning emails to support its conclusion, it was adopting a very broad view of knowledge at odds with the spirit of the legal standard articulated. "Specific infringing material" could be interpreted to mean, among other possibilities, something as broad as copyrighted music, or music owned by a plaintiff, or songs by the Beatles, or "Yesterday," or a specific file embodying a copy of "Yesterday" by the Beatles and all reproductions of such file, or a specific single file embodying "Yesterday," or the copy of "Yesterday" available through a specific link. The *Netcom* opinion clearly envisioned something close to the last interpretation offered: knowledge specific to a particular instance of infringing material, identified specifically enough to permit its removal.[134] The facts and holding in *Napster*, however, could support any of the foregoing interpretations.

The nature of the obligation to purge infringing material is similarly open to various interpretations. Once knowledge (whatever that means) is obtained, does the service provider need to remove the one specific instance of the work that is actually known, implement technology to remove all instances of the same file, all instances of the same work, works owned by the same party, all instances of similar works revealed by reasonable investigation, or some combination or variant of the foregoing? The Ninth Circuit addressed the nature of the purge obligation to a certain extent when Napster came before it again, this time to resolve a row over the implementation of the already affirmed and recrafted preliminary injunction.[135]

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133. *See id.* at 1020 n.5.

134. *See* Religious Tech. Ctr. v. Netcom On-Line Communication Serv., Inc., 907 F. Supp. 1361, 1373–75 (N.D. Cal. 1995).

135. *See* A&M Records, Inc. v. Napster, Inc. (Napster II), 284 F.3d 1091 (9th Cir. 2002).

Showing that little had changed in the tactics of the entertainment industry, the plaintiffs made the accustomed challenge to the requirement that they provide notice of works they allege are being infringed, together with some demonstration of ownership.[136] As usual, the court upheld the notice requirement.[137] For its part, Napster challenged the breadth of the obligation to purge that had been imposed.[138] The court interpreted Napster's requirement to purge quite broadly.[139] Even though the court recognized that "Napster was able to prevent sharing of much of plaintiff's copyrighted works," it affirmed the court-ordered shutdown of Napster for failure to comply with the injunction.[140] Napster's obligation was not merely to remove noticed links but to "police the system by searching its index for files containing a noticed copyrighted work."[141] Once Napster received a notice identifying a particular song, ownership of the song by the noticing party, and examples of the song present on the system, the burden shifted to Napster to ensure that that song did not reappear.[142]

Napster argued that the district court had changed the mandate of the injunction by requiring it not only to filter files by text titles, as originally contemplated by the parties, but to implement more accurate audio fingerprinting technology.[143] The Ninth Circuit read the injunction as requiring Napster "to police the system to its fullest extent," upholding the *de facto* modification of the injunction.[144] Elsewhere, the court stated Napster's obligation as doing "everything feasible to block files from its system which contain noticed copyrighted works."[145] The copyright

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136. *See id.* at 1096.

137. *See id.*

138. *See id.* at 1096–97.

139. *See id.* at 1097.

140. *Id.* at 1096.

141. *Id.* at 1097.

142. *See id.* at 1095-98.

143. *See id.* at 1097-98.

144. *Id.* at 1098 (quoting *Napster I*, 239 F.3d at 1023).

145. *Id.*

owner's obligation, it seems, has not changed much from the dance hall days. It must identify the copyrighted works that it owns with some demonstration that the work noticed has been infringed.

The nature of the service provider's obligation to purge, however, scales with the advance of filtering and other policing technology that becomes available. If perfect filtering technology exists, as it effectively does for most files embodying music content, the obligation to take down such infringing material is effectively absolute once notice has been given.[146] Napster's contention that the court had changed the injunction in ordering the shutdown of Napster's network entirely, suddenly imposing a "zero tolerance" policy, was not incorrect per se. The requirements of the injunction had increased to "zero tolerance" for infringement of noticed works, but only because existing technology made error inexcusable.[147]

Significantly, the court phrased Napster's general obligation as one "to patrol its system and preclude access to potentially infringing files listed on its search index."[148] The obligation to take down infringing material thus includes the obligation to take down non-infringing files which *may* be infringing. The purge obligation is over inclusive, extending the copyright monopoly farther than *Sony*

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146. Audible Magic Corporation, for example, boasts "audio-fingerprinting" technology capable of managing digital rights on P2P networks. *See generally* Audible Magic Corporation, *at* http://www.audiblemagic.com/about.html (last visited Feb. 15, 2005). Several major content owners, including Sony Music, have placed their trust in this technology. *See* Bill Rosenblatt, *Sony Music Gets Fingerprinted* (June 3, 2004), *available at* http://www.drmwatch.com/drmtech/article.php/3363151 (last visited on Feb. 15, 2005).

147. The requirement to implement filtering or other technology available raises a host of related questions. When is a technology sufficiently available? Does an essentially off-the-shelf solution commercially available have to exist, or is the outline of technology in an academic or white paper sufficient? How is the expense of implementation factored into the requirement? If the practical aspects of implementation, such as the cost of implementation relative to the harm done, were not factored in somehow, it would seem that there should be little tolerance for error even in the absence of technology. Theoretically, one could always hire sufficient human screeners to monitor all traffic to ensure no infringement takes place.

148. *Napster II*, 284 F.3d at 1097.

would seem to permit. At least with respect to a system found to be indirectly liable and subject to a court injunction, the copyright rights of the content owners limit the use of technology for uses that may be entirely non-infringing to some extent.

The remainder of the indirect copyright liability analysis was entirely a creature of the loose standards that had evolved. The Ninth Circuit, following its own *Fonovisa* precedent, found that Napster contributed to the infringement of its users by providing "the site and facilities."[149] For purposes of vicarious liability, it effectively equated the right and ability to control the infringing activity with the "ability to block infringers' access to a particular environment for any reason whatsoever. . . ."[150] The opinion did not examine the nature of the actual relationship and the terms governing that relationship, as one would do in a traditional agency analysis, because the court did not need to. The standard, which says that power to block or veto establishes the right and ability to control, displaces the need for a more nuanced, circumstance-specific look. Likewise, the fact that Napster was a for-profit corporate entity satisfied the financial benefit prong. The court did not need to concern itself with Napster's revenue model or its income history (neither of which it had); the fact that it was a commercial venture, however ill-defined, was enough.[151] The Ninth Circuit implicitly rejected the more stringent view of financial benefit articulated in *Netcom*, looking instead to its prior *Fonovisa* decision.[152] As long as the infringing activity was a "draw" for customers, financial benefit will be presumed.[153]

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149. *Napster I*, 239 F.3d at 1022 (citing Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 264 (9th Cir. 1996)).

150. *Id.* at 1023.

151. *See id.*

152. *See id.*

153. *See id.* The broad *Fonovisa* view of financial benefit is arguably the only one that could be applied in the case of Napster. *See* Fonovisa Inc. v. Cherry Auction, Inc., 76 F.3d 259, 263–64 (9th Cir. 1996). Napster launched in late 1999, the last and loftiest months of the Internet hey day. Napster, like so many other companies, did not concern itself with current revenues. Opting to build a user base and then convert this into huge gain for shareholders with an

a. *The Impact of* Napster *on* Sony. On the one hand, the Ninth Circuit *Napster* opinions represent a substantial affirmation of *Sony*'s vitality after the district court's choice to misread, misapply, or completely ignore the most important precedent on the subject. The opinion made clear that *Sony* does apply to computer networks, even one as reviled as Napster's, and the standard evaluates potential, not current use.[154] However, in affirming the district court's ultimate order, the Ninth Circuit found that "Napster's actual, specific knowledge of direct infringement renders *Sony's* holding of limited assistance to Napster."[155] Actual knowledge, the court held, vitiates a *Sony* defense.[156]

It is difficult to identify the logic supporting the court's decision. There is no contributory infringement, regardless of *Sony*, without a high degree of knowledge under the standard articulated by the *Napster* court. So, it would seem that the court's limitation of *Sony* would swallow the *Sony* exception to liability altogether, stating that if one of the two prongs of the contributory infringement test, knowledge, is met, *Sony* offers no defense to contributory infringement. Of course, if there were no actual knowledge under the standard apparently adopted in *Napster*, there would be no contributory infringement to begin with and thus no need for a *Sony* defense.

IPO. In 1999, this did not seem so odd. Many companies, with far fewer users had effectively converted their user numbers and demographics into tens, in some cases hundreds, of millions of dollars in market value. So, on the one hand, Napster, by the time it began seeking venture financing at the latest, was a business in this sense and it cannot seriously be contested that the "draw" for Napster's users, the source of the user numbers it sought to convert into IPO cash, was largely the availability of illegal music files (MP3 files being the only files available on Napster). On the other hand, one could not link dollars to infringing activity as the *Netcom* approach arguably requires, nor could one easily distinguish a non-commercial P2P service from Napster aside from the aspirations of its founders and investors once the service gained in popularity. A broad standard like that articulated in *Fonovisa* may be necessary to deal venture-stage companies with a sale or IPO exit strategy, particularly where infringing activity appears to be a major draw for the product or service offered. Businesses with current revenues pose no such problems, however, and therefore should be examined with the exactitude required by *Netcom*.

154. *See Napster I*, 239 F.3d at 1021.

155. *Id.* at 1020.

156. *See id.* at 1021.

The court could be saying that *Sony* only applies in cases where constructive knowledge is alleged. This seems to be an exceedingly weak distinction. If, for example, internal Sony memoranda existed akin to the emails circulating among Napster's officers—say a note in which a Vice President of Sony acknowledged that he saw his sister-in-law record a favorite episode of "Happy Days" with the intent to keep it permanently—would the Supreme Court have ruled differently? Should the Ninth Circuit have reached a different result if there were no damning emails circulating within Napster and the plaintiffs had not been sufficiently specific in sending any cease and desist letters? It would seem arbitrary for such important holdings to turn on how many little jewels a plaintiff was able to unearth in discovery.

Perhaps the Ninth Circuit was drawing an implicit distinction between services and unwired hardware. In the case of an ongoing service, the service provider has the opportunity to take remedial action once knowledge of infringing activity is known, whereas Sony could not really do very much to prevent copyright infringement once a VCR had shipped. The plaintiffs argued, as they frequently do, that *Sony* simply did not apply to an online service like Napster, because that holding was limited to stand-alone copying equipment.[157] The court appeared to rebuff this argument, as most courts do, in holding that *Sony* does apply to Napster.[158] However, the recognition that knowledge vitiates *Sony* may be the imposition of the same result by other means, either because the manufacturer of hardware will generally actually know less than the operator of an online service, though both may have the same practical, constructive knowledge of how their products are used, or because the limitation of *Sony* only applies in the context of online and similar services, where as a matter of fairness, knowledge without remedial action indicates a level of complicity. Whatever it means, the holding that knowledge guts a *Sony* defense represents a significant limitation on the reach of the *Sony* exception.[159]

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157. *See id.* at 1020–21.

158. *See id.*

159. As stated above, almost every time a court finds a technology or service

In addition, the Ninth Circuit made clear that the *Sony* exception applies only to contributory infringement, not vicarious liability.[160] This, too, would seem to reduce greatly the importance of *Sony* to computer networks and other wired services. Far from providing a general safe harbor for those developing agnostic technologies, *Sony* offers no assistance to any commercial product or service where users may be kicked off or their conduct restricted. Under *Napster*, *Sony* may be relevant only to the rare case in which the facts support contributory infringement but not vicarious liability, and there is no evidence of actual knowledge.

In holding that knowledge vitiates *Sony*, the court is arguably making the intent or state of mind of the defendant a quasi-element in the contributory infringement test. f the defendant does not actually know that protected rights are being violated and if he retains that purity of mind and purpose, *Sony* will shield him from copyright liability. If, however, he knows that bad things are happening and continues in his business anyway, thereby demonstrating a certain level of disregard or even hostility to the copyright rights of another, *Sony* affords no shelter. Still, if *Napster* imposes an actual knowledge standard as it appears to do and as later courts have so interpreted, there would be no contributory infringement in the absence of knowledge in any event.[161] Puzzling.

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provider indirectly liable for the copyright infringement of its users, it must identify some significant limitation of *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), not apparent on the face of the opinion to get to the desired conclusion. For example, in *Cable/Home Communication Corp. v. Network Prod., Inc.*, 902 F.2d 829, 846 (11th Cir. 1990) (quoting Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 438 (1984)), the court found *Sony* inapplicable if the defendant "influenced or encouraged" infringement. Taken together with *Napster I*, the *Sony* defense to contributory infringement is unavailable in cases where the defendant had actual knowledge or influenced or encouraged infringement. Because there is no contributory infringement by definition without knowledge and contributory acts, *Sony* is rendered all but a logical nullity.

160. *See Napster I*, 239 F.3d at 1022.

161. In *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 259 F. Supp. 2d 1029, 1032 (C.D. Cal. 2003), the Central District of California interpreted *Napster I* as imposing an actual knowledge standard.

3. *MP3Board*[162]*—A "Traditional" Web Case During the P2P Fray.* The MP3Board site featured a traditional automated search engine which crawled the Web looking for MP3 files and then crunched the links into a searchable database that users could query.[163] The site also featured a message board where users were encouraged to post links to other sites containing audio files.[164] Users could also post requests for links to particular songs, and MP3Board personnel would personally search for links to those songs and post the links on the message board.[165] So, MP3Board was an amalgam of Web-based services and technologies—a search engine, a BBS, and a professional search service. MP3Board received the predictable lawsuit from the RIAA member record companies, claiming vicarious and contributory liability for the direct infringements of MP3Board users.

In denying the parties' cross motions for summary judgment, the Southern District of New York infused new energy into the requirement that a plaintiff in a copyright action prove direct infringement before indirect liability may be found.[166] The court, if its opinion takes root, set the RIAA back decades in its long effort to loosen the standards by refusing to grant summary judgment on the ground that a material fact existed with respect to whether any direct infringement took place, even though an MP3Board principal admitted that it was "particularly likely" that MP3Board's users have used links it provides to initiate unauthorized downloads of copyrighted music.[167] In the absence of "user logs or other technical data showing the downloading of copyrighted and unauthorized files," the court would not give judgment to the plaintiffs.[168]

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162. Arista Records, Inc. v. MP3Board, Inc., 2002 U.S. Dist. LEXIS 16165 (S.D.N.Y. Aug. 29, 2002).

163. *See id.* at *5.

164. *See id.* at *6.

165. *See id.*

166. *See id.* at *10.

167. *See id.* at *12-13.

168. *Id.* at *13.

This attention to the basic requirements of copyright is extraordinary in light of the generally lax standards that have evolved and been applied, as outlined above— standards which in effect put the technology on trial. It is particularly striking given the nature of the MP3Board site. Prior to the litigation, the MP3Board site was exactly what one would think—a place for the community of MP3 enthusiasts to meet, to share ideas about where music could be found, and to search for music. At least to the older eye of this commentator, it had the feel of the "pirate's bazaar" that Jack Valenti may have envisioned, with most participants going by online handles, engaging in "l33t speak"[169] and otherwise reflecting their young, MP3-hungry subculture, unabashedly sharing information and enthusiasm for the trade of illicit music files.

Neither would the court impute actual knowledge to MP3Board based on the several threatening missives the RIAA had sent.[170] While some of these cease and desist letters were scanty on facts, at least one letter substantially complied with the detailed requirements of the DMCA notice provision, naming particular artists and songs believed to be infringed, together with screen shots of MP3Board's site highlighting 662 links believed by the RIAA to be infringing.[171] The court nonetheless found a material issue of fact as to whether MP3Board had knowledge that its site and services were used by some to download illicit music.[172] The court was not making any ultimate judgment on the merits, merely letting the case proceed past plaintiffs' summary judgment motion. However, given the nature of MP3Board's service, the detailed notice with screen shots provided by the plaintiffs and defendant's own admission that it was "particularly likely" that some of its users were

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169. "l33t" notation is a form of abbreviating words utilizing numbers and other symbols used by many of the hardcore online folk who consider themselves the elite of the Internet, elite reworked in their lingo to "l33t." For a better idea of what the hacker lingo called "l33t" looks like, see the following l33t translators: Jay's Site.com, *at* http://www.jayssite.com/stuff/l33t/l33t_translator.html (last visited Feb. 26, 2005), and *at* http://www.albinoblacksheep.com/text/leet.php (last visited Feb. 26, 2005).

170. *Id.* at *24–*30.

171. *Id.* at *28–*29.

172. *Id.* at *30.

downloading unlicensed MP3's, it would seem that nothing short of a direct and unequivocal confession by the defendant could settle the issue of knowledge on a summary judgment motion under the standard applied by the court.

Likewise the court refused to impute constructive knowledge of infringement to MP3Board, stating that the case lacked the "strong indicia of constructive knowledge" in *Fonovisa*, *Napster*, and *Maphia*, among other cases.[173] Whatever one may think of the court's requirement of specific evidence of knowledge, its attempt to distinguish the precedent is unconvincing. Indeed, it rests on the presumption that the principals at MP3Board did not know the nature of their user's activities or the materials they were posting, many of which boasted that the files to be found on the other side of the link were illegal.[174] The BBS component of MP3Board, one must assume because it is no longer available to inspection, probably looked much like the community board on the MAPHIA site at issue in *Sega v. Maphia*.[175] The *MP3Board* case would be far more useful to the evolution of the law if it openly admitted that it was applying a more exacting requirement of evidence for knowledge than that applied in prior cases, rather than asserting that MP3Board is simply different in kind from all that had gone before. It is not.

4. Aimster—*The Seventh Circuit Wrestles with* Sony *and Widely Accepted P2P Technologies.* Aimster was a centralized P2P file sharing systems that piggybacked on the widely distributed AOL Instant Messenger (AIM) program and instant messenger communications network. Like almost any instant messenger or other digital communications network, AIM permitted users to transfer files to others on the user's "buddy" or contact list. Some versions of AIM also permitted users to designate a body of files that would be made available to a designated list of other AIM users—file sharing. The Aimster service and software expanded this basic capability in several respects. In addi-

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173. *Id.* at *21.

174. *Id.* at *12–*13.

175. *See* Sega Enters., Ltd. v. MAPHIA, 948 F. Supp. 923 (N.D. Cal. 1996).

tion to basic file sharing capability, Aimster offered a paid service, "club Aimster," which permitted members to download the "top 40" most popular music files more easily than by using the free service. Presumably to broaden the reach of the network and the files available from its users, Aimster also set by default all users of the Aimster system as contacts or buddies of each other.[176] If the user did not specify a smaller body of contacts, he would be able to obtain files from and send files to the entire body of Aimster users.

Writing for the Seventh Circuit, Judge Posner tried to navigate between the extreme positions taken by the parties. The court summarized the positions of the parties and its conclusions succinctly: "To the recording industry, a single known infringing use brands the facilitator as a contributory infringer. To the Aimsters of the world, a single non-infringing use provides complete immunity from liability. Neither is correct."[177] The court accepted that *Sony* applied to instant messaging systems over the objection of the entertainment industry plaintiffs. In the process, the *Aimster* court expressly rejected the holding of the Ninth Circuit in *Napster* that actual knowledge of specific infringing uses vitiates a *Sony* defense.[178]

To this extent, the Seventh Circuit reads *Sony* for the broad, technology-accommodating principle that copyright holders may not "prevent infringement effectuated by means of the new technology at the price of possibly denying not infringing consumers the benefit of the technology."[179] At least one factor driving the court's analysis is an apparent presumption that instant messenger systems like AIM ought not to be tagged with the copyright infringements of its users. The court had "no doubt that some of the attachments that AOL's multitudinous subscribers transfer are copyrighted and such distribution is an infringement

176. *In re* Aimster Copyright Litig., 334 F.3d 643, 646 (7th Cir. 2003).

177. *See id.* at 651.

178. *Id.* at 649.

179. *Id.*

unless authorized by the owner of the copyright."[180] Yet, the court concluded without any analysis that AIM ought not to be found indirectly liable. Aimster, if it is to be found contributorily or vicariously liable, must be distinguished in some material respect from the basic file sharing available via AIM.

At the same time, the court was unwilling to accept the oft-cited rule of *Sony* that technology need only be capable of a single substantial non-infringing use. "Were that the law," the court balked, "the seller of a product or service used *solely* to facilitate copyright infringement, though it was capable in principle of non-infringing uses, would be immune from liability for contributory infringement."[181] Unable to accept that the Supreme Court really wanted lower courts to look at the capacity or potential of the system, as opposed to actual use, the court required some evidence of non-infringing use before it would entertain a *Sony*-based defense.[182] This evidence Aimster failed to proffer in any degree, leading the court to affirm the lower court's finding that the plaintiffs were likely to succeed on the merits.

Unwilling to adopt the extreme positions of either party in the litigation or a simple reading of the Supreme Court precedent, Judge Posner crafted a middle-of-the-road rule for his court to follow in the likely case of technologies that support a demonstrable mix of infringing and non- infringing uses. Even where there is evidence of non- infringing uses, the court stated, perhaps in dicta, that "if the infringing uses are substantial then to avoid liability as a contributory infringer the provider of the service must show that it would have been disproportionately costly for him to eliminate or at least reduce substantially the infringing uses."[183] If Aimster's failure to produce evidence of non-infringing uses were not enough, the court found that Aimster still would have failed this new mixed-use test.

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180. *Id.* at 647.

181. *Id.* at 651.

182. *Id.* at 653.

183. *Id.*

The Aimster system was implemented with encryption that effectively precluded the service provider, i.e. Aimster, from filtering its system of infringing works.[184] The system was almost certainly so designed in order to make a *Sony* defense stronger, particularly in light of the Ninth Circuit's approach in *Napster* which looked specifically and narrowly at the capabilities of the system before it. Just as Sony could not control what a user did with the VCR once it left its factory, so too, Aimster could not control what its users did with its service. Perhaps this self-imposed incapacity would have produced a different analysis if the *Napster* panel were writing the opinion. Not so for Judge Posner and the Seventh Circuit. Drawing upon analogies to willful blindness as establishing the mens rea of knowledge with respect to certain crimes, the court found that willful blindness to the conduct of its users establishes knowledge for purposes of contributory infringement. Similarly, with respect to the new mixed-use test to determine whether sufficient efforts at mitigation were made to avoid contributory infringement, the court refused to permit Aimster to benefit from its self-imposed impotence absent a showing that the encryption it deployed against itself "added important value to the service or saved significant cost."[185]

While one can argue that the tests adopted in the *Aimster* case are incorrect or not even permissible under the superior authority of *Sony*, Judge Posner and the Seventh Circuit should be commended for identifying the unresolved difficulties in the existing law and crafting the best solution possible, rather than producing yet another indirect copyright liability opinion that is wholly conclusory. The court's basic theme that, notwithstanding *Sony*, "some estimate of the respective magnitudes of [infringing and non-infringing] uses is necessary for finding of contributory infringement"[186] has the ring of common sense.

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184. *Id.*

185. *Id.* The court did not reach the merits of the vicarious liability claims against Aimster, but provided some indication that vicarious liability was something of a stretch, stating "we are less confident than the district judge was that the recording industry would also be likely to prevail on the issue of vicarious infringement." *Id.* at 654.

186. *Id.* at 649.

5. *The* Grokster *and* Morpheus *Risorgimento—Site and Facilities in Pure and Hybrid P2P.* One significant problem with pursuing a strategy of endless war, whether actual or of the softer, litigious variety, is that no matter how well-funded the effort, no matter how many victories have been tallied in the past, ultimately one will be confronted with a more challenging set of circumstances and lose. The entertainment industry has, again, proven this simple truth.

Less than five years after the first major ruling against Napster, the Ninth Circuit, the court that affirmed *Napster* and broadened the scope of the injunction, published its opinion in *Grokster*. It is now clear that, at least in the Ninth Circuit, hybrid and fully-distributed P2P file sharing systems like those at issue in *Grokster* (the hybrid Kazaa-based Grokster client and the fully-distributed Gnutella-based Morpheus client) do not generally run afoul of the rules of secondary copyright liability.[187] Where once stood a Ninth Circuit opinion favoring content owner rights to such an extent that only the foolhardy would develop technologies to locate or distribute content online without first obtaining broad licenses from every major content owner, now stands a Ninth Circuit roadmap showing exactly how to architect a file sharing network and business around it without any worry of copyright liability.

On substance, the *Grokster* court goes a long way toward clarifying exactly what *Sony* means in the Ninth Circuit. As indicated in *Napster*, a technology need only be capable of a substantial non-infringing use to merit a *Sony* defense, just like the Supreme Court said in the *Sony* opinon. This, of course, creates a clear conflict with the "gloss" put on *Sony* by the Seventh Circuit in *Aimster*. Rather than trying to obscure the difference, the *Grokster* court openly and unabashedly recognized the plain disagreement between the Seventh and the Ninth Circuits.[188]

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187. *Grokster*, 380 F.3d at 1155.

188. In the ninth footnote, the *Grokster* opinion acknowledges the frank disagreement of the Circuits:

> We are mindful that the Seventh Circuit has read *Sony's* substantial non-infringing use standard differently. It determined that an

Though it is much easier to qualify for a *Sony* defense in the Ninth Circuit than in the Seventh, the substance of the defense itself post-*Napster* is of extremely limited value.[189] The *Grokster* court squares the existence of a *Sony* defense to contributory infringement with the rule in *Napster* that knowledge vitiates a *Sony* defense by using two different definitions of knowledge. Once a defendant showed "that its product was capable of substantial or commercially significant non-infringing uses, then constructive knowledge of the infringement could not be imputed. Rather, if substantial non-infringing use was shown, the copyright owner would be required to show that the defendant had reasonable knowledge of specific infringing files."[190] In this way, the *Sony* defense, the standard for contributory infringement which requires knowledge, and the *Napster* rule that knowledge (at least of a certain kind) vitiates *Sony*, can all logically coexist.

What is left, however, is an extremely weak *Sony* defense. *Sony*, according to *Grokster*, merely means that a finding of contributory liability cannot be based on constructive knowledge. In the ordinary case, a notice of alleged infringement—of the sort that typically precedes litigation—obviates any need to rely on constructive knowledge. So, in the ordinary case, at least the ordinary case of the past, *Sony* is ultimately of little import as interpreted by the Ninth Circuit. However, the defendants in *Grokster* prevailed notwithstanding notices from the copyright plaintiffs as a matter of timing. Because a defendant's knowledge

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> important additional factor is how "probable" the non-infringing uses of a product are. The Copyright Owners urge us to adopt the *Aimster* rationale. However, *Aimster* is premised specifically on a fundamental disagreement with *Napster I's* reading of *Sony-Betamax*. We are not free to reject our own Circuit's binding precedent. Even if we were free to do so, we do not read *Sony-Betamax's* holding as narrowly as does the Seventh Circuit.

Grokster, 380 F.3d at 1162 n.9 (internal citations omitted).

189. Clearly, Grokster and Morpheus would not have qualified for a *Sony* defense under the Seventh Circuit *Aimster* standard. In *Grokster*, it was effectively uncontested that the "vast majority of the files [on the file sharing networks at issue] are exchanged illegally and in violation of copyright law." *Id.* at 1160.

190. *Id.* at 1160-61.

must exist at the time when the defendant contributes to infringement, if the rules are to serve the policy aim of fairness, the defendant must possess "specific knowledge of infringement at a time at which they contribute[d] to the infringement, and fail[ed] to act upon that information."[191] The court concluded that with respect to Grokster and Morpheus, the "notices of infringing conduct are irrelevant," because "they arrive when Defendants do nothing to facilitate, and cannot do anything to stop, the alleged infringement" of specific copyrighted content.[192]

The upshot of this interpretation is that *Sony* does shield a technologist from liability if he loses all control of his product prior to infringement taking place, as was the case with the VCR. In the world of computer networks, *Grokster* can be read for the proposition that a real-time service, or perhaps even a fast service, will receive the same protection as a VCR because a highly specific level of knowledge is required and no complaining notice could possibly arrive in time for a service provider to take corrective action. The logic flows without error, but content owners are unlikely to appreciate reasoning which holds that even a thousand notices complaining of a transfer of the same work, perhaps even copies of the same file from the same user will all be considered untimely as a formal matter and will trigger no obligation for action on the part of the service provider as a result.[193]

With respect to material contribution, the court stuck with the *Fonovisa/Napster* "site and facilities" analysis. In the context of a hybrid or fully-distributed system it produces a quite different result. Because neither Grokster nor Morpheus maintained a central database of links or other critical nodes in the network through which informa-

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191. *Id.* at 1162 (quoting Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Inc., 259 F. Supp. 2d 1029, 1036 (C.D. Cal. 2003) (citing *Napster I*, 239 F.3d at 1021)).

192. *Id.* (internal quotations and citations omitted).

193. The neat doctrinal compartments crafted by the court still need a good deal of fleshing out and leave much to be litigated. Chief among the questions later courts will have to answer is what exactly is "reasonable knowledge" and how, if at all, does it differ from the "knowledge" generally required by contributory infringement.

tion travels, they did not provide the site and facilities for infringement and thus did not contribute to copyright infringement, notwithstanding the vast quanta of infringing material trafficked with the aid of their technology.

The court recognized that the genius of P2P is that every computer may function as both a client and a server, permitting any network activity to take place anywhere within the global network.[194] One might think that under circumstances where a developer or other technologist directs activity to take place this direction ought to be of little legal import, as almost any activity can be directed to take place almost anywhere on the network. The database of links may be kept on a company computer, a user computer, disbursed among user computers designated as supernodes, or held in a latent, unassembled form on all the connected computers. Napster, Grokster, and Gnutella have proven that all such models can achieve essentially the same result.

The key to understanding the court's holding is the distinction it made between what a service provider may be required to do to its own computers and what a court may ask it to do to software and data already resident on user computers. The court expressed its willingness to boss around access providers and traditional server operators and a deep reluctance to trespass on another person's machine. The court stated that failing to alter software "located on another's computer is simply not akin to the failure to delete a filename from one's own computer, to the failure to cancel the registration name and password of a particular user from one's user list, or to the failure to make modifications to software on one's own computer."[195] The court does not provide any meaningful explication as to why one "is simply not akin" to the other. The court's distinction is arguably supported by recent cases which have found trespass to chattels in the use of auction systems, email servers, and the like. Perhaps a man's machine is his castle. In an age of automatic software updates, ubiquitous EULA's, adware, pernicious cookies, and everything else

194. *Grokster*, 380 F.3d at 1158.

195. *Id.* at 1163.

that crawls into our systems without our knowledge, the notion seems quaint, maybe even formalistic. If the court were willing to require the defendants to update their client software, which in turn would permit the implementation of effective policing measures, it would seem difficult to avoid a finding of liability.

This conclusion to take the system exactly as it is also serves as the linchpin in the court's vicarious liability analysis, which likewise finds the defendants not liable.[196] Of course, without a central database of links, a technology or service provider has no effective means to control what users do based on its dominion over its servers. Because neither system required a log-in or registration as currently implemented, users also could not be excluded from the system without modifying the client software. The contractual power of the service providers was either weak or nonexistent and like implementing some registration system, it could only be modified by mandating an additional transaction with the users/direct infringers. Because Grokster and Morpheus could not exclude users without touching their computers in some fashion and modifying the current system, the service providers did not have the right and ability to control. Because the court would not require the defendants to make any changes to the system, the analysis is at an end.

The court's strong insistence that it takes the defendant's system exactly as it comes allows the court to avoid evaluation of policing technologies altogether. While there is now an abundance of DRM and other solutions that at least claim to control the use and distribution of files over open networks, it seems remedial action could have been ordered or encouraged with a finding of liability.[197] However, implementation of any technological control measures would change the system and thus were beyond

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196. In *Napster*, the court noted that *Sony* does apply to the Napster system and that the court will take the Napster systems exactly as it is. *Napster I*, 239 F.3d at 1020-1021.

197. The Audible Magic Corporation, for example, sells "audio fingerprinting technology" endorsed by several major record companies. *See* Audible Magic Corp., *at* http://www.audiblemagic.com (last visited Feb. 26, 2005).

the court's inquiry. The plaintiffs noted that Napster was ultimately required to implement comprehensive filtering mechanisms that effectively gutted the utility of the service. In response, the *Grokster* court explained that the duties to police to the fullest extent possible do not arise until there has been a finding of liability.[198] Because the court did not find defendants liable in *Grokster* it would not place any duties to implement filtering technologies, regardless of feasibility or their intrusiveness on non-infringing conduct. The court also employed the stark distinction it sees between changing data or software on a defendant's computer and doing the same on a user's computer. As the court put it, again without further explanation, "a duty to alter software and files located on one's own computer system is quite different in kind from a duty to alter software located on another person's computer."[199]

To the plaintiff copyright owners, all this may seem rather formalistic. They may with some justification feel like a drowning man who is informed that the law places no duty on any of the onlookers to lend a hand. It appears that one lesson to be drawn from *Grokster* is: Design your system and relationship with your users in such a way that they are wild and uncontrollable, root and branch. Any efforts to police or control the system will doom the technology in court. From the point of view of the court otherwise faced with the impossible task of evaluating possible alternative technologies, the engineers and entrepreneurs who wish to develop technologies without working at a film studio or record label, and the public who deserves laws that produce predictable results, the result in *Grokster* may hit the mark.

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198. The court explained:

> [T]he Copyright Owners confuse the right and ability to supervise with the strong duty imposed on entities that have already been determined to be liable for vicarious copyright infringement; such entities have an obligation to exercise their policing powers to the fullest extent, which in Napster's case included implementation of new filtering mechanisms.

Grokster, 380 F.3d at 1166.

199. *Id.*

D. *Real Politik of the Cases—Critical, but only Partial Explanations*

With standards as malleable and broad as those that have evolved in the area and with a history of case law covering circumstances as rich and varied as those dealing with entertainment and the creative schemes to get the goods without paying for them, one can view the result of any given case as a function of how generous a view a particular judge takes of technological progress. Some courts look at new means of sharing information and cannot help but speak in terms ripped from First Amendment jurisprudence, as in *Netcom*, *Cubby*, and *MP3Board* cases.[200] With an astute analogy to the First Amendment, but dubious legal reasoning, one court went so far as to adopt the *New York Times v. Sullivan* standard of actual malice as the standard for knowledge in the copyright context.[201] Other courts either do not share such enthusiasm for technological progress or choose not to accommodate such policy concerns by doing somersaults around precedent that makes a finding of liability hard to avoid in almost every circumstance that makes it to the courts. These courts can write short memoranda of disposition, dispatching cases (and the defendants with them) in a quick paragraph as in *Playboy v. Frena* and *Utah Lighthouse Ministry*, assured that they have not strayed beyond the reach of the precedent.[202]

Many of the cases also appear to support another critical explanation. The bad guys, or at least those that look and smell bad on the facts, tend to lose, while defendants engaged in similar conduct with better optics—standing in the business community, a mainstream brand, deeper consumer penetration—tend to garner the judicial somersaults required for a holding that might excuse the defendant's

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200. *See Netcom*, 907 F. Supp. 1361; *Cubby*, 776 F. Supp. 135; *MP3Board*, 2002 U.S. Dist. LEXIS 16165.

201. *See* Universal Studios, Inc. v. Reimerdes, 82 F. Supp. 2d 211, 221 n.44 (S.D.N.Y. 2000) (citing New York Times v. Sullivan, 376 U.S. 254 (1964)).

202. *See Playboy Enters., Inc.*, 839 F. Supp. 1552; *Utah Lighthouse Ministry*, 75 F. Supp. 2d 1290.

conduct. MAPHIA was a pirate "warez" BBS;[203] the Cherry Auction swap meet in *Fonovisa* had already been sued and raided by police;[204] the principals in *Cable/Home* were bent on a mission to create and distribute illicit descrambler chips and continued to hawk their wares on and offshore even after a preliminary injunction against them had been issued.[205]

This non-legal interpretation goes a long way toward explaining the district court's oddly rough treatment of Napster and the difficult legal issues presented in the *Napster* case. Almost all superficial appearances in *Napster* were negative. The damning emails by the teen-aged founder and other principals, the braggadocio about putting the record companies out of business, the underground vibe of the Napster brand and early marketing, the almost exclusively Gen Y user base, and the limitation of the service to MP3 files, a format closely associated with music piracy in the minds of many, at a minimum, made Napster a poor representative of the more benign and profound potential of P2P network architectures. By contrast, Judge Posner's analysis in *Aimster* began with the assumption that AOL Instant Messenger must be found to be an acceptable non-infringing product, notwithstanding the doubtless fact that the system, like Napster and Kazaa, facilitates the reproduction and distribution of vast quantities of infringing material.[206] One must wonder what the legal reasoning and result would have been if Napster were not carrying the banner for the network architecture it pioneered, but AOL or some other trusted brand and the P2P network at issue was marketed primarily as a means of sharing family

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203. *See* Sega Enters., Ltd. v. MAPHIA, 648 F. Supp. 923 (N.D.Cal. 1996).

204. *Fonovisa,*76 F.3d 259.

205. *See Cable/Home*, 902 F.2d 829.

206. Judge Posner reasons that the fact that "copyrighted materials might sometimes be shared between users of such a system [Aimster] without the authorization of the copyright owner or a fair use privilege would not make the firm a contributory infringer. Otherwise, AOL's instant-messaging system, which Aimster piggybacks on, might be deemed a contributory infringer." *In re* Aimster Copyright Litig., 334 F.3d at 647. The court begins with the presumption that AOL Instant Messenger must be deemed a non-infringing, permissible technology, then excludes possible rules that would yield a contrary result.

photos or home movies among a defined family user group.[207]

Of course, *Sony* directs courts to look to the potential uses of technology. [208] The *Grokster* court clearly was much more interested in preserving the potential of an interesting technology than in remedying the infringement at hand. If one wishes to find critical explanations or motivations behind the *Grokster* opinion, several may be found lying on the surface. The court expressed a high regard for the potential of the technology at hand, a low regard for the approach of the plaintiffs to new technologies and deep skepticism as to the court's or anyone's ability to do a better job than the market in picking and choosing technologies that should be permitted to go forward. In a brief opinion, the court took the time to observe in dictum that from the dawn of mechanical music devices, the music industry has never met a technology it liked: "From the advent of the player piano, every new means of reproducing sound has struck a dissonant chord with musical copyright owners,

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207. Courts in other contexts have gone to great lengths to excuse the direct and actual knowledge of defendants where the atmospherics favored the defendant. In a case challenging the Communications Decency Act for example, AOL had received a number of complaints informing it of child pornography available through its online service and took no remedial action, yet AOL was given every presumption of honest ignorance and good conduct. eBay has been involved in cases dealing with the sale of Nazi paraphernalia and other illicit items in various jurisdictions which have remained for sale on its service long after the first complaints arrive. These cases, however, do not hold eBay complicit in the illicit sale of contraband, even though eBay runs the auction, brokers the transaction, and had sufficient notice to take remedial action. It would seem that the AOL's and eBay's of the world are afforded great latitude in such matters, with courts willing to chalk up failures to excusable bureaucratic bungling because the company has a reputation that engenders a deep presumption of good conduct. While one cannot know for certain, it likewise seems that those businesses catering to gamers, song swappers, and other anti-establishment youth cultures, the perennial nightmare of each succeeding generation once it hits middle age, have a good deal of prejudice to overcome before an honest evaluation of the nature of the technology is a possibility.

208. *See generally* Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417 (1984). *But see Aimster*, 334 F.3d 643 (reinterpreting and limiting *Sony* so that a single potential, substantial, non-infringing use will not save a technology used predominantly for infringing purposes).

often resulting in federal litigation." [209] Even though the court accepted that the "vast majority" of content trafficked on the systems at issue was infringing, it still embraced the current non-infringing uses as deeply meaningful and the potential for the technology as too good for a court to stifle, citing how independent bands and public domain publication efforts, such as Project Guttenberg, have been able to use the system legitimately to their advantage.[210] Lastly, the court was open in expressing how its view of the institutional competence of the court relative to that of the market shaped its decision:

> We live in a quicksilver technological environment with courts ill-suited to fix the flow of internet innovation. AT&T Corp. v. City of Portland, 216 F.3d 871, 876 (9th Cir. 1999). The introduction of new technology is always disruptive to old markets, and particularly to those copyright owners whose markets are sold through well-established distribution mechanisms. Yet, history has shown that time and market forces often provide equilibrium in balancing interests, whether the new technology be a player piano, a copier, a tape recorder, a video recorder, a personal computer, a karaoke machine, or an MP3 player. Thus, it is prudent for courts to

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209. *Grokster,* 380 F.3d 1158.

210.

> A careful examination of the record indicates that there is no genuine issue of material fact as to non-infringing use. Indeed, the Software Distributors submitted numerous declarations by persons who permit their work to be distributed via the software, or who use the software to distribute public domain works. One striking example provided by the Software Distributors is the popular band Wilco, whose record company had declined to release one of its albums on the basis that it had no commercial potential. Wilco repurchased the work from the record company and made the album available for free downloading, both from its own website and through the software user networks. The result sparked widespread interest and, as a result, Wilco received another recording contract. Other recording artists have debuted their works through the user networks. Indeed, the record indicates that thousands of other musical groups have authorized free distribution of their music through the internet. In addition to music, the software has been used to share thousands of public domain literary works made available through Project Gutenberg as well as historic public domain films released by the Prelinger Archive. In short, from the evidence presented, the district court quite correctly concluded that the software was capable of substantial non-infringing uses and, therefore, that the *Sony-Betamax* doctrine applied.

Id. at 1161-62 (citations omitted).

> exercise caution before restructuring liability theories for the purpose of addressing specific market abuses, despite their apparent present magnitude.[211]

Under *Sony* which looks to the potential of technology, current uses, user demographics, and the like should be of relatively little importance to a court's analysis as was the case in *Grokster*. Still, the prejudice that arguably exists in cases like *Napster*, is not entirely indefensible. As *Sony* also makes clear, the question of indirect liability is ultimately an equitable judgment, a matter of fairness and justice.[212] There may, therefore, be a legitimate place for the intent or state of mind of the defendant in the court's assessment of justice in the circumstances, in order to promote the fairness of holding the defendant liable. Indeed, some courts unwittingly introduce intent into their analysis. As discussed above, in *Fonovisa*, for example, the Ninth Circuit concluded that the defendant "actively strives to provide the environment and market for counterfeit recording sales to thrive,"[213] even though the defendant's intention does not directly figure into the standard for contributory infringement. One could argue either way whether it is appropriate for a court to tilt the scales for such reasons to achieve the paramount policy objective the law does overtly recognize—fairness.

III. THE FUTURE OF SECONDARY COPYRIGHT LIABILITY: THE PROBLEMS AND POSSIBLE SOLUTIONS FOR A DIGITAL WORLD

A. *The Problems with the Doctrines Generally—Overly Broad Common Law Doctrines for Novel, Technical Problems*

Those charged with articulating and applying the doctrines of indirect copyright liability have a daunting task that appears to provide little room for compromise. They must deal with technology—new modes of finding, using, storing, and transporting information—that seems to tilt to

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211. *Id.* at 1167.

212. *See id.*

213. *Fonovisa*, 76 F.3d at 264.

the extremes. The high level of knowledge of and control over what transpires over computer networks makes finding indirect copyright liability tough to escape. Technology permits close to perfect tracking of who sends what to whom over the wires and also provides the tools to filter out offending transmissions, leaving a technology or service provider with little excuse for not policing and purging out copyright infringement. At the same time, *Sony* seems to direct that even a single, potential non-infringing use saves a technology. Under this standard, liability could almost never be found. The sensible ground that lay between the extremes of unavoidable liability or freedom from liability is difficult to hold.

One must ask why the law pushes courts to the extremes when the optimal result likely lies in the sensible middle ground of compromise. Several major problems with the current state of the law stand out.

1. *Loose Common Law Principles—A Warning Sign.* The simple fact that the bounds between the competing interests of content owners on the one hand, and technology and business innovators on the other, are perennially defined by broad common law principles argues for the inadequacy of the statutory code we have. Contributory infringement and vicarious liability are judge-made, ad hoc concepts intended to fill the interstices, not make up the law. It is difficult to find other industrial flashpoints where the law relies almost exclusively on broad-stroke common law principles to govern such highly technical matters between such large competitive interests, particularly where the substantive law has always been code-based. For example, the regulation of oil refining technology is not left up to the common law doctrine of nuisance.

The shakiness of the legal ground on which the battle between technology and content is fought is visible in the lengths to which otherwise excellent courts will go to stretch the precedent they have to deploy. Recent cases applying the doctrines to new network technologies would lead the uninitiated to believe that contributory infringement and vicarious liability rules are hard and fast, go back to time immemorial, and have already confronted an issue very much like the one at hand. In fact, their evolution is

the story of judges making decisions on the fly to deal with specific problems not contemplated by the code, frequently the unexpected spawn of new technologies—dance halls, concert promotion organizations, make-a-tape machines, and peer-to-peer networks among others. Many of these cases are irrelevant or provide extremely thin analogies to the problems of the digital age. Even the notion that these ad hoc rulings make up coherent doctrines is rather recent, not emerging with judicial force until the 1960s at the earliest.

The slow-to-change, evolutionary genius of the common law may have produced admirable rules relating to property and torts which are much the same century to century. It is not particularly well-suited to the lightening reactions required to stay current with the schemes of pirates and the harried pace of technological innovation in our time. Copyright law as applied to computer networks, particularly novel P2P and other architectures, present a series of judicial opinions reflecting first or second impressions. Judges do not have the luxury of leaning back upon the refined precedent of the ages, deciding merely which glosses and nuance should be applied to the particular facts. They have to make up the rules again and again, as fast as innovations make it to the courtroom.

2. *Overbreadth.* The most obvious problem with the law of contributory and vicarious infringement as it currently stands is overbreadth. The doctrines have expanded wildly to accommodate new circumstances—the equation of the right to exclude with a right to control, the presumption that any for-profit enterprise receives a financial benefit from any infringement related to its business, the inclusion of "support services," such as parking and plumbing as legally sufficient contributions to copyright infringement, or a concept of knowledge so broad that the phone company could be said to know of every murder and drug deal discussed over its lines. If *Napster* is correct in attributing knowledge and control to the extent technology permits the identification and purging of infringing material, and perhaps even somewhat beyond that point, then it seems that any online service provider will necessarily be liable for the infringements of its users on the system, at least once there has been an initial finding of liability.

The broad articulation of the standards results in an absence of even modest predictability in the context of new technologies, especially network technologies. The rules are broad enough to hold a parking valet and commercial landlord liable for infringement. The question, therefore, is not whether the rules are broad enough to pin liability on any particular activity, because they almost always are whenever a copyright violation is involved. The question is whether a court will choose to extend those rules to the activity at hand or seek a way out. Setting aside statutory DMCA safe-harbor arguments, a lawyer still cannot give solid advice as to whether providing a link to a web site that has infringing material is contributory infringement or whether a search engine or other automated process may catalog and distribute information gleaned from such a site, let alone the relative obligations of those who own machines that comprise a distributed network, those who architect it, implement it with software, and provide the support services that make it run. The easy and arguably required result in any case involving infringement over a computer network is that liability should attach to almost any sort of service, including a hardware or software provider that enables the network. Of course, such a result consistently applied, would also wipe out many of the technological and economic gains of the last decade, forcing a wired world to unplug itself.

B. *Non-Legal Solutions to the Problems of Secondary Copyright Liability*

Even if practical difficulties are created by ambiguities in the law, a number of non-legal solutions are possible. The litigation could continue until one party/industry drops out or the parties reach some accommodation regardless of what the courts say. Perhaps the entertainment industry will eventually find business models that make it and their consumers happy, thereby killing the piracy problem with a business solution. After all, the software industry has managed to grow greatly despite a much more insidious piracy problem by structuring its business around the problem, not turning their fate entirely over to the courts for decision. Technology could also obviate the problem. Encryption and digital rights management technologies,

bolstered by the anti-circumvention provisions of the DMCA, may advance to the point that copyright infringement on any significant scale is impossible or highly impractical.[214]

C. *Residual Need for Legal Resolution*

This current spate of techno-media courtroom carnage overuses of computer networks will likely pass. Good ideas are not easily forgotten, so the technology at issue will remain. Good ideas are quickly adopted, so the consumer demand for digital media will likely continue to exist on a massive scale and increase until a better, and as yet unforeseeable, mousetrap comes along. Rationality will eventually return to the space and content owners, which hopefully, will implement business models that maximize profits in the new markets created by technology rather than trying to drag out the lives of their horse-and-buggy offerings. Some stasis point among the competing interests will be reached and peace will return at some point.

Even assuming the foregoing to be true in the short term, a significant and perhaps unsafe assumption, there still is a residual need for legal solutions. First, the recent warfare between content owners and technologists is not new, but is merely the latest emanation of an inherent market conflict. It will be repeated. The greater the frequency of significant technological innovation, the greater the frequency of such strife will be. And, this strife is far too costly to all parties involved. The ambiguity of the rules engenders litigation and confrontation under which neither the technologist nor the content owner can say with any certainty what is clearly his turf and what belongs to the other. Indeed, the rules are so broad, and the precedent so varied in result, that not only is judicial resolution encouraged, but massive litigation of the same issues against multiple defendants in different jurisdictions is also encouraged. A good or bad result in one case changes little in the field, as the interested parties throw down the gauntlet time and time again in various jurisdictions, working to add another document to their portfolio of

214. *See* 17 U.S.C. § 1201 (1999).

supporting decisions.

The transaction costs of working through the dispute in this manner are far too high. The businesses involved, of course, front tens of millions of dollars in legal expenses, but this amounts to what is probably a mere rounding error relative to the broader impacts of legal ambiguity. There are huge costs to the bottom lines of the businesses involved. The recording industry, for example, claims that it loses billions in sales every year to piracy, much of it to online piracy.[215] If the law were clear that a network such as Napster's could only be operated by record companies or their licensees, as is the official position of the recording industry, the loss of the recording industry to such piracy would doubtlessly be less. Participation in such piracy would also be far more costly. ISPs and universities would probably have little more interest in facilitating music file sharing than they do in serving child pornography or other plainly illicit material. The clarity of the law would moot debate and uncertainty. This is not to say that illicit behavior would not exist in some places, just as child pornography is doubtlessly transferred inadvertently by legitimate online services and other business. It is merely an argument that it would occur with limited frequency and in the small, underground spaces where such clearly illegal activity takes place.

The savings would not be on the content owner's side alone of course. Clarity would also prevent hundreds of millions of dollars and vast human resources from being poured into dead-end technologies. Napster alone received more than $100 million in venture and other financing, which was essentially all lost.[216] If the law were clear that

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215. The RIAA estimates that "[e]ach year, *the industry loses about $4.2 billion to piracy worldwide.*" *See* RIAA *at* http://www.riaa.com/issues/piracy/default.asp (last visited Feb. 16, 2005).

216. It has been widely reported that Bertlesmann alone sank around $100 million into Napster. Prior to the Bertlesmann investment, venture capital firm Hummer Winblad invested at least $13.5 million in Napster. *See* Sandeep Junnarkar, *Lawsuit Targets Bertlesmann over Napster*, CNET NEWS.COM, Feb. 20, 2003 *at* http://news.com.com/2100-1023-985285.html (last visited Mar. 28, 2005); Dan Primack, *Napster Fallout Could Affect Buyout Firms*, PRIVATE

Napster's core technology was and always would be illegal, it surely would not have attracted such large investments from such significant players. The cost of ambiguity is well illustrated by BMG, one of the five major record labels. BMG is a key RIAA member. It held the industry line and sued Napster along with its cohorts. At the same time, BMG poured at least $85 million into Napster, becoming its de facto owner. While BMG was paying the doubtlessly hefty lawyer bills of Williams & Connolly, among others, to destroy Napster, they were investing (most likely) greater sums into keeping Napster alive, developing and improving in anticipation of the day after the legal strife ends. If a sophisticated multinational corporate group like Bertelsmann sees an imperative to be on both sides of the "v." in high profile litigation at an out of pocket cash cost to it that likely ran well over $100 million, it is reasonable to conclude that the ambiguity of the outcome resulting from the ambiguity in the governing copyright law has a significant cost.[217]

The contrary hypothetical indicates the existence of massive costs arising from the baseline legal ambiguity. If one assumes that copyright law were clear, that Napster was not liable for the infringements of its users, a great

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EQUITY WEEK WIRE, July 16, 2004 *at* http://www.privateequityweek.com/pew/freearticles/1070550087895.html (last visited Mar. 28, 2005).

217. Both Hummer Winblad and Bertlesmann would be punished for their support of Napster. Each was sued by the plaintiff group in Napster for their role in financially supporting the allegedly illicit enterprise that was Napster. It is quite striking that Bertlesmann's status as a major record label and plaintiff against Napster offered it no immunity from a suit driven largely by Universal Music Group and EMI. *See* Sandeep Junnarkar, *Lawsuit Targets Bertlesmann over Napster*, CNET NEWS.COM, Feb. 20, 2003 *at* http://news.com.com/2100-1023-985285.html (last visited Mar. 28, 2005); Dan Primack, *Napster Fallout Could Affect Buyout Firms*, PRIVATE EQUITY WEEK WIRE, July 16, 2004 *at* http://www.privateequityweek.com/pew/freearticles/1070550087895.html (last visited Mar. 28, 2005)

One could also argue that Bertelsmann invested so heavily in Napster not because it thought Napster had a significant chance of prevailing, but because it believed there was a significant chance of a business resolution. If Bertelsmann was thinking that Napster could, with the significant industrial pull of Bertelsmann, settle the litigation amicably, they were extremely far off the mark. Bertelsmann failed to end the litigation. The plaintiff's even rejected out of hand a $1 billion settlement offer from Napster crafted during Bertelsmann's period of effective control.

deal of unnecessary cost is likewise avoided. As before, the direct costs of litigation are avoided. Obviously, the hundreds of millions in venture capital and the efforts of the hundreds of engineers engaged in developing P2P network technologies would not be lost out of hand, but would contribute to what may be profitable ventures. Less obvious is the cost avoided by the record labels. If the law were clear and the record labels somewhat rational, they would not have adopted a wait-and-see or litigate-to-the-death strategy, insisting that their own product is the only legal means of obtaining the content they own. Instead of sitting on the sidelines for much of the last decade (or at least since the widespread popularization of the MP3 format in 1997) watching, as they believe, their CD sales erode and consumer habits turn away from their products as a direct result of Internet-based technologies, the record companies presumably would have engaged in business online years earlier, perhaps saving them the many billions they claim to have lost to piracy during that period. Assuming the record labels are rational actors, it seems that the hope of an ultimate legal victory over unlicensed online music systems, or at least the hope of a long-term stall while various jurisdictions worked out ambiguities in the law ,kept the record labels from offering a viable online product for so many years while their consumers rapidly adopted the technology it despised. While such games of "what if" involve a great many assumptions that can be easily challenged, the record companies almost certainly could have generated huge revenues over the last decade had they only been able to monetize a portion of online transactions involving their content, transactions which dwarf CD sales by every metric except revenue generated. One must ask why they opted to forego such an opportunity, particularly when they seem to admit the gravity of the cost to the industry of losing the Internet to what they believe is infringing activity.

The argument for clarity is not, therefore, necessarily an argument for imposition of one rule or another, or even for a rule that coincides with one or another party's view entirely. A rule that splits the proverbial baby would work just as well, so long as its dictate were just as clear. It is an argument for the efficiency that comes with clarity. It should also be borne in mind that ambiguity also imposes

large costs on the consumers, as they are forced to make a difficult choice. Consumers can use a service that may be likely to be illegal, which could result in significant personal civil and criminal liability—in the context of distributed networks, both as end users and possibly as network providers as well.[218] Alternatively, the consumer could continue to use the products and services sanctioned by the ancient regime which may be less efficient and more costly in terms of dollars than a digital service without legal pressures would be. In the case of the recent controversies regarding music, there is no question that almost any digital model would be far more efficient in terms of usability and fairly ought to cost far, far less to the consumer than CDs as the cost of "goods" sold (for want of a more accurate term) would be far less and the number of potential sales far greater.

If there is unquestionable benefit to having a legal solution going forward, the question remains how the law ought to be modified. There are a number of possibilities.

D. *A Proposed Fix to the Doctrines in their Present Form—Clarify and Pare Back the Sweep of the Rules*

The doctrines of indirect liability themselves could be massaged to bring more predictability to all concerned. The chief difficulty with the doctrines as they currently stand is overly loose language in the precedent. So, no major reconceptualization would be required, but merely a tightening up of the rules so that they define a narrower body of those potentially liable. For the most part, merely taking the language of the rules seriously, treating each word as a limiting factor, would bring a good deal of order and predictability. This approach could be considered conservative in that it returns to something closer to the import of the words, and with it probably closer to the intent of the courts who crafted those words as well.

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218. Regardless of how clearly legal or illegal a service may be, the consumer's use of that system may still constitute direct or indirect infringement, as where a consumer uses a service to create unlicensed reproductions of copyrighted recordings for commercial distribution.

1. *Vicarious Liability: The RIGHT to control and a DIRECT Financial Benefit Should be Required.* In the case of vicarious liability, a new focus on defining the *right* to control or supervise, as contrasted with the mere power to do so, would bring a great deal more clarity to the matter, while still supporting a rule in flexible, general terms. It is doubtful that the various dancehall courts would have been as willing to hold a large bouncer at the door accountable for the choices of the band merely because the bouncer could have kept the band from coming into the door. The bouncer did not have the right, even if he had the power, to keep the band out. The same cannot be said so easily for the dancehall owner who hires and pays the band. The distinction between right and power necessarily emphasizes the terms that govern the relationship between the direct infringer and the defendant, as many of the older cases do, including the *Gershwin* and *Shapiro*.[219] Where no express terms are present, the nature of the relationship, the intention of the parties, and the purpose for which any power is exercise would be germane.

These are loose factors, but they still provide a good deal more guidance than the current formulation of the rule does, as the power to exclude almost always exists in any online enterprise. Instead of ending the inquiry at whether the machines operating the service may be turned off or a user may be barred at the gates, a court would need to take a more meaningful look. If an online service provider possesses the power to see the files a user is downloading to his computer, for example, would it be relevant to know whether the service provider exercised the power? Had a policy forbidding any look at the content or names of files a user downloaded? Had a policy limiting any exercise of the power strictly for purposes of maintenance of the system, support, billing? Or, alternatively, had the provider exercised its power to police for copyright infringement or

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219. Professor Wesley Newcomb Hohfeld provided what are now the standard definitions of "right" and "power" nearly a century ago. In Hohfeldian terms, "A" is said to have a *right* that "B" shall do an act, if "A" may force "B" to do the act via legal process if necessary. "B" would, in this situation, have *duty* to act as "A" directs. A power is the capacity to change a legal relationship. An offeree, for example, has a *power* to create a contract by accepting the offer. WESLEY NEWCOMB HOHFELD, FUNDAMENTAL LEGAL CONCEPTIONS (1919).

otherwise snooped about the system? The foregoing questions speak to whether the service provider possessed the right to monitor and censor its system, as opposed to a mere power to do so. Equally important, this approach leaves it to the service provider and its customers to define the nature of their relationship, taking the matter to a certain extent out of the vagaries of judicial determination.

As the number of obvious factors to be considered makes clear, a focus on the right to control provides no bright line rule. Any examination of vicarious liability must be able to press through disclaimers of control made primarily to avoid copyright liability. Courts still must determine the legitimate expectations of consumers and businesses to the extent such expectations are deemed a significant factor. In addition, any rule still must confront catch-all reservations of rights by landlords, service providers, and other potential defendants—clauses in the lease, license, or terms of use that give the defendant carte blanche to terminate, refuse to serve or kick out their clients for any reason or no reason at all.

A good many assumptions must be made as to the import that should be accorded the foregoing factors. The purpose of reigning in the reach of vicarious liability would be served by assumptions that: (1) a broad reservation of rights in governing rules alone does not include or imply the right to snoop through communications looking for copyright infringement, and (2) the legitimate expectations of consumers must weigh heavily as a factor for or against a defendant's right to control with respect to copyright infringement, in much the same way as expectations serve to limit the enforceability of contracts of adhesion.[220]

A return to the requirement that a defendant receive a *direct* financial benefit from the infringement at issue would also go a long way toward defining vicarious liability in a more meaningful way. At present, the dominant view is

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220. The Restatement Second of Contracts, for example, effectively reads unexpected, objectionable terms out of standardized agreements. If the offering party has reason to believe that the party manifesting assent would not do so if he knew that the writing contained a particular term, that term is not part of the agreement. RESTATEMENT (SECOND) OF CONTRACTS §211(3) (1981).

that any for profit enterprise could be found vicariously liable for copyright infringement however remote, unquantifiable, and unidentifiable the benefit it receives from copyright infringement may be. Truly, there need not be any traceable financial benefit at all. Anything that is done by a business, must in some way be good for the enterprise or it would not be done, the argument runs, and therefore must in some way result in a financial benefit because the aim of any commercial enterprise is profit. The requirement of a demonstrable, quantifiable, financial benefit that is a direct result of copyright infringement would return the rule to its older, more defined status and purpose. Copyright royalties could not be avoided and piracy could not escape punishment via the manipulation of corporate shells or other alter egos, but neither would businesses, such as trade show organizers, be liable for third-party copyright infringement that has little to do with the core business of the defendant and makes at most an incidental, de minimus or perhaps purely hypothetical contribution to the bottom line.

2. *Contributory Infringement: Getting a Handle on "Knowledge".* The generator of ambiguity in the standard for contributory infringement is the term "knowledge." As discussed above, "knowledge" could mean everything from knowledge of a specific act of infringement of a specific copyrighted work, known to be owned by the plaintiff to the general idea that some infringement of somebody's works are likely taking place somewhere along the line. As with the other key terms that shaped the doctrines of indirect copyright liability, there is precedent supporting the extremes of possible meaning, as well as more nuanced definitions in between. Several of the major cases dealing with online activities, most significantly *Netcom* and *Napster,* go to some lengths to pare back knowledge from a generalized sense that infringement of the type alleged is taking place, to a requirement of actual knowledge of a specific act of infringement, plus a failure to take remedial action once knowledge is obtained. The departure and significant amendment of an ability to cleanse behavior by prompt action to fix the problem is arguably a recognition by these courts of the problem the broader definition of knowledge poses in an online context. If the broader, more general definition applied, it would seem that knowledge would fail to serve as a limiting factor where mass, digital

communications and computer networks are concerned.

A great many possible definitions of "knowledge" could be argued as a fix. A definition along the lines of the following may be workable: "Knowledge" for the purpose of contributory copyright infringement means actual knowledge of a specific act of copyright infringement by a person with the authority to take remedial action, received at a time when remedial action regarding that act is possible, provided the knowledge is obtained in the ordinary course of business and is specific enough to permit a cost-effective remedy for that act of infringement.

As this attempt to craft a definition illustrates, any concept of "knowledge" needs a good deal of unpacking and depth for it to have useful meaning. One must know whose knowledge matters and why; what the object of that knowledge is; how detailed the information must be before liability will attach; and what affirmative steps, if any, are required once such knowledge is obtained. Implicit within any standard of knowledge is how each of the foregoing facets of the standard relate to the type of remedial action the law contemplates. This, again, requires yet a further inquiry into how the policies supporting the doctrine—fairness, encouraging policing and loss spreading/risk allocation—may best be implemented. This inquiry, again, begs the question of what are the ultimate policies and purposes that justify the doctrine in the first place. All of this means that there are a great, great many ways reasonable people could define knowledge. It does not mean that knowledge cannot be defined with more precision.

Currently, the knowledge prong as applied to online services has not been so much a limiting term that brings reasonable people to the same conclusions as to what is and is not permissible, but an empty vessel into which judges with varying views about the scope innovation should be afforded relative to established copyright monopolies may pour their biases and equitable sensibilities. Even if one concludes that the *Netcom* standard—(1) specific knowledge at a time when the defendant contributes to the infringement, and (2) failure to act on that information—strikes the right balance, there are still difficulties in application—there is still wide room for interpretation in factual

contexts.[221] The court in *Napster*, for example, appeared to adopt the rather restrictive *Netcom* standard, but at the same time affirmed a ruling of liability based on evidence of rather generalized knowledge of infringement taking place on the Napster system. Even a strong, actual knowledge standard raises the question of what evidentiary weight to afford notices of infringement. It is not an accident that the safe-harbor provisions of the DMCA provide such detailed requirements for a conforming notice.[222] Absent such detailed requirements, there will always be ample room to litigate who knew what, when, and whether that knowledge ought to be attributed to the defendant.

While reasonable people can debate the substance of what the standard for knowledge should be, a standard that does not constrain reasoning or produce consistent results over time is one that needs to be fixed.

3.*Confirmation/Definition of the Rule in* Sony. A reinvigoration or confirmation of the dictates of *Sony* from Supreme authority could also alleviate much of the stress between nascent technologies and content owners. The *Sony* holding remains controversial and somewhat enigmatic. In the case that presented the closest analogy to the VCR challenged to date, the digital MP3 player, the Ninth Circuit eschewed any direct discussion of *Sony*, choosing instead to base its finding that the MP3 player was a legal device on the arcane peculiarities of the definitions of various devices found in the Audio Home Recording Act.[223] In the recent file sharing battles, the copyright plaintiffs have argued that *Sony* simply does not apply to any online service, that once a thing gets wired, once a thing becomes a service dependent on an ongoing interaction with the seller, the staple of commerce analogy on

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221. This is a distillation of the standard originating in *Netcom* and *Napster* provided in *Grokster*. Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, 259 F. Supp. 2d 1029 (C.D. Cal. 2003).

222. *See* 17 U.S.C. § 512 (1999). The statute provides a laundry list of required contents for a notice of infringing material to an online service provider to trigger take-down obligations, as well as a requirement that the service provider register with the Copyright Office, an agent to receive such notices.

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

which the *Sony* holding was premised loses all force. The Ninth Circuit in *Napster* flatly rejected this contention, finding without equivocation that *Sony* remains the law and is applicable to online services. However, the *Napster* court did articulate severe limitations on the reach of *Sony*. Most notably, the *Napster* court stated (1) *Sony* provides no defense for vicarious copyright liability, and (2) the presence of knowledge vitiates a *Sony* defense to contributory infringement. Under this interpretation, at the outset, we know that *Sony* has no applicability to one of the two theories of indirect liability. This is a severe limitation given how interconnected, or even muddled, the distinction between the two doctrines is in the case law. One doctrine is rarely discussed without the other and rarely is liability found under one doctrine and not the other. The notion that knowledge vitiates a *Sony* defense for the doctrine it does cover seems to render the defense an absolute nullity. Knowledge is required as one of the two elements of contributory infringement. If there were no knowledge, there could be no contributory infringement and hence, no need for a special *Sony* defense. The only way to reconcile the two premises of the *Napster* court— (1) *Sony* provides a defense to contributory copyright infringement, and (2) knowledge vitiates that dissent—is to argue that the "knowledge" required to vitiate the defense is different in character, setting a higher threshold than the "knowledge" required for a finding of contributory infringement. This is precisely what the *Grokster* opinion does. The *Napster* opinion provides no indication of such a nuance at play. Moreover, given the ambiguity of the "knowledge" requirement in the contributory infringement cases, such a nuanced read, seems extremely difficult to implement in any meaningful way. Lastly, under the *Grokster* gloss on *Sony*, as discussed above, the *Sony* defense is extremely limited in scope with respect to any technology that permits remedial action in response to a notice to take place. As soon as a potential plaintiff sends a notice of an act of infringement at a time when the potential defendant may act on it, the *Sony* defense has completely evaporated.

The Seventh Circuit's cutbacks on *Sony* and the open split now between the Ninth and Seventh Circuits calls out for clarification. Where the Ninth Circuit has accepted that *Sony* applies to any technology with a *potential* substantial

non-infringing use, but severely limited the scope of the defense for which such a technology qualifies with its *Napster* holding that knowledge vitiates a *Sony* defense, the Seventh Circuit has rejected the *Napster* limitation on the substance of the *Sony* defense, but held that a technology must demonstrate more than a mere potential for non-infringing use to qualify. These are two very different ways to accomplish the need each court saw to put *Sony* in a box—guard the gate to the prize more carefully or make the prize worth less. However, the Supreme Court opinion does not suggest any such limitations.

These cutbacks, among the others discussed *supra* at II.A., should be discarded.[224] The Supreme Court has already made the tough policy decision balancing the competing interests of major content owners and technology producers—the production and sale of any technology with a substantial non-infringing use, or even the potential for such a use, does not by itself create copyright liability for the producer or seller. The rule in *Sony* expresses a strong policy judgment from the highest authority that has somehow been lost as a force in recent appellate decisions. The implicit policy that copyright will not stand in the way of the development of useful, agnostic technologies—even if the primary purpose of the technology at issue is to copy media protected by copyright, as was the case with the VCR—has not been a major factor in courts' evaluations of subsequent technologies.

E. *The Case for More Fundamental Reform*

Even if the doctrines were tightened up as described above and *Sony* reinvigorated as a harder rule and policy directive, contributory infringement and vicarious liability still may not provide the requisite guidance to future technologists and copyright owners. The rules of indirect copyright liability and the policies behind them are especially problematic in the context of computer and

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224. As discussed above, writing for the Seventh Circuit in *In re Aimster Copyright Litigation*, 334 F.3d 643 (7th Cir. 2003), Judge Posner expressly rejects the Ninth Circuit's limitation of *Sony* in the *Napster* opinion. However, rather than embracing *Sony* as it is written, Judge Posner places his own limitations on *Sony* in plain contradiction to the key language of *Sony*.

communication networks, the focus of current controversy and quite possibly the battleground where industrial wars deploying weapons of indirect copyright liability will likely be fought for some time to come. The current rules of contributory and vicarious liability may ultimately fail in the digital age.

As devices become smarter and centralized reporting and control becomes possible and common on a wide range of devices, any tests focusing on how the integrated software/network/equipment product or service operates is likely to have significant shortcomings. The tests for vicarious liability and contributory infringement that we have were crafted for a context far removed from global computer networks, leaving us with rules that fail to serve the major policies that justify the imposition of liability on someone who does not actually infringe anyone's copyright. The marked differences between the relationships among human, machine, and market in the world of tangible media infringement and that in the wider world of global computer networks and digital media deprive the tests we have and the tort and agency analogies that drive them of relevance.

Indeed, the rules we have seem to encourage the very gaming of the system indirect copyright liability is intended to prevent. Looking at what a party does or could know, or what a party can or could control when it seems that all may be known and all may be controlled, may force manufacturers to architect around the rules and design services to avoid knowledge and control without necessarily changing the essential functionality of the product or its impact on the legitimate rights of content owners.[225]

Beyond this practical failure, the current tests lead courts to ask questions that are incomplete and neglect a whole range of factors that are highly relevant to fairness, loss, spreading/risk allocation, and incentivizing policing. The extremely important inquiry into where the line ought

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225. The configuration of Kazaa and the FastTrack network systems arguably were formed as much or more by a desire to avoid liability than network or business efficiency.

to be drawn between the copyright monopoly on the one hand, and the freedom to innovate and communicate on the other, fails to take into account what seem to be some of the most important factors in making such a judgment.

In short, the rules for indirect liability we have may simply be off the mark, pushing courts to ask questions and make judgments on bases that serve none of the interests involved.

F. *Problems Inherent with Indirect Liability and P2P/Networks Generally—The Rules and Policies are Ill-suited to Computer Networks*

1. *Tensions Inherent Within the Rules.* Trying to apply the rules as they are, often leads to a Kafkaesque parody of justice. We know from established a precedent that there is no vicarious liability for a mere absentee landlord. However, it is also well established that merely providing the site and facilities to known infringers is enough to establish liability as at contributory infringer. So, it would seem that the hypothetical landlord cannot evade contributory infringement liability if he ought to know what his tenants are doing. The landlord may try to avoiding contributory infringement by establishing rules in the lease or other governing document that preclude copyright infringement and create a right to evict the tenants if such behavior is discovered and so on. However, by doing so, the landlord strengthens the case against him for a vicarious liability as he has now established the right to control and police the infringing conduct of his tenant, regardless of whether he knows of infringing conduct or not. The would-be defendant has no good options. Efforts to strengthen the facts to avoid one form of liability may condemn him under the other form of liability in equal proportion.

There is also a danger to defining indirect liability with greater precision. Brighter lines create greater opportunities to game the system. Clear rules could bring predictability to the legitimate the business person, as well as the charlatan. Even assuming that people of reason could craft rules adequate to handle all known technologies and business arrangements, neatly dividing the known universe

into the legitimate and illicit, it is doubtful that any general rule could accurately anticipate and properly deal with new technologies and the always-creative schemes of those looking to tap dance around whatever boundaries are demarked by the rules. It is possible that a cost of predictability today is a rule so specific that it may permit mischief tomorrow.[226]

This tension between a specific serviceable rule today that may become quickly outmoded and a more nebulous rule which is more adaptable to the unforeseeable, is arguably the manifestation of a larger problem of crafting rules for indirect copyright liability in the first place. As the Supreme Court in *Sony* made clear, the root question is one of equity—whether it is just to hold one person liable for the wrongful conduct of another. Any effort, therefore, to cram what is at heart a gestalt judgment of fairness under the circumstances into discrete tests may be doomed, torn asunder by the competing needs for meaningful, limiting language, and a test flexible enough to get the bad guy in unforeseeable circumstances. Over time any such tests are bound to be stretched out of any logical cohesion as a result of the ultimate need to hold the wrongful actor accountable in new, shifting circumstances. Even after a careful retuning, a decade hence we may find the strings stretched back to the cacophony that currently reigns.

2. *The Tort and Agency Underpinnings Lose their Power as Reliable Analogies.* Neither the joint enterprise liability, nor the agency analogies that underpin and shape the rules for indirect copyright liability seem close to the mark with respect to computer networks. Arguably, these analogies have not worked for a very long time as evidenced by the wide deviation from traditional principles of agency and joint enterprise tort liability summarized above. Still, the analogies made a good deal of sense in connection with traditional piracy operations and license-avoidance schemes. Agency is close to the facts where orchestras play in dancehalls, or a concessionaire operates a department in a store. Whatever the formal relationship from a business

226. This tension of course is not unique to copyright, but exists wherever the choice between specificity and looser, more general terms exists.

organization point of view, one party is a functional part of the defendant's enterprise. The same is true for joint torts and those who produce, market, and distribute infringing content. Whether one pushes the record button themselves or provides essential media stock, management, capital, or equipment, the defendant is part of a clearly defined joint effort to infringe copyrighted material. Moreover, in the older piracy paradigms, the chief purpose of the joint efforts is copyright infringement. It is not an incidental byproduct.

Voluntary participants in a computer network simply have no easy analog to a pre-digital age. Even though file-sharing and other computer networks facilitate piracy on a massive scale, the participation of the users who connect to the network, permit their computers to respond to queries, route information, and otherwise function as a node can hardly be compared to any sort of joint enterprise contemplated by tort or prior copyright law. It could be an enterprise of tens of millions whose entire volitional involvement may be nothing more than downloading a network client or, perhaps, even merely connecting to a network which then uses their machine to direct traffic. The network participant who elects to provide infringing material for unlicensed "sharing" is clearly more involved, but in that case, the involvement is so close to the unlicensed reproduction of the works made available that the participant is almost certainly a direct infringer, authorizing the reproduction of another's works, if not making reproductions and distributions himself. With the exception of the rare networks, and arguably Napster and Kazaa rank among these, where infringing activity predominates, it is a stretch to say that user participation in the network is akin to participating in a tortious enterprise. Of course, there are putative participants even further removed from any old-world analog, such as those who created the protocols (the traffic rules) that define the network, those who write the software that implement those rules and those who make that software available for download.

We are far from agency relationships and concerns as well. While networks are often described as communities, it is hard to see how end user participants running network clients can be said to be agents of each other, or of the technologists who created or helped implement the

network. In the ordinary case, such as the millions who operate the computers which make up the Internet, computer owners choose to participate in the network for their own benefit and/or out of a sense of general communal obligation.

The tort and agency analogies became loose metaphors long ago. They are strained beyond breaking when matched against the new relationships among individuals and automated machine processes that are at the heart of P2P, distributed, and other computer networks. By employing rules that are a creature of these now inapt analogies, courts are driven to ask the wrong or incomplete questions.

3. *The Utility of the Factual Analogs from Precedent to the Digital Reality of the Present.* Just as the tort and agency doctrinal rationales lose their force in the context of network technologies, the factual analogies that spring from the case law likewise no longer work. One can discuss intelligently make-a-tape machines, video rental booths, trade shows, and the like in terms of landlords and tenants, dance halls and orchestras, concert promoters and department stores. The analogies become strained to the point of absurdity when dealing with the novel relationships made possible by automated electronic communication, storage, and distribution. There simply is no good analogy in our common law copyright heritage to the role of an individual who owns a computer which functions as an node in a distributed network, to the network engineers who designed the protocols that govern and create the system, to the software engineers who produce the clients and other programs that facilitate communication pursuant to the protocols, to the service providers who offer connectivity, and so on. The nature of the protocols that define the network and the mass, cooperative efforts to implement and sustain the networks have no clear old-world analogs. Even if abstract principles can be divined from the precedent, the subject matter of prior cases is irrelevant. To the extent that these principles are inextricably tied to the technologies and business organizations they were intended to address, they may be of limited use to present and future problems. At a minimum, the tropes and language of indirect copyright liability analysis—dancehalls and landlords,

staple articles and copying equipment—provide little guidance to the thorny problems now before the courts.

4. *The Secondary Liability Test Factors Do Not Serve Their Intended Policies Online.* In addition to the landlord, dance hall, and other paradigms of the precedent being of little value, the substance of the rules themselves are problematic in the context of computer networks. Even if one could engineer a return to the old, tighter standards for vicarious liability and contributory infringement, a strong tendency for any standard to slide to one extreme or another remains when dealing with computer networks. The power of computers to gather information and to control transactions on a massive, inhuman scale necessarily skews the knowledge element of contributory infringement and the right and ability to control element of vicarious liability. Current technology removes the prior practical limitations of implementing the policies that undergird the rules, calling into question whether the policies themselves, which may now be implemented on a massive scale with unforgiving precision, are entirely desirable.

a. *The Contribution of Site and Facilities and Fairness in a Global-Networked Environment.* Perhaps the mismatch between the policies and test factors driving decisions on liability and the problems presented by computer networks is best illustrated by the material contribution prong of the test for contributory infringement. Of course, the contribution requirement ensures that the defendant actually do something significant to further the injury to the copyright owner, rendering the defendant culpable for the harm caused. In the online context, most courts have used the rule growing out of *Fonovisa* that the provision of "site and facilities" constitutes a sufficient contribution. Both *Napster* and *Grokster* turned on whether the defendant provided the site and facilities for the infringing activity. In *Napster*, the court found Napster liable because the centralized database of links maintained on a company server constituted the site and facilities for the infringing activity. By contrast, the court in *Grokster* did not find the defendant liable, absent evidence that the defendant company owned a com-

puter that served as a node on the network at some point.[227]

In the chunky, space-consuming world of human beings, it makes some sense to look at site and facilities. They are major ingredients in any enterprise. If one looks at the classic troika of enterprise essentials—land, labor, and capital—site and facilities covers two of the three essentials. In most ventures, the major use of capital is the procurement of space, equipment, and other facilities required. Land is essential to locate those facilities. Providing site and facilities for a joint enterprise like a traditional bootleg operation is typically a major, essential contribution. Moreover, one typically has control over and responsibility for what is done with equipment and space that he controls. It would be difficult for the owner of a warehouse and print shop to argue that he bears no responsibility for an illicit publishing operation run out of his physical plant.

A focus on site and facilities, however, makes absolutely no sense when dealing with computer networks. The fundamental insight of peer to peer or distributed networks is that any computer, any node on the network, may effectively operate as a server—any task may be pushed off to any computer on the network to achieve the same results. While fully distributed systems do present some technical difficulties, they have been largely overcome with respect to distribution of most entertainment media in very short order. Providing a centralized computer or even large server array may be a de minimus contribution to the network in a fully-distributed or hybrid system made up of thousands or even millions of linked machines. Of course, from any human point of view, it makes no difference where any activity comprising the infringement takes place. At present, therefore, it seems that the law is not prohibiting

227. In both the fully-distributed and hybrid P2P network models, the architects and promoters of the network often provide some key hardware infrastructure at the outset. Although the users can provide all necessary computer and connectivity in either configuration, there is the problem of how to start the network. Someone, somewhere needs to be the first node and publicize that fact to other would-be users/nodes so they have somewhere to connect to. Until a critical mass of users develops, someone needs to keep the network going.

any functionality, but merely stating an overt preference for one form of network architecture over another. It is difficult to see how any rational policy is served by such preferences for essential computing and storage to be pushed off of defendant's computers and onto user computers.

From the consumer's point of view, the changes are immaterial in that the functionality remains the same. Usually, even the interfaces of the products remain much the same. It is of no consequence and most users are probably wholly oblivious to the difference in network design among Napster, Kazaa, Gnutella, and others. If they type a term in the search box and get responsive links to files available for download, what bits exist where on the network is wholly immaterial. From the content owner's point of view, the harm resulting remains as great, the wound as painful, whether the database of links is located on a server owned by a central company, a server owned by a private consumer, or exists in no one place, but is scattered among millions of user computers and reassembled upon request. Again, the functionality remains the same. To find one system infringing and one permissible when the technology does essentially the same thing seems wholly arbitrary if the essential benchmarks are what the technology does and what consumers are doing with it. The rule we have under Napster and Grokster is akin to determining whether one is liable for a car crash based not on the way he drove or the damage caused, but on how the engine of his car operates.

The focus with respect to hybrid systems like Kazaa, and fully distributed systems like Gnutella, on whether the defendant company ever owned a server on the system seems absurd and an inquiry that can only lead to the very games that the breadth of the doctrines are intended to preclude. If the technologist who designed the network needs a core group of servers in order to bring the network to life before a critical mass of authentic users exists, it would be easy enough to operate those computers off-site, under the ostensible ownership of employees, friends, college students, friends, or a newly created entity to take a trip to Vanuato, Iran, Sea-Land, or other exotic locales beyond the practical reach of U.S. copyright law to set up those servers that will seed the system. Moreover, given the activity of the potential user base and its immense size, it

may be wholly unnecessary for the architects of the system to even take such action. The protocols could be published and client software could be distributed in sufficient degree to build a massive global network entirely by word-of-mouth.

The practical importance of the locus and ownership of a server is of increasingly little value. In the world of tangible media, ultimate control, and therefore responsibility, is closely tied to site and facilities. If the printing press is mine and the print shop that houses it is mine, I almost certainly have a high degree of control over how and for what purposes these essential assets are used. If they are not mine, if a piracy operation is ongoing in someone else's print shop with no connection to me, there is probably very little I can do to control how and for what purposes that site is used. This is not the case with computer networks. Current technologies, including acoustic sampling technologies that can identify a music file based on actual sound content, as well as DRM solutions exist that can track, control, and account for transactions over even entirely distributed networks. Regardless of whether a defendant provides computers for the network, anyone who controls the protocols that define the network, the client software that implements those rules, and so on, could incorporate such controls into their essential products. "Site and facilities," therefore, is not a determinative factor with respect to what remedial action may be taken. Instead, the real questions are whether one may design, provide client software for, or participate in an open network in which no such controls are implemented. This is a question which the current doctrines of indirect copyright liability are ill-equipped to answer.

b. *The Relationship Among Knowledge, Policing, and Fairness Online.* Any focus on "knowledge" as the key factor distinguishing permissible from illicit conduct in the context of digital network technologies raises serious countervailing policy concerns. There is only so much a human being or an organization of human beings may know. Thus, "knowledge" serves as a real limiting factor when human beings dealing with tangible media are at issue. But the case is quite the opposite when digital media and electronic communication (that will subsequently be

attributed to the human beings in charge) is at issue. Computers can effectively record every transaction and communication, identifying not only the parties and quantitative metrics (size of file, time sent, etc.), but the substance of what is communicated with unerring precision. "Knowledge" may accordingly have a far deeper and broader attribution in the computer context relative to the more traditional scenarios involving books, records and tapes. Rather than being a limiting factor, looking to an actor's knowledge becomes an expansive one as the actor can now possess vast records of everything that has transpired over its network or with the and of its service software or device.[228]

The online service provider wishing to avoid liability has only two poor choices. It could purposely eschew knowledge and design systems that scrupulously avoid creating any record of transactions and communications. This choice has the appearance of willful ignorance, rather than mere lack of knowledge, particularly if one assumes that the cost of harvesting such knowledge is relatively slight.[229] The service provider who accepts that it possesses knowledge of all that transpires on its system can only remove the taint of that knowledge and possible copyright liability by taking remedial action. Thus, this broader attribution of knowledge threatens to turn all service providers into copyright police without any external impetus.

The technology does not change the underlying policy behind the rule of encouraging policing for copyright infringement. The thoroughness with which this policy may

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228. It seems unavoidable that a computer recording a fact of an illicit transmission or the easy possibility of a computer to do so will ultimately be attributed to the service operator as knowledge of the transmission. If one assumes that copyright owners will identify specific transactions or demonstrate that such transactions take place, that technology to identify infringing matter exists and copyright owners will send notices of infringement demanding implementation of controls, it is hard to see how a network operator can avoid knowledge.

229. There is case law holding that willful ignorance is tantamount to actual knowledge. In *Aimster*, the Seventh Circuit borrows concepts of culpability based on willful ignorance directly from criminal law on the subject. *Aimster*, 334 F.3d at 650.

now be implemented, however, raises questions as to whether this policy objective is entirely desirable. Aggressive pursuit of contributory infringement claims against network nodes and intermediaries could likely require all involved in modern communications to screen the text of every piece of mail, to scan and identify every file transmitted, to track the identities of senders and recipients, and the like in order to ensure that their possession of information from which a copyright infringement could be detected does not result in liability for that infringement. Many doubtlessly do not want their emails, files, and online activities tracked and reviewed.[230]

This is not to say that a human being necessarily needs to review every piece of mail. However, the implementation of technology to determine whether the information sent embodies a list of identified copyrighted works seems all but unavoidable under the present doctrinal regime. Video and audio fingerprinting technology capable of identifying the work embodied within a file by the content itself, regardless of format, bit rate, and the like already exists.[231] Screening text content for print works protected by copyright presents even fewer challenges. If technology permits such identification and weeding out of transmissions that violate copyright, it is hard to see how, absent a change in the law, a service or technology provider engaged in facilitating that transmission could avoid both contributory infringement liability and implementation of such technology.[232]

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230. When news of the FBI's "Carnivore" project, a system to screen vast quantities of email, ATM and other electronic transactions, became public, for example, the general outcry was sufficient to kill the project. *See* "Carnivore Eats Your Privacy," Wired Magazine (July 11, 2000), *available at* http://www.wired.com/news/politics/0,1283,37503,00.html.

231. See, for example, the software products offered by Audible Magic *at* http://www.audiblemagic.com/. Audible Magic's audio fingerprinting technology has been endorsed by EMI and other major record label interests.

232. The DMCA safe harbors of Section 512 are, of course, designed to provide immunity from copyright liability for such online service providers. However, the DMCA also requires implementation of "standard technical measures." The statute does not define this term, but the intention presumably is to require online service providers to implement whatever technologies protective of copyright that become standard. Thus, the advance of technology in screening and enforcement will erode the safe harbor protections. In order to

Some may argue that, much like a drug sniffing dog at an airport, technology that only singles out illicit content for human review and action cannot be said to violate anyone's privacy. On the other hand, a great many others would chafe at permitting the handful of major copyright owners to dictate controls over all communication, to "sniff" every communication and interaction online, merely because some communication may infringe copyrights they own. If the government cannot routinely screen mail and computer files to root out international terrorism and other threats far more grave than copyright infringement, one wonders whether the ordinary person would understand why the telephone company, software company, or other party involved in facilitating communication would be permitted to sift through all the communications in and out of his house looking for unlicensed books, music, and software. Although it is not an overt factor in copyright jurisprudence, there could be a real chilling effect on communication and transactions that would be so screened, eliminating zones of discourse and skewing behavior toward older more costly forms of communication where privacy is better safeguarded precisely because the media is less flexible and useful.

The greater integration of networked technology into the daily lives of ordinary citizens increases the problems for businesses of all sorts, as well as the consumer worried about corporate monitoring and oversight of his conduct. As more and more devices become interconnected, as home and office wireless networks link a user's Pocket PC with his calendar and portable media, with his home computer, with his telephone, with his digital video recorder, with his digital library of books, documents, and pictures. All of those are linked with Internet-based services which manage the user's money, provide news, television and other subscriptions, and push products to the user's doorstep, the scope of product, and service providers that may be compelled to monitor and control consumer behavior for copyright violations expands. Not only will traditional ISPs need to worry about the substance of user traffic, but the telephone company, the manufacturer of music and video

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avail themselves of the DMCA immunity from liability, the service provider will, in fact, be required to implement such technologies.

recorders and playback devices and so on will have to as well. Because a digital video recorder, such as a Tivo device, is linked to a centralized service for purposes of downloading schedules and software, it seems that ultimately the operator of that service, perhaps even the device manufacturer, will be pressured by copyright liability to track what user's are doing for copyright purposes. Is a user fast-forwarding through commercials?[233] Storing a movie for longer than time-shifting would permit, or even making a secondary computer, DVD, or tape copy of the movie? Is a scholar cutting a little bit too much text from a book for normal fair use purposes? Pasting that text into another protected work without permission from the author of that second work? Watching only one part of a program or viewing a movie out of sequence? If this scheduling service reaches into the user's wallet, telephone, desktop computer, handheld computer, or office workstation, even more parties along the path may be in a position to look at what that user is doing to identify copyright infringement. Businesses that seem wholly removed from the copyright fray today, such as credit card companies and mobile phone manufacturers, may find themselves inextricably implicated tomorrow. Under the current rules of contributory infringement, which make avoidance of knowledge in a networked world increasingly difficult, businesses could be forced to pursue less efficient architectures and business models to avoid knowledge. Consumers may be forced to choose between the old and the less useful on the one hand, and new, empowering technologies on the other. The "new and

233. The crux of the lawsuit brought by the major film studios against the makers of the RePlayTV Digital Video Recorder was the "auto-skip" feature of RePlay TV, which automatically skipped commercials upon playback. While the studios apparently have no objection to enabling fast forwarding through commercials or at least not a significant enough objection to file any suit against VCR or DVR makers on that basis, the studios argued that selling a device with software that effectively fast forwarded for the user constituted indirect copyright infringement. *See, e.g.*, Paramount Pictures Corp. v. RePlay TV, 298 F. Supp. 2d 921, 923 (C.D. Cal. 2004) (dismissing suit by RePlayTV users alleging an unlawful taking of their property rights in RePlayTV machines and explaining the substantive and procedural background of the content owner's suit against RePlayTV). The makers of RePlayTV, SONICblue, filed for Chapter 11 protection and sold the relevant assets. The new owners, Digital Networks North America, Inc., dropped the controversial features in order to end the litigation. *See id.*

improved" tag may come the price of giving up accustomed ways of using content and expectations of privacy in doing so.

c. *Right and Ability to Control in a Networked World.* As with contributory infringement, the increasing interconnection of computer networks and our daily lives has a great impact on the policy judgment inherent in the rules for vicarious liability. The policy of incentivizing policing which largely justifies the strict liability nature of vicarious liability rulings is closely tied to the notion that liability should follow the defendant's capability to control the direct infringer, or at least to prevent his infringing acts. Just as courts charge defendants who provide the "site and facilities" for infringement that takes place with the aid of such site and facilities, courts look to the place where infringement takes place to determine if the defendant had the right and ability to control the infringing activity. The right to keep someone out, the right to exclude someone from the premises where infringement takes place, thus constitutes sufficient control as in *Fonovisa*. The landlord or site operator with such power can keep infringement from happening within his ambit by simply asking the direct infringers to move along.

This reasoning drove the *Napster* decision with respect to vicarious liability. The court reasoned that Napster was like the swap meet operator in *Fonovisa*. Where the swap meet operator controlled who went in and therefore what ultimately took place within the gates of the market place, the court defined the "premises" of Napster's system as the centralized database of links.[234] Because Napster controlled the central database of links and had the power to keep people out of these "premises," it should be held vicariously

234. The court placed great emphasis on this very inexact metaphor in its vicarious liability analysis. First, the court affirmed the use of the analogy by the district court, defining the Napster system as "the premises that Napster 'controls and patrols.'" *Napster I* at 1023. The court then measured the metes and bounds of these hypothetical premises, concluding that "[t]he file name indices . . . are within the 'premises' that Napster has the ability to police." *Id.* at 1024. This lead directly to the court's ultimate legal conclusion, "Napster's failure to police the system's 'premises,' combined with a showing that Napster financially benefits from the continuing availability of infringing files on its system, leads to the imposition of vicarious liability." *Id.*

liable according the logic of the Ninth Circuit. This Euclidean reasoning about what takes place within the lines that define space under the defendant's control simply fails in the context of computer networks. The arguments against "site and facilities" as a material contribution to infringement apply with equal force to defining "right and ability to control" in terms of physical premises for purposes of a vicarious liability analysis. Policing and effective control are not dependent upon control of a physical locale in computer networks. Effective filtering and rules precluding or making infringement more difficult may be implemented at other critical points in the network that the defendant may control even if it does not own the computers, wires, or airwaves over which such rules are implemented. The policies of fairness and incentivizing policing are accordingly not served by the inquiry into who may be barred at the sewer gates that the cases lead us to make.

As computers, telephones, DVRs, and other devices come equipped to download software and information, and as these devices become increasingly integrated with supporting online services, more and more businesses arguably have the "right and ability" to control. Sony did not "know" about VCR copyright infringement in the specific sense of what programs different users were recording when. Even if they did know, there was not much Sony could do about it once the VCR left its control. Not so with the DVR and any other device that connects to a network. There is no reason why those who run the online service component of Tivo cannot control what people do with their DVRs. They, after all, produce and install the software necessary to run the machines and maintain a telephone line link with every machine. They can know what is going on—what is downloaded, stored, played and transferred on their devices—and they can control what the user does if they so choose. In this way, as once dumb machines become smarter, their manufacturers and service operators move into the purview of vicarious copyright liability.[235]

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235. The Tivo DVR and accompanying online service has not yet run into such copyright problems as the major copyright owners have been successful at keeping DVR's with features they dislike, such as auto-skipping of commercials and sharing recordings, off the market. SONICblue, now RePlayTV, sold a device with those controversial features and was cowed into pulling it off the

The standard for vicarious liability could prove to be a serviceable test if, as suggested earlier, the requisite "right and ability to control" were redefined, sensitized to the expanded potential for control in the context of networked machines and services. As with the element of knowledge in contributory infringement, the greater potential for control in a wired world raises a new public policy concern that the law should accommodate in some way. Now that it is possible to control what people read, watch, and search for to an extreme degree, a rule that requires the exercise of such control to the full extent technically feasible may not be desirable. There are potentially strong countervailing costs to public discourse and personal privacy that accompany filtering for copyright infringement over computer networks that simply were not present when dancehalls, video screening booths, and make-a-tape machines were at issue. A new gloss stresses the "right" to control, with that "right" strongly informed by cultural expectations of privacy and the other factors that help define the constitutional right of privacy may strike the right balance. The problem is essentially the same as that addressed by Fourth Amendment jurisprudence—defending privacy from the steady creep of technology which, if unchecked by countervailing presumptions, will ultimately erode the private sphere to nothing.

d. *An Illustrative Example for Lawyers—CD-ROM's, Online Research Services and the Fight between West and Bender over Star Pagination.* The efficiency of an online database versus periodic distribution of packs of CDs to every user is instructive. We know from *Bender* that the publisher of CD-ROMs containing judicial opinions cannot be held vicariously liable for infringing compilations of those cases that the users may make using those CD-ROMs. Once out of the hands of the publisher, the publisher has no right or ability to control the use of its products. Suppose that it is far more efficient for Bender and users alike to make the same content available through an online service. Users are freed of the need to maintain a stack of CD-ROM drives and a computer infrastructure capable of making those drives available to multiple computers and, in addition, are guaranteed more up-to-date information than

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market largely due to litigation by the major Hollywood content owners. *See infra* note 232.

would be possible from the periodic shipment of revised CD-ROMs. Bender, for its part, is relieved of the cumbersome and expensive task of pressing CD-ROMs and shipping them to every customer at regular intervals. (If Bender were in the business of assisting its customers to develop the hardware capability to run and access remotely at numerous sites a Bender CD-ROM tower, it no longer has to do so as any Internet-connected computer could log into the central database.) Indeed, the relative popularity of online legal services such as Bender's Lexis service, relative to the largely dead business of delivering the same content on CDs, would seem to support the greater efficiency and usability of an online service. Yet, it would seem that a different result with respect to vicarious liability is mandated in each case.

In the online model, Bender would have a good deal of knowledge as well as the right and ability to control what its users were doing on its online service. If, in fact, users were utilizing the references to the West reporter system in online cases to infringe the copyright West holds in its arrangement and organization of cases (a doubtful prospect but nonetheless the core issue of this important case), [236] it is difficult to see how Bender could avoid either indirect copyright liability or implementing meaningful screening and control measures to preclude such copyright infringement. If, as discussed above, one assumes that consumers have a strong negative reaction to the notion of electronic dogs sniffing and recording their every move, copyright imposes an unnecessary and perverse incentive in favor of CD-ROM distribution.[237] Under either mode of distribution, users could just as easily violate West's copyright. West could be harmed in equal degree under either system. All that is at issue then is whether Bender ought to be liable

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236. It should be noted that virtually all of the legal matter provided on the CD-ROMs at issue in the *Bender* case is public domain material. All that was at issue was the extremely thin copyright, if one exists that at all, in West's star pagination system, that is, the page on which the same case it appears in West's competitive law reporter product. Because the worry West raised with respect to Bender users recreating the West Digest by using page references is largely theoretical and hypothetical, Bender most likely has not exposed itself to significantly more copyright liability by offering a comparable product online.

237. Many lawyers would not welcome monitoring of their research. It may, indeed, clash with the central values of the attorney work product privilege.

for those infringements. Any legal rule that would create such a powerful incentive for the obsolete or sub-optimal—for shipping CDs instead of transmitting files, for sending a repair technician instead of building in the ability to service a machine remotely, to prefer a clunky distributed network architecture where a centralized one would work better, and so on, must be questioned. The copyright tail in this scenario is truly wagging the dog of technical progress.

e. *Loss Spreading and Risk Allocation Among Those Who Enable Open Networks.* Setting aside concepts of fairness and policing, there is still the dollar and cents concern. If we assume an economic harm (copyright infringement), then where is it most efficient to place the burden of that cost? This question is, of course, a valid and important one regardless of the technology or commercial structure at issue. However, here, too, it seems that while they may ask the correct question, the doctrines of contributory and vicarious liability provide an answer that is difficult to defend.

In traditional agency law, the principal bears full responsibility for the acts of his agent, even if performed against his wishes and solely on the authority inherent in the agency relationship. It is thought by those who defend the rule that because the agent is subject to the control of the principal, the principal will have the proper incentives to appoint and manage his agents carefully.[238] Liability follows the potential to control. Moreover, the agent is often also liable for his own misconduct and unauthorized contracts. [239] In this way, the law makes certain that the

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238. *See* RESTATEMENT (SECOND) OF AGENCY § 140 (1984) (stating that the liability of the principal to a third person arising from a transaction conducted by an agent may be based upon the agent's authority, apparent authority or the "power arising from the agency relation and not dependent upon authority or apparent authority"). RESTATEMENT (SECOND) OF AGENCY § 219 (1984) provides the complementary rule for tort liability. "A master is subject to liability for the torts of his servants [a sub-species of agent] committed while acting in the scope their employment." *Id.*

239. As a general background matter, an individual, regardless of agent or servant status is liable for the torts he commits. Agency law provides for the special circumstance of holding a third party (a master) jointly liable for the torts of another (his servant). Ordinarily, an agent does not become liable under contracts made on behalf of a disclosed principal. *See* RESTATEMENT (SECOND) OF

injured party has the widest choice of defendants and likelihood of recovery while leaving it to those who are at least partly responsible to divide up the loss the among themselves later. The same logic justifies joint and several liability for joint tortfeasors. The plaintiff gets to pick his defendant and it is no excuse for a defendant to say that other people not sued are also to blame.[240]

This logic fails in the context of network-enabled technologies. So many parties are involved end-to-end that it seems both unfair and inefficient to impose all liability on one or another link in the long commercial chain. The logic of joint and several tort liability may lead to singling out an individual despised service (Napster) while leaving other essential technology and service providers (AOL, AT&T, IBM, etc.) who also profit from and enable the infringing behavior entirely off the hook. Sony and AOL–Time Warner may have their subordinate entities sue Napster out of existence while at the same time profiteering from the sale of computers optimized for downloading music, portable MP3 players, broadband services and other products designed for and marketed to direct infringers.

The logic of joint and several liability fails here because Napster does not have an effective ability to divide its loss among all the others who provide essential services and devices. The copyright owner plaintiffs could choose to sue their sister corporations who also provide essential hardware, software, and services that drive online

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AGENCY § 320. An agent, however, may be a party to a contract, fully liable for all the performance due thereunder, where the principal is not disclosed or is known by the agent and the other party to be non-existent or incompetent. *See* RESTATEMENT (SECOND) OF AGENCY §322; § 326.

240. The black-letter tort rules closely track the standards for secondary copyright liability. The Restatement provides that one is liable for the tortious acts of another if he "knows that the other's conduct constitutes a breach of duty and gives substantial assistance or encouragement to the other so to conduct himself." The commentary explains, "Whenever two or more persons commit tortious acts in concert, each becomes subject to liability for the acts of the others, as well as for his own acts. The theory of the early common law was that there was a mutual agency of each to act for the others, which made all liable for the tortious acts of any one." *Id.* The Restatement also pins liability on third parties who have a duty to control the tortious conduct of another and fail to exercise such control. RESTATEMENT (SECOND) OF Torts § 877 (1991).

infringement, but they do not. If others who power the direct infringement of users are to share in the cost of compensating for the harm, the chosen defendant must be able to join these other companies as co-defendants, cross claim, or otherwise seek recompense. It is not at all clear on what basis a defendant like Napster could seek to join such companies as co-defendants or assert contribution or indemnity claims against them, because they are, in fact, neither agents of nor joint tortfeasors with Napster.[241] Indeed, it is well-established black-letter law that the defendant need not be for purposes of indirect copyright liability. The formal relationship between the defendant and other possible co-defendants may be quite remote.

There is a broad cost to the current regime. Copyright plaintiffs have the power, under the loser-pays-all standard of contributory and vicarious liability, to target and kill some technologies, while letting others off altogether. The rule gives copyright plaintiffs a big say in what range of services and modes of communications are available without necessarily any regard for the efficiency of the result, ignoring the tough policy question of who ought to pay and in what proportions. Perhaps ISPs are in the best position to absorb and pass along the cost of copyright infringement. Perhaps the makers of hard discs or blank CD media should pick up a proportion of the tab, or even PC makers who advertise machines optimized for building media libraries. The current arrangement does not permit the exploration of any of these possibilities. If the copyright owners elect not to pursue such defendants and if there is no clear basis for a selected defendant, like Napster, to seek some recompense

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241. Tort law provides joint liability and a right of contribution where liability is premised on participation in a tortious joint enterprise. *See* RESTATEMENT (SECOND) OF Torts § 491 (1986). More broadly, tort law provides a general right of contribution whenever a defendant discharges a claim when liability may appropriately be attributed to others as well. *See id.* at § 886A.

The third Restatement keeps the same basic regime of joint and several liability with a right of contribution. *See* RESTATEMENT (THIRD) OF Torts § A18 (2000); RESTATEMENT (THIRD) OF Torts § 23 (2000). The third Restatement demands an additional layer of equity among tortfeasors, requiring the fact finder to assign comparative responsibility among joint and severally liable defendants. *See* RESTATEMENT (THIRD) OF Torts § A19 (2000); RESTATEMENT (THIRD) OF Torts § 26 (2000).

from the myriad other players in the digital media and distribution space, then these questions simply not be posed or answered.

There is also a significant cost to copyright owners in the current all-or-nothing indirect liability scheme. The providers of software and other tools that are unlikely to be found vicariously or contributorily liable may still facilitate copyright infringement on a massive scale. As discussed above, AOL Instant Messenger (AIM) is a case in point. AIM, a software tool used by many millions of people,[242] provided the network, users, and technological platform for Aimster, an add-on to AIM that facilitated the traffic in media files over AIM. Even without Aimster, instant messenger programs like AIM permit the sending and sharing of files with a broader user group and, in this way, doubtlessly facilitate the unlicensed reproduction and distribution of copyrighted material on a massive scale. Yet it is highly unlikely that any court, under any standard, would burden AIM or a similar instant messenger service with the unbearable liability of all copyright infringement that takes place over its system. The favorable bias is apparent in both Judge Posner's treatment of AIM and the Seventh Circuit's restrictive reading of *Sony*: It is clear that AIM most likely would not be found liable. Yet, even if actual non-infringing use predominates, on a system as vast and widely adopted as AIM, infringement may be taking place on a massive scale. The all-or-nothing aspect of the current rule places judges in the difficult position of determining whether a minority, perhaps a very tiny minority, of infringers on a system can doom it. Faced with such a choice, judges are likely to approach the problem as Judge Posner did, that is, begin from the assumption that the service must be found to be non-infringing and therefore not liable in any degree. The copyright owner plaintiff is thus deprived of any recovery from a plaintiff that may be in a better position to bear and pass on the costs of infringement taking place over its system than the service provider devoted to infringing uses. With the AOLs of the world being effectively untouchable, copyright owners can only crush the small companies on the periphery, missing the

242. *In re* Aimster Copyright Litig., 334 F.3d 643 (7th Cir. 2003).

chance at a meaningful recovery.

Faced with a choice foisted upon them by the current all-or-nothing scheme, some courts will favor the future promise of new technologies even if infringing uses currently dominate the user behavior as in *Grokster*. If plaintiffs get to choose who stands in the dock, then courts must issue what amounts to either a full acquittal or a death sentence, with no option of any intermediate sanctions.

We have an all-or-nothing standard of liability, but the online reality is often something in the middle, a system, network, or technology that permits a great deal of legal, socially valuable communication, but also facilitates some infringement. Depending on the scale of the system or technology, even a relatively de minimis use for copyright infringement, in terms of number of infringing users or data transferred, still can amount to a huge loss for copyright owners. This loss, in an all-or-nothing system, will likely go totally uncompensated.

IV. CONCLUSION: NEW PERSPECTIVES AND APPROACHES

It is difficult to square the all-or-nothing liability regime we have with the purported quest to compensate the injured copyright owner while spreading the attendant loss and risk in the most fair and efficient manner. If defendants cannot be added to apportion fault among all the relevant players, and courts lack the power to assess proportional fault and levy partial judgments, damage awards remain too blunt an instrument to fine tune incentives toward an efficient result. Currently, it seems damage awards and injunctions serve primarily as a useful bludgeon for entrenched players to beat to death new entrants promoting technologies and modes of business that challenge the existing, profitable order. They do not lend themselves to a nuanced balancing of the competing policy directives to compensate authors for their creativity, advance useful technologies, and maximize consumer freedom to see, use, and read what they wish. Indeed, the rules we have seem to ignore some of the most basic considerations one would want to factor into achieve a fair result

that balances the interests of content owners, technologists, and consumers.

A. *What the Current Rules Ignore*

In assessing the method of operation and functionality of a technology, it would seem highly relevant to factor:

- the actual, relative uses of the technology—infringing and non-infringing
- the gross quanta and economic cost of the infringement it assists
- the potential utility and commercial value of the technology relative to the costs of the infringement it assists
- the actual intent of the developers and other technologists, as evidenced by the design, marketing, and sales history of the product at issue
- the scale of the harm suffered by copyright owners relative to the costs that a finding of liability would impose on the technologist and its customers

In assessing whether the law ought to mandate the imposition of filtering technologies to identify and screen out infringing transactions, it would likewise seem highly relevant to consider:

- the financial cost of implementation and how that loss is likely to be allocated among the commercial and consumer constituencies involved
- the loss of non-infringing functionality, its commercial value, and its social value
- the social cost of reducing the area of human privacy and the secondary effect of chilling speech

Currently, none of these critical concerns necessarily factor into the analysis required by the rules for secondary copyright liability.

B. *An Extremely Brief Summary of Some Significant Proposals and Points of View*

Of course, this commentator is not the first to notice deficiencies in the current doctrines, nor is this article the first to propose possible solutions. A whole spectrum of opinion already exists.

1. *The Techno-Libertarian Perspective.* On the one extreme, one can find techno-libertarians sympathetic to the proposition that, at least in the context of digital technologies, information wants to be free and should be free. These thinkers look to the Internet, open source movements, and other phenomena of the digital age to challenge the very assumptions that underlay our intellectual property regimes. Though his views are far more interesting and nuanced than this cursory summary can indicate, Professor Lawrence Lessig is a leading proponent of this perspective, with organizations such as the Electronic Frontier Foundation and the Creative Commons, offering activist, community, and litigation support.[243] Far from being part of the ordinary batch of law review proposals, it is fair to say that those who believe information online should be generally unfettered has spawned a cultural movement that reaches beyond the legal profession to engineers and artists among other unlikely coalition partners.

2. *The Entertainment Industry's Endless War: Its Recent Efforts to Outflank the Courts with the Induce Act.* At the other extreme are the proposals of the major entertainment industry trade groups. The major content owners, especially in the post-*Grokster* age, are also interested in legal reform, but their interest is predictably limited to expanding the scope of copyright vis-a-vis new technologies. The latest and most publicized legal reform effort from the entertainment industry is the proposed Inducing the Infringement of Copyright Act of 2004 (the

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243. *See* http://www.lessig.org (containing information about Lawrence Lessig); http://www.eff.org (containing information on the Electronic Freedom Foundation); http://www.creativecommons.org (containing information on the Creative Commons movement).

"Induce Act").[244] Under this proposal pushed by the film and music industries, whoever "intentionally induces" a copyright violation would be liable. Under this scheme "intentionally induce" would be broadly defined to include acts aiding and abetting infringement.[245] The aim of the legislation is clear—to expand the range of conduct for which third parties may currently be held liable for the conduct of another. The Induce Act would not clarify, improve, or otherwise modify the current muddle of secondary copyright liability. By its terms, it would not "enlarge or diminish the doctrines of vicarious and contributory liability." For purposes of this article, therefore, the Induce Act is of little importance as it does not seek to improve or otherwise change the doctrines of secondary copyright liability. Instead it wishes to add another basis for secondary liability, in addition and totally incremental to contributory infringement and vicarious liability. The Induce Act thus offers little promise to improve the current law in any way and would most likely only increase the problems of ambiguity, over-breadth, and lack of predictability, among other problems discussed above, that currently impact the existing law of secondary copyright liability.

Even if the Induce Act were a proposal to displace contributory infringement and vicarious liability in whole or part, it is difficult to take it as a serious proposal to fix

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244. *See* S. 2560, 108th Cong. (2004). The bill was introduced by Senator Hatch, along with eight others, on June 22, 2004. The Act provides:

> Section 501 of title 17, United States Code, is amended by adding at the end the following:
>
> "(g)(1) In this subsection, the term 'intentionally induces' means intentionally aids, abets, induces, or procures, and intent may be shown by acts from which a reasonable person would find intent to induce infringement based upon all relevant information about such acts then reasonably available to the actor, including whether the activity relies on infringement for its commercial viability."
>
> "(2) Whoever intentionally induces any violation identified in subsection (a) shall be liable as an infringer."
>
> "(3) Nothing in this subsection shall enlarge or diminish the doctrines of vicarious and contributory liability for copyright infringement or require any court to unjustly withhold or impose any secondary liability for copyright infringement."

Id.

245. *See id.*

shortcomings is the current law, given the overtly parochial nature of the proposed legislation. While it is easy to see why potential copyright plaintiffs and their attorneys would favor the legislation, it is hard to see how the Induce Act attempts to balance the legitimate, competing interests of consumers and technology developers against those of major content owners.[246]

Predictably, the major technology developers have shot back. The Consumer Electronics Association which counts the likes of Apple, Intel, and Microsoft among its members, have called the Induce Act "by far the biggest threat to technology and innovation in 20 years," predicting that if the legislation is enacted it "will gut the Supreme Court's *Betamax* ruling and unleash massive new litigation on innovators and venture capitalists."[247]

The familiar battle lines are drawn and the contenders are blasting away at each other in Congressional committees and the press. The Induce Act may be many things, but, at least in its current form with its current industry sponsorship, it shows little promise of resolving the generations-old struggle between content and technology. Indeed, it appears that the Induce Act may already be a political dead letter, as the U.S. Register of Copyrights stated publicly that the current Congress is unlikely to take up the measure.[248]

3. *Off-beat Proposals to Ponder.* Some academics, notably among them Professor Robert Merges, have examined the merits of expanding compulsory licensing to cover controversial digital uses of copyrighted works.[249] Professor

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246. *See* Declan McCullagh, Antipiracy Bill Targets Technology (June 17, 2004), *available at* http://news.com.com/antipiracy+bill+targets+technology/2100-1028_3-523810.html (last modified June 17, 2004).

247. CEA, *Induce Act Will Eliminate Betamax Protections, Create A Huge New Class of Liability for Innovators and Others, Says CEA* (July 22, 2004) (Press release from CEA), *available at* http://www.ce.org/press_room/press_release_detail.asp?id=10509 (last visited Mar. 8, 2005).

248. *See* Declan McCullagh, Anti-P2P Bill May Slip Past Legislative Rush, (November 18, 2004), *available at* http://news.com.com/anti-p2p+bill+may+slip+past+legislative+rush/2100-1028_3-5458680.html (last modified Nov. 18, 2004).

249. *See* Robert P. Merges, *Compulsory Licensing v. the Three "Golden*

Merges concludes that compulsory licenses are particularly inappropriate for content distributed digitally—ultimately finding efficiency and greater creativity in property rights, contracts, and voluntary markets.

Professor Terry Fisher has left the intellectual property reservation altogether by challenging those who watch the space to treat the problems facing the entertainment industry not as problems of defining property rights per se, but as problems of providing and protecting public goods. Professor Fisher's solution, therefore, is to treat the entertainment industry like a public utility and to solve the public goods problem as we often do with a use-based tax.[250] Fisher's unconventional proposal has deservedly generated a good deal of academic discussion. It is, however, unlikely to draw many adherents among major content owners who seek to expand the horizons and legal advantages of copyright-based businesses, not reduce it to capped returns based on marginal taxation of other goods and services.

With great respect for the complexity of the problem and the other thinkers that have offered or critiqued unconventional solutions, I offer my own modest proposal to resolve the content wars while doing justice to all interests affected.

C. *A New Point of View, A Proposal for a New Solution: No Fault, Fully-Apportioned Copyright Liability for Actual Harm Caused by Infringement*

As discussed at length above, the current rules are, at a minimum, lax beyond reasonable cohesion and predictive force, particularly as applied online. The language of the contributory and vicarious liability tests, as well as the pro-technology force of *Sony*, provides a means of limiting and defining results. However, the disconnect between the current rules, the policies they are intended to serve, and the new policy concerns raised by computer network technologies cannot be remedied merely by putting a new gloss on

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Oldies" Property Rights, Contracts, and Markets, 508 CATO POLICY ANALYSIS (2004).

250. *See* WILLIAM FISHER, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT 1-18 (2004) *available at* http://cyber.law.harvard.edu/people/tfisher/PTKIntroduction.pdf (last visited Mar. 8, 2005).

the same old tests. A more restrictive view of the language, or a *Sony* defense, may put secondary liability in a box, but the box may not be the right size or shape to deliver fairness, economic efficiency, and appropriate levels of policing and privacy.

The foregoing list of relevant factors suggests a multifactor balancing test looking to the nature of the current and potential uses and the impact of liability on the technology at issue, future technologies, and their potential social benefit. However, because the results depend upon the relative weights accorded so many disparate concerns, it would be a long, slow, common law slog to develop practical guidelines on which copyright owners and technologists could rely with confidence. As discussed earlier, when one is dealing with innovation—particularly that driven by computer technologies—the world moves too quickly for the inherently conservative process of refining precedent with judicial practice. [251]

Perhaps the most serviceable solution is to change the policy perspective that shapes the tests and justifies the result—to remove concepts of culpability from the equation altogether and move to a strict liability, no fault system that seeks primarily to compensate the economic harm caused by copyright infringement as efficiently as possible. Under such a perspective, the role of courts would not be to sit in judgment on the potential virtues of a technology, making what is in effect a life or death decision on the device or system at issue. Rather, courts or whatever administrative body to which Congress might delegate the task, would be charged with tallying the instances of

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251. Given the equitable nature of the challenge, it may be more intellectually honest to abandon the quest for defined rules in favor of a multifactor balancing test that openly acknowledges the judge's discretion in determining the results. Indeed, the only way to fully explain the disparate precedent may be a frank acknowledgement that different judges have different sensibilities as to when it is just to hold one party liable for the wrongful conduct of another, a sensibility which turns on such contentious matters as the value of encouraging new business models and new technologies when they appear to be destructive to established interests today and their ultimate value is unknown. Even if one assumes, however, that subjective judgment alone determines the outcome in these cases, the stakes for content owners and technologists alike are simply too high, the repetitive cycles of development and litigation too costly to industry and society to abandon the aspiration for rules that provide both predictability and equity.

alleged infringement, assessing the actual harm, and apportioning responsibility among the various device manufacturers, software developers, ISPs, and others who, wittingly or not, by design or not, provided essential products or services that enabled the infringement to take place.

A system that permits some proportionate recovery from the various technology and service providers that enable such infringement has a number of benefits over the current system of complete, joint liability of each defendant for all acts of infringement. If a fair and efficient allocation of the true costs of infringement were the guiding light,[252] copyright owners would benefit by being able to obtain a proportionate recovery from the successful companies that are unlikely to be found liable under the current rules, but still enable the infringement of which they complain, such as ISPs, the makers of storage devices, and so on. True, those companies who otherwise would not be liable or targeted by the copyright industries under the present regime would be comparatively worse off, but if compensation for damage suffered is the key, they are merely forced to internalize a cost they previously externalized via a quasi tort (copyright infringement) on third parties (copyright owners).

Permitting some proportionate recovery would also moderate the tough choices foisted upon judges by the all-or-nothing system and permit the crafting of rulings aimed at the efficient allocation of the costs of infringement. Judges would be relived of the impossible task of assessing the future potential of a technology. Instead of sitting in judgment over whether a device or other technology may exist, courts are relegated to a much more basic regulatory function. Under a proportionate liability, no-fault rule, the market makes decisions with respect to what technologies are worthy.

In order to succeed, any business that in any way facilitates copyright infringement would have to make most of its money from non-infringing activities. In this way, the

252. One may argue that statutory copyright damages are punitive in nature. If that is so, calculating the costs of infringement based on mandatory statutory damage rates could make fair allocation of the loss impossible.

market makes a practical decision regarding the comparative worth of infringing and non-infringing uses of a particular technology, not the courts. Moreover, because user adoption and behavior patterns change, the availability of technology is not ultimately dependent on a final judgment by a court. No court, for example, would ever sit in final judgment over whether the VCR should exist, but would merely force VCR manufacturers to pay for their contribution to the infringing reproduction of television programming on video tape not covered by the fair use of time shifting, to the extent they, among other hardware and service providers, are to blame. Changes in business models, consumer demand, and other market realities would effectively determine the result without a court ever making an ultimate decision on the merits of a technology. If manufacturers had been forced to internalize a fair portion of the infringement they enabled, perhaps the VCR would not have been a viable device in 1979. Five or seven years later, with the growth of the home video market, the result may have changed. So too may the practical outcomes of P2P networks and other nascent technologies change over time under a rule of no-fault, proportionate liability.

Of course, the dependence of outcome on external factors such as the availability of licensed content for use on a particular technology creates an incentive for hard bargaining between technologists and content owners. However, each interest holds significant cards. Technologists could not force the copyright owners to license material to a new medium or platform, but copyright owners could not keep a hated device or system off the market either. So long as the damages for copyright infringement closely tracked, or were somewhat lower than, the expected returns from a licensing arrangement or other likely business solution, the parties would have an incentive to negotiate toward a viable business model, not litigate for years in the hope of hitting a strategic jackpot.

The matter ultimately comes back to whether one really views all those providing essential products and services to the direct infringers, a list that would include the likes of AOL, Sony, IBM, AT&T, HP, and many other blue chip, brand name companies, as something akin to joint tortfeasors with or agents of their direct infringer end users. Because the analogies seem strained beyond usefulness, the

logic of charging any party with the misfortune to be targeted with a lawsuit for the full, astronomical liability of mass infringement online leaves placement of the burden somewhat haphazard and recovery from the major players uncertain. The real question of who ought to pay and in what proportions is simply not answered by the judicial inquiry the current rules demand.

This no-fault, comparative liability point of view is admittedly a departure from *Sony* and the generous view of technology it espouses and that this commentator shares. However, as discussed above, *Sony* means very different things to different courts, has not prevented litigation from taking place, and certainly has not served as a successful defense to every technology with a potential, substantial non-infringing use. *Sony* has not brought peace and extremely important courts faced with the challenge of reconciling new network technologies with copyright ownership have limited *Sony* severely (*Napster*) or concluded that *Sony* cannot possibly mean what it says (*Aimster*).

It is not as drastic a departure from the current standards of indirect liability as one may first think. The notion of strict liability has long been accepted in vicarious liability, so disregarding the cleanliness of one's hands in order to spread risk or allocate loss effectively is not new to copyright law. Quantifying loss and apportioning it among various parties involved also is not conceptually new, though it seems uncommon in copyright cases.

Although it hardly brings instant understanding and predictability to all parties, as the dollar figure for actual harm and the comparative portion to be charged to any defendant will be variable, the risk and potential liability remain far more predictable than under the present system. The device, software, or service provider hit with a vicarious or contributory infringement suit currently faces a bet-the-company gamble. A court will either give it a clean bill of health, as in *Sony*, or hold it fully liable for billions in damages, as in *Napster*. As the radically differing outcomes with respect to P2P file sharing systems, other online services, and the VCR itself show, the outcome in any given case cannot be gauged with any confidence. Commercial life or death is a roll of the judicial dice. If courts sought merely to compensate for loss and apportion liability fairly and efficiently, potential defendants have a much more concrete

risk to assess—the amount of infringement taking place, its cost to copyright owners, and the defendant's relative role in such infringement. Again, these are numbers over which competing expert witnesses would doubtlessly fight, but the risk of loss is at least amenable to quantification and objective study like any other commercial liability.

Some might argue that the task is too complex, the variables too soft, to serve as a basis for a court decision. However, the task is far more mundane than asking courts to determine whether a novel technology has the potential for a substantial non-infringing use, makes a sufficiently material contribution to infringement, or generates a financial benefit sufficiently linked to infringing activity. Moreover, tallying and apportioning loss is not an unaccustomed task for courts. Courts are asked to answer problems of relative fault all the time. In fact, in a joint tort such as contributory infringement, it is the very same analysis in which a court would engage if it had all the potentially liable defendants before it.[253] In essence, this new no-fault concept merely ports the strict liability of vicarious liability to the tort concept of comparative fault and liability.

There are undeniable problems with reorienting the doctrines of indirect liability around new or differently weighted policy objectives. Absent clear action from Congress or an activist Supreme Court, the precedent is what it is and remains binding on the jurisdictions that have articulated the standards we have. Many may chafe against the notion of completely divorcing liability from concepts of fault or treating defendants similarly regardless of intent, knowledge, or other mental state that speaks to the fairness of liability. In order to compute and allocate actual harm, the concept of statutory damages, which may overcompensate some plaintiff's in economic terms, would have to modified or courts would have to be given discretion to ignore such statutory minimums. Plaintiffs would need the broad procedural power to join or otherwise bring to court all relevant parties in order to obtain a full recovery. This would raise practical problems on a scale that may be unfit for judicial resolution, requiring some sort of administrative oversight, rate-setting and/or clearinghouse system

253. *See supra* note 241.

such as those that exist with respect to music and digital sound recording performance royalties which rely upon the administration of performance rights societies and copyright arbitration royalty panels to operate the complex compulsory licensing scheme.

The optimal solution is not clear. What remains clear are the inadequacies of the law we have to deal predictably and justly with novel technologies. By whatever means, the potential costs, in terms of stifling innovation in areas that could broadly benefit humankind, and the loss of privacy, and chilling of speech deserve to be addressed directly by the law. It is time for the discussion of dancehalls to end and the talk of global, pervasive networks to begin with the fresh thinking the novelty of the circumstances demand.