A Reverse Notice and Takedown Regime To Enable
Public Interest Uses of Technically Protected Copyrighted Works

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Introduction

The WIPO Copyright Treaty (WCT), concluded in 1996, recognizes “the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information” in updating international copyright norms to respond to challenges arising from advances in information and communications technologies, including global digital networks.1 The WCT implements this balance by affirming that existing exclusive rights, as well as exceptions to and limitations on those rights, can and should be applied to copyrighted works in digital forms.2 Indeed, nations are free “to devise new exceptions and limitations that are appropriate in the digital network environment.”3

The treaty also calls for nations to “provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights,”4 although such rules should not impede acts that are “permitted by law” or otherwise beyond the authority of copyright owners.5 The treaty gives no guidance, however, about how nations might implement this anti-circumvention norm so as to enable privileged and other public interest uses of copyrighted works.

While the WCT embodies a negotiated balance between copyright owners and users of digital works, the translation of this balance into the domestic laws of the United

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1 WIPO Copyright Treaty, CRNR/DC/96 (Dec. 20, 1996) (quoting preamble) (cited hereinafter as “WCT”).

2 Id., Arts. 6-8; Agreed Upon Statements Concerning the WIPO Copyright Treaty, CRNR/DC/96 (Dec. 23, 1996) (concerning Art. 1(4)) (cited hereinafter as “Agreed Statements”).  The WCT also reflects an international consensus that nations are entitled “to carry forward and appropriately extend into the digital environment limitations and exceptions in their national laws which have been considered acceptable under the Berne Convention.”  Agreed Statements, supra (statement as to Art. 10).

3 Id.


5 WCT, supra note 1, Art. 11.
States (U.S.) and European Union (EU) has not been fully successful. When enacting the Digital Millennium Copyright Act (DMCA) of 1998 as the U.S. implementation of the WCT, Congress achieved a reasonable balance of competing interests in its creation of safe harbors from copyright liability for Internet service providers (ISPs) and other intermediaries for the infringing acts of others. However, contrary to its apparent intention, Congress failed to achieve a similar balance of interests when establishing new rules forbidding circumvention of technical protection measures (TPMs) used by copyright owners to control access to their works and in regulating the manufacture and distribution of technologies primarily designed or produced to enable circumvention of copyright-protective TPMs.

Although the EU followed the U.S. lead in adopting DMCA-like rules that forbid circumvention and trafficking in circumvention tools, it diverged from the U.S. approach by explicitly requiring member states to fulfill a normative commitment to ensuring that certain public interest uses can be made of technically protected works. Article 6(4) of the EU Copyright Directive provides that member states must take “appropriate measures” to ensure that rights holders enable lawful users of copyrighted works to exercise certain exceptions or limitations provided for by national law, even when the works in question are technically protected. Unfortunately, the Directive contains some limits that seemingly undermine this commitment, and like the WCT, it provides little guidance about how member states might achieve this goal. National implementations of this directive thus far have not, in our judgment, adequately facilitated public interest uses of technically protected content nor fulfilled the normative commitment to parity in the ability to exercise exceptions and limitations.

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6 Maintaining a balance between the interests of copyright owners in having adequate protection for their works and the public in having access to and the freedom to use these works in non-infringing ways has long been a “bedrock principle” of U.S. copyright law and policy. See, e.g., H.R. Rep. No. 105-551 at 26 (1998); Chamberlain Group, Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1196 (Fed. Cir. 2004) (quoting legislative history of the DMCA).


10 17 U.S.C. § 1201 (2000). Part I will discuss various limitations on and exceptions to the DMCA anti-circumvention rules, including authorization of the Library of Congress to develop new exceptions and limitations; it will also show that these do not accomplish the needed balance.


12 Copyright Directive, supra note xx, Art. 6(4). We recognize that other commentators have been more skeptical than we are about the will to carry through with this normative commitment. See, e.g., Severine Dusollier, Fair Use by Design in the European Copyright Directive of 2001: An Empty Promise, 34 Int’l Rev. Indus. Prop. & Cop. L. 70 (2003); INSTITUTE FOR INFORMATION LAW, UNIVERSITY OF AMSTERDAM, STUDY ON THE IMPLEMENTATION AND EFFECT IN MEMBER STATES’ LAWS OF DIRECTIVE 2001/29/EC ON THE HARMONISATION OF CERTAIN ASPECTS OF COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION SOCIETY, FINAL REPORT 73 (FEBRUARY 2007) (COPYRIGHT DIRECTIVE IMPLEMENTATION STUDY).

13 See infra notes xx and accompanying text.

14 See infra notes xx and accompanying text.
The resulting imbalance in U.S. and EU member state anti-circumvention rules harms legitimate interests of the public in making fair uses, privileged uses, and other non-infringing uses of copyrighted works (which collectively we deem to be “public interest uses” of copyrighted works).15

We believe that the practical judicial and administrative measures can and should be devised to implement the spirit of the WCT in both the U.S. and EU without reopening the contentious debates that engulfed the process leading up to enactment of the DMCA and the EU Copyright Directive. To this end, we propose adoption of a “reverse notice and takedown” procedure to achieve the balance in anti-circumvention rules that the WCT endorsed, but which implementing legislation has thus far failed to deliver.16 Under this regime, users should be able to give copyright owners notice of their desire to make public interest uses of technically protected copyrighted works, and rights holders should have the responsibility to take down the TPMs or otherwise enable these lawful uses.

We call this a “reverse notice and takedown” process because, in an inversion of the notice and takedown procedure first developed through common law adjudication about ISP liability for wrongful acts of users,17 it is the user who will be giving notice and

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16 See infra Part II-B,C.

17 Religious Technology Center v. Netcom On-Line Communication Services, Inc., 907 F. Supp. 1361 (N.D. Cal. 1995). Netcom opined that Internet access and service providers were not liable for user infringements unless and until they had received notice about the existence of infringing materials on their sites and failed to investigate and take infringing materials down. Id. at 1373-76. (The Netcom decision is discussed infra notes xx and accompanying text.) This notice and takedown approach was later legislatively adopted in the U.S. and EU. Three of the four DMCA safe harbors for ISPs, for example, employ the judicially devised notice and takedown framework set forth in Netcom. See 17 U.S.C. § 512(b)-(d). (The fourth, § 512(a), creates a safe harbor for copies made in the course of transitory digital network transmissions for which notice and takedown is infeasible.) Directive 2000/31/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce in the Internal Market (Directive on
the content owner who will have a responsibility to take something down. A reverse notice and takedown regime would achieve for the anti-circumvention rules a comparable symmetry with the well-balanced ISP safe harbor rules. It would also effectuate the nascent, but not fully realized, legislative intent to permit public interest uses of technically protected digital content, while at the same time protecting copyright owners against circumvention of TPMs that would facilitate or lead to massive infringements.18

The article will demonstrate that a reverse notice and takedown mechanism is best understood as a principle capable of numerous implementations. In the U.S., the most


18 This proposal is developed in Part II-D.

32 See, e.g., Anupam Chander, Exporting DMCA Lock-outs, 54 Cleveland St. L. Rev. 205 (2006) (discussing imbalanced anti-circumvention rules that the US has insisted on in trade agreements with several nations).
likely way to achieve this goal is through judicial interpretation of the anti-circumvention rules through case by case adjudication. It was the judicial branch that introduced the fair use doctrine into U.S. law and also pioneered the notice and takedown rules to govern ISP liability. In the heated political climate in which the DMCA was enacted, the measured analysis developed in *Netcom* was invaluable in shaping ISP liability rules. No similarly careful judicial assessment was available in the late 1990’s to guide Congress about how to achieve an appropriate balance in the anti-circumvention rules. We believe that courts in the U.S. can and should be enlisted in bringing about a balanced approach for dual-use circumvention technologies akin to that developed for the dual-use technologies and services of ISPs. Recent decisions, moreover, provide the theoretical base upon which this case law evolution could occur

In the EU, by contrast, member states could implement a reverse notice and takedown regime in the course of fulfilling their obligations under the Copyright Directive, including Article 6(4) which requires them to ensure that users of technically protected works can exercise public interest exceptions. Although it is not possible in either the U.S. or the EU to write anti-circumvention rules on a completely blank slate, there is flexibility in the legal cultures of both entities to implement a reverse notice and takedown procedure to achieve needed balance in anti-circumvention regulations. Nations that have yet to implement the WCT may find our proposed reverse notice and takedown regime a far more balanced way to comply with the treaty than the approach being promoted by U.S. trade negotiators.32

Part I of this article discusses the legislative history of the DMCA and the checks and balances embodied in its ISP safe harbor and anti-circumvention rules. It shows that the notice and takedown regime under § 512 has achieved a reasonable balance in the regulation of ISPs for wrongful acts of users, but that § 1201 lacks a similar balance. Crabbed interpretations of § 1201 have, moreover, made the DMCA anti-circumvention rules seem even more imbalanced than its express provisions require.36 Part II argues that a reverse notice and takedown regime would provide a needed balance in the U.S. anti-circumvention rules and shows that there is sufficient flexibility in the existing U.S. legal framework for courts to fashion the proposed reverse notice and takedown regime. Part III argues that member states of the EU should likewise consider adopting a reverse notice and takedown regime as a sound way to effectuate the duty that the Copyright Directive imposes on them to ensure that users are able to enjoy copyright exceptions and limitations that have been granted under national laws notwithstanding the use of TPMs to control access to and uses of copyrighted works.37 Because the EU imposed this duty, yet deferred to national judgments about how to fulfill it, EU member states would seem to have more flexibility to experiment with different ways to implement a reverse notice and takedown regime than the U.S. presently does. Part III discusses some of the available options.

37 Copyright Directive, supra note 3, Art. 6(4).
I. Checks and Balances in the ISP Safe Harbors and Anti-Circumvention Rules

The WIPO Copyright Treaty was the end-product of an international conversation about updating copyright laws for the digital age that got started when the Clinton Administration published its “White Paper” on Intellectual Property and the National Information Infrastructure in September 1995. No checks and balances were built into this document. Among other things, the White Paper opined that Internet service and access providers were and should be strictly liable for copyright infringement of their users on account of the temporary copies made in random access memory of their computers. ISPs were, in the White Paper’s view, in a far better position to monitor and control user infringements than copyright owners. The prospect of liability would give them strong incentives to ensure that their sites were not being used for infringing purposes and to develop technologies to deter infringements.

The White Paper also recommended legislation to outlaw technologies, the primary purpose or effect of which was to bypass TPMs used by copyright owners to protect their works. Without such protection, the White Paper warned, copyright owners would not be willing to make their works available in digital form. The White Paper contemplated no public policy exceptions to or limitations on the proposed anti-circumvention rules, a strategy that generated considerable opposition and criticism. This section will discuss the different ways that Congress responded to criticisms of the White Paper’s proposed ISP and anti-circumvention liability rules.

A. ISP Safe Harbor Provisions

Congress had already begun to consider whether ISPs should be liable for wrongful acts of their users, such as libelous postings on bulletin board services, at the time the White Paper was published. In 1996, as part of a telecommunications

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40 Id. at 117.

41 Id. at 117-18.

42 Id. at 230-35.


regulation reform measure, the telecom industry got a broad grant of immunity from liability for user wrongs. The industry successfully argued that imposing liability on ISPs for wrongful acts of which they were unaware was unfair and unwise. Requiring them to monitor their sites for wrongful activity would not only interfere with user privacy and freedom of expression interests, but it would also increase dramatically the cost of Internet access. Self-regulation would be a more effective way to create incentives for ISPs to ensure that their sites were being used for lawful purposes. At the copyright industry’s insistence, Congress carved out an exception to the Communications Decency Act’s (CDA) immunity provision for intellectual property violations.

Having won a broad grant of immunity in the first round of the fight over ISP liability for wrongful acts of users, the telecom industry had reason to be optimistic that it could persuade Congress to reject the White Paper’s contention that this industry should be held strictly liable for copyright infringements, by advancing the same arguments used to gain immunity under the CDA. ISP technology platforms were, moreover, “dual use” technologies, that is, they could be as easily used for lawful as for unlawful purposes. Under the Supreme Court’s decision in Sony Corp. of Am. v. Universal City Studios, Inc., ISP platform technologies seemed to qualify for the safe harbor that Sony carved out for technologies having substantial non-infringing uses.

The telecom industry’s chances for averting the strict liability rule proposed in the White Paper were substantially aided by two pre-DMCA developments. One was the Netcom decision, which rejected the White Paper’s strict liability theory. A second was an international repudiation of a similar proposed strict liability rule for Internet intermediaries that the U.S. initially supported at the diplomatic conference that produced Compuserve because it did not monitor user postings); but see Stratton Oakmont, Inc. Prodigy Services Co., 1995 WL 323710 (N.Y. Sup. Ct. 1995) (refusing to dismiss a lawsuit similar to Cubby because Prodigy had monitored some user postings thus could monitor for defamation as well). The telecommunications industry became concerned that it would regularly be held liable for wrongful acts of users insofar as it policed its site for any reason. The Stratton Oakmont decision was issued while Congress was deciding what to do about telecommunications policy reform. The industry lobbied hard for Congressional preemption of decisions such as Stratton Oakmont. The House Conference report makes clear that “[o]ne of the specific purposes of [section 230] is to overrule…decisions which have treated such providers and users as publishers or speakers of content that is not their own.” H.R. Conf. Rep. No. 104-458 at 94 (1996).

45 Telecommunications Policy Act of 1996, P.L. No. 104-104, 110 Stat. 56 (1996), Title V of which was the Communications Decency Act. The immunity provision is now codified at 47 U.S.C. § 230(c)(1) (“No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information provider.”).

46 The rationale for this grant of immunity is discussed in Zeran v. America Online, 129 F.3d 327 (4th Cir. 1997).

47 47 U.S.C. §. 230(e)(2). The Ninth Circuit has recently ruled that this limitation on CDA immunity applies only to federal intellectual property laws. See Perfect 10, Inc. v. CC Bill LLC, 481 F.3d 751, 2007 WL 1557475 at 32-33 (9th Cir. 2007) (CDA immunity provision to state right of publicity claims).

48 See supra for text accompanying note xx for the rationale for the CDA immunity.


the WCT. An agreed upon statement on the treaty even made clear that “mere provision of physical facilities for enabling or making a communication does not in itself amount to communication” under the treaty. ISPs could point to the international consensus against the strict liability rule when arguing for a more balanced rule before Congress.

The Netcom decision was a pivotal development in the legislative drama that led to creation of the DMCA safe harbors. In response to the copyright owner’s

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51 The Clinton Administration had supported a draft treaty provision under which ISPs would have been strictly liable for temporary copies of infringing materials passing through their computers. See Samuelson, supra note xx, at 383-92 (discussing debate over ISP liability at the WIPO diplomatic conference).

52 Agreed Statements, supra note 2, quoting statement concerning Article 8.

53 Netcom, 907 F. Supp. at 1364-66. Litigation ensued after Dennis Ehrlich, a former minister of the Scientology religion, turned vocal critic, posted portions of the writings of L. Ron Hubbard in an alt.religion.scientology Usenet newsgroup. RTC, owner of the relevant copyrights, sued Ehrlich, Thomas Klemsrud, the operator of a bulletin board service (bbs) on which Ehrlich had made the postings, and Netcom, the Internet access provider for Klemsrud’s bbs, for copyright infringement. Id. at 1366.

54 Netcom, 907 F. Supp. at 1368. In support of its direct infringement claim, RTC relied upon the White Paper, the Ninth Circuit’s decision in MAI Systems Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993), which held that temporary copies of copyrighted works made in the random access memory of computers were infringing reproductions of the works unless authorized by the copyright owner or the law, id. at 518, and Playboy v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993), which held the operator of a bbs directly liable for infringing copies of Playboy bunny pictures that users had up- and downloaded to and from the bbs. The White Paper had also relied upon MAI in support of its view that all temporary as well as permanent copies of works in digital form were copyright-significant acts and upon Frena in support of its view that ISPs were directly liable for user infringements. See White Paper, supra note xx, at 64-66, 120.
direct infringement claim against Netcom, the alleged infringer’s Internet access provider, Judge Whyte identified the question in the case as “whether possessors of computers are liable for incidental copies automatically made on their computers using their software as part of a process initiated by a third party.” Judge Whyte decided that RTC’s direct infringement theory was an unreasonable interpretation of copyright law, for it would logically lead to imposing liability on owners of “every single Usenet server in the worldwide link of computers transmitting Erlich’s message to every other computer.” Before direct liability could be imposed on an Internet access provider, there needed to be proof of “some element of volition or causation,” proof “which is lacking where a defendant’s system is merely used to create a copy for a third party.”

While Judge Whyte agreed with Netcom that it should not be held contributorily liable for Ehrlich’s infringement before receiving notice about it, he took issue with Netcom’s assertion that RTC’s notice of Ehrlich’s infringement was “too equivocal given the difficulty in assessing whether registrations are valid and whether a use is fair.” While “a mere unsupported allegation of infringement by a copyright owner may not automatically put a defendant on notice of infringing activity,” Judge Whyte opined, “Netcom’s position that liability must be unequivocal is unsupportable.” Upon receipt of a proper notice, Judge Whyte thought that Netcom had a duty to investigate the claim of infringement and to take the material down if the claim was valid. Failure to do this was a substantial contribution to user infringement that, if proven, would justify contributory infringement liability.

Two of the DMCA safe harbors are codifications of the Netcom ruling: 512(a) exempts service providers from liability for incidental copies made in the course of network transmission of digital content on behalf of users, and 512(c) exempts copies made in storing information for users except when providers have received proper notice of infringement from the copyright owner and failed to investigate the charges and remove infringing materials. Congress also created safe harbors for caching of digital content.

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63 Id. at 1370. Judge Whyte also granted Netcom’s motion for summary judgment on RTC’s vicarious liability claim. Although the judge was skeptical of Netcom’s claim that it lacked the ability to supervise and control users’ postings, the vicarious claim was unsustainable because Netcom had not received any direct financial benefit from user infringements. Id. at 1375-77.
64 Id. at 1374. “To require proof of valid registration would be impractical and would perhaps take too long to verify, making it impossible for a copyright holder to protect his or her works in some cases…” Id.
65 Id.
66 Id. at 1374-75. There being a triable issue of fact on the adequacy of RTC’s notice to Netcom and the reasonableness of Netcom’s response, the latter’s motion for summary judgment on the contributory infringement claim failed. Id. The White Paper had not considered a notice and takedown regime as a way to balance competing interests in ISP liability cases.
68 Id., § 512(c).
content to enable faster service to users and for information locating tools (e.g., search engines) that might connect users to infringing materials.\textsuperscript{71} The information storage, caching, and information location tool safe harbors have notice and takedown requirements akin to that articulated in \textit{Netcom}.\textsuperscript{72}

The DMCA safe harbors represented a major victory for telecom and Internet industry groups, given that major copyright industry groups had wanted service providers to be strictly liable for infringing acts of users. Other concessions to ISPs granted in the course of legislative negotiations over the DMCA safe harbors included a specification of what constitutes adequate notice from copyright owners before the duty to investigate arises,\textsuperscript{73} a counter-notice regime so that users can ask to restore information initially taken down in response to a complaint of infringement,\textsuperscript{74} an immunity for taking information down based on a good faith belief that it should be taken down,\textsuperscript{75} limitations on injunctive relief,\textsuperscript{76} and a clarification that service providers were not obliged to monitor their sites for infringing materials.\textsuperscript{77}

Copyright industry groups got some concessions as well. ISPs could rely on the safe harbors only if they had adopted and reasonably implemented policies to terminate repeat infringers, and if they accommodated standard technical measures that might be developed in the future for the protection of digital copyrighted works.\textsuperscript{78} ISPs were also obliged to publicly designate an agent to whom notices of infringement could be sent.\textsuperscript{79} The DMCA also authorized copyright owners to seek subpoenas to require service providers to disclose names and other identifying information about ISP subscribers whom copyright owners alleged were infringers.\textsuperscript{80}

\textsuperscript{71} Id., §§ 512(b) (caching safe harbor), 512(d) (information location tool safe harbor). As mentioned above, the EU found notice and takedown to be a balanced approach to ISP liability in its E-Commerce Directive, which like the DMCA, provides a safe harbor for transmission, caching, and information storage. It has no counterpart, however, to §512(d). E-Commerce Directive, supra note xx, art. 12-14.
\textsuperscript{72} 17 U.S.C. §§ 512(b)(2)(E), 512(c)(1)(A), 512(d)(1).
\textsuperscript{73} Id., § 512(e)(3). The Ninth Circuit gave this requirement some teeth in a recent secondary liability case. See . See \textit{Perfect 10}, Inc. v. CC Bill LLC, 481 F.3d 751, 2007 WL 1557475 at 15-16 (9th Cir. 2007) (“In order to substantially comply with sec. 512(e)(3)’s requirements, a notification must do more than identify infringing files. The DMCA requires a complainant to declare, under penalty of perjury,...that he has a good faith belief that the use is infringing..., Permitting a copyright holder to cobble together adequate notice from separately defective notices [...] unduly burdens service providers.”).
\textsuperscript{74} Id., § 512(g)(2)-(3).
\textsuperscript{75} Id., § 512(g)(1).
\textsuperscript{76} Id., § 512(j)(1)-(2).
\textsuperscript{77} Id., § 512(m).
\textsuperscript{78} Id., § 512(i). See \textit{Perfect 10}, 481 F.3d at xx (discussing the reasonable implementation requirement).
\textsuperscript{79} 17 U.S.C. § 512(c)(2).
\textsuperscript{80} Id., § 512(h). But see \textit{Recording Industry Ass’n of Am. v. Verizon Internet Services, Inc.}, 351 F.3d 1229 (D.C. Cir. 2003)(RIAA not authorized to obtain subpoena identifying information as to file-sharers whose communications Verizon transmitted; §512(h) allows subpoenas as to §512(c) storage of information, not as to §512(a) transmissions of information).
The DMCA safe harbors have proven to be effective for run-of-the-mill copyright infringement cases involving users and their ISPs. Copyright owners have incentives to monitor Internet sites for infringing materials and to provide appropriately detailed information to ISPs so that the infringing material can be taken down. Copyright owners are deterred from sending false or overreaching notices of infringement not only by provisions of the DMCA that penalize wrongful notices, but also by the prospect of “bad” publicity if they send improper or overreaching notices. ISPs have incentives to cooperate with copyright owners in the notice and take down process and to terminate repeat infringers lest they lose the safe harbor provided by the DMCA.

While there is some empirical evidence that ISPs are perhaps quicker than they should be to take materials down upon notice and that the counter-notice procedures are too rarely invoked, ISPs and copyright owners have generally been able to conduct their businesses within the framework of the notice and takedown regime of the DMCA safe harbors. Viacom’s recent copyright infringement lawsuit against YouTube will test how secure the DMCA safe harbors really are, but it will not be surprising if the court tells Viacom that it should take its complaint to Congress, as it is essentially trying to achieve through litigation a level of high responsibility for user infringements that the copyright industry was unable to get from Congress in 1998. Leaving aside the Viacom lawsuit, the past decade of experience with the DMCA notice and takedown regime suggests that a relatively balanced and workable solution to this particular dual use technology problem has been found.

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87 See, e.g., CoStar Group, Inc. v. LoopNet, Inc., 373 F.3d 544 (4th. Cir. 2004)(rejecting copyright owner arguments for intermediary liability as having been resolved by DMCA safe harbors).
B. Anti-Circumvention Provisions

The White Paper anticipated that many copyright owners would find it desirable to use technical protection measures (TPMs) for digital media products or services intended for distribution via global digital networks; yet, it also recognized that clever technologists would be able to build tools to bypass these TPMs, thereby making digital works vulnerable to infringements.89 To offer greater security to TPM-protected content, the White Paper recommended enactment of a ban on technologies, “the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent” technical measures used by copyright owners to protect their works.90:

The White Paper offered very little policy analysis in support of this ban.92 It dismissed as misguided expressions of concern about impacts of anti-circumvention rules on the public domain and fair and other privileged uses of copyrighted works.93 Clinton Administration officials also proposed that a virtually identical provision should be included in the WCT.94

89 White Paper, supra note xx, at 230.
90 The White Paper’s proposal was: “No person shall import, manufacture or distribute any device, product, or component incorporated into a device or product, or to offer or perform a service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without authority of the copyright owner or the law, any process, treatment, mechanism, or system which prevents or inhibits the exercise of any of the exclusive rights under Section 106.” Id., Appendix 1 at 6.
92 Id. at 230. (“The Working Group finds that prohibition of devices, products, components, and services that defeat technological methods of preventing unauthorized use is in the public interest and furthers the Constitutional purpose of copyright laws. Consumers of copyrighted works pay for the acts of infringers; copyright owners have suggested that the price of legitimate copies of copyrighted works may be higher due to infringement losses suffered by copyright owners. The public will also have access to more copyrighted works if they are not vulnerable to the defeat of copy protection systems.”)
93 Id. at 231-32.
98 464 U.S. 417 (1984). The White Paper did not mention that its anti-circumvention rule would partially overturn the Sony safe harbor for technologies with substantial non-infringing uses. The White Paper mischaracterized Sony as a case in which the absence of a market for home-taping had led the Court to conclude that time-shift copying of television programs was fair use. White Paper, supra note xx, at 79.
1. The Sony Safe Harbor for Dual Use Technologies Was the Pre-DMCA Background Rule

The radical nature of the White Paper’s proposed anti-circumvention rule can best be appreciated by contrasting it with the safe harbor for technologies with substantial non-infringing uses set forth in Universal City Studios, Inc. v. Sony Corp. of Am.98 Sony was the first case to consider whether copyright owners could hold technology developers indirectly liable for user infringements on the ground that the primary purpose or effect of the challenged technologies was to facilitate unauthorized copying of copyrighted works.100

Universal sued Sony for contributory infringement in 1976, shortly after Sony introduced the Betamax video tape recorder (VTR) to the market, claiming that Sony knew that the primary use of its Betamax machines would be to make unauthorized, and hence infringing, copies of copyrighted works, such as movies shown on broadcast television.101 Indeed, Sony’s advertisements encouraged the public to purchase Betamax machines in order to copy favorite programs.102 In 1981, the Ninth Circuit Court of Appeals ruled in Universal’s favor, holding that making copies of copyrighted television programs, even for time-shifting purposes, was copyright infringement, and that Sony had knowingly contributed to that infringement because the primary use of Betamax machines was to make such copies.103 In 1984, the Supreme Court reversed, holding that time-shift copying of TV programs was fair use and that Sony was not liable for contributory infringement on account of the substantial non-infringing uses for Betamax machines.104

Justice Stevens, writing for the Court in Sony, observed that the only theory on which Sony could be held liable was “that it has sold equipment with constructive knowledge that its customers may use that equipment to make unauthorized copies of copyrighted material.”105 There was, however, “no precedent for imposition of [secondary] liability on such a theory,”106 nor any basis in the copyright statute.107 Holding Sony liable on this theory was unwarranted, moreover, because of its significant impacts on other parties, including copyright owners who approved of time-shift copying

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98 The history of this lawsuit is told well in JAMES LARDNER, FAST FORWARD: A MACHINE AND THE COMMOTION IT CAUSED 5-106 (rev. ed. 2002).
99 Sony, 464 U.S. at 459.
100 Id.
101 Universal City Studios, Inc. v. Sony Corp. of Am., 659 F.2d 963, 971-72 (9th Cir 1981).
102 Sony, 464 U.S. at 447-56.
103 Id. at 439.
104 Id.
105 Justice Stevens pointed out that U.S. copyright law “does not expressly render anyone liable for infringement committed by another.” Id. at 434. Universal argued that “Kalem [Co. v. Harper Bros., 222 U.S. 55 (1911)] stands for the proposition that supplying the ‘means’ to accomplish an infringing activity and encouraging that activity through advertisement are sufficient to establish liability for copyright infringement.” Sony, 464 U.S. at 436. This was, Justice Stevens opined, a “gross generalization that cannot withstand scrutiny.” Id.
of their programs by Betamax users, members of the public who wanted access to such technologies to make authorized and fair uses of them, and of course, Sony and other technology developers who wanted to make and sell these technologies. 108 “When a charge of contributory infringement is predicated entirely on the sale of an article in commerce that is used by the purchaser to infringe [an intellectual property right], the public interest in access to that article is necessarily implicated.”109

Sony recognized that Congress had resolved a similar tension in patent law by imposing contributory liability on technology developers only when they made and sold devices that had been “especially made or especially adapted for use in an infringement of [] a patent.”110 Congress had created a statutory safe harbor from contributory liability for dual use technologies, statutorily characterized as “staple articles of commerce,” that is, technologies that are “suitable for substantial non-infringing use”111 because of the legitimate public interest in having access to staple articles of commerce in order to enjoy them for their non-infringing purposes. Invoking an “historic kinship” between copyright and patent law,112 the Court decided such a safe harbor was appropriate for copyright law as well as for patent law. “The sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement,” Sony opined, “if the product is widely used for legitimate unobjectionable purposes,”115 Indeed, “it need merely be capable of substantial non-infringing uses.”116 Because the Betamax had substantial non-infringing uses for time-shift copying of television programs, the Court ruled that Sony could not be held secondarily liable for any infringing acts of users of these machines.117

In the twenty-some years since the Sony decision, the information technology and the copyright industries have flourished.118 The Sony safe harbor has been an important contributor to the success of both industries. Consumer electronics industry

108 Id. at 434-42.
109 Id. at 440-41. This was particularly significant because by the time the Court heard oral argument in Sony for the second time, 9.5 million American households had Betamax machines; under Universal’s theory, virtually every Betamax user was a copyright infringer, and Sony’s potential liability was vast. Counsel for Sony led off his oral argument with this fact. See Jessica Litman, The Sony Paradox, 55 Case W. Res. L. Rev. 917, 940 (2005). The potential for statutory damages for which Sony and/or owners of Betamax machines might be liable if Universal’s theory was accepted was staggeringly large.
115 Id.at 442.
116 Id.
117 Id. at 456.
representatives speak of the Sony safe harbor as the “Magna Carta” for their industry.\textsuperscript{119} Universal and other motion picture producers benefited by the installed base of Betamax and other VTRs which created opportunities for a wholly new lucrative market for copyrighted motion pictures, the sale of video cassettes of movies that could be played in VTR machines.\textsuperscript{120} Many other new technologies, including notably the iPod, have similarly allowed both information technology and copyright industries to achieve mutual success.\textsuperscript{121}

Although Congress has been persuaded on two occasions to deviate from the Sony safe harbor in very narrowly drawn circumstances,\textsuperscript{122} it has rejected other legislative proposals aimed at giving copyright owners greater control over dual use technologies.\textsuperscript{123} Courts also denied relief to some who sought to expand technology developer liability. In Vault Corp. v. Quaid Software, Ltd.,\textsuperscript{124} for instance, the maker of the Prolok copy-protection software sued Quaid, the maker of Ramkey software that bypassed Prolok, claiming Quaid was a secondary copyright infringer because the primary use of its software was likely to be making infringing copies of Prolok-protected software. The court invoked the Sony safe harbor as a basis for denying Vault’s claim because Ramkey was a dual use technology that enabled purchasers of software products to make lawful backup copies.\textsuperscript{125} Yet, when presented with technologies lacking in substantial non-infringing uses, courts followed Sony and imposed liability for infringements thereby enabled.\textsuperscript{126}

The White Paper sought to instantiate a new rule for technology developer liability as to so-called circumvention technologies based on the “primary use” of the technology,\textsuperscript{127} an approach quite similar to the technology developer liability rule that Supreme Court had rejected in Sony because as too unbalanced. Soon after enactment of the DMCA, the entertainment industry commenced litigation against peer-to-peer (p2p) file sharing software developer Napster with the aim of overturning the rest of the Sony

\textsuperscript{119} Litman, supra note xx, at 951. Although there is considerable support for the Sony safe harbor among academics as well as among technology developers, see, e.g., IP Professor Amicus Brief, supra note xx, Brief Amicus Curiae of Intel Corp. in Support of Petitioner, www.eff.org/IP/P2P/MGM v Grokster/20050301_inel.pdf, there are also some critics. See, e.g., Menell & Nimmer, supra note xx; William M. Landes & Douglas G. Lichtman, Indirect Liability for Copyright Infringement: An Economic Perspective, 16 Harv. J. L. & Tech. 395 (2003).

\textsuperscript{120} Lardner, supra note xx, at 297-313.

\textsuperscript{121} See, e.g., Intel Amicus Brief, supra note xx.

\textsuperscript{122} See 17 U.S.C. sec. 1002 (prohibition on manufacture and sale of digital audio recording technologies unless they incorporated serial copy management technologies); 47 U.S.C. sec. 605(e)(4)(outlawing development and distribution of satellite cable decoder boxes). These narrow exceptions to the Sony safe harbor are discussed in Samuelson, Generativity, supra note xx, at 1858-62.


\textsuperscript{124} 847 F.2d 255 (5th Cir. 1988).

\textsuperscript{125} Id. at 266.

\textsuperscript{126} See, e.g., A&M Records, Inc. v. Abdallah, 948 F. Supp. 1449 (C.D. Cal. 1996)(secondary liability imposed because alleged non-infringing uses were insubstantial).

\textsuperscript{127} See supra note xx and accompanying text.
safe harbor for technologies with substantial non-infringing uses.128 In cases against p2p file-sharing technology developers, the entertainment industry urged the courts to adopt a “primary use” theory of technology developer liability for user infringements.129 Part II will discuss why the latter effort was unsuccessful, but for now, it suffices to say that the White Paper proposal for regulating technologies based on their primary purpose or use was a radical departure from the *Sony* safe harbor background rules in place in 1995.130

2. Technology Developer Responses to the White Paper Anti-Circumvention Rule

Information technology developers raised numerous concerns about the White Paper’s proposed anti-circumvention rule.131 For one thing, it was vague about what kinds of “processes” and “treatments” it was designed to protect. For another, its willingness to penalize technology developers based on “primary effect” meant that developers risked liability based on what users did with the technology, rather than based on what the technology had been designed to do. The proposed rule also lacked exceptions for legitimate acts such as building tools to bypass TPMs for law enforcement, national security, or computer security research purposes. It could, moreover, be interpreted as outlawing development of reverse engineering technologies to enable interoperability among computer programs.

The greatest concern of technology developers, however, was that the provision might be construed as imposing a duty on them to detect and enforce any TPM that copyright owners might use to protect their works in digital form. The most vigorous technology industry lobbying about anti-circumvention rules concentrated on getting statutory clarification that they had no obligation to design technologies to respond to copyright-protective TPMs.

The technology industry’s opposition to the proposed anti-circumvention rule contributed to a stall in the initial legislative efforts in 1995 and 1996 to enact the White

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130 Although the White Paper did not acknowledge that its proposal would have any impact on the *Sony* safe harbor, Mary Beth Peters, the Register of Copyrights, did so in the course of the legislative debate that led up to the DMCA. See Statement of Marybeth Peters, The Register of Copyrights, on WIPO Copyright Treaties Implementation Act (H.R. 2281) and On-Line Copyright Liability Limitation Act (H.R. 2180), before the Subcommittee on Courts and Intellectual Property Committee on the Judiciary, H. Rep., 105th Congress, 1st Sess. (Sept. 16, 1997), available at http://www.copyright.gov/docs/2180_stat.html.
131 The technology industry objections to the White Paper proposed anti-circumvention rule are discussed at length in Samuelson, supra note xx, at 531-34, 546-557. Some in the technology industry, including the Business Software Alliance and its members, ultimately supported the DMCA anti-circumvention rules because they were more narrowly tailored than the White Paper proposal and because these developers sometimes use TPMs to control access to their works and did not want others to build tools to circumvent them.
Paper’s recommendation. Another setback occurred in December 1996 when opposition to a White Paper-like ban on circumvention technologies caused it to be dropped from the final version of the WCT. Many delegations at the WIPO diplomatic conference were concerned that the proposed anti-circumvention rule would chill development of dual use technologies and impede fair and other non-infringing uses of copyrighted works and public domain materials. To avert these baleful effects, the treaty required only that contracting parties provide “adequate protection” and “effective remedies” against circumvention of TPMs, seemingly leaving the mode and extent of implementation of this norm to national discretion.

Congressmen Tom Campbell and Rick Boucher proposed to implement this treaty obligation with a minimalist anti-circumvention rule aimed at outlawing circumvention of a TPM for purposes of facilitating or engaging in infringing activities. This bill was unacceptable to copyright industry groups, who favored adoption of a broad ban on circumvention technologies, akin to the proposal that had been rejected at WIPO, to serve as a standard for international implementation of the WIPO treaty anti-circumvention norm.

The Clinton Administration’s post-treaty anti-circumvention proposal responded to technology industry concerns in several ways: by becoming more precise about the technical measures the rule was designed to protect; by defining circumvention; and by outlawing only technologies that were “primarily designed or produced” to circumvent TPMs, that had only limited uses other than for circumvention, or that had been marketed as circumvention tools. It also contained an exception for national security and law enforcement activities. Further lobbying led to creation of exceptions for encryption research, computer security testing, and reverse engineering to achieve interoperability. The technology industry also got the “no mandate” clause that had been its top priority. Section 1201(c)(3) provides that the law does not “require that the design of, or design and selection of parts and components for, a consumer electronics, telecommunications, or computing product provide for a response to any particular technological protection measure.”

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132 Id. at xx.
133 See Samuelson, supra note xx, at 409-416 (discussing opposition to the proposed WIPO treaty anti-circumvention provision).
134 Id.
135 WCT, supra note 1, Art. 11.
137 See, e.g., Chander, supra note xx, at 541-42 (discussing stronger than DMCA anti-circumvention rules being negotiated by the U.S. in free trade agreements with other nations).
139 Id.
140 Id., § 1201(a)(2), 1201(b)(1).
141 Id., § 1201(e).
142 Id., § 1201(g), 1201(j).
143 Id.§. 1201(f).
144 Id., § 1201(c)(3).
Given how hard the copyright industries fought against inclusion of any exceptions to 1201—beyond that for law enforcement and national security activities—especially the “no mandate” rule, it is notable that technology industry objections led to substantial changes in the circumvention technology rules. Still, it was a major victory for the entertainment industry that the DMCA anti-circumvention rules premise technology developer liability on a “primarily designed or produced” standard. Copyright industry representatives were pleased with the DMCA also because, on its face, § 1201 does not appear to require any proof that the availability of a circumvention tool enabled copyright infringement or even created a grave risk of infringement. The exceptions are, moreover, complex and ambiguous enough to be susceptible to dismissive interpretations.

3. Circumvention to Engage in Public Interest Uses of Technically Protected Works

The most troubling part of the legislative history of the DMCA anti-circumvention rules is the manner in which Congress dealt with the threat that TPMs posed for the public’s ability to engage in fair and other non-infringing uses of copyrighted works protected by TPMs. As we shall see in Part III, the EU implemented the WCT anti-circumvention norm by making a normative (if incomplete) commitment to ensuring that copyright exceptions and limitations on the scope of exclusive rights must be made as available when copyrighted works are protected by TPMs as when they are not. No similar commitment is apparent in the DMCA rules, although there is ample, if somewhat equivocal, evidence that Congress had tried to assure itself through various measures that it was preserving opportunities for fair and other privileged uses of technically protected digital content.

The initial threat posed to fair and other public interest uses of technically protected copyrighted works by the White Paper was somewhat indirect. It did not propose to regulate the act of circumvention at all, but its proposal to ban circumvention technologies affected public interest circumventions insofar as circumvention tools were necessary to engage in public interest uses of content wrapped in TPMs. From the

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146 For a discussion of numerous examples of the ill effects arising from the overbreadth of the DMCA anti-circumvention rules, see Electronic Frontier Foundation, Unintended Consequences: Seven Years under the DMCA (as updated April, 2006), http://www.eff.org/IP/DMCA/?f=unintended_consequences.html.
147 See, e.g., NATIONAL RESEARCH COUNCIL, THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY RIGHTS IN AN INFORMATION AGE 171-76 (2001)(raising objections to the complexity and narrowness of the DMCA encryption research exception). Under the Reimerdes decision, a journal publisher could arguably be held liable for violating the DMCA anti-circumvention laws even if the author of an encryption research article it planned to publish qualified for the DMCA exception because the publisher was not itself an encryption researcher. Reimerdes, 111 F. Supp. 2d at 320. See Pamela Samuelson, Anti-Circumvention Rules: Threat to Science, 293 Science 2028 (Sept. 2001).
148 See infra Part III (discussing limits that have hampered the effectiveness of Article 6(4) in achieving this objective).
150 See, e.g., Julie E. Cohen, Copyright and The Jurisprudence of Self-Help, 13 BERKELEY TECH. L.J. 1089 (1998). Yet, perhaps building a circumvention tool to for public interest purposes could be defended as
standpoint of copyright owners, however, circumvention technologies that enabled fair or other public interest uses of technically protected works were dangerous because they were too likely to enable infringements. A broad ban of circumvention technologies was, they argued, necessary to protect against massive infringements.

It was not until 1997 that the Clinton Administration proposed a ban on the act of circumventing TPMs used by copyright owners to protect their works.152 The bill distinguished between two types of TPMs: those used to control access to copyrighted works and those used to protect “a right of a copyright owner” in a work protected by copyright law.153 Its sponsors did not explain why the bill made the distinction between these two types of TPMs, nor why it proposed banning circumvention of access controls, but not of other TPMs. A coalition of organizations, including libraries, educational institutions, and some public interest nonprofit organizations raised concerns about the direct impacts that such a ban would have on fair and other non-infringing uses of copyrighted works in digital form, on access to public domain materials, and on user privacy interests.154 These concerns did not, however, get as much traction with members of Congress as concerns about overbroad ISP liability, in part perhaps because the lobbying clout of these nonprofits was minute in comparison with the heft of the copyright, telecom, and technology industries, and in part perhaps because deployment of TPMs to protect copyrighted works was in early stages, so concerns about impediments to fair and other privileged uses may have seemed speculative.155

Yet, if one knows where to look, there is considerable evidence of Congressional concern about enabling public interest uses of technically protected content. By regulating only circumvention of access controls,156 Congress decided, albeit implicitly, that circumvention for fair use and other public interest purposes should be lawful. Congress also created three special public interest exceptions, including one for libraries, archives, and educational institutions to bypass TPMs to make a good faith effort to decide whether to buy the TPM’d content if circumvention was necessary to achieve this authorized by the law, even if not by the copyright owner. Id. at 1142, n. 200. If so, it might have been outside the White Paper’s anti-circumvention ban which recognized both sources of authority as relevant to the scope of the ban.

153 The distinction between the two types of TPMs is evident in the bifurcation of the anti-tool rules. See id., sec. xx, yy. The DMCA, as enacted, has retained this distinction. See 17 U.S.C. sec. 1201(a)(2), 1201(b)(1).
155 The important role of the House Commerce Committee in inserting some balance in the anti-circumvention rules is related in Samuelson, supra note 5, at 541-43.
156 17 U.S.C. § 1201(a)(1)(A). See Ginsburg, supra note 5, at 6 (1201 “does not prevent the act of circumventing a rights control”). Ginsburg believes that the decision not to regulate circumvention of rights controls was intended to leave room for fair uses of technically protected works. Id. at 10.
objective,\textsuperscript{157} one that aims to protect user privacy interests implicated by TPM’d content, and a third that buttresses parental control over minors.\textsuperscript{158}

A more general indication of Congressional concern about the impact of § 1201 on fair and other privileged uses can arguably be found in § 1201(c)(1) which states that “[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title.”\textsuperscript{159} Some members of Congress who spoke about the anti-circumvention rules during the legislative debate over the DMCA seemed genuinely to believe this provision was a “savings clause” to enable fair and other privileged uses of technically protected copyrighted works.\textsuperscript{160}

Finally, Congress established a triennial rulemaking process under which the Librarian of Congress (LOC) is directed to examine “the impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship, or research.”\textsuperscript{161} The Librarian is authorized to create new exceptions from the ban on circumvention to enable public interest uses of copyrighted works when users of certain classes of copyrighted works show they “are, or are likely to be, adversely affected” by the use of TPMs.\textsuperscript{162}

Much contested is whether these provisions of the anti-circumvention rules meaningfully contribute to an adequate balance of public and private interests in the DMCA. The first decision to have considered this question was Universal City Studios, Inc. v. Reimerdes,\textsuperscript{163} in which Judge Lewis Kaplan concluded that Congress had considered, and decided against, allowing circumventions for fair use or other privileged purposes. “If Congress had meant the fair use defense to apply to [anti-circumvention] actions, it would have said so. The decision not to make fair use a defense to a claim under § 1201(a) was quite deliberate.”\textsuperscript{164}

In affirming an injunction against posting or linking to software designed to bypass the Content Scramble System (CSS) protecting DVD movies, the Second Circuit rejected the argument that § 1201(c)(1) was a “fair use savings” clause, saying that this interpretation “is not only outside the range of plausible readings of the provision, but is also clearly refuted by the statute’s legislative history.”\textsuperscript{165} Both the trial court and the Second Circuit considered the triennial rulemaking and the narrowly drawn public

\begin{footnotes}
\item[158] Id., § 1201(h), 1201(i). These provisions are, however, a puzzlingly narrow response to concerns expressed about the anti-circumvention ban. See, e.g., Samuelson, supra note xx, at 537-553 (explaining undue narrowness of 1201’s exceptions); David Nimmer, \textit{Puzzles of the Digital Millennium Copyright Act}, 46 J. Cop. Soc’y 401 (1999).
\item[159] 17 U.S.C. § 1201(c)(1).
\item[160] See, e.g., 144 CONG. REC. H7093 (daily ed. Aug. 4, 1998) (statement of Rep. Bliley) (indicating that the Commerce Committee understood the DMCA legislation to enable consumers to “exercise their historical fair use rights”).
\item[161] Id., § 1201(a)(1)(C).
\item[162] Id.
\item[163] 111 F. Supp.2d 294 (S.D.N.Y. 2000).
\item[164] Id. at 322.
\item[165] Universal City Studios, Inc. v. Corley, 273 F.3d 429, 443 (2d Cir. 2001).
\end{footnotes}
interest exceptions to § 1201 as adequately accommodating fair use and other public interests pertaining to technically protected works. Judge Kaplan characterized the argument that purchasers of DVD movies have the right to circumvent CSS as long as they don’t infringe copyrights in DVD movies as “pure sophistry” and as “a corruption of the first sale doctrine.” According to Judge Kaplan, the DMCA anti-circumvention laws “fundamentally altered the landscape of copyright” as to technology provider liability.

Perhaps without realizing it, Judge Kaplan arguably also closed off another possible fair use safety valve in the DMCA by construing DeCSS as a tool for circumventing access controls. If CSS is indeed an access control, then bypassing it would violate § 1201(a)(1)(A). Insofar as TPMs, such as CSS, are deemed “access controls” within the meaning of § 1201, the fair use and other public interest circumventions that the DMCA was supposed to accommodate by not regulating circumvention of non-access-control TPMs have arguably been foreclosed. Copyright owners have sought to defeat this implicit public interest limitation on the scope of the anti-circumvention rules by adopting persistent access controls as their TPMs of choice.

Given the hostility that Reimerdes and Corley displayed toward fair use as a limitation on the scope of § 1201, the next most plausible candidate for an accommodation of public interest uses of digital content protected by TPMs would seem to be the LOC rulemaking procedure. However, this is not a sufficient safety valve for fair uses for several reasons. First, it only occurs every three years and any exceptions created only last for three years. Second, it is largely focused on exempting classes of works, not classes of uses, a more relevant focal point when assessing public interest uses. Third, proposals for exemptions can only be made during the rulemaking process, and a heavy burden of proof has been put on the proponent of a particular new exception to show adverse effects on privileged uses. This contrasts sharply with the

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166 Reimerdes, 111 F.Supp.2d at 323; Corley, 273 F.3d at 443.
167 Reimerdes, 111 F.Supp.2d at 317, n. 137.
168 Id. at 324.
169 In discussing circumvention for fair use purposes, Judge Kaplan seemed to accept that technically sophisticated persons would be able to circumvent CSS to make fair uses of DVD movies without violating the DMCA rules. Id. at 388.
172 Id.
173 See 17 U.S.C. § 1201(a)(1)(C). Electronic Frontier Foundation, DMCA Triennial Rulemaking: Failing the Digital Consumer, Dec. 1, 2005 (cited hereinafter as “EFF on Rulemaking”), at 3, available at http://www.eff.org/IP/DMCA/copyrightoffice/DMCA_rulemaking_broken.pdf (explaining why ordinary consumers without copyright counsel are unlikely to be able to meet the onerous burden of proof established by the Copyright Office, but “[e]ven with expert assistance, the burdens imposed by the Copyright Office on participants often prove nearly insurmountable”). By focusing the inquiry on proof of adverse effects on noninfringing uses of classes of works, the DMCA makes it difficult to focus on particular uses, a more relevant criterion for fair use analysis. See Bill D. Herman & Oscar Gandy, Catch 1201: A Legislative History and Content Analysis of the DMCA Exemption Proceedings, 24 Cardozo Arts & Ent. L.J. 121 (2006).
EU, which places burdens on its member states and on copyright owners to ensure that privileged uses can be exercised, even when works are technically protected.  Fourth, § 1201 does not authorize the LOC to create exceptions to the tool rules, only to the act of circumvention rule. Without some way to get access to appropriate tools, circumvention privileges may not be meaningful. Fifth, the LOC has generally construed its rulemaking authority in a narrow manner. We agree with a prominent civil liberties group that “the DMCA triennial rulemaking is fundamentally unable to protect the interests of today’s digital media consumers.”

In the latest rulemaking, the LOC moved beyond the exemption of “particular class[es] of works” and proposed an exemption focused on a particular type of use by a particular type of user. It created an exception so that media or film study professors could make compilations of clips from movies for use in teaching classes. Much as the LOC deserves credit for this innovative interpretation of its § 1201 authority, this exemption seems to leave everyone else who might want to make fair use clips of CSS-protected movies in the lurch. Many other fair use clips of technically protected content can easily be imagined, but only those who participate in a triennial rulemaking have a chance of having their fair use interests accommodated through the rulemaking process.

The LOC rulemaking procedure “may be a kind of safety valve” for the DMCA anti-circumvention rules, but as Professor Ginsburg has recently concluded, “it may not let off enough steam.” Too many public interest uses of copyrighted works are being

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174 See infra notes xx and accompanying text.
175 See 17 U.S.C. § 1201(a)(1)(D). EFF on Rulemaking, supra note xx, at 2 (“average consumers denied access to circumvention tools are not able to make use of the 6 exemptions that have been granted”). One of us has argued that there should be an implied right to make a tool to enable a privileged party to make a privileged use of technically protected content. Samuelson, supra note 5, at 554.
176 See, e.g., also Diane Leenheer Zimmerman, Adrift in the Digital Millennium Copyright Act: The Sequel, 26 U. Dayton L. Rev. 279, 283 (2001). See also American Library Ass’n, DMCA Section 1201 Anti-Circumvention Rule Making, available at http://www.ala.org/ala/washoff/woissues/copyrightb/dmca/dmcasection1201.cfm (characterizing the LOC exceptions as “narrow”); EFF on Rulemaking, supra note xx, at 7 (pointing out that the Copyright Office has given a narrower interpretation of fair use in the course of its rulemakings than courts and commentators have done).
177 Id. at 1. See also id. at 8 (offering suggestions about how the LOC rulemaking could be improved).
178 37 C.F.R. § 201.40.
180 See 37 C.F.R. §201.40. For a discussion of the latest rule-making, see, e.g., Ginsburg, supra note xx, at 12-18. Ginsburg notes that the film teacher exception “departs significantly from prior rule-makings. Id. at 12-13.
181 For example, an evidence professor might want to bypass CSS in order to take clips from movies about trials to show his class how to make objections (and not to) or a psychology professor fair use clips of movies to demonstrate how mentally ill people are depicted. It may, of course, be possible that a judge with a broad view of 17 U.S.C. § 1201(c)(1) might analogize fair use circumventions by other persons to the exemption granted by the LOC, but there is as yet no precedent for this.
182 Ginsburg, supra note xx, at 16.
The checks and balances that Congress arguably embedded in the DMCA have not achieved the necessary balance.

A better balance among competing interests can be attained within the framework of the DMCA anti-circumvention rules. Among the more modest measures, courts could construe persistent access controls, such as CSS, as not being the kinds of “access controls” that 1201 (a) actually regulates, which would open up considerably more room for fair use circumventions, they could also find in § 1201(c)(1) a statutory basis for excusing fair use circumventions. They could also regulate abuses of § 1201 and abusive uses of TPMs through the anti-circumvention misuse doctrine first proposed by Professor Burk. Courts could also interpret the DMCA anti-circumvention rules as inapplicable to any technology that does not pose serious risks of enabling copyright infringement.

The stronger measure to achieve balance in the DMCA anti-circumvention regulations that we propose is the reverse notice and takedown regime discussed in the next section. It would not only permit circumvention to enable public interest uses of technically protected digital content, but could provide a mechanism to help those who lack the technical expertise to perform public interest circumventions by themselves. In an appropriate case, prospective fair users, after unsuccessfully seeking voluntary cooperation from relevant copyright owners, could seek a declaratory judgment that circumvention for specific public interest purposes should be permitted. Courts in such cases could order copyright defendants to cooperate with facilitating such circumventions, including, as necessary, providing the key to unlock the TPM that was inhibiting particular fair uses either to the prospective fair user or designating a circumvention service to facilitate this action.

II. Setting the Stage for a Reverse Notice and Takedown Regime

The idea for a reverse notice and takedown regime emerged as we reflected upon two groups of cases that have recently challenged the outer limits of protection for copyrighted works in the digital environment. Both have elicited considerable attention and controversy, although most commentaries have not considered the two groups of
cases in conjunction with one another. We, however, find in these two sets of cases not only a deep symmetry, but the theoretical underpinnings for judicial evolution of a reverse notice and takedown regime that would permit and enable public circumventions of technically protected copyrighted content for public interest purposes.

The first group of cases—Napster, 190 Aimster, 191 Grokster 192—considered whether online service providers and related software toolmakers who facilitated peer-to-peer (p2p) file sharing of copyrighted sound recordings by a multitude of individual direct infringers should be held indirectly liable for the infringing acts of their users. (We will call these the “dissemination technology cases.”) Entertainment industry plaintiffs in these cases believed that the scale of infringements enabled by these technologies was so vast that courts would be willing to move away from the Sony safe harbor for technologies with substantial non-infringing uses in favor of a “primary use” test for technology/service developer liability under copyright law. 193 As in the legislative debate that produced the DMCA anti-circumvention rules, the entertainment industry dismissed as unimportant expressions of concern about the public’s interest in access to these technologies and services for non-infringing purposes if the entertainment industry gained greater control over technology development. 194 Notwithstanding the many arguments and amici that the industry marshaled in favor of the primary use test, 195 the Supreme Court maintained a balanced approach to technology/service developer liability in Grokster. It preserved the Sony safe harbor for technology developers except as to those who actively induce copyright infringement. 196 As in Sony, the Court was attentive to the interests of the public in access to dual use technologies for non-infringing purposes. 197

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191 In re: Aimster Copyright Litigation, 334 F.3d 643 (7th Cir. 2003).
193 See Brief of Motion Picture and Recording Company Petitioners to the U.S. Supreme Court in Metro-Goldwyn-Mayer Studios v. Grokster Ltd., (No. 04-480), available at http://www.eff.org/IP/P2P/MGM_v_Grokster/. Recall that the Court had rejected, albeit only just barely so, the primary use test for indirect liability for copyright infringement in the Sony case. See supra note xx and accompanying text. Section 1201 adopts a variant on the primary use test for circumvention technology liability. While in theory a “primary purpose or design” test, as in the DMCA, is more rigorous than the “primary use” test for which Universal argued in Sony, we are skeptical about how different they would prove to be in practice, given that when a technology is primarily used for an illicit purpose, a challenger of that technology will almost certainly argue that the technology must have been designed to facilitate these illicit uses and that any testimony about beneficial purposes for the design are self-serving misrepresentations to avoid liability. See IP Professor Amicus Brief, supra note xx, at xx.
194 See, e.g., MGM Brief, supra note xx, 18-20.
195 The many amicus briefs filed in support of MGM’s appeal are available at http://www.eff.org/IP/P2P/MGM_v_Grokster/.
196 Grokster, 125 S.Ct. at 2780.
197 Id. at 2770 (“Given [their] benefits in security, cost, and efficiency, peer to peer networks are employed to store and distribute electronic files by universities, governmental agencies, corporations, and libraries among others.”).
In the second group of cases—Chamberlain,\textsuperscript{198} Lexmark,\textsuperscript{199} and Storage-Tek\textsuperscript{200}—makers of various technologies claimed that by embedding software access controls inside their products, they had obtained the right to control the market for replacement parts or repair services. In these cases, the courts ultimately permitted third-party suppliers of parts or services to bypass the lockout codes and to provide competing parts or services, notwithstanding the amplified rights of copyright owners under the anti-circumvention provisions of the DMCA.\textsuperscript{201} (We will call these the “lock-out technology” cases.) Judges in the lock-out cases could not accept the unbalanced interpretation of §1201 that the plaintiffs had constructed on the foundation laid by Reimerdes and Corley.

Both groups of cases focus attention on the extent to which recent legislative efforts to bolster the protection of copyright owners operating in the digital environment have unduly narrowed or sacrificed the interests of users, follow-on improvers, competitors and the public at large that have been core components of pre-digital traditional copyright law. In practical terms, however, the two groups of cases affect the public interest at diametrically opposite ends of the spectrum of protected rights.

We believe that the dissemination technology cases have a bearing on the ability of would-be users to access copyrighted works for unauthorized but non-infringing purposes when the works in question have been surrounded by TPMs designed to prevent all unauthorized uses. To the extent that certain privileged public interest uses\textsuperscript{204} depend on sophisticated digital access tools, the dissemination technology cases affect both the legitimacy of the access that the specialized equipment makes possible and the incentives for manufacturers to invest in and create innovative technology that could enhance non-infringing uses of copyrighted works, especially p2p file sharing techniques.\textsuperscript{205} By articulating a theory that took the “bad” technology developers out of the picture, as the Supreme Court did with its active inducement rule in Grokster, the Court created a climate in which public interest uses could more freshly be assessed both generally and as they pertain to circumvention of TPMs.

The lock-out technology cases contribute further to this fresh approach by rejecting Lexmark’s, Chamberlain’s, and StorageTek’s anti-competitive §1201 claims as unsound and by importing balancing principles from copyright law as essential to the

\textsuperscript{198} Chamberlain Group, Inc. v. Skylink Techn., Inc., 381 F.3d 1178 (Fed. Cir. 2004).
\textsuperscript{200} Storage Techn. Corp. v. Custom Hardware Eng’g & Consulting, Inc., 421 F.3d 1307 (Fed. Cir. 2005).
\textsuperscript{204} See e.g., 17 U.S.C. §§102(b) (ideas and facts not copyrightable), 107 (fair use), 108-22 (codified exceptions and limitations). See also Jessica Litman, Lawful Personal Uses, 85 Tex. L. Rev. xx (2007) (explaining why lawful uses of copyrighted works extend beyond those recognized in the statutory limitations and exceptions).
\textsuperscript{205} See e.g., Lemley & Reese, supra note xx.
proper interpretation of § 1201. Among other things, the courts in Chamberlain and StorageTek recognized the need to guard the public’s interest in making fair and other non-infringing uses of technically protected content. The lock-out cases, in our view, set the stage for judicial development of the reverse notice and takedown procedure we endorse in this article.

A. The Dissemination Technology Cases: Napster, Aimster, and Grokster

In approaching the dissemination technology cases and the controversies they have provoked, we offer some preliminary observations. First, there are very few privileged, public-interest uses directly at issue when consumers use peer-to-peer file sharing technologies to download entire musical works and sound recordings without payment to authors, artists, and recording studios. Unless one believes that copyrights are an inherently illegitimate form of property, one cannot readily defend the limitless free-riding on copyrighted musical works that peer-to-peer file-sharing has engendered in terms of traditional exceptions to copyright protection.  

One may lament the demise of any equivalent of the first sale doctrine in the online environment,  and one may castigate record companies for clinging too long to outdated business models, without viewing the downloaders as principled defenders of the public interest. On the contrary, if the DMCA had not otherwise shamelessly sacrificed the public-interest provisions of copyright law on the altar of technical protection measures, few copyright law professors would express so much alarm about the cases expanding third-party liability for contributory and vicarious infringement.

What alarms the critics is precisely the potential capacity of the dissemination technology cases, if mishandled by the courts, to exacerbate the imbalance found in the DMCA anti-circumvention rules and thereby to further reduce the bona fide and

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208 One can argue that, in this environment, for various reasons, the public interest might better have been served by a liability rule than a property rule. See, e.g., William W. Fisher III, Promises to Keep: Technology, Law and the Future of Entertainment (2004); Neil Weinstock Netanel, Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing, 17 Harvard J. L. & Tech. 1 (2003); see generally, J. H. Reichman, Of Green Tulips and Legal Kudzu: Repackaging Rights in Subpatentable Innovation, 53 VAND. L. REV. 1743 (2000) (theory of compensatory liability regime).


210 See, e.g., Litman, supra note xx; Samuelson, supra note xx.

211 See, e.g., IP Professor Amicus Brief, supra note xx, at xx (expressing concern about expansion of technology developer liability rules).
legitimate rights of users, improvers, competitors, and the public at large. From this perspective, every expansion of third-party liability in this group of cases could potentially further inhibit the already limited range of public interest exceptions to copyright protection. Perhaps worst of all, it could further undermine the incentives to invest in technologies needed for the sharing of information goods for legitimate and important public-good purposes. The validity of these concerns must, however, be tested against the actual holdings in these cases. Napster, Aimster, and Grokster operated online services that supplied peer-to-peer (p2p) technologies to enable users of their software to search for digital files of commercially distributed copyrighted works on other users’ computers, to connect directly to the other users’ computers to get copies of the desired files, and to transfer the copies to the requesting users’ computers. The principal defense of these p2p developers against charges of secondary liability for copyright infringement was that they qualified for the Sony safe harbor for technologies with substantial non-infringing uses, although Napster also raised two DMCA ISP safe harbor defenses.

Napster’s Sony defense characterized downloading of MP3 files authorized by new artists, sampling songs users planned to buy if they liked them, and archival copying of sound recordings users already owned as substantial non-infringing uses of its technology. Because of the massive amounts of infringement taking place through use of these p2p services, the entertainment industry plaintiffs argued that the Sony safe harbor should not be available for services, or alternatively, that the Sony safe harbor should only be available if the primary use of the challenged technology was non-infringing, as in Sony. Another reason to sue this p2p service was that “it was easier and more effective to shut down Napster than to sue the millions of people who illegally traded files on Napster.”

Napster was hardly a neutral ISP providing a vehicle for innocent transmissions of honest exchanges of information or opinions. Yet, it nonetheless claimed immunity under the § 512(a) safe harbor for Internet transmissions initiated by others, and the § 512(d) safe harbor for information locating tools. The courts rejected both safe harbor

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212 See esp. Lemley & Reese, supra note xx, at 1354-55 (discussing problems of “dual-use” technologies that can be used in both non-infringing and infringing capacities).
213 Napster, 239 F.3d at 1011. Napster differed from Aimster and Grokster in that its servers hosted indices through which users could search for specific files they wanted to download. Id. at 1012.
216 Napster, 114 F. Supp. 2d at 913.
217 Id. at xx. The primary use of the Betamax machine was to make copies of television programs for time-shifting purposes, a use that the Court held was fair. Sony, 464 U.S. at 423-24
218 Lemley & Reese, supra note xx, at 1349. Similarly, Lichtman and Landes argue that chasing third parties instead of the actual direct infringers can be efficient when the former, although only indirectly responsible, are “typically in a good position to either prevent copyright infringement or pay for the harm it causes” (emphasis added). See Lichtman & Landes, supra note xx, at 409.
219 Napster II, supra note xx (ruling on Napster’s §512(a) defense).
220 Napster, 114 F.2d at 919, n. 24. Napster argued that absent notice from the copyright holder, it had no way of knowing which transfers were infringing transfers. Defendant-Appellant Napster, Inc.’s Opening Brief on Appeal, at 52 (Aug. 18, 2000), available at http://www.eff.org/IP/P2P/Napster/brief0818.pdf.
defenses, saying that Napster did not qualify for either.\footnote{Napster II, 2000 WL 573136 (rejecting 512(a) defense); Napster, 114 F.Supp.2d at 919, n.4.}  Although Napster’s network was capable of some non-infringing uses, the fact remained that, as the Ninth Circuit observed, Napster knew or should have known that massive infringements were underway, and its business success depended on encouraging these infringements.\footnote{Napster, 239 F.3d at 1020 n.5.}  In hindsight, Napster’s claim to shelter under the Sony safe harbor was undermined by its active inducement of infringement, as the Supreme Court later phrased it in Grokster.\footnote{See Grokster, 125 S.Ct. at 2780.}

The court in Napster seemed self-consciously to draw parallels between contributory infringement and the safeguards established for ISPs under § 512 by suggesting that a system operator could avoid liability by purging infringing materials when it knew or should have known about them.\footnote{The Ninth Circuit Court stated that “if a computer system operator learns of specific infringing material available on his system and fails to purge such material from the system, the operator knows of and contributes to direct infringement.” Napster, 239 F.3d at 1022 (quoting Netcom, 907 F.Supp. at 1374). The Ninth Circuit invoked Sony, where the Supreme Court held that if liability had to be imposed, “it must rest on the fact that they have sold equipment with constructive knowledge of the fact that their customers may use that equipment to make unauthorized copies of copyrighted material” (emphasis added). Sony, 464 U.S. at 439. Although the Supreme Court in Sony did not clarify what could qualify as constructive knowledge, the Court in Napster found that the company had materially contributed (it had gone much further than knowing about the infringements) to the direct infringement committed by end users, since it had provided them with “the site and the facility” without which copyright violation could not have been committed. Napster, 239 F.3d at 1023.}  Obviously, a true contributory infringer, such as Napster, had no interest in this safeguard.\footnote{Id.}

Nor did the next generation of p2p developers who thought they could avoid Napster decision only the lesson that it was better to decentralized one’s p2p systems so that the service could not control subsequent uses or monitor events occurring within the network they enabled.\footnote{Aimster, 334 F.3d at 650-51; Grokster, 125 S.Ct. at 2769.}  Nevertheless, a true public-interest purveyor of information often can and should make use of “notice and take down” modalities, like those available under § 512, to preserve the immunity of any “dual use” technology it used.\footnote{While the Napster court unwisely put vicarious liability beyond the reach of a defense sounding in the capabilities for non-infringing uses under Sony, id. at 1022, later decisions, especially Grokster, appear to have rectified that problem. See Grokster, 125 S.Ct. 2764.}

Perhaps the most interesting aspect of the Napster case was the district court’s characterization of Napster’s system as a potential barrier to entry for honest purveyors of downloaded music operating under a fee-based system.\footnote{Napster, 239 F.3d at 1020 n.5.}  Here, indeed, is a positive nexus to Sony,\footnote{See Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417 (1984).}  because the Supreme Court’s refusal to ban manufacture of VTRs owing to their substantial non-infringing uses removed an inchoate barrier to entry into the movie rental and cassette business.\footnote{See, e.g., Lardner, supra note xx, at 297-313.}  This became an unforeseen bonanza for film studios who made considerable revenues by selling movies to rental companies and to consumers.  In contrast, the district court correctly perceived the opposite effect in the
Napster case, and the growth of fee-based providers via iTunes and other systems in the aftermath of Napster’s closure would seem to vindicate that thesis.232

Aimster, like Napster, made loose, self-serving assertions about the capability of the relevant software system for non-infringing uses, but this was disingenuous coming from someone whose business knowingly depended on the highest possible volume of infringing uses.233 By co-opting the instant messaging networks of other ISPs to enable file sharers to find each other and search each other’s autonomous files, Aimster’s contributory acts were more remote and indirect than Napster’s.234 But Aimster’s business objectives depended largely on the volume of its infringing users; its main business activity was to facilitate these same infringing uses; and it structured its computer architecture so as not to know anything about the specific acts of infringement it did its best to facilitate.235 There was also the matter of Club Aimster, which, for $4.95 a month, would give users’ access to the top forty songs on the charts.236

The Seventh Circuit’s Aimster decision expressed some concern about not unduly impeding substantial non-infringing uses under Sony, even though it toyed with imposing potentially burdensome obligations on technology developers to build in infringement-inhibiting technological measures.237 However, the force of this speculation was greatly weakened by the doctrine of “actively inducing infringement,” which the Supreme Court eventually settled on in Grokster.238 In hindsight, it seems that the Seventh Circuit in Aimster was really groping its way toward the doctrine of active inducement later recognized in Grokster, and that any burden potentially imposed on legitimate “dual use” technologies by Aimster must be recalculated in that light.

In Grokster, the software system at issue provided a range of means by which users could search through the pools of shared files while connecting directly with each other, and without reference to any central index hosted by defendants.239 Neither Grokster nor its co-defendant Streamcast “operated the network over which the users of their software connected and exchanged files, and the [district] court emphasized the decentralized nature of those networks,” in the sense that “no information is transmitted to or through any computers owned or controlled by the software makers.”240 The lower

233 Aimster, 334 F.3d at 651.
234 Id. at 646.
235 Id. at 650.
236 Id. at 652.
237 See id. at 648.
238 See Grokster, 125 S.Ct. at 2780-81.
239 See id. at 2771.
240 Lemley & Reese, supra note xx, at 1364. In particular, the Ninth Circuit, quoting the District Court, explained: “[…] even if the Software Distributors ‘closed their doors and deactivated all computers within
court also recognized that the software was capable of substantial non-infringing uses, including the authorized dissemination of copyrighted works and dissemination of unprotected works.\textsuperscript{241}

For the district court, and later the Ninth Circuit, the distance of the software providers from the sites of infringement and their lack of active knowledge of specific infringements was sufficient to shelter them from contributory liability under the \textit{Sony} exception, given the potential non-infringing uses to which the software could be put.\textsuperscript{243}

For the Supreme Court, however, Grokster and Streamcast had forfeited the safe harbor established in \textit{Sony} for technologies with substantial non-infringing uses, which the Court had drawn from patent law. In Grokster, the Court drew upon another complementary patent law doctrine that disallowed the \textit{Sony} safe harbor if the defendant had actively induced copyright infringement.\textsuperscript{244} On this approach, neither the relative degrees of remoteness or of material contribution in the three cases, nor the relative weights of some potential non-infringing uses—allegedly rising to a possible ten percent of all uses in \textit{Grokster}—could vindicate a \textit{Sony} defense if the underlying intent of the operation was to actively induce copyright infringement.\textsuperscript{245}

While some contend that this resolution will unduly chill innovation in “dual use” technologies,\textsuperscript{246} we have a more optimistic assessment of what \textit{Grokster} accomplished. The \textit{Grokster} decision rejected several proposals to limit the scope of the \textit{Sony} safe harbor. It did not, for instance, exclude services, as such, from the \textit{Sony} safe harbor. It did not adopt any particular standard of intolerable infringing uses. Moreover, it did not


\textsuperscript{241} Id. at 1036 (“the existence of substantial noninfringing uses turns not only on a product’s current uses, but also on potential future noninfringing uses”); \textit{Grokster}, 380 F.3d at 1161 (“if the produce at issue is capable of substantial or commercially significant noninfringing uses, then the copyright owner must demonstrate that the defendant had reasonable knowledge of specific infringing files and failed to act on that knowledge to prevent infringement.”)

\textsuperscript{244} In \textit{Sony}, the Supreme Court explained that the application of the staple article of commerce doctrine required Betamax products to be capable of \textit{commercially significant} non-infringing uses, meaning that VCRs should be capable of at least one potential legitimate use employed in a numerically significant manner (see \textit{Sony}, 464 U.S. at 443). Therefore, the ultimate outcome of the case was deeply influenced by the Court’s finding that unauthorized time shifting was indeed a legitimate fair use. Conversely, even though in \textit{Grokster} there was a potential legitimate use, its practical implementation was not deemed significant.

adopt a “primary use” test for judging the lawfulness of dual use technologies.\textsuperscript{247} The Court preserved the safe harbor for technologies with substantial non-infringing uses and focused instead on evidence of actions that demonstrated active and intentional promotion of infringement, which disqualified the defendant’s from the shelter of copyright’s variant on patent law’s staple article of commerce limitation.\textsuperscript{248}

The extent to which suppliers of “dual use” technologies may still benefit from a \textit{Sony} exception remains to be worked out in future cases, and care must be taken not to impair or undervalue actual non-infringing uses where they occur in a good faith context. Over time, however, it has become clear that the music industry cannot cling to obsolete business models that oblige consumers to purchase music they did not want, and that the industry cannot control p2p technology, as some feared might happen. Rather, as the district court in \textit{Napster} correctly saw it, this group of decisions effectively removed barriers to the entry of fee-based software systems,\textsuperscript{249} and a more competitive distribution system is now emerging, typified by Apple’s iTunes service. Stopping Napster, Aimster, and even Grokster, arguably helped support the formation of a new business model that may benefit consumers and competition in the long run.

As to the future prospects for non-infringing users of “dual use” technologies in general, we cannot accurately evaluate them through the lens of cases dealing with bad faith active inducers of infringement. Moreover, when we try to envision such cases through a cleaner lens, the real barriers to entry will not lie so much in the weakness of the \textit{Sony} safe harbor as in the potentially troublesome intersection between 512 and 1201 of the DMCA.\textsuperscript{250}

B. Implications for Public Interest Uses of Technically Protected Content

Our concern with dual use technologies that impede non-infringing uses acquires considerably more traction the moment we try to envision the real life obstacles likely to be encountered by legally privileged non-infringing user groups who, by definition, are advancing some public interest consonant with, rather than antagonistic to, the goals of copyright protection. Here we are concerned with gaining access to copyrighted works in the digital environment in order to extract non-protectable subject matter, especially ideas and disparate facts; to make fair uses of protectable expressions, including research uses; and to exploit codified exceptions to, or limitations on, the bundle of exclusive rights.\textsuperscript{251} Also of concern is access to works whose copyrights have expired but which cannot readily be located in public domain copies outside a given digitally controlled network.\textsuperscript{252}

By focusing on user groups whose typically non-profit activities are thought to advance the public interest in education, research, science and technological progress, we immediately dispel the atmosphere of mistrust arising from \textit{Napster}, \textit{Aimster} and

\begin{itemize}
\item \textsuperscript{248} Id.
\item \textsuperscript{249} See \textit{Napster}, 239 F.3d at 1016.
\item \textsuperscript{250} 17 U.S.C. §§512, 1201 et seq. (2004).
\item \textsuperscript{251} 17 U.S.C. §§102(a), 107, 108-122 (2004).
\end{itemize}
Grokster, and obtain leverage to induce courts to think positively about the need to balance public and private interests, as they traditionally sought to do in the pre-digital era.\(^{253}\) Only when defendants begin to appear in a good faith posture can we really discern what’s at stake when the courts make appropriate judgments about the public’s interest in access to technologies capable of substantial non-infringing uses.

Of course, p2p systems such as Napster, Aimster and Grokster could not long survive in such an atmosphere, because they depend directly or indirectly on benefits derived from infringing uses. However, private foundations, public entities, and public-private partnerships have already found good reasons to establish peer-to-peer file-sharing networks to promote access to information goods for non-infringing public-interest purposes. For example, Creative Commons has established such networks for specific subject matter groupings,\(^ {254}\) and scientific efforts to link databases in virtual archives through p2p technologies\(^ {255}\) are growing in number.

These initiatives are likely to increasingly rely on p2p technologies to enable participants in any given semi-commons to access and share privately held materials, whether copyrighted or not, that have voluntarily been made available to advance the goals of the different user communities in question. Because such communities are, as a rule, loosely organized and administered, they cannot and should not be charged with the duties of policing the contents of materials made available to the community for copyright infringement. Fortunately, so long as such groups take pains to position their networks within the penumbra of §512 of the DMCA, they can obtain all the sharing advantages of p2p systems while largely immunizing themselves from liability for copyright infringement by virtue of the “notice and take down” procedures that this provision sets up.\(^ {257}\)

Moreover, these procedures allow systems managers to vet any infringement claims lodged against participating contributors, if they so desire, and to refuse to comply with a take down request if they choose to back their member’s claim of privileged use

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\(^{253}\) Cf. WIPO Copyright Treaty, Dec. 20, 1996, S. Treaty. Doc. No. 105-17 Preamble, which states: “The contracting parties, …[r]ecognizing the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information, as reflected in the Berne Convention…” We do not mean to suggest that educators, researchers and the like are the only parties who should be eligible to make public interest uses of technically protected copyrighted works. Many commercial firms engage in fair and other privileged uses, and they too should qualify for the reverse notice and takedown regime. We focus on the nonprofit public interest users in order to make the more general case for the need for the reverse notice regime, as these users are generally perceived in a favorable light in copyright discourse.

\(^{254}\) See Creative Commons, http://www.creativecommons.org.


against an outsider’s claim of infringement. Even in a worst case scenario, where the outsider’s infringement claim ultimately prevails in a court of law, the public interest goals of the user community should encourage courts in this situation to narrowly tailor injunctions so as to avoid inhibiting any legitimate non-infringing uses.

The “notice and take down” modalities of §512 thus make it possible to keep p2p networks running for non-profit public interest purposes. Moreover, the “clean hands” legitimacy of the enterprise should at least ensure that no injunction otherwise affecting some infringing uses of the technology in question would shut down or impede such public-interest initiatives. Nor is there anything in the Supreme Court’s Grokster decision that creates an insuperable barrier to entry for launching these initiatives.

Yet, once a p2p public-interest file-sharing network was up and running, problems may arise insofar as the software allows community members to link to external non-member ISPs where copyrighted works have been deposited on conditions that restrict use or reuse of the material available there. A potential risk of conflict exists between the search potential of the software to enable non-infringing uses of posted material and the obligations of the service provider to respect the dictates of the copyright owners it hosts on its site. However, assuming that the service provider was covered by §512 of the DMCA, this conflict could normally be resolved by “notice and take down” provisions with which we are familiar.

Under §512, in other words, all the standard copyright exceptions and defenses are preserved, once the “notice and take down” machinery superimposed upon them has been triggered. If the information locating tool triggers an objection from the copyright owner, the searcher can respond by asserting the non-infringing uses (e.g., fair uses) that he intends to make of the protected work in question. If the copyright owner acquiesces, the problem is solved. If not, the putative fair user can seek a declaratory judgment to remove the obstacle and vindicate the non-infringing use.

Clearly, these legal modalities would benefit from expeditious administrative procedures to promptly resolve such disputes at low cost, with deferred removal to courts only for specific issues that merited a full dress trial. Our point is that, so long as we are dealing with traditional copyright defenses, §512 of the DMCA poses no serious barriers to entry for our putative public-interest initiative.

Serious problems may arise, however, insofar as copyright owners surround information products available on their websites with technological fences specifically designed to thwart, for example, the search and sharing capabilities of the non-infringing, would-be public interest users. TPM fences may initially prevent searchers from

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258 Id. at § 512(g).
259 Public-interest uses of protected works might also be facilitated if courts made more use of the Court’s suggestion about the appropriateness of damage awards instead of injunctions in close fair use cases. See Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 578, n.10 (1994).
260 Indeed, the opening section of the Grokster decision speaks in positive terms about p2p technologies. Grokster, 125 S.Ct. at 2770-71.
261 See, e.g., Lemley & Reese, supra note xx.
262 Firms that want to use TPMs to protect public domain works can, of course, take the precaution of attaching to any bulky ineligible matter, such as a non-creative database, some copyrightable fig leaf component, such as an explanatory introduction, in order to bring the collective work as a whole within
gaining access for the purpose of browsing contents in order to identify material of interest. The same fences may then direct would-be non-infringing users to an electronic gateway, where electronic contracts of adhesion will condition entry on a waiver of all the users’ rights that our putative searchers might otherwise put forward to justify access to and use of the information product in question. The electronic fence will thus separate access from use. Insofar as §1201(c) permits circumvention for privileged purposes, this will arguably only kick in after lawful access has been gained. Yet, by then, user rights will in all likelihood have been abrogated by contract, and it is now too late to hack through the electronic fence prohibited by §1201.

Ironically, this scenario presents exactly the opposite situation we found in cases such as Napster, Aimster, and Grokster, where facilitators of mass infringements sought to hide behind potential non-infringing uses. Here, instead, bona fide non-infringing users risk being thwarted by legislatively sanctioned denials of privileged uses by copyright owners who opt out of those parts of the copyright system they dislike by designing TPMs to circumvent public interest uses, hoping thereby to find shelter behind §1201. Because, moreover, § 1201, as construed in some cases, does not recognize fair use and other public interest exceptions as grounds for circumventing technological protection measures to extract non-infringing material, the public interest goals of the non-infringing user may be absolutely defeated by the TPM. The DMCA does not generically allow circumvention for legally permissible purposes, though this would be consistent with the WIPO Copyright Treaty.

From this perspective, §1201 arguably functions as a form of “active inducement” to avoid the public interest exceptions embodied in the Copyright Act. Copyright owners employ TPMs and the 1201 protections they invoke in order to protect against infringing uses of their works; yet, the TPMs protect against all uses, both infringing and non-infringing. This is often because it is technically difficult to differentiate between the two sets of uses prospectively. And there is no incentive for the copyright owner or the TPM vendor to fine-tune the TPM to enable the non-infringing uses. Unless there is a way for 1201 to be construed to recognize the need for access and enablement of non-infringing uses, the statute will likely serve solely as a one-way ratchet for enclosure

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263 The DMCA provides an exemption from §1201(a)(1)(A) for nonprofit libraries, archives and educational institutions to bypass access controls “solely in order to make a good faith determination of whether to acquire a copy of that work.” 17 U.S.C. §1201(d). This exemption would not, however, apply if the purpose of the circumvention was to index the work or to extract unprotectable facts, ideas, or public domain materials from the technically protected work.


265 One interesting experiment in designing TPMs with fair use in mind is the open source digital rights management technology that Sun Microsystems is developing for digital content that would enable many fair uses. See Gerard Fernando et al., Project DReaM, An Architectural Overview (Sept. 2005), available at http://www.openmediacommons.org/collateral/DReaM-Overview.pdf.
of digital content. At the very least, it establishes a potential barrier to entry for some meritorious public-interest initiatives of the kind envisioned above, and it tends to chill investment in developing viable dual use technologies that could promote more efficient non-infringing uses.269

Unfortunately, the Reimerdes decision has provided considerable ammunition for the gutting of the public interest balance in copyright law by setting forth a framework for analyzing § 1201 claims that, if followed in subsequent cases, excludes consideration of virtually all public interest concerns. Under Judge Kaplan’s interpretation of § 1201, anti-circumvention liability arises: (1) if a copyright owner has adopted a TPM to control access to its copyrighted works (even if they are persistent access controls such as CSS), and (2) if an unauthorized person developed a technology that bypassed this TPM (relying, if necessary, on an inference that if the defendant’s technology bypasses the TPM, it must have been primarily designed or produced to do so).270 Under Reimerdes, it is irrelevant whether copyright infringement has occurred—or was even possible—as a result of the availability of the circumvention tool; nor did it matter whether the tool might enable consumers to tinker with a copyrighted work he or she has purchased.271 Harm to the copyright owner’s interests is presumed from the fact of the violation.272 In Judge Kaplan’s view, Congress deliberately decided against permitting circumvention or making circumvention tools to enable fair or other public interest uses of technically protected digital content, and § 1201(c) provided no shelter for public interest uses once copyright owners have deployed technical locks on their content.

C. The Lockout Technology Cases: Chamberlain, Lexmark, and Storage-Tek

Although Congress seems to have thought the DMCA anti-circumvention rules would protect copyright owners from massive infringements,277 it did not take long for some technology developers to realize that these rules, as interpreted in Reimerdes, were susceptible to use as a tool for defeating competition in the market for uncopyrightable products and services.278 Technology developers Lexmark, Chamberlain and Storage Technology Corp. (StorageTek) relied on Reimerdes in claiming that the DMCA’s anti-tool rules conferred on them the right to control access, through digital lock-out codes, to

269 See Lemley & Reese, supra note xx.
271 Reimerdes, 111 F. Supp.2d at 314-16; 317, n. 137.
272 Reimerdes, 82 F. Supp. 2d at 215.
278 See, e.g., Samuelson & Scotchmer, supra note xx, at 1642-49.
software embedded in their products so as to prevent competitors from supplying aftermarket replacement parts or services.279

1. The Lockout Cases

Lexmark, a manufacturer of printers and toner cartridges, claimed that the authentication protocol (or digital handshake) component of copyrighted computer programs installed on chips in its printers and toner cartridges was an access control, the bypassing of which violated § 1201 (a)(1)(A).283 Because Static Controls made chips designed and produced to bypass this access control, Lexmark charged it with violating §1201(a)(2).284 Static Controls’ customers were manufacturers of toner cartridges designed to work in Lexmark printers. The trial court, relying heavily on Reimerdes, issued a preliminary injunction against Static Controls’ manufacture of these chips.285

The Sixth Circuit eventually reversed, seemingly on the ground that the DMCA does not apply to digital fences limiting access to functional aspects of the printers.286 The court’s reasoning on the anti-circumvention claim is, unfortunately, neither very coherent nor persuasive.287 A concurring judge would more forthrightly have invoked the misuse doctrine, so as to “make clear that in the future companies like Lexmark

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283 Lexmark, 387 F.3d at 528-32. Static Controls successfully challenged the validity of the copyright in the toner cartridge software because it was a short program with limited functionality and argued that it needed to copy the toner cartridge program in order to make compatible cartridges capable of running on Lexmark machines. Id. at 535-42.

284 Id. at 531.


286 The court observed: “In the essential setting where the DMCA applies, the copyright protection operates on two planes: in the literal code governing the work and in the visual or audio manifestation generated by the code’s execution. For example, the encoded data on CDs translates into music and on DVDs into motion pictures, while the program commands in software for video games or computers translate into some other visual and audio manifestation….The copyrightable expression in the Printer Engine Program, by contrast, operates on only one plane: in the literal elements of the program, its source and object code. Unlike the code underlying video games or DVDs, ‘using’ or executing the Printer Engine Program does not in turn create any protected expression. Instead, the program's output is purely functional.” Id. at 548.

287 Id. at 545-51. The court, for example, questioned whether the Lexmark authentication sequence was an access control within 1201 by observing that purchase of a Lexmark printer allowed access to the program. Id. at 549-50. Because it was possible to access the toner cartridge program if one bought a printer and toner cartridge, the court questioned whether the sequence was an effective access control measure. Id.
cannot use the DMCA in conjunction with copyright law to create monopolies of manufactured goods for themselves just by tweaking the facts of [a] …case…”

Shortly after issuance of the preliminary injunction in *Lexmark*, an analogous attempt was made to use the anti-circumvention rules to foreclose competition in the market for electronic garage-door opening (GDO) devices. Skylink made a universal GDO that bypassed the digitized “lock-out” (access control) components of programs Chamberlain had installed in its GDOs and transmitters. Chamberlain argued that the “plain language” of the DMCA and precedents such as *Reimerdes* and the lower court decision in *Lexmark* provided compelling support for its claim against Skylink. The Federal Circuit strongly disagreed and upheld the lower court’s grant of summary judgment to Skylink.

The *Chamberlain* decision is remarkable in several respects. A fundamental premise underlying the Federal Circuit’s interpretation of § 1201 was its perception that Congress had intended the DMCA anti-circumvention rules to be balanced:

The most significant and consistent theme running throughout the entire legislative history of the anti-circumvention and anti-trafficking provisions of the DMCA...is that Congress attempted to balance competing interests, and “endeavored to specify, with as much clarity as possible, how the right against anti-circumvention would be qualified to maintain balance between the interests of content creators and information users.” H.R. Rep. No. 105-551 at 26 (1998). The Report of the House Commerce Committee concluded that § 1201 “fully respects and extends into the digital environment the bedrock principle of ‘balance’ in American intellectual property law for the benefit of both copyright owners and users.” Id.

It consequently rejected the notion that the DMCA had created a new exclusive right in copyright owners to control access to their works. Section 1201 should instead be viewed as providing copyright owners with a new cause of action when circumvention of access controls threatened their ability to enforce their rights under copyright law.

In its search for a more balanced interpretation of the DMCA, the court considered at length linkages between the anti-circumvention rules and rights conferred by copyright law:

Statutory structure and legislative history both make clear that § 1201 applies only to circumventions reasonably related to [copyright] protected

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288 Id. at 551.
290 Id. at 1186, 1192.
291 Id. at 1195.
rights. Defendants who traffic in devices that circumvent access controls in ways that facilitate infringement may be subject to liability under § 1201(a)(2)...[D]efendants whose circumvention devices do not facilitate infringement are not subject to § 1201 liability. 293

Without proof of a nexus between the availability of a so-called circumvention technology and the existence, or threat, of copyright infringement, § 1201 liability should not be imposed. 294 Thus, it was relevant that:

Chamberlain has not alleged that Skylink’s Model 39 infringes its copyrights, nor has it alleged that the Model 39 contributes to third-party infringement of its copyrights....Chamberlain urges us to conclude that no necessary connection exists between access and copyrights. Congress could not have intended such a broad reading of the DMCA. 295

To the extent that Reimerdes said otherwise, the Federal Circuit respectfully disagreed.

Under Chamberlain’s interpretation of the DMCA, “the owners of a work protected both by copyright and a technological measure that effectively controls access to that work....would possess unlimited rights to hold circumventors liable under § 1201(a) merely for accessing that work even if that access enabled only rights that the Copyright Act grants to the public.” 296 The Federal Circuit found this construction of the DMCA “problematic for a number of reasons.” 297

For one thing, Congress’ exercise of its constitutional authority must be rational; yet, as construed by Chamberlain, §1201(a) “borders on the irrational.” 298 For another, its interpretation of §1201(a) “would flatly contradict §1201(c)(1)—a simultaneously enacted provision of the same statute.” 299 It was consequently necessary to adopt “an alternative construction that leads to no such contradiction.” 300 Construing §1201(a) as though it was concerned only about control over access, and not about rights protected by copyright law, would be “both absurd and disastrous,” 301 for it would “allow any manufacturer of any product to add a single copyrighted sentence or software fragment to its product, wrap the copyrighted material in a trivial ‘encryption’ scheme, and thereby gain the right to restrict consumers’ rights to use its products in conjunction with competing products.” 302 This would “allow virtually any company to attempt to leverage its sales into aftermarket monopolies,” even though this would be unlawful under the antitrust laws and the copyright misuse doctrine. 303

293 Chamberlain, 381 F.3d at 1195.
294 Id. at 1195-97.
295 Id. at 1197.
296 Id. at 1200.
297 Id.
298 Id.
299 Id. “A provision that prohibited access without regard to the rest of the Copyright Act would clearly affect rights and limitations, if not remedies and defenses.” Id.
300 Id.
301 Id. at 1201.
302 Id.
303 Id.
At least as problematic to the Federal Circuit were the implications of Chamberlain’s interpretation of §1201 for the rights of consumers to make fair uses:

Chamberlain’s proposed construction would allow copyright owners to prohibit exclusively fair uses even in the absence of any feared foul use. It would therefore allow any copyright owners through a combination of contractual terms and technological measures, to repeal the fair use doctrine with respect to an individual copyrighted work—or even selected copies of that copyrighted work. Again, this implication contradicts §1201(c)(1) directly….Consumers who purchase a product have the inherent legal right to use that copy of the software. What the law authorizes, Chamberlain cannot revoke.\(^{304}\)

Contrary to Chamberlain’s contention, “the DMCA emphatically did not ‘fundamentally alter’ the legal landscape governing the reasonable expectations of consumers or competitors; did not ‘fundamentally alter’ the ways that courts analyze industry practices; and did not render the pre-DMCA history of the GDO industry irrelevant.”\(^{306}\) The Federal Circuit consequently rejected Chamberlain’s interpretation of §1201 “in its entirety.”\(^{307}\)

The Federal Circuit had a second opportunity to consider the scope of the anti-circumvention rules in the *StorageTek* case.\(^{308}\) StorageTek manufactures automated tape cartridge libraries for mass data storage. When StorageTek sells its tape libraries to customers, it licenses their use of the functional code for managing the tape libraries; although the package supplied to customers also includes code to carry out maintenance functions, StorageTek does not license customers’ use of the maintenance code.\(^{309}\) Custom Hardware Engineering (CHE) is an independent business that repairs data libraries manufactured by StorageTek. To enable it to carry out these repairs, CHE developed a program that bypassed a password protection scheme in the StorageTek maintenance code so that it could effectively intercept and interpret error messages generated by that program. Processing the error code information enabled CHE to diagnosis and repair data libraries for StorageTek’s customers. StorageTek claimed that CHE had violated the DMCA anti-circumvention rules.\(^{310}\)

Relying on its analysis in *Chamberlain*, the Federal Circuit found no DMCA violation: “To the extent that [the defendant’s] activities do not constitute copyright infringement or facilitate copyright infringement, StorageTek is foreclosed from maintaining an action under the DMCA. That result follows because the DMCA must be read in the context of the Copyright Act, which balances the rights of the copyright owner

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\(^{304}\) Id. at 1202.

\(^{306}\) Id. at 1194.

\(^{307}\) Id.

\(^{308}\) Storage Technology Corp. v. Custom Hardware, Engineering & Consulting, Inc., 421 F.3d 1307 (Fed. Cir. 2005).

\(^{309}\) Id. at 1309-10.

\(^{310}\) StorageTek also claimed copyright infringement, asserting that CHE did not qualify for the safe harbor provided by 17 U.S.C. sec. 117. A majority of the Federal Circuit decided that the sec. 117 safe harbor did protect CHE’s activities. *StorageTek*, 421 F.3d at 1311-18.
against the public’s interest in having appropriate access to the work.” Even if activation of the maintenance code might violate the firm’s contractual rights with customers, this unauthorized activation of the code could not violate the DMCA because the contractual rights “are not the rights protected by copyright law.” Without proof of a nexus between the rights protected by copyright law and the circumvention of the TPM, no violation of the DMCA anti-circumvention rules could occur.

2. Other Implications of the Lock-out Technology Cases

While this trio of cases—Lexmark, Chamberlain and StorageTek—reach the right results, they failed to consider a fundamental postulate of U.S. intellectual property law, namely, that the exclusive rights copyright law confers cannot be used to defeat competitive uses of noncopyrightable functional products or features that are suitable for regulation under the more pro-competitive mandate of the patent laws. This proposition was established by the Supreme Court in the 1880 case of Baker v. Selden and extended by Baker’s progeny, and it stands for the necessity of maintaining a clear line of demarcation between industrial and artistic property laws. Properly understood, Baker v. Selden authorizes intermediate copying of even an entire copyrightable work, in order to extract the non-copyrightable functional elements, so long as the competitor’s ultimate production avoids any unnecessary taking of protected expression.

Unfortunately, some commentators have cumulatively obscured the pristine meaning of Baker v. Selden, which Professor Kaplan, among others, clearly understood. There has been a deplorable tendency to treat Baker as merely endorsing a form of fair use in cases involving functional works, rather than as an independent and fundamental perhaps even constitutionally based, requirement of the federal intellectual property system. Because Baker v. Selden, properly understood, stands for fundamental

311 Id. at 1318. However, the StorageTek decision opens the disquieting possibility that a better-drafted contract could exclude the provision of competing repair services by express terms that this court would uphold. Id. at 1316-17.
312 Id. at 1319.
313 Id.
319 Sega Enterprises Ltd. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1993); Atari Games Corp. v. Nintendo of America, Inc., 975 F.2d 832 (Fed. Cir. 1993).
320 U.S. Constitution, Art. I, sec. 8, cl. 8 (giving Congress power to “promote the progress of science and useful arts, by securing to authors and inventors exclusive rights for limited times for their respective
limits on the ability of copyright owners to bypass the strictures of the patent law,\textsuperscript{321} it was not overridden by the DMCA, and it cannot be frustrated by the provisions of that Act.\textsuperscript{322} There is, moreover, no legislative history suggesting that Congress intended to override \textit{Baker} and its progeny in adopting the DMCA anti-circumvention rules.

The Federal Circuit deserves, however, considerable praise for taking seriously that balance is a bedrock principle of intellectual property law and for developing a framework for interpreting § 1201 that enables courts to develop a balanced approach to interpretation of the DMCA anti-circumvention rules insofar as copyright owners try to use them to block fair and other non-infringing uses of technically protected copyrighted works. Just as the court in \textit{Netcom} rejected the White Paper’s unbalanced and overly broad interpretation of the reproduction right,\textsuperscript{323} courts interpreting § 1201 should reject \textit{Reimerdes’} unbalanced and overly broad interpretation of § 1201 in favor of the framework set forth in \textit{Chamberlain} and \textit{StorageTek} which we believe is far more consistent with the letter and spirit of the WCT and with Congressional intent in enacting the anti-circumvention rules than \textit{Reimerdes}.

D. The Reverse Notice and Takedown Framework

Building on the insights of \textit{Chamberlain} and \textit{StorageTek}, courts faced with public interest challenges to the DMCA anti-circumvention rules should follow \textit{Netcom}’s lead by developing a notice and takedown approach to balancing the interests of copyright owners and the public in order to facilitate circumventions to enable privileged uses. Courts could adopt our reverse notice and take down procedure as consistent with §1201, in order to attenuate the barrier to entry it creates for public interest users and to reconcile the tensions between §§ 1201(a) and (b) and 1201(c).

1. The Basic Concept

Under our proposed approach, any confrontation between the user community’s efforts to make non-infringing uses of material available to the public on a website and the copyright owners’ technological fencing under §1201 could elicit a demand from the non-infringing user group for a right to limited decryption for legitimate purposes, such as indexing the material in question and extracting specified components in order to complete a specified non-infringing project. Copyright owners could be given 14 days either to deny the limited circumvention proposal or to allow it by silence, without

\textsuperscript{321} See supra notes xx.

\textsuperscript{322} We fear that the federal appellate courts will not vindicate its pristine meaning of \textit{Baker v. Selden} or even perceive its critical importance for satisfactorily resolving this class of cases on more than an ad hoc, tentative grounds. The Federal Circuit’s unfortunate deference in some cases to so-called “contractual” terms (regardless of the lack of meaningful assent by the “licensee” of mass-marketed products) further undermines confidence in the staying power of that court in this area. See, e.g., Monsanto Co. v. McFarling, 363 F.3d 1331 (Fed. Cir. 2004)(enforcing “license” on bag of seeds sold to a farmer). In the long run, we will probably need help from Professor Burk’s intriguing theories of “anticircumvention misuse. Burk, supra note xx. This would avert the risk posed if the DMCA anti-circumvention rules allowed every product sold on the general products market to obtain a 150 years of copyright protection behind digitized electronic fences that have nothing to do with the protection of literary and artistic works.

\textsuperscript{323} See supra notes xx and accompanying text.
prejudice. In case of denial, the user group would be entitled to seek a declaratory judgment vindicating or denying its claim to circumvention for the purpose of the specified non-infringing uses.

This proposal, to become fully operational, would naturally benefit from standardized procedures concerning the form and means of notifying copyright owners of a “reverse notice and take down” demand. It would also require courts to allow those providing needed decryption skills and technology to benefit from the same privileged use exception that a demandeur had ultimately vindicated either in court or by silent acquiescence of the copyright owner. Above all, such a regime would particularly benefit from the kind of expeditious, low-cost administrative tribunals proposed in other contexts.324

These long-term considerations should not, however, obscure the feasibility or desirability of immediately instituting ad hoc, case-by-case, judicially devised reverse notice and take down procedures, in order to promote the formation of a jurisprudence of permissible non-infringing uses of technically protected content to complement and supplement the jurisprudence of infringing uses discussed above.325 Netcom has shown that courts in the U.S. can evolve balanced solutions to respond to digital copyright problems. Reverse notice and takedown procedures could attenuate the tension between §1201(a) and (b) of the DMCA, which otherwise seem oblivious to fair use and other permissible uses of technically protected content, and §1201(c), which seeks to preserve all public interest uses, although the contours of how this goal should be attained remain to be determined.

Sections 1201(a)(2) and (b)(1) suggest that no one can arbitrarily and autonomously employ self-help decryption devices to crack the technological fence and remove unprotected or unprotectible matter. But bona fide non-infringing users should be able to petition for the right to extract specified matter for specified non-infringing uses. If these proposals are documented by supporting evidence, they could trigger recourse to §1201(c) in order to prevent §1201 from perversely thwarting judicially sanctioned permitted uses.

Resort to a reverse notice and takedown procedure of this kind would help make the DMCA into an instrument that promoted copyright protected uses without creating barriers to entry that thwarted new technologies for sharing non-protected matter. It could facilitate licensing to non-profit entities on reasonable terms and conditions, and it could help to frustrate growing tendencies to put public domain matter off limits by encasing it in impenetrable electronic fences. It could also attenuate the systematic use of digitized, electronic prior restraints on speech, which sooner or later are bound to provoke constitutional challenges.326 Indeed, such an extension of the notice and take down model could present would-be users of public domain material with a workable choice between sustaining the costs of securing judicially approved circumvention (and

324 See, e.g., Lipton, supra note xx, at 149-55.
325 After all, the “notice and take down” provisions of existing § 512 of the DMCA emerged from a negotiated compromise derived from the teachings of prior case law on contributory infringement in the digital environment. See supra notes xx and accompanying text.
326 Cf. Benkler, supra note xx (challenging the constitutionality of the DMCA anti-circumvention rules); Ginsburg, supra note xx, at 21 (anticipating such challenges).
implementing it) or purchasing the public domain matter from the vendor at reasonable prices for the sake of convenience.

2. Illustrative Applications

Below are four examples of situations in which courts might find the proposed reverse notice and takedown procedure useful.327

(1) Some years ago, the American Civil Liberties Union challenged the constitutionality of a law requiring public libraries to install filtering software if they take funds to promote Internet access to patrons. The filters were meant to protect minors from accessing indecent or otherwise harmful materials. However, such software under- and overblocks content, as well as impedes access to materials that may be harmful to minors but are constitutionally protected speech as to adults.328 Although the Supreme Court ultimately ruled against the constitutional challenge, it recognized that the under- and overblocking problem existed, and that this interfered with the legitimate interests of adults in accessing some blocked materials.329

The challenge for libraries now is to decide whether to install filters, and if so, which filtering software is best. Libraries may want to conduct a comparative assessment of the efficacy of software filtering programs, but filtering software may use TPMs to block access to the list of URLs that the software blocks. Because makers of filtering software are likely to consider block-lists as proprietary trade secrets, they are unlikely to agree to bypassing the TPMs; moreover, library staff may lack sufficient expertise to bypass the TPMs to make such an assessment.330

It is in the public interest for libraries to have access to this information. Under a reverse notice and takedown procedure, a court could order the software filtering firms to take-down the TPMs so that the comparative analysis could take place. The software filter developer could petition the court to condition the takedown on the libraries’ willingness not to reveal the trade secret block-lists. We have confidence that courts could fashion appropriate relief that balanced the interests of the libraries in being able to

327 For other examples of public interest uses that have been or may be thwarted or chilled by the DMCA, see, e.g., Benkler, supra note xx, at 328-29; Ginsburg, supra note xx, at 20; Lipton, supra note xx, at 113-15; Sadd, supra note xx, at 321-22; Samuelson, supra note xx, at 545, 548-49, 553. See also Unintended Consequences, supra note xx.
329 Justices Kennedy and Breyer thought that the interests of adults in access to a wider array of materials was adequately addressed by provisions of the Congressional legislation that allowed libraries to unblock sites for patrons wishing to view blocked but nonetheless lawful content. Id. at 214-15 (Kennedy, J., concurring); id. at 215-20 (Breyer, J., concurring).
330 See Pamela Samuelson, Principles for Resolving Conflicts Between Trade Secrets and the First Amendment, 58 Hastings L.J. 777, 790-91 (2007)(discussing an effort to reverse engineer a TPM to get access to block-list information that was thwarted by threats of DMCA anti-circumvention liability).
332 See Samuelson, supra note xx, at 540 (giving this example). Public interest users should not, in our judgment, have to undertake extra expense and effort to search for possible alternative formats for the works of which they want to make fair use when a technically protected format is near at hand. In this respect, we join the EFF’s criticism of the Copyright Office for its unwillingness to consider the inconvenience and expense of such efforts as a factor favoring permitting fair use exemptions for such users. See EFF on Rulemaking, supra note xx, at 4-5.
communicate findings with other librarians and the interests of the software developers in keeping the list data secret.

(2) A linguistics professor might want to develop a compilation of clips from movies to show that the word “redskins” in Western movies has been systematically used in a derogatory fashion. If this professor is not a technically sophisticated person, he or she may not be able to bypass CSS in order to make these clips from DVD movies. If the professor requests access to unprotected forms of these movies to engage in the stated fair uses and this request is ignored or denied by the motion picture studio copyright owners, the linguistics professor should be able to ask a court to order the studios to provide the appropriate access to the movies or to authorize the takedown by a circumvention service on their behalf.

(3) The Computer History Museum is among the entities that might want to undertake a project to archive computer programs written during the 1960’s, and 1970’s. Some software have employed TPMs to control access to the programs, but many programs may now be stored in obsolete formats and/or on obsolete storage media that have effectively become TPMs. An archivist hired to carry out this task would need to be able to bypass the TPMs to preserve this historical material and enable it to be stored in updated formats. Rather than waiting three years for the next LOC rulemaking, an archivist should be able to ask a court to issue a reverse notice and takedown order insofar as copyright owners of the software did not agree or could not be found to give consent to bypassing the TPM.

(4) Security researchers are often interested in reverse engineering TPMs, such as those used to protect commercially distributed sound recordings, for purposes such as determining if the TPMs might cause software to be installed on users’ computers that would cause the computers to be vulnerable to security attacks or that might surreptitiously monitor and report back on users’ behaviors. Undertaking such

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332 See, e.g., Ginsburg, supra note xx, at 17 (suggesting that judges could authorize circumvention services to facilitate fair uses of works protected by TPMs).

333 It is not entirely clear whether computer programs in machine-executable forms would have been protectable under the Copyright Act of 1909, although the U.S. Copyright Office began accepting registration of computer programs as copyrightable works in the mid-1960’s. See Copyright Office Circular 31D, reprinted in Duncan M. Davidson, Protecting Computer Software: A Comprehensive Analysis, 1983 Ariz. St. L.J. 611, 652 n.72. Obviously, bypassing a TPM protecting access to programs written in this period would not give rise to § 1201 liability if the programs were not copyrightable, but the risk for the archivist in circumventing these old TPMs would nevertheless be real, given the registrations accepted then.


335 The difficulties in locating copyright owners that has prevented many creative and educational reuses of copyrighted works, especially many older ones, have been recognized as a significant problem. The U.S. Copyright Office has proposed allowing reuses of so-called “orphan works” to proceed if the reusers have made reasonably diligent efforts to get permissions. See U.S. COPYRIGHT OFFICE, REPORT ON ORPHAN WORKS (Jan. 2006). A similar problem may arise with TPMs. With the possibility of up to $2500 of statutory damages per circumvention at stake for violation of sec. 1201, 17 U.S.C. sec. 1203(3), there is a risk that public interest users, such as archivists, would be deterred from preservation activities. With a reverse notice and takedown procedure, the archivist could be assured that he or she would incur no liability for this circumvention as long as he or she did not infringe copyrights in the works.

research would almost certainly involve bypassing the TPM and making tools to do so; given the narrowness of the encryption research or computer security testing exceptions to § 1201, this activity would probably not qualify for a statutory safe harbor. Yet, the work would nevertheless be in the public interest, even if the rightsholder in the sound recording did not approve of this activity.

Security researchers ought to be able to engage in such reverse engineering and to disclose the results of their research in proceedings of scientific conferences. In keeping with the reverse notice and takedown regime, a court could determine that research-related activities of this sort are lawful under a proper interpretation of § 1201.

3. Other Considerations

Although it would be more cost-effective to have a streamlined administrative process for considering reverse notice and takedown requests, a judicially developed case-by-case evolution is, in our judgment, preferable to a statutorily mandated administrative process. The case-by-case approach is more dynamic, flexible and responsive to the fine details of each situation. It is, moreover, likely to lead to a normative framework for dealing with such requests. A statutorily created administrative process would be vulnerable to political economy problems akin to those that brought about the DMCA anti-circumvention rules in 1998. Once the courts develop normative baselines for dealing with reverse notice and takedown requests, however, an administrative procedure could evolve over time to apply and refine this normative framework. This development could also induce copyright owners to engage in private

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338 If, for example, the TPM does not use encryption, but some other technique, the encryption research exception would, strictly speaking, not apply. See 17 U.S.C. sec. 1201(g). The computer security testing exception only applies if one is testing a computer network for security flaws. Id., sec. 1201(j). The unduly narrow nature of these exceptions is discussed in Digital Dilemma, supra note xx, at 171-76.

339 See, e.g., Liu, supra note xx, at 528-37 (arguing for flexibility in the anti-circumvention regulations as applied to scientific research).

340 See, e.g., Lipton, supra note 5, at 155 (“Administrative approaches tend to be more flexible and less formal in their procedures than judicial processes and are generally less costly than judicial hearings.”). We recognize that our proposal is not optimal in at least two respects: first, few prospective privileged users may have the resources to bring reverse notice and takedown challenges to TPM’ed content, and second, the prospective privileged users will have to identify themselves to the copyright owner rather than making spontaneous fair or other non-infringing uses without informing the relevant copyright owners. See Burk & Cohen, supra note xx, at 59-61 (“...a preauthorization requirement would be costly and would chill spontaneous uses... application to a third party is likely to compromise the sort of anonymity that users presently enjoy... Spontaneous uses likely would disappear altogether... under this system, fair use might become the sole provenance of well-capitalized firms with the resources to engage in the process”). The first problem may be mitigated by the rise of public interest organizations (including nonprofit organizations such as the Electronic Frontier Foundation and high technology clinics such as those in operation at American University, Boalt Hall, Stanford, and USC Law Schools) with the capacity to represent prospective fair users. Moreover, in time, an administrative process might be set up to resolve these challenges, as Lipton proposes, supra note 5, at 149-55. As to the second problem, a comparative approach is necessary. With all due respect to Burk & Cohen, the fair use infrastructure they propose is less likely to be achievable than the reverse notice and takedown procedure we propose. So while their proposal is more socially optimal than ours in that copyright owners don’t have to know the identity of the prospective fair user, ours is more socially optimal in that courts can bring it about. It is, moreover, possible that a reverse notice and takedown procedure might, in time, lead to something akin to the fair use infrastructure they envision, as copyright owners decide it is more efficient to designate a service to deal with public good circumvention claims instead of having to respond to them on a regular basis.
initiatives consistent with this framework, such as designating circumvention services to which putative public interest users might go to achieve circumvention for non-infringing purposes.\textsuperscript{341}

Whether courts in the United States will, in practice, defend good faith public interest communities against technologically induced inhibitors of non-infringing uses with the same zeal they have thus far guarded against online inducers of infringement in Napster, Aimster and Grokster remains to be seen. Certainly, the logic with which the courts have justified limitations on regulation of dual use technologies resonates with similar concerns to vindicate non-infringing uses of technically protected contents and to remove barriers now thwarting development of appropriate technologies to achieve this goal. A judicially engrafted reverse notice and takedown solution could provide a minimalist bridging device to achieve this balance. Chamberlain and StorageTek provide a conceptual framework for interpretation of § 1201 out of which the reverse notice and takedown approach we propose could develop through common law adjudication.

As we noted at the outset, the reverse notice and takedown approach is eminently consistent with the WCT, which expressly reserved permitted uses from the scope of the obligatory anti-circumvention measures.\textsuperscript{342} In countries that adopted the treaty verbatim, such as Japan, there can be no domestic or international objections to any effort to introduce the reverse takedown and notice approach. Because of the civil law traditions prevalent in the EU, it would not be feasible for member states to adopt the reverse notice and takedown regime through common law litigation. So it is fortunate that the EU Copyright Directive has provided a general framework for member states to achieve a balanced solution to providing legal reinforcement of TPMs used by copyright owners to protect their works while at the same time enabling public interest uses of TPM’d content.

As Part III will demonstrate, a reverse notice and takedown procedure would satisfy the Directive’s goals more effectively than national implementation measures thus far adopted. Insofar as the U.S. and EU move in the direction of more balanced anti-circumvention rules, other national laws modeled on the DMCA should be reconsidered.

III. Reverse Notice and Takedown As an Implementation of Article 6(4) of the EU Copyright Directive

In the United States, the move toward a more flexible interpretation of the DMCA in the lockout cases creates room for judicial development of a reverse notice and takedown procedure. Adoption of our proposal is also facilitated by the ability of courts to address

\textsuperscript{341} Indeed, this may be a way to accomplish the “fair use infrastructure” that Burk and Cohen envisioned some years ago. See Burk & Cohen, supra note xx.

\textsuperscript{342} WIPO Copyright Treaty, Dec. 20, 1996, S. Treaty. Doc. No. 105-17, art. 11, which states:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.

(Emphasis supplied).
dual-use technologies in the context of genuine public interest users because of the cautious approach taken in the technology dissemination cases of coming down hard only on bad faith actors. In this climate, courts should now be able to give real meaning to the inchoate commitment to the preservation of fair use in section 1201(c). Reverse notice and takedown would do that.

In the European Union, a more extensive (but incomplete) statutory framework governing the relationship between public interest uses and TPM is in place, but this framework can also accommodate our proposal. Indeed, Article 6(4) of the EU Copyright Directive requires member states to adopt mechanisms that preserve the ability of users to take advantage of exceptions and limitations guaranteed by copyright law notwithstanding the application of TPM. The reverse notice and takedown procedure is one way in which member states can fulfill that obligation. Moreover, the procedure effectuates the basic normative commitment to the continued availability of exceptions to exclusive rights expressed in article 6(4). In fact, it does so more fully than current member state implementation of the Article (which has been confined by textual limits on the scope of Article 6(4)).

In this part, we explain the basic contours of article 6(4) of the directive, and how adoption of the reverse notice and takedown procedure would implement member states obligations under that provision. This discussion also allows us to elaborate on some aspects of the proposal already mentioned in Part II.

A. The Unfulfilled Normative Commitment Underlying Article 6(4)

The EU Copyright Directive starts from the general normative position that exceptions and limitations that would be available absent the application of TPMs should continue to be available to the beneficiaries of those exemptions and limitations notwithstanding the application of such measures. Unlike the DMCA, the Copyright Directive does not contain a list of exemptions from the circumvention prohibitions. However, the EU legislators were aware of the potential that TPMs might become an absolute prohibition restricting users from engaging in acts permitted under copyright law.

347 See Copyright Directive, supra note xx, Art. 6(4).
348 See infra Part III.C
349 See infra Part III.A.
350 For a summary and analysis of member state implementation, see Guido Westkamp, The Implementation of Directive 2001/29/EC in the Member States (Feb. 2007), in COPYRIGHT DIRECTIVE IMPLEMENTATION STUDY, supra note 11, Part II.
347 See Copyright Directive, supra note xx, art. 6(4)
Concern about that prospect found expression in Article 6(4). The first paragraph of Article 6(4) provides that:

Notwithstanding [the prohibitions against acts of circumvention and devices], in the absence of voluntary measures taken by right holders, including agreements between right holders and other parties concerned, member states shall take appropriate measures to ensure that right holders make available to the beneficiary of an exception or limitation provided for in national law in accordance with [various articles in the Directive listing permissible exceptions to copyright, such as copyright in connection with teaching], the means of benefiting from that exception or limitation...... [where that beneficiary has legal access to the work].

The Directive thus seems to take the position that a technological adaptation, namely, the application of TPMs, should not alter the balance that existed under default rules of copyright law with respect to the enjoyment of exceptions and limitations. We call this principle “prescriptive parallelism,” a notion that the traditional copyright balance of rights and exceptions should be preserved in the digital environment.

Article 6(4) is only one dimension of parallelism in the EU Directive. It also contains a provision that recognizes the relevance of enhanced technological enforcement capacity and anticipates a reduction in private copying levies under national copyright laws, potentially to zero, where copyright owners have applied TPMs to works and thus secured by technology what it formerly obtained through legally sanctioned levy schemes. Copyright owners should not be able to double dip, and should receive the same level of effective protection, whether through law or technology. Of course, one of the principal objectives of the EU Directive was to provide legal protection against circumvention of technological protection measures, which might be conceived as enhanced legal protection for copyright owners in light of enhanced copying capacity.

We do not want to overstate the principle of prescriptive parallelism underlying the EU Directive. Article 6(4) is a means by which the EU sought to ensure that the balance of copyright law was maintained after the application of technological protection

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350 See Hugenholtz, supra note xx, at 501 (describing article 6(4) as “a provision that is presumably intended to reconcile the interests of right owners employing technical protection measures with the interests of users wishing to benefit from copyright limitations”); Bently and Sherman, supra note xx, at 310 (“as regards the relationship between the technological measures and exceptions to copyright, article 6(4) of the [Copyright directive] provides for a strange, barely comprehensible, compromise.”).
351 See Copyright Directive, supra note xx, art. 6(4)
6 Article 5(3)(o) also derogates from prescriptive parallelism by permitting member states to create exceptions or limitations to rights provided for in articles 2 and 3 “in certain other cases of minor importance where exceptions or limitations already exist under national law, provided that they only concern analogue uses . . .” Copyright Directive, supra note 6, art. 5(3)(o).
7 Article 5(2)(b) of the Copyright Directive permits member states to create exceptions or limitations to the reproduction right “in respect of reproduction on any medium made by a natural person for private use . . . on condition that the right holders receive fair compensation which takes account of the application or non-application of technological measures referred to in article 6 to the work for subject matter concerned.”
8 See id. art 6(1)-(2).
measures. But that goal is pursued against the broader backdrop of a Directive that contemplates adjustments to the legal rights of both copyright owners and users to reflect the availability and application of such measures.

Moreover, the prescriptive parallelism of Article 6(4) has also to be viewed against the treatment of exceptions by the EU Directive generally. Although the stated objective of the Directive was in part to harmonize the disparate set of exceptions and limitations available under national copyright laws in the EU, the Directive effected only a very modest amount of harmonization, at least in the short run. Its list of exceptions is largely permissive, although there is a mandatory exception for ephemeral copies, and there is a restriction on adoption of further exceptions.

More importantly for purposes of this article, the failure to mandate the adoption of a wide range of exceptions and limitations is an important limitation on the effectiveness of Article 6(4) in achieving its general goal of prescriptive parallelism. Article 6(4) only guarantees that technological protection measures do not impede the ability of third parties to take advantage of exceptions or limitations if those exceptions or limitations are provided in national law. And there are a number of other significant textual limits on the effectiveness of article 6(4), including its limitation to seven defined exceptions, rather than all exceptions or limitations existing in national law, its inapplicability to works made available on-demand, and its unclear relationship with the anti-circumvention and interoperability provisions in the Software Directive.

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352 See Hugenholtz, supra note xx, at 501.
9 See generally INSTITUTE FOR INFORMATION LAW, UNIVERSITY OF AMSTERDAM, STUDY ON THE IMPLEMENTATION AND EFFECT IN MEMBER STATES’ LAWS OF DIRECTIVE 2001/29/EC ON THE HARMONISATION OF CERTAIN ASPECTS OF COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION SOCIETY, FINAL REPORT (FEBRUARY 2007); see also INSTITUTE FOR INFORMATION LAW, UNIVERSITY OF AMSTERDAM, THE RECASTING OF COPYRIGHT AND RELATED RIGHTS FOR THE KNOWLEDGE ECONOMY (Final Report, November 2006). These studies were commissioned by the European Commission’s Internal Market Directorate-General.
10 See Copyright Directive, art. 5(2)-(3) (providing that member states may provide for certain exceptions or limitations); see also Bernt Hugenholtz, Why the Copyright Directive is Unimportant, and Possibly Invalid, 22 EUR. INTELL. PROP. REV. 501 (2000).
11 See id. art. 5(1) (providing that “temporary acts of reproduction... which are transient or incidental and an integral and essential part of the technological process and whose sole purpose is to enable a transmission in the network between third parties by an intermediary, or a lawful use, of a work or other subject matter to be made, and which have no independent economic significance, shall be exempted from the reproduction right”).
12 See id., recital 32. It might be that over time the mere listing of permissible exceptions will cause a convergence as different national legislators begin to work from the same turnkey list, secure in the knowledge that adopting such exceptions will not meet with the objections of the European Commission.
353 See id., art 6(4).
13 These include exceptions for copying by libraries and educational institutions, copying for the benefit of persons with a disability, copying for the purpose of scientific research. But it does not, for example, include uses that users are entitled to make because a work is in the public domain or because all that is taken is otherwise unprotected by copyright law. Finally, it is also unclear how Article 6(4) interacts with the anti-circumvention provisions and interoperability exceptions in the Software Directive. See infra note xx.
354 The mechanisms of article 6(4) do not apply where the work is made available on an on-demand basis because the provision is inapplicable where “the work or other subject matter is a made available to the
These limitations in the text of the directive have caused many scholars to doubt the capacity of the provision to achieve its declared objectives. Rather than focus on the detail of the limitations of article 6(4) as enacted, and perhaps looking forward to the possible revision of the Directive to take into account the recent report commissioned from the University of Amsterdam Institute for Information Law, we will focus on the conceptual mechanism of article 6(4) as a means of ensuring continued viability of privileged uses notwithstanding the application of technological protection measures. More particularly, we will consider the reverse notice and takedown proposal as a vehicle for exploring possible reforms to, and implementation of Article 6(4).

B. Reverse Notice and Takedown as Implementation of Article 6(4)

The reverse notice and takedown proposal articulated in Part II essentially consists of two parts. First, implicitly, all uses privileged under traditional copyright principles should continue to be privileged in an era of digital rights management. The application of TPMs should not alter the balance of rights between copyright owners and users. This is a substantive principle, which might be followed with different modifications in different countries.

Second, in order to effectuate this substantive principle of prescriptive parallelism, users need a mechanism by which to vindicate their rights and to secure the certainty required to engage in creative activity privileged under traditional copyright principles. Different institutional or procedural means through which to pursue this objective are possible, but we believe the reverse notice and takedown procedure holds a number of advantages, many of which were canvassed in Part II.

Building upon the notice and takedown machinery found in section 512 of the U.S. Copyright Act and in the EU E-Commerce Directive is an attractive prospect. The safe harbor provisions enacted with respect to service provider liability likewise address dual use technology, in the sense that the facilities of service providers can be used for both infringing and non-infringing purposes. To prohibit the free use of such facilities simply in order to prevent the infringing activities would deprive the public of valuable technology that facilitates the purposes of copyright law. However, at the end of the day, public on agreed contractual terms in such a way that members of the public may access them from a place and at the time individually chosen by them. Moreover, because the provision only applies where the beneficiary has legal access to a work, it is arguably ineffective against access control measures. See Severine Dusollier, Fair Use by Design in the European Copyright Directive of 2001, 46 Comm. Of ACM 51, 53 (2003); Severine Dusollier, Exceptions and Technological Measures in the European Copyright Directive of 2001 – An Empty Promise, 34 IIC 62 (2003).

355 The anti-circumvention provisions and interoperability exceptions in the Software Directive, which appear to survive the adoption of Article 6. See Copyright Directive, supra note, recital 50; see also Software Directive, art 7(1)(c); Bently and Sherman, supra note xx, at 311-312 (discussing UK implementation and noting different treatment of software).

356 See Hugenholtz, supra note xx; Dusollier, supra note xx; See supra note xx.

357 Even within the traditional copyright system, exceptions are quite different from one country to the next. How each country might want to approach the digital environment is unlikely to be more uniform.
under section 512, all the standard copyright exceptions and defenses are preserved. Section 512 simply imposes an adjudication and enforcement machinery to facilitate the resolution of disputes regarding infringement. Of course, the effectiveness of such mechanisms, and their ability to preserve existing balances in the copyright system, are heavily dependent upon the details of the system that is put in place.

As an initial matter, we believe the proposed reverse notice and takedown procedure should be considered as a means of implementing member state obligations under Article 6(4). This proposal should be studied by countries committed to compliance with the EU regime, which included not only the member states of the EU, but also countries that commit to such a regime in bilateral trade negotiations. Yet, it must be said that given certain limits presently contained in Article 6(4), the proposal may exceed the scope of Article 6(4). However, member state implementation of a narrower provision might still afford insights as to how the basic structure of such a regime could be enhanced to better ensure that anti-circumvention provisions are consistent with privileged uses. Moreover, such an inquiry might also highlight the ways in which Article 6(4) might itself be broadened as EU legislators consider a revision of the Directive in light of the recent report by the Institute for information Law at the University of Amsterdam. This might further enhance or modify the reverse notice and takedown proposal to tailor it as an implementation of Article 6(4).

C. Application of Reverse Notice and Takedown Under Article 6(4)

Under Article 6(4), right holders are required to ensure that beneficiaries of exceptions have the ability to take advantage of those exceptions notwithstanding the application of technological protection measures to copyright works. Moreover, if right holders do not voluntarily ensure that result, member states are obliged to devise a mechanism to compel it. Member states have implemented this obligation in a number of different ways. Each of the different forms of implementation offer a model for preserving privileged uses; yet, several are deficient and would benefit from a reverse notice and takedown procedure.

359 See supra Part I.
360 Compliance with EU law is an obligation not only all of European Union member states, but also of member states of the European Free Trade Area (EFTA), as well as a number of countries pursuing future European Union membership or entering into bilateral trade agreements with the European Union. See Maximiliano Santa Cruz, Intellectual Property Provisions in European Union Trade Agreements, ICTSD Issues Paper No. 20, at 2-3 (June 2007). In the past, the bilateral trade agreements negotiated by the EU have contained obligations with respect to intellectual property stated at a very general level, such as compliance with the WIPO Copyright Treaty. See id. at 10. In contrast, the United States has negotiated for close to implementation of the DMCA in its bilateral trade agreements. See Chander, supra note xx. However, some observers have detected a shift by in the EU approach toward the more aggressive US approach in more recent negotiations. See Santa Cruz, supra at ix-x, 18.
361 See generally Westkamp, supra.
362 Of course, much of the blame can be laid at the door of the Directive itself. See Copyright Directive Implementation Study, supra note xx, at 132-133.
1. **What triggers an entitlement to relief?**

The reverse notice and takedown procedure would be available to any particular user who wished to engage in a privileged use with respect to even a single work. Thus, the threshold would be substantially lower than the “adverse effect on classes of work” standard found in the rulemaking authorization contained in the DMCA, even as refined under the 2006 rulemaking. This more generous approach is fully consistent with Article 6(4), which would appear to allow analysis of particular uses of particular works by particular users: the copyright exceptions in Article 5 that are incorporated by reference involve particular uses for particular purposes.

Perhaps, normatively, there should be some limit to this. It would seem that the unavailability of a single work to be put to a single use might be insufficiently substantial a cost to justify the mechanisms contemplated by Article 6(4). But this calculus depends in part upon the nature of the mechanism and upon what is contemplated by the member state as an “appropriate measure” in response to this inability to exercise an exception granted by copyright law. If the procedure is speedy, and “appropriate measure” means permit a single circumvention, then there is no real cost to a state acting on the basis of a lower trigger threshold.

Because the reverse notice and takedown procedure contemplates the possibility of relief in the form of a limited exemption for a particular user, it would seem perfectly appropriate that the obligation of member states should arise more easily. As the recent refinement by the Librarian of Congress of the notion of “classes of works” reflects, the sub-categories of privileged uses that are produced from a matrix of affected works, groups of users, and range of uses, is substantial and disparate. Not only must different forms of relief be available, but also different levels of intrusion on permitted uses should be offered relief.

But the fact that relief might be appropriate under the reverse notice and takedown procedure even with respect to a single use of a single work should not preclude the possibility of using the procedure where technological protection measures are having a more pervasive effect. It is arguable that the relief available under any state-imposed mechanism should reflect the degree and type of and harm caused by the application of technological protection measures. Thus, member states may need to create more intrusive or structural relief for third-party users or competitors if lawful use of entire classes of works are being impeded.

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364 See Copyright Directive, art. 6(4) (including, for example, copying for the purpose of scientific research).


365 See 2006 Rulemaking supra note xx

29 See Dinwoodie, supra note xx, at 765-66 (arguing that “if particular permitted uses of particular works is not being enabled, then an exemption from the anti-circumvention prohibitions has to be
This type of analysis might seem to replicate that conducted by the Register of Copyrights in the triennial rulemaking. But the reverse notice and takedown procedure might remedy some of the deficiencies of that procedure. In particular, despite refinement in the 2006 rulemaking of the notion of adverse classes, the Register remains limited in the relief that she can offer, namely, the grant of a temporary exemption from the application of Section 1201. And that relief does not immunize third parties who, through the distribution of devices, assist in ensuring that privileged uses are made. Moreover, the process occurs only every three years.

Implementation of Article 6(4) in the United Kingdom includes the possibility that the complaint of obstruction with the exercise of privileged uses can be made on behalf of a class of users. This should be a component of the reverse notice and takedown procedure. It would provide a useful complement, more flexible and more dynamic, to the rulemaking procedure.

2. **The role of voluntary arrangements**

The reverse notice and takedown proposal would be available to users and competitors regardless of the efforts by copyright owners to make works available to such persons notwithstanding the application of technological protection measures. In this respect, the proposal departs from the strict text of the EU Directive. Under the Directive, the obligation upon member states arises “in the absence of voluntary measures taken by right holders, including agreements between right holders and other parties concerned.”

However, we expect that the availability of the reverse notice and takedown procedure would facilitate licensing to non-profit entities on reasonable terms and conditions, and could help to frustrate the growing tendencies to put public domain matter off limits by encasing it in impenetrable electronic fences. In either case, whether acting in advance of the threat of later action (under Article 6(4)), or under contemporaneous threat (in the case of the reverse notice and takedown procedure), the

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366 See supra text accompanying notes xx-xx.
367 See supra text accompanying notes xx-xx.
368 See Copyright, Designs and Patents Act, §§ 296ZE(2) (UK) (“person being a representative of a class of persons prevented from carrying out a permitted act”).
369 If the request could not be made on behalf of a class of users, there might arise the problem whether similarly situated third parties could rely on responses of copyright owners to a request from a user under the reverse notice and takedown procedure. To the extent that the request invokes a “purpose exception,” it is unlikely that copyright owners would make distinctions between users and thus as a practical matter similarly situated third parties could rely on relief granted by copyright owners. To the extent that copyright owners did make distinctions for improper reasons, occasion may arise to invoke Dan Burk's proposed anti-circumvention misuse doctrine. See Burk, supra note __. With respect to “identity” exceptions, persons falling within the group of beneficiaries entitled to exercise the exception should be able to take advantage (i.e., treat as “precedential”) relief granted to others possessing the same identity.
370 Copyright Directive, supra note xx, art 6(4).
shadow of legal compulsion might induce private ordering that is more balanced in nature.

The only type of “voluntary measure” expressly referenced in Article 6(4) is “agreements between right holders and other parties concerned.” However, reaching consensus among the vast range of interests now implicated by copyright law may be quite difficult. The process of legislating copyright law, which often approximates a contractual negotiation, has become tortuous and slow. It is similarly unlikely that agreements between copyright owners and users will be forthcoming. Because many exceptions depend on the type of use, rather than the category of user (i.e., purpose exceptions, not identity exceptions), it may not suffice merely to identify the relevant beneficiaries with whom to negotiate. If the obvious categories of users are singled out as beneficiaries, focusing on identity exceptions, we will privilege traditional “fair use communities,” which may constrain important creativity. Consensus among collectives often ignores the needs of single users, or users within very loosely-organized communities. The reverse notice and takedown proposal will accommodate these important innovators.

Agreements are not the only form of voluntary measure through which right holders might forestall the intervention of member states. For example, right holders might apply TPMs in ways that permit privileged uses. However, such an approach carries with it technological limitations. Technologically, implementing such fact-specific exceptions as the fair use doctrine or other privileged used in computer code will be immensely difficult.

Moreover, such arrangements raise broader normative concerns. Relying on copyright owners to map technology accurately to legal rules delegates immense power to copyright owners both in the interpretation of the default rules and in assessing the adequacy of the technology used to guarantee permitted uses. Finally, even if the

371 See id.
30 See also Ginsburg, supra at 15.

372 See Nic Garnett, Automated Rights Management Systems and Copyright Limitations and Exceptions, WIPO Doc. No. SCCR/14/5 (Apr. 27, 2006

31 See Sonia Katyal, Property Outlaws, available at www.chicagoip.com (discussing “anti-delegation” architecture of copyright law). To the extent that we might wish to rely on the incorporation of privileged uses in the architecture of the technological protection measures, it might be important to enlist the support of unfair competition or consumer protection law in requiring the disclosure by copyright owners of the precise nature and extent of technological protection measures. The objective has been secured in a number of European countries, in part through DRM specific legislation (e.g., Germany), Law of Unfair Competition, § 95(d) (Ger.), and in part through litigation all general principles of consumer protection (e.g., in France). See Association CLCV / EMI Music France ,Tribunal de grande instance de Nanterre 6ème Chambre Jugement du 24 juin 2003, at http://www.legalis.net/jurisprudence-decision.php?id_article=34
copyright owners accurately interpreted and implemented existing permitted uses, technological features will be inherently backward looking. 32 One of the advantages claimed for the fair use doctrine is its capacity to adapt economically reflect new technological conditions. 373

Thus, although the European legislator viewed legislative intervention as a background threat for incentivizing voluntary arrangements with copyright owners, the reverse notice and takedown approach – immediately guaranteeing the right to demand the exercise of privileged uses, regardless of voluntary arrangements – may be preferable. But the desired end is the same: encouraging private parties to make arrangements that allow valuable and privileged uses.

3. Effective ability to engage in privileged uses.

One of the principal points of contention in implementation of the WIPO Copyright Treaty has been whether national legislation should prohibit both acts of circumvention and devices designed to facilitate circumvention. Creating exceptions to a prohibition on circumventing technological protection measures may be effectively meaningless if third parties with the technological capacity to engage in circumvention are not able to provide circumvention tools to those users seeking to engage in privileged use notwithstanding the application of technological protection measures.

Article 6(4) requires member states to ensure that right holders make available to the beneficiary of an exception or limitation the means of benefiting from that exception or limitation. This may impose a more affirmative obligation on member states to ensure that circumvention tools are available to some degree. Certainly, the forms of relief contemplated by commission officials under the provision includes quite affirmative steps, such as the distribution of the “unlocking keys” necessary to circumvent the technological protection measures. 374

If the reverse notice and takedown procedure is to ensure that privileged uses generally are able to be made notwithstanding the application of TPMs, the procedure might offer standing to providers of circumvention tools. Alternatively, third parties might be afforded the right to take advantage of the relief secured by individual users under the procedure. In Part II, we thus suggested that “courts allow those providing

(fining Sony for failing to disclose TPM). As a result, market forces may play a greater role in ensuring that copyright owners do not abuse the application of technological protection measures in the first place. See also Nika Aldrich, A System of Logo-Based Disclosure of DRM on Download Products, available at www.ssrn.com/abstract=983551

32 Of course, the same may be true of agreements reached between copyright owners and users. Thus, I previously argued that “any voluntary agreement that is concluded ideally should go beyond the articulation of present substantive rules and contemplate procedural or institutional components that facilitate attention to the spontaneity and dynamism of the ways in which users might wish to engage with copyrighted works.” Berkeley 2003, supra note __, at __.

needed decryption skills and technologies to benefit from the same privileges use
exception that a *demandeur* had ultimately vindicated either in court or by silent
acquiescence of the copyright owner.”

Copyright law does not typically permit third-parties to defend the legality of its
activities on the basis that it is facilitating the exercise of privileged uses by another party
(outside the context of secondary liability). Yet, absent the involvement of such third
parties, the rights secured by the reverse notice and takedown procedure may effectively
be worthless. In this context, the proposal thus derogates from parallelism with
traditional copyright law, but it does so because the technological realities are different.
A commercial copyshop might have improved the efficiency of professors producing
coursepacks or students making personal copies, but the copying could have occurred
without their help. The same is not true of technological circumvention (otherwise
there really would be some doubt about whether the measures were “effective”).

4. **Relief**

Of course, one can avoid this debate entirely, at least within the structure of
Article 6(4), by noting that this question is closely tied to the question of relief. To the
extent that the relief provided is more structural in nature, such as requiring the
modification of the technological protection measures are the distribution of the work in
unprotected format, procedural devices such as standing or third-party beneficiary rules
would be unnecessary. Such “structural” relief does appear to be consistent with the
type of approach contemplated by commission officials under Article 6(4), when they
suggested that the relief might include the “distribution of unlocking keys.”

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375 See supra text accompanying notes xx-xx.
cert. denied, 520 U.S. 1156 (1997); *see also William Patry, Fair Use in Copyright Law* 420 n.34
(1996) (arguing that “the courts have . . . properly rejected attempts by for-profit users to stand in the shoes
of their customers making nonprofit or noncommercial uses”). The historical weakness of permitting
commercially oriented third parties from claiming third-party beneficiary status with respect to the
assertion of privileged uses forced the British House of Lords in a leading case involving control of the
spare parts market to adapt a doctrine based in property law that imposed restrictions on the initial seller of
the property, rather than a right inherent in the user of that property. Thus, in *British Leyland Motor Co. v.
Armstrong Patents*, 1986 All E.R. 850 (H.L. 1986) (UK), the Court held that the owner of copyright in the
drawings of an exhaust pipe of a car could not enforce that copyright so as to prevent the sale of
unauthorized spare parts because to do so would derogate from the grant of the property right in the car.
This doctrine, though short-lived in UK copyright law because statutory revisions quickly addressed the
specific problem of spare parts and rights into useful articles, highlights the importance of limiting the
rights of the right holder rather than linking the rights of the third-party manufacturer to individual users.
*Cf. Canon KK v. Green Cartridge Co. (Hong Kong), 1997 AC 728 (PC) (Lord Hoffman); Mars v.
Tecknowledge, 2000 FSR 138 (Eng.) (Jacob LJ) (noting effect of demise of the British Leyland principle
under UK law).*
376 See Copyright Directive Implementation Study, at 133.
Indeed, perhaps focusing on the nature of relief available under the reverse notice and takedown procedure might be a cleaner approach that innovates with standing rules. In Part II, we suggested that copyright owners receiving the reverse notice and takedown request would have the responsibility to take down the TPMs that impeded privileged uses. Compliance with such a request would, of course, effectively grant structural relief, albeit without judicial or administrative intervention. A failure to comply with the reverse notice and takedown request would provide a user group with standing to seek the right to circumvent for the purposes of specified non-infringing uses. If the user group was successful, the ability of similarly situated third parties to take advantage of the court’s decision would depend upon the nature of the relief granted. As a matter of collateral estoppel, third parties could clearly rely on the court's determination whether they use in question was privileged. However, spreading the full benefits of the court’s ruling might depend upon whether the court simply permitted the requesting party to circumvent, permitted the user group to employ a provider of circumvention services to unlock the TPM, or ordered the copyright owner to modify the TPM.

The significance of the nature of the relief granted in this regard can be seen by examining the deficiencies in one member State implementation of article 6(4). Under the provisions implementing Article 6(4) in the United Kingdom, users who are unable to engage in a privileged use due to the application of TPMs may petition the Secretary of State. The secretary is supposed to require the copyright owner to demonstrate a “voluntary measure or agreement” or face “directions” that enable the relevant beneficiary to take advantage of the copyright exemption. If the copyright owner fails to follow those directions, it will be in breach of a duty actionable to the user that complained.

This procedure suffers from several deficiencies. In particular, it requires an application to the Secretary of State every time a user believes its right to engage in a privileged use is being impeded. The reverse notice and takedown procedure may also suffer from this problem if the relief contemplated simply authorized a particular user to circumvent a particular technological protection measure and no more.

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379 See supra text accompanying notes xx-xx
380 It might also depend upon any conditions that the court sent on the exercise of the rights granted to the user. See supra text accompanying notes ___-___.
381 Copyright, Designs and Patents Act, §§ 296ZD(2), 296(2) (UK).
22 Other national laws employ different institutions to determine the claims of the users. For example, under Greek law, the matter is referred to mediators and absent consent to the mediators’ conclusion, to the Court of Appeal. But these institutions are still assessing whether a technological protection measure is impeding any particular privileged use, not whether an act of circumvention (or a device) will ex post be excused from liability because of that fact. See Law 3057/2002 (Official Gazette A/239/10 October 2002), art. 81, Implementation of the Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society and other provisions (Gr.). See generally INSTITUTE FOR INFORMATION LAW, UNIVERSITY OF AMSTERDAM, STUDY ON THE IMPLEMENTATION AND EFFECT IN MEMBER STATES’ LAWS OF DIRECTIVE 2001/29/EC ON THE HARMONISATION OF CERTAIN ASPECTS OF COPYRIGHT AND RELATED RIGHTS IN THE INFORMATION SOCIETY, FINAL REPORT, PART II, AT 67-68 (FEBRUARY 2007) (summarizing institutional choices made).
However, if the “directions” from the Secretary of State required the copyright owner to modify the TPM, as a Recital of the Directive hints one form of “appropriate measure might be,” that would have an across-the-board effect.\textsuperscript{384} Thus, if the relief that a user could request under the reverse notice and takedown procedure could take this form, a similar \textit{erga omnes} effect could be achieved.\textsuperscript{23}

The possibility of structural relief is important in ameliorating another weakness of the UK procedure (which might also, to some extent, be leveled at the reverse notice and takedown proposal). Requiring application by the beneficiary of the exemption fails to give adequate weight to those instances where creative act covered by a privileged use is spontaneous in nature.\textsuperscript{24} Copyright exemptions traditionally operated on the basis that the user would engage in the contested act and the legitimacy of that act would later be determined by application of the allegedly relevant exemption.

To some extent, the departure from this traditional assumption is a product simply of the application of TPMs, which of themselves establish an inverted default of “ask first, act later.” However, requiring individualized applications in order to engage in privileged uses does not help.

Here again, if structural relief could be requested as a user seeking to engage in privileged uses, the costs of such a procedure and the repressive effect of having to seek permission would be made a one-time occurrence. This supports the suggestion above that the reverse notice and takedown procedure should permit the \textit{demandeur} to seek broader relief than merely obtaining immunity to circumvent.

Such structural relief as requiring the modification or elimination of technological protection measures may at first blush seem quite radical however it is fully consistent with article 6(4), which contemplates that copyright owners have an affirmative role to play in ensuring the preservation of the balance of rights between copyright owners and users of works.\textsuperscript{385} To be sure, the relief that would be secured through the mechanisms implementing Article 6(4) is not detailed in the Directive. And, some commentators have argued that it cannot extend to the copyright owner being compelled to reveal the digital

\textsuperscript{384} See Copyright Directive, supra note xx, recital 51 (providing example of “modifying an implemented technological measure”).

\textsuperscript{23} The recital expressly mentions “other means” of ensuring the ability to engage in privileged uses. One of the top Commission officials has suggested that these means might include “handing out locking keys”. See Jorge Reinbothe, \textit{The Legal Framework for Digital Rights Management}, Digital Rights Management Workshop, Brussels, Feb. 28, 2002, at 2. Certainly, the language of “right holders making available to the beneficiary” seems to suggest affirmative conduct, beyond merely enacting an exemption to allow the beneficiary to engage in an act of circumvention (though that would also be a possible measure).

\textsuperscript{24} Requiring an application to a government official in order to engage in creative activity also devalues the importance of privacy or anonymity as an aspect of the creative environment. In the notice and takedown procedure established by section 512, the copyrighted works at issue are created prior to the joining of dispute. Thus, the procedure does not interfere with the spontaneity of creative acts, or the potential importance of anonymity in the creative process.

\textsuperscript{385} See Copyright Directive Implementation Study, at 107 (noting affirmative nature of obligations).
lock. But a per se rule foreclosing such relief is inconsistent with the open-ended nature of the Directive, and indeed with statements by Commission officials after the adoption of the Directive.

It is true that such relief could drastically undermine the efforts of copyright owners to protect against even infringing uses. But whether that would be so would depend upon the terms under which such disclosure was made. For example, if a handover of the digital lock was conditioned on the manner in which the information was used or disclosed, it might enable the privileged uses without undermining the copyright owner’s legitimate rights to protect against infringement. Thus, to the extent that the information is disclosed to third parties who will facilitate the privileged use by a particular demandeur, the provision of circumvention services as opposed to the manufacture of devices is less likely to implicate the copyright owner’s nightmare scenario. Likewise, under the original Australian implementation of the WIPO Copyright Treaty, the statute allowed circumvention devices to be supplied to a beneficiary of an exception for a permitted use, if the person making the privilege used provided the supplier with a signed a declaration to that effect. Finally, allowing a circumvention service provider to assist a particular user should be less problematic.

It is surely correct that no pre-determined single form of relief should be established. One size will likely not fit all given the wide range of uses of works that should be privileged. Yet, there may be circumstances when, under defined conditions, even the disclosure of the digital lock might be appropriate. One of the benefits of the fair use doctrine has been its flexibility, and its ability to adapt to changing circumstances. The capacity of technology to effectuate a balance of rights, and what that balance should be, may well be very different in five years time. Bodies established

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25 See Nora Braun, The Interface Between the Protection of Technological Protection Measures and the Exercise of Exceptions to Copyright and Related Rights: Comparing the Situation in the United States and the European Community, 25 EUR. INTELL. PROP. REV. 496, 502 (2003) (arguing that “handing over the ‘key’ to circumvent the technological measure to users is inappropriate and would endanger the whole system of technological measures”).


387 Some might argue that our entire proposal will cause more infringement. But every time you legitimate way dual use technology, there is a risk of infringement. On the other hand, if you lock all works in technological fences, there is a risk of fewer public interest uses. For the reasons explained in Part I, we think that the balance between these two risks needs to be calibrated, and can be done so without jeopardizing the ability to enforce copyrights effectively against bad actors.


27 Accord Ginsburg, Pros and Cons at 17.
under Article 6(4) in the European Union, and courts in the United States under a reverse notice and takedown procedure, should remain free to develop appropriate means to ensure the continued ability to engage in privileged uses.

D. The Role of the Commission

The reverse notice and takedown procedure is precisely the type of conceptual approach that is mandated, albeit in a narrow form, by article 6(4). Could a member state implement the reverse notice and takedown procedure and claim that it is permitted to do so as a result of the obligations imposed by Article 6(4)?

The Commission may not look favorably on any effort to expand the general norm of Article 6(4) beyond the narrow context in which the Directive currently requires it. Of course, this does not preclude other countries from introducing the reverse notice and takedown procedure. To the extent that the US or the EU might seek to repress such efforts through bilateral trade negotiations, Article 6(4) shows that acting within the regime of digital rights management to protect uses privileged by traditional copyright law is fully consistent with the WIPO Copyright Treaty. If the EU can limit the copyright owners control with respect to some undefined exceptions, why could another country not do so with respect to all exceptions traditionally protected by copyright law and consistent with international copyright obligations?

Moreover, even within the EU, there is hope that the Commission’s recently solicited review of the copyright acquis might provide to the opening for some reform of existing law, including the expansion of the general principle contained in Article 6(4) on a broader basis. The reverse notice and takedown procedure discussed in this article should be given serious attention during the Commission’s review. More minimally, a Policy Statement from the Commission acknowledging the ability of member states to build upon the underlying norm of Article 6(4), even beyond a strict reading of the text, might provide room for important procedural innovation in ways that truly effectuate the values not only of the Directive but of the WCT that it seeks to implement.

CONCLUSION

By the end of the multilateral negotiations held at Geneva in 1996, the intense struggle among stakeholders representing content providers, the telecommunications industry, online service providers, and the educational and scientific communities produced a workable compromise in the WIPO Copyright Treaty. The importance of preserving access to the copyrighted culture about to be protected in cyberspace under the new Treaty was expressly recognized in at least three important places:

1) The broad preambular recognition of “the need to maintain a balance between the rights of authors and the larger public interest, particularly education, research and access to information;”

2) The further express recognition, in article 11, that TPMs should not allow authors to “restrict acts, in respect of their works, which are … permitted by law;”
3) And the express understanding in the Agreed Statement concerning article 10, which permitted contracting parties “to carry forward and appropriately extend into the digital environment” existing limitations and exceptions in their national laws and “to devise new exceptions and limitations that are appropriate to the digital network environment.”

This historic compromise, secured in part by the direct appeal of the Presidents of the U.S. National Academies to then Vice-President Gore, made it possible to establish the basic legal infrastructure for worldwide networked telecommunications of copyrighted works in the digital environment.

Unfortunately, at the national implementation phase, the balance struck at Geneva gave way, in the United States, to the one-sided provisions of the DMCA and, in the European Union, to the only slightly less unbalanced approach of the EC’s Directive. While the DMCA formally acknowledged the need to preserve privileged uses in section 1201(c), the tight access rules adopted in sections 1201(a) and (b) effectively separated access from privileged use and made it difficult, if not impossible, to raise questions of privileged use once TPMs controlled access. The E.C.’s Copyright Directive took an equally tough approach to restricting access through TPMs, while generally invoking the need to respect exceptions and limitations in local law and simultaneously limiting the scope of the provision doing do.

The end result on both sides of the Atlantic has been the emergence of a distorted, unbalanced copyright regime in cyberspace—half a loaf, as some would characterize it—with a growing chorus of complaints from educational, scientific and other public interest users and a growing revolt against the legal restraints on legitimate uses of the copyrighted culture in some quarters. The abusive possibilities inherent in the DMCA’s access control provisions became dramatically visible in the recent lockout cases, where TPMs were used to perpetuate the kind of “fraud on the patent law” that the Supreme Court struck down in its 1880 decision in *Baker v. Selden*. Moreover, these extreme distortions of basic copyright principles mask the much greater, daily pressures that the DMCA puts upon the public-interest user community, which depends upon easy and continuous access to ideas, facts and other inputs to knowledge that copyright laws have never been allowed to protect. Unless these distortions are remedied, a copyright system that was designed to promote progress by expanding the outputs of literary and artistic works could end by choking off access to essential inputs to the production of knowledge as a global public good in the digital environment.

Our proposal for a reverse notice and takedown procedure designed to reduce the tensions between access protection measures and privileged uses is but one of many attempts to rebalance the copyright equation in cyberspace before the damaging effects of over-protection give rise to system failure or breakdown. Among its many advantages is the fact that it can be judicially developed and applied on a case-by-case basis, with low transaction costs, and relatively few risks to either side. It allows bona fide public interest users to continue their work without undue interference from TPMs and with the support of the content-providing industries themselves, who may verify the legitimate
uses being enabled and contest uses that seem to stretch the boundaries of legally defined privilege. It builds on workable procedures that have already proved their usefulness in the context of section 512, while enabling pinpoint litigation on borderline issues that all sides will want clarified. There is good reason to believe that industry itself might prefer a gradualist mechanism of this kind to more intrusive legislative measures with unknown future consequences.

If judicial experimentation with a reverse notice and takedown procedure proved unsuccessful for reasons we cannot foresee, it could be judicially abandoned as easily as it had been adopted. If, instead, it proved effective, the end results could eventually be codified both here and abroad on the basis of the experience gained in the meanwhile. In that event, our proposal would have helped copyright law to regain its historic balance in the digital environment and to implement, in both the United States and the European Union, the true spirit of the historic compromise originally embodied in the WIPO Copyright Treaty of 1996.