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INDIRECT LIABILITY FOR COPYRIGHT INFRINGEMENT: AN ECONOMIC PERSPECTIVE

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I. INTRODUCTION

When it comes to venues for copyright infringement, there was a time when nothing could compete with the flea market. Traditionally, flea markets are places to buy and sell secondhand goods and antiques. But in the 1970s and 1980s, flea markets also became places to buy and sell unauthorized recordings of copyrighted music. It was big business. Indeed, as late as 1991, police raided a California flea market and walked away with over 38,000 illegal tape recordings.[1]

The legal issues raised by flea market infringement were contentious in their day. The first step was easy: individual sellers of pirated music were obviously guilty of copyright infringement. But what about the firms and individuals that owned implicated markets? Were they also liable? From one perspective, surely not, as these owners had done nothing more than create a space where buyers and sellers could interact. However, these owners did benefit from infringement

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1. *See* Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259, 261 (9th Cir. 1996).

in that cheap music was part of what brought buyers and sellers to the market. Moreover, the owners likely could have done more to clamp down on unlawful behavior, such as screening vendors more aggressively or performing spot checks on transactions.

Today, the flea market is no longer a significant battleground for copyright law, but the same basic legal question continues to loom: how far should copyright liability extend beyond any direct lawbreakers? For example, should a firm that produces photocopiers be required to compensate authors for any unauthorized copies made on that firm's machines? What about firms that manufacture personal computers or offer Internet access; should they be liable, at least in part, for online music piracy?

In this Article, we inquire into the question of when indirect liability should be used to increase compliance with the law. The argument in favor of liability is that third parties are often in a good position to discourage copyright infringement either by monitoring direct infringers or by redesigning their technologies to make infringement more difficult. The argument against is that legal liability almost inevitably interferes with the legitimate use of implicated tools, services, and venues.[2]

II. The Economics of Indirect Liability

Unlike the Patent Act, the Copyright Act of 1976 does not explicitly recognize the possibility of indirect liability. Nevertheless, courts have held third parties liable for copyright infringement under two long-standing common law doctrines: contributory infringement and vicarious liability.[3]

A. Contributory Infringement

Contributory infringement applies where one party knowingly induces, causes, or otherwise materially contributes to the infringing conduct of another. The adverb "knowingly" is perhaps misleading in that it takes on an unusual meaning in this setting. It does not simply mean "awareness of infringement" but instead implies some meaningful capacity to prevent or discourage infringement. Consider the fol-

2. A large literature considers the economics of copyright law more generally, not focusing explicitly on indirect liability. For a good introduction, see William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325 (1989).

3. For a more formal introduction to these doctrines, see ROBERT A. GORMAN & JANE C. GINSBURG, COPYRIGHT: CASES AND MATERIALS 782–806 (6th ed. 2001); MARSHALL A. LEAFFER, UNDERSTANDING COPYRIGHT 399–402 (3d ed. 2002). Kraakman surveys the concept of indirect liability outside the copyright setting in Reinier Kraakman, *Third Party Liability*, *in* 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW, 583 (Peter Newman ed., 1998).

lowing example: suppose that *C* manufactures a decoder box that enables any purchaser *B* to unscramble premium and pay-per-view cable programs without paying for them. *A* is the injured copyright holder who owns those programs. Should the equipment maker *C* be held liable to *A* for purchaser *B*'s infringement of copyright?

Two considerations bear mention. First, there are likely to be substantial enforcement and administrative savings if injured copyright holders like *A* are allowed to sue *C* rather than pursuing each *B* individually. Even if each *B* has sufficient resources to pay for the harm he causes, the costs of tracking down that many *B*s, gathering evidence as to the specific activities of each, and then litigating that many separate lawsuits would likely make it uneconomical for *A* to enforce its copyright. Because each *B* knows this in advance, each has little incentive to comply with the law. If the law holds *C* liable for damages caused by *B*, by contrast, the savings in enforcement costs are likely to be sufficiently large for *A* to enforce its copyright.[4] *A* might still face problems proving damages — this would require evidence about the separate actions of the many *B*s — but the prospect of liability will most likely put *C* out of business and, in this example, lead most *B*s to pay for cable rather than stealing it.

Second, if there are lawful uses of *C*'s product, the case for liability is weakened. The "lawful use" question does not arise in the decoder example because the decoder's only conceivable use involves violating the law. But consider a firm that produces photocopiers or personal computers. Such a firm literally does "know" that some of its customers will infringe copyright, but the firm does not have specific knowledge about any particular customer. Thus, even though substantial savings in enforcement costs might still arise in these cases were courts to impose liability, it is unlikely that any court would be willing to do so. The benefits in terms of increased copyright enforcement come at too high a cost in terms of possible interference with the sale of a legitimate product.[5]

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4. If *C* is sued, *C* will often be allowed to sue the various *B*s for compensation. The same factors that made it uneconomical for the copyright holder to sue each *B*, however, may make these lawsuits uneconomical for *C* as well.

5. An interesting counterpoint is to consider whether the result should be different when the issue is not photocopying machines sold individually to consumers but instead photocopying services like those provided by Kinko's and various university copy centers. Potential legal liability in these instances is based on theories of direct rather than indirect liability; Kinko's does not merely enable its customers to infringe, after all, it actually does the infringing for them. The policy issues at stake seem similar, however. For example, it might be that these firms should be held liable on grounds that copy center employees are in a good position to monitor for and discourage copyright violations. To see these issues in context, see Princeton Univ. Press v. Mich. Document Servs., Inc., 99 F.3d 1381 (6th Cir. 1996) (en banc) (holding photocopying service liable for direct infringement). For an interesting further analogy to the use of photocopying machines in libraries, see 17 U.S.C. § 108(f) (noting that nothing in the provision "shall be construed to impose liability upon a library or archives or its employees for the *unsupervised* use of reproducing equipment

In some cases it may be possible for the equipment maker *C* to redesign its product in a way that would eliminate or greatly reduce the level of infringement without significantly cutting down on the quantity and quality of lawful uses. In such cases, liability is again attractive. Often, however, these sorts of solutions are out of reach. For instance, it is hard to imagine a redesigned photocopier that would make infringement less attractive without substantially interfering with lawful duplication. As a result, holding the equipment manufacturer liable would be equivalent to imposing a tax on the offending product. The "tax" would reduce overall purchases of photocopiers and it would redistribute income to copyright holders, but it would not in any way encourage users to substitute non-infringing for infringing uses.

The examples of the decoder box and the photocopier mark two extremes and serve to delineate the key issues. Holding all else equal, contributory liability is more attractive: a) the greater the harm from direct copyright infringement; b) the less the benefit from lawful use of the indirect infringer's product; c) the lower the costs of modifying the product in ways that cut down infringing activities without substantially interfering with legal ones; and d) the greater the extent to which indirect liability reduces the costs of copyright enforcement as compared to a system that allows only direct liability.

B. Vicarious Liability

Vicarious liability applies in situations where one party — often an employer — has control over another and also enjoys a direct financial benefit from that other's infringing activities. A typical case arises where an employer hires an employee for a lawful purpose, but the employee's actions on behalf of the employer lead to copyright infringement. One rationale for imposing liability in this instance is that the employer should be encouraged to exercise care in hiring, supervising, controlling, and monitoring its employees so as to make copyright infringement less likely. Another is that it is usually cheaper for copyright holders to sue one employer rather than suing multiple infringing employees. A final rationale is that liability helps to minimize the implications of bankrupt infringers. An employee cannot compensate an injured copyright holder if that employee does not have adequate financial resources. Indirect liability solves this problem by putting the employer's resources on the line, thereby increasing the odds that the harm from infringement will be internalized.[6]

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located on the premises" (emphasis added) so long as the "equipment displays a notice that the making of a copy may be subject to the copyright law").

6. Of course, the employer might also lack sufficient funds. Note, too, that employers are only held responsible for infringements that occur within the scope of employment. In-

The example of a dance hall operator illustrates these points. Dance hall operators hire bands and other performers who sometimes violate copyright law by performing copyrighted work without permission. Often these performers lack the resources needed to pay for the associated harm. In these circumstances, indirect liability has real policy allure. It is probably less expensive for a copyright holder to sue the dance hall operator than it is for him to sue each performer individually, both because there are many performers and because the dance hall operator is likely easier to identify and to serve with legal process. Putting litigation costs to one side, it is also the case that dance hall operators are typically in a position to monitor the behavior of direct infringers at a relatively low cost. After all, the operator is probably already monitoring the dance hall quite carefully in order to ensure that patrons are being well treated, employees are not siphoning funds from the till, and so on. Finally, because performers are more likely than dance hall owners to lack the resources required to pay damages for copyright infringement, vicarious liability in this instance prevents the externalization of copyright harm.

It is worth pointing out that the threat of vicarious liability has encouraged dance halls, concert halls, stadiums, radio stations, television stations, and other similar entities to look for an inexpensive way to acquire performance rights. For the most part, they do this by purchasing blanket licenses from performing rights societies, the two largest of which are Broadcast Music International ("BMI") and the American Society of Composers, Authors, and Publishers ("ASCAP"). ASCAP and BMI hold non-exclusive performance rights to nearly all copyrighted music. The blanket licenses they sell give licensees the right to perform publicly all the songs in the performing rights society's repertoire for as many times as the licensee likes during the term of the license. The blanket license saves enormous transaction costs by eliminating the need for thousands of licenses with individual copyright holders and by eliminating the need for performers to notify copyright holders in advance with respect to music they intend to perform. In addition, the blanket license solves the marginal use problem because each licensee will act as if the cost of an additional performance is zero — which is, in fact, the social cost for music already created.

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fringement committed by an employee on his own time and for personal reasons would not trigger vicarious liability. For a discussion of the economics, see Alan O. Sykes, *Vicarious Liability*, *in* 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW, *supra* note 3, at 673.

III. Statutory and Common Law Evolution

The doctrines of contributory infringement and vicarious liability have evolved over time, with adjustments coming from both the courts and Congress. Of these, probably the most significant was the 1984 Supreme Court decision in *Sony v. Universal City Studios.*[7] The plaintiffs were firms that produced programs for television; the defendants manufactured an early version of the videocassette recorder ("VCR"). The plaintiffs' legal claim was that VCRs enable viewers to make unauthorized copies of copyrighted television programs. This was troubling to the copyright holders mainly because viewers watching taped shows can more easily skip commercials, and that obviously diminishes the value of the associated copyrighted programming. Suing viewers directly would have been both infeasible and unpopular, so the program suppliers sued the VCR manufacturers on theories of both contributory infringement and vicarious liability.

The Supreme Court rejected both theories.[8] Vicarious liability was rejected because the Court did not believe that VCR manufacturers had meaningful control over their infringing customers. As the Court saw the issue, the only contact between VCR manufacturers and their customers occurred "at the moment of sale," a time far too removed from any infringement for the manufacturers to be rightly compared to controlling employers.[9] Contributory infringement, by contrast, was rejected on the ground that the VCR is "capable of substantial noninfringing uses" — legitimate uses that in the Court's view left manufacturers powerless to distinguish lawful from unlawful behavior.[10]

Whether one agrees or disagrees with these results, there is much to criticize in the Court's analysis. On vicarious liability, the Court took a needlessly restrictive view of what it means for a manufacturer to "control" its purchasers. For example, the Court did not consider whether a relatively simple technology solution — say, making the fast forward button imprecise and thus diminishing the ease with which purchasers can skip commercials — might have gone a long way toward protecting copyright holders without interfering unduly with legitimate uses. On contributory infringement, meanwhile, while the Court was certainly right to focus on the fact that the VCR is capable of substantial non-infringing uses, the Court erred when it failed to put that fact into context. Full analysis requires that the benefits associated with legitimate use be weighed against the harms associ-

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7. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).
8. As a technical matter, it is ambiguous whether the Court's analysis of vicarious liability is binding precedent or mere dicta. *See id.* at 435 n.17.
9. *Id.* at 438.
10. *Id.* at 442.

ated with illegitimate use. The Court failed to consider that balance. Instead, its ruling implies that VCR manufacturers can facilitate any copyright violation they wish so long as they can prove that VCRs also facilitate some non-trivial amount of legitimate behavior.

Importantly, however, mere dissection of the legal analysis misses the heart of the *Sony* decision. The driving concern in *Sony* was a fear that indirect liability would have given copyright holders control over what was then a new and still-developing technology. This the Court was unwilling to do. Copyright law, the Court wrote, must "strike a balance between a copyright holder's legitimate demand for effective . . . protection . . . and the rights of others freely to engage in substantially unrelated areas of commerce."[11] The analogous modern situation would be a lawsuit attempting to hold Internet service providers liable for online copyright infringement. It is easy to see why courts would be reluctant to enforce such liability. Copyright law is important, but at some point copyright incentives must take a backseat to other societal interests, including an interest in promoting the development of new technologies and an interest in experimenting with new business opportunities and market structures.[12]

After *Sony*, the next significant refinement to the law of indirect copyright liability came from Congress in the form of the Audio Home Recording Act of 1992.[13] As a practical matter, this statute is unimportant; it carefully regulates a technology that turned out to be an embarrassing commercial flop.[14] But in understanding indirect copyright liability, this statute marks an important step. It immunized two groups from liability: producers of digital audiotape equipment and manufacturers of blank digital audiotapes.[15] Immunity was contingent, however, on digital audiotape equipment being redesigned to include a security feature that would diminish the risk of infringement by limiting the number of duplicate recordings that can be made from any single digital audiotape.[16] In addition, the statute imposed a modest royalty on the sale of blank tapes and new digital audio equipment, the proceeds of which were to be shared among copyright holders as an offset against their anticipated piracy losses.[17] By mandating a

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11. *Id.*

12. Several recent articles emphasize this relationship between copyright law and either market structure or political institutions. *See*, *e.g.*, Randal C. Picker, *Copyright as Entry Policy: The Case of Digital Distribution*, 47 ANTITRUST BULL. 423; Jessica Litman, *War Stories*, 20 CARDOZO ARTS & ENT. L.J. 337 (2002).

13. Pub. L. No. 102-563, 106 Stat. 4237 (1992) (codified at 17 U.S.C. §§ 1001–10 (2003)).

14. *See* Stephen W. Webb, Note, *RIAA v. Diamond Multimedia Systems: The Recording Industry Attempts to Slow the MP3 Revolution — Taking Aim at the Jogger Friendly Diamond Rio*, 7 RICH. J.L. & TECH. 5, 5 n.5 (2000).

15. 17 U.S.C. § 1008 (2003).

16. *Id.* at § 1002.

17. *Id.* at § 1004.

change in technology to reduce the risk of copyright violation and by setting up a compensation fund for injured copyright holders, this law stands in sharp contrast to the *Sony* decision where VCR technology was left unchanged and injured copyright holders were left uncompensated.

Congress became involved with indirect liability again in 1998 when it passed the Digital Millennium Copyright Act.[18] One provision immunizes from indirect liability a broad class of Internet access providers, telecommunications companies, and Internet search engines, so long as these entities satisfy certain specific requirements designed to safeguard copyright holders' interests.[19] Before this legislation came into effect, the liability associated with many of these entities was in doubt. Was an Internet service provider vulnerable to a claim of vicarious liability given that it charges its users for Internet access and has ultimate control over what is, and what is not, available online? Was an online auction site like eBay liable since the site profits every time a seller sells an infringing item? The Digital Millennium Copyright Act answered these questions by establishing a safe harbor: if these Internet entities follow the requirements laid out by the statute — requirements that typically require the entity to act when a specific instance of infringement is either readily apparent or called to the entity's attention by a copyright owner — they are immune from charges of vicarious liability and contributory infringement.[20]

The Digital Millennium Copyright Act added another significant provision as well. Under this provision, it is illegal for a firm to manufacture, import, or otherwise provide to consumers a device primarily designed "to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid . . . a technological measure" used to protect copyrighted work.[21] This provision has proven controversial for two reasons. First, it adopts a standard for liability that is much less forgiving than that articulated by the Supreme Court in *Sony*. In particular, to avoid condemnation under this provision, the accused device must not be "primarily designed" to avoid technological measures;[22] must have a "commercially significant purpose or use other than to circumvent";[23] and must not be "marketed" as a circum-

18. Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

19. 17 U.S.C. § 512 (2003).

20. *Id.* eBay itself turns out to be an interesting case in that eBay earns profit based on the sale of individual items and thus likely does not qualify for the safe harbor. *See id*. at § 512(c)(1)(B) (protecting only those firms that do "not receive a financial benefit directly attributable to the infringing activity"). Had eBay charged a flat fee for listing auction items, by contrast, it might have qualified for protection, much as ISPs qualify despite the fact that they charge a flat fee each month for Internet access.

21. 17 U.S.C. § 1201 (2003).

22. *Id.* at §§ 1201(a)(2)(A), 1201(b)(1)(A).

23. *Id.* at §§ 1201(a)(2)(B), 1201(b)(1)(B).

vention device.[24] Second, devices rendered illegal by this provision include not only devices that allow consumers to circumvent any "technological measure that effectively protects a right of a copyright holder"[25] but also, more broadly, devices that allow consumers to circumvent any "technological measure that effectively controls access" to a copyrighted work.[26] That said, many copyright owners use technology to protect their work, and the intuition behind this provision is that the law should support their efforts on grounds that this sort of self-help is less costly and more effective than more traditional forms of copyright protection.[27]

Probably the most talked about litigation on indirect copyright liability is the music industry's recent lawsuit against Internet startup Napster.[28] As readers likely know, Napster facilitated the online exchange of music files in two ways: it provided software that allowed a user to identify any song he was willing to share with others, and it provided a website where that information was made public so that an individual looking for a particular song would be able to find a willing donor. Several firms in the music industry sued Napster, alleging that these tools promoted the unauthorized distribution and duplication of copyrighted music.

Napster's primary defense was that its service, like a VCR, is capable of both legal and illegal use. For example, the Napster technology can be used to trade recordings that are not protected by copyright (perhaps because the relevant copyrights have expired) and to trade recordings by artists who are willing participants in this new distribution channel. Nevertheless, the Ninth Circuit has thus far rejected this proposed analogy to *Sony*, indicating that — whenever the litigation finally concludes — Napster will likely be found liable for at least some of the infringement it made possible.[29]

The reason, according to the court, is that Napster had the ability to limit copyright infringement in ways that VCR manufacturers do

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24. *Id.* at §§ 1201(a)(2)(C), 1201(b)(1)(C).

25. *Id*. at §§ 1201(b)(1)(A)–(C).

26. *Id*. at §§ 1201(a)(2)(A)–(C).

27. This provision is interesting for another reason as well: it blurs the line between direct and indirect copyright liability. Under the provision, a firm can be found liable even if the relevant copyright holder cannot prove that any purchaser actually used the offending product. This is therefore not indirect liability as traditionally defined, because indirect liability traditionally requires that the copyright holder first prove a specific act of infringement.

28. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (9th Cir. 2001). Obviously, there is a substantial literature on this case, in part because of the extraordinary public fascination with the Napster service. For one excellent discussion and pointers into the rest of the literature, *see* Stacey L. Dogan, *Is Napster a VCR? The Implications of* Sony *for* Napster *and Other Internet Technologies*, 52 HASTINGS L.J. 939 (2001).

29. *See, e.g.*, A&M Records, Inc. v. Napster, Inc. 284 F.3d 1091 (9th Cir. 2002) (stating that "the modified preliminary injunction [in the court's previous Napster ruling] correctly reflects the legal principles of contributory and vicarious copyright infringement that we previously articulated").

not. For example, in applying the doctrine of contributory infringement, the court determined that Napster likely had the requisite level of knowledge because, first, Napster had "actual knowledge that specific infringing material [was] available using its system,"[30] and, second, Napster could have used that knowledge to identify and block at least some of the infringing material.[31] Similarly, in analyzing the applicability of vicarious liability, the court emphasized Napster's ongoing relationship with its customers.[32] At any time, Napster could have refused service to users who were violating copyright law. VCR manufacturers, by contrast, have no such power; their relationship with any customer ends at the moment of sale.

One can quibble with all of these arguments. For instance, this analysis seems to blur the line between the requirement under contributory infringement that a culpable party have *knowledge* of the direct infringement and the requirement under vicarious liability that a culpable party have *control* over the specific infringer. Still, the opinion seems to get the basic logic right. Napster is different from a VCR manufacturer because it has low-cost ways of discouraging piracy without impinging on legitimate use. As we discuss next, that is the core insight necessary for the design of an efficient indirect liability regime.

IV. Rethinking the Indirect Liability Standard

To evaluate all these mechanisms and principles, begin by considering an instance where it would be relatively easy to identify and thwart copyright wrongdoing — say, a flea market, where the proprietor could at low cost wander the market and spot vendors hawking illegal music at rock-bottom prices. The economic analysis in such a case is straightforward. Assuming that there is sufficient social benefit from copyright protection in terms of increased incentives for authors to create and disseminate their work, legal rules should pressure the flea market proprietor to do his part in enforcing the law. The social benefits of those increased incentives likely outweigh both the presumptively small private costs imposed on the market owner and any minor inconvenience these measures might impose on legitimate sellers.

Now consider the opposite case, namely an instance where it would be prohibitively expensive to distinguish legal from illegal copyright activity. Internet service providers are a good example in this category, in that an entity like America Online would have a hard time differentiating the unlawful transmission of Mariah Carey's

30. A&M Records, Inc. v. Napster, Inc., 239 F.3d at 1022 (emphasis omitted).
31. *Id.*
32. *See id.* at 1023–24.

copyrighted music from the perfectly legitimate transmission of uncopyrighted classical music.[33] Perhaps surprisingly, it might still be efficient to recognize liability in this instance. After all, instead of trying in vain to distinguish lawful from unlawful activity, a firm in this situation would simply increase its price and use that extra revenue to pay any ultimate damage claims. Legal liability, then, would function like a tax. In many instances such a tax would be welfare-reducing in that higher prices discourage legal as well as illegal uses. But in some settings, discouraging both legal and illegal activity would yield a net welfare gain. This would be true where illegal behavior is sufficiently more harmful than legal behavior is beneficial; it would be true where the harms and benefits are comparable but illegal behavior is more sensitive to price; and it would be true where the benefits in terms of increased copyright incentives outweigh the harms associated with discouraging legitimate use.[34]

Pulling the lessons from both of the preceding examples together, then, an efficient approach to indirect liability might start by applying a negligence rule to any activity that can lead to copyright infringement. Negligence rules are common in tort law; they hold a party liable in cases where that party's failure to take economically reasonable precautions results in a harm. As applied to *Sony*, a negligence rule might have asked whether VCR manufacturers adopted a reasonable design for their technology given its possible legitimate and illegitimate uses. As applied to flea markets, a negligence rule might ask whether a given owner monitors his market with sufficient care. This approach is not radically different from current law. The difference is that current law focuses on knowledge, control, the extent of any non-infringing uses, and other factors, without being particularly clear as to why those issues are central. An explicit negligence rule would lay bare the underlying logic of the indirect liability inquiry.

One drawback to the modern implicit negligence approach is that, as applied to new technologies, it can engender considerable uncer-

33. While classical music itself is typically not protected because the relevant copyright terms have expired, note that a new performance of a given classical work might be protected as a sound recording. That is, there are two copyrights to keep in mind with respect to any piece of music: one that applies to the underlying musical score and another that applies to the sounds made by some group of artists interpreting the score aloud.

34. The accounting here is tricky. The benefit associated with imposing indirect liability is not the number of illegal users that indirect liability thwarts. It is the number of users who switch from copying illegally to purchasing through legal channels. In fact, individuals who stop using the copyrighted work illegally and then do not purchase legally represent social loss, in that their utility is obviously diminished but there is no offsetting gain elsewhere in society. Things become even more complicated when one considers the possibility that illegal use can lead to legal use — for instance when illegal music trading online ironically turns out to help a new artist gain a following. For a discussion of other wrinkles, see Yannis Bakos, Erik Brynjolfsson & Douglas Lichtman, *Shared Information Goods*, 42 J. L. & ECON. 117 (1999).

tainty. A producer responsible for a new audio recording device, for example, might find it difficult to predict what courts will require in the new setting. In response, such a producer might choose to be excessively cautious. This explains the safe harbor provision that was introduced by the Digital Millennium Copyright Act. Thanks to that provision, Internet service providers and other firms associated with the Internet know that they are immune from indirect liability as long as they follow the guidelines explicitly set forth. This safe harbor thus eliminates the risk created by an otherwise uncertain legal standard. Unfortunately, these firms are likely still too cautious; as Neal Katyal notes, "[b]ecause an ISP derives little utility from providing access to a risky subscriber, a legal regime that places [any risk of] liability on an ISP for the acts of its subscribers will quickly lead the ISP to purge risky ones from its system."[35] That said, competition in the market for Internet service provision should mitigate this problem.[36]

In addition to negligence liability and safe harbors, an efficient indirect liability regime might also include a tailored tax applicable to particular tools, services, or venues associated with copyright infringement. We say "might" because a tax proposal is likely to be more influenced by interest group politics than by efficiency considerations, and we worry about opening Pandora's box. Putting interest group concerns to one side, however, a tax would be appropriate in instances where a price increase would reduce the harm caused by illegal behavior more than it would interfere with the social benefits that derive from legal interactions. Thus, for example, it might be attractive to impose a small per-use tax on photocopying machines, at least if the resulting revenues would non-trivially increase the incentive to create and disseminate copyrighted work and the tax itself would not significantly discourage legitimate photocopier use. The closest the current system comes to establishing a tax of this sort is the

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35. Neal Kumar Katyal, *Criminal Law in Cyberspace*, 149 U. PA. L. REV. 1003, 1007–08 (2001).

36. For a more skeptical view — albeit applied to a strict liability rule as opposed to a negligence standard — *see* Assaf Hamdani, *Who's Liable for Cyberwrongs?*, 87 CORNELL L. REV. 901 (2002).

There are of course other concerns to keep in mind when considering the desirability of a negligence standard. For instance, negligence rules work well only to the extent that courts can accurately assess damages, because the fear of having to pay damages where adequate precautions are not taken is what inspires adequate precautions in the first place. Unfortunately, in copyright, estimating damages is notoriously difficult. Has online music trading really taken the steam out of music sales, or has online trading sparked renewed interest in popular music? And even if online trading did decrease music sales, how does one price the harm of a single traded song, given that music is typically sold in multiple-song packages and that many people trade music that they would not otherwise buy? And all that ignores the real harm at stake here, namely, the shift in consumer attitudes with respect to the propriety of copying, rather than purchasing, music. The better these damage estimates, the more efficient the liability rule. But that is true for any liability scheme, from the negligence rule discussed in this Article to even a strict liability alternative.

royalty regime created by the Audio Home Recording Act.[37] That approach is different, however, in that the royalty regime displaces negligence liability instead of supplementing it.[38]

V. INDIRECT LIABILITY IN CONTEXT

When evaluating different indirect liability rules from a broad public policy perspective, it is important to remember that indirect liability is just one of several mechanisms by which society tailors the incentive to create and disseminate original work. Other mechanisms abound, including, most obviously, adjustments to the scope and duration of copyright protection, and, less obviously, such alternatives as criminal penalties — now applicable to certain types of infringement[39] — and even the cash incentives put forward by the National Endowment for the Arts. This is an important point because indirect liability must be evaluated in light of these alternatives. In the end, whatever incentive authors need, society should deliver it using the combination of mechanisms that imposes the least social cost.

One implication here is that sometimes indirect liability should not be an option. The costs in terms of unavoidable interference with legitimate products might be too high, and society would therefore be better off forcing copyright holders to rely on other mechanisms.

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37. There are private organizations that come even closer, implementing this sort of tax system through licenses and the threat of litigation rather than through explicit statutory provisions. The most notable of these is the Copyright Clearance Center, an international organization that "manages rights relating to over 1.75 million works" and in the United States alone licenses over 10,000 firms including 92 of the Fortune 100 companies. Copyright Clearance Ctr., Inc., *Corporate Overview*, *at* http://www.copyright.com/About/default.asp (last visited Mar. 4, 2003).

38. It is possible that, in certain instances, displacing negligence liability is the efficient approach. For instance, Neil Netanel argues in a current working paper that Congress should declare certain types of unlicensed online file swapping legal and then, in exchange, require firms that profit from file swapping activity to build a modest copyright levy into the price of their various goods and services. NEIL WEINSTOCK NETANEL, IMPOSE A NONCOMMERCIAL USE LEVY TO ALLOW FREE P2P FILE-SWAPPING AND REMIXING, (Univ. of Texas Sch. of Law, Pub. Law and Legal Theory Research Paper No. 044, Nov. 2002). The downsides to this proposal are the familiar objections that higher prices will discourage some legitimate purchasers; that private parties can negotiate this sort of license on their own if it is efficient; that this approach dampens any incentive firms face to redesign file swapping such that it better respects the traditional rights recognized in copyright holders; and that interest group politics can too easily influence this sort of particularized legislation. The upsides, however, are significant. Having paid the copyright tax, consumers would be free to upload and exchange music at the efficient marginal cost of zero. Also, this compulsory license approach might better balance copyright holders' legitimate interest in earning a reward with society's competing interest in seeing unfettered competition in the design of new technologies and new business models.

39. Under the No Electronic Theft Act, for example, "any person who infringes a copyright willfully . . . for purposes of . . . financial gain," and any person who infringes a copyright willfully where the retail value of the infringing copies exceeds $1,000 during any 180-day period, risks up to ten years imprisonment. *See* Pub. L. No. 105–147, 111 Stat. 2678 (1997) (codified at 18 U.S.C. §§ 2319–20 and 17 U.S.C. § 506 (2003)).

Conversely — and this is a point typically overlooked in the copyright literature — sometimes other mechanisms are too costly and indirect liability should therefore be the only option. For example, in the 1980s many firms sold software tools that helped computer users pirate copyrighted videogames. Copyright holders were able to sue the firms on indirect theories and the computer users on direct ones. But because detection and litigation were so expensive, direct liability in this instance led to almost random penalties; of the millions of equally culpable computer users, only a handful were dragged into court. To many, the injustice of a legal right enforced so randomly outweighed whatever benefit those lawsuits offered. It therefore might have been better policy to take away the option of direct liability and allow copyright holders to sue only the firms.

To take another example, it might be the case that copyright holders injured by online music swapping should not be given the choice of either suing the individuals who swap music or suing the services that facilitate the practice, but instead should be allowed only to sue the services. After all, a lawsuit brought by one copyright holder against a service like Napster generates positive externalities that benefit all copyright holders. A lawsuit against a particular Napster user, by contrast, is unlikely to have so broad a beneficial effect. If that is true, it might well improve efficiency to require that copyright holders go after services, not individuals, even if the opposite strategy would be in the private interest of a given copyright holder.

We have focused thus far on comparisons among various legal and governmental tools, but of course indirect liability (like copyright law more generally) should also be evaluated in light of the many technological remedies available to copyright holders. Online music piracy, for example, can be discouraged through the use of encrypted music files that are difficult to copy without permission. Encryption is imperfect, and it also has its costs; for instance, encrypted music cannot be easily accessed by someone interested in making a lawful parody. As before, the point is that these costs and benefits can only be evaluated by comparing them to the costs and benefits associated with direct liability, indirect liability, and any other workable alternative.

Lastly, like any legal issue, these questions about the relative virtues of indirect liability have to be evaluated dynamically. When the Ninth Circuit indicated that Napster would be liable for its role in online music piracy, new services arose to take Napster's place. Some of those services attempted to avoid liability by basing their operations outside the United States.[40] Others designed their technologies such that there was no clear central party to hold accountable in

40. *See, e.g.*, Todd Woody, *The Race to Kill Kazaa*, WIRED, Feb. 2003, at 103.

court.[41] These sorts of responses were both predictable and inevitable. They do not argue against indirect liability, but they cannot be ignored when deciding how much the copyright regime should rely on indirect liability as a substitute for other types of marginal incentives.

VI. CONCLUSION

When individuals infringe copyright, they often use tools, services, and venues provided by other parties. In this Article, we have considered the extent to which those other parties should be held liable for the resulting infringement. As we have emphasized, the main argument in favor of liability is that, although these parties are only indirectly responsible, they are typically in a good position to either prevent copyright infringement or pay for the harm it causes. The owner of a flea market, for instance, can discourage copyright infringement by screening would-be vendors and performing spot checks on transactions. Similarly, although firms that produce photocopiers might not be able to discourage piracy directly, they can easily build into their prices a small fee that could in turn be used to compensate injured copyright holders.

Indirect liability has a significant drawback, however, in that legal liability — even if carefully tailored — inevitably interferes with the legitimate use of implicated tools, services, and venues. So, while aggressive monitoring at flea markets would indeed aid in copyright enforcement, it would also raise the costs of running a flea market and in that way disrupt the market for secondhand goods and antiques. Similarly, increasing the price of photocopiers might create a pool of money from which to compensate authors, but the resulting higher prices would also impose an unavoidable harm: legitimate users would be less likely to purchase photocopiers. This concern is particularly pronounced for new technologies, where the implications of copyright liability are often difficult to predict. One can only wonder, for example, how different the Internet would look today had it been clear from that outset that, say, Internet service providers were going to be held accountable for online copyright violations.

Modern copyright law balances these tensions through a variety of common law doctrines and statutory provisions. In this Article, we have introduced those rules and evaluated them from an economic perspective. We have also endeavored to make clear how these issues

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41. Although it is unclear how helpful that strategy will prove. *See, e.g.,* Douglas Lichtman & David Jacobson, *Anonymity a Double-Edged Sword for Pirates On-line*, CHI. TRIB., Apr. 13, 2000, at 25 (suggesting that anonymous peer-to-peer file swapping can be defeated through the use of decoy files polluting the network); Lior J. Strahilovitz, *Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks*, 89 VA. L. REV. (forthcoming 2003) (emphasizing the fragility of the incentive to upload, as opposed to download, copyrighted music).

relate to the broader question of how the copyright system should encourage authors to create and distribute original work. The core insight is that every mechanism for rewarding authors inevitably introduces some form of inefficiency, and thus the only way to determine the proper scope for indirect liability is to weigh its costs and benefits against the costs and benefits associated with other plausible mechanisms for rewarding authors.