ANTICIRCUMVENTION MISUSE

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The anticircumvention provisions of the Digital Millennium Copyright Act penalize both the circumvention of technical protection measures, and supplying the means for such circumvention. These prohibitions are entirely separate from the exclusive rights under copyright, causing some commentators to dub the anti-circumvention right as "paracopyright." Such paracopyright effectively grants copyright holders sweeping new ability to impose terms of access on content users: Consumers who access content without accepting the content owner's terms would violate the owner's paracopyright even if the material accessed is not itself copyrighted or copyrightable.

Additionally, where a particular use would be permissible under copyright law, content owners may be able to exclude the use as a condition of access. For example, the content owner might require that users contractually agree not to engage in reverse engineering or fair uses as a condition for access to the material. Content owners may use "paracopyright" to require purchase or use of related products; for example, DVD access controls require that the disc be played on approved hardware, effectively dictating the consumer's purchase of playback equipment.

At some point, such leveraging of access control seems certain to overstep the bounds militated by sound policy or intended by Congress. In the past, abuse of intellectual property rights has been curtailed under the doctrine of misuse. This Article argues that because DMCA "paracopyright" is ripe for abuse, limits on overreaching may be imposed by applying the misuse doctrine in this new area. Just as improper leveraging of patent and copyright may be curtailed by application of the misuse doctrine, so improper leveraging of paracopyright should be curtailed by application of misuse. This new application of misuse doctrine may be guided by the standards established in previous applications to patent and copyright law, and may serve a similar function in regulating the excesses invited by the anticircumvention right.

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INTRODUCTION

The recent passage of the Digital Millennium Copyright Act (DMCA) in the United States,[1] together with the promulgation of analogous directive language in the European Union, has drastically altered the landscape of intellectual property. Copyright in digital media has in a very real sense been rendered obsolete, superseded by new technological anticircumvention rights that some have called "paracopyright"[2] in order to distinguish them from the separate right to control reproduction and other discrete uses of a protected work. Paracopyright as conferred by the DMCA constitutes a separate set of rights, quite distinct from any copyright in the underlying content. These new rights are expansive and unprecedented. They allow control of uncopyrighted materials, and confer upon content owners a new exclusive right to control not only access to technologically protected works, but also ancillary technologies related to content protection.

I argue in this Article that because paracopyright is ripe for anticompetitive abuse, limits on anticompetitive overreaching are in order, requiring application of the misuse doctrine to this new area of law. Just as improper leveraging of patents and copyrights may properly be curtailed by application of the misuse doctrine, so improper leveraging of paracopyright should properly

1. Digital Millennium Copyright Act, Pub. L. No. 105-304, Title I, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

2. *See* H.R. REP. NO. 105-551, at 24 (1998) (quoting a letter endorsed by sixty-two copyright law professors characterizing the Digital Millennium Copyright Act (DMCA) anticircumvention provisions as "paracopyright").

be curtailed by application of misuse. This new application of misuse doctrine may be guided by the standards established in previous applications to patent and copyright law, and may serve a similar function in regulating the excesses invited by paracopyright protection.

I begin by sketching a synopsis of the current situation regarding technological content controls, including a description of the byzantine statute[3] intended to protect such controls from circumvention. I show that the new anticircumvention right created by the statute constitutes a type of exclusive right quite separate from, and indeed a substitution for, the legal protection provided by copyright. I argue that this new form of exclusive right, like the more familiar exclusive rights of the patent and copyright statutes, may be used by its holders in an anticompetitive fashion in excess of the public interest that prompted its creation. In particular, I describe factual settings from recent DMCA cases that suggest the anticircumvention right is being, and will continue to be, abused. I then describe how such abuses in the patent and copyright area have previously been curtailed by application of the equitable doctrine of misuse. I conclude by showing how the doctrinal structure of the anticircumvention right, suggested in this Article, would be similarly amenable to restraint via the misuse doctrine.

I. BEYOND COPYRIGHT

Copyright is to some extent the creature of technological change; the printing press, the camera, the phonograph, the photocopy machine, and other technological advances have all left their marks.[4] But the rapid proliferation of digital technology has placed in the hands of the general populace an unprecedented ability to reproduce and communicate creative speech. Copyright owners fear that these new capabilities presage a loss of control over their legally protected works, and have deployed technologies intended to curtail such digital communication and reproduction. To prevent the public from disabling or circumventing these technical protections, copyright owners have also sought and obtained new sweeping rights of access to technologically protected works, such that content owners who employ technological self-help measures may no longer need to look to copyright infringement as a hedge against content infringement. But this may also mean that content owners will no longer honor the balance of public interest embedded within the law of copyright.

3. Digital Millennium Copyright Act, Pub. L. No. 105-304, Title I, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

4. *See* PAUL GOLDSTEIN, COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX (1994).

A. Technical Measures

Copyright is typically justified as a legal measure designed to correct a "public goods" problem in the production of art, music, software, and similar creative works.[5] Although these goods are frequently expensive to create, they are easily copied once they have been created and released to the public. The provision of a legal right of exclusivity is intended to allow authors to recoup their investment in creative works by allowing them to deter unauthorized copying and related uses for a limited period, while charging a fair return on authorized copies.[6]

At the same time, the introduction of such a legal barrier artificially raises the cost of the work, placing it beyond the reach of some people who might have enjoyed or benefited from it at the lower price. Thus, the use of intellectual property law is always a balancing act between allowing the greatest number of people to enjoy works at low cost, without lowering the cost so much that the works will never be created in the first instance.[7] Indeed, in the United States, this balance is constitutionally mandated. The U.S. Constitution provides Congress with the power to enact copyright laws only if such laws "promote the progress of science and the useful arts."[8]

Consequently, in the United States at least, the public is the intended beneficiary of intellectual property laws, although authors certainly may benefit in the process.[9] As a means to this end, copyright confers certain exclusive rights on the copyright holder: not only the exclusive right to make copies, called the right of reproduction, but also the exclusive right to distribute copies, to prepare derivative works, to publicly perform or display certain types of works, and to digitally transmit sound recordings.[10] The rights conferred by the statute typically run for a century or more,[11] and may be enforced by civil actions for injunction and damages,[12] as well as by criminal actions.[13]

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5. *See* William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326 (1989).

6. Mazer v. Stein, 347 U.S. 201 (1954); Sony Corp. of Am. v. Universal City Studios Inc., 464 U.S. 417 (1984).

7. *See* Landes & Posner, *supra* note 5, at 326.

8. U.S. CONST. art. I, § 8, cl. 8.

9. *See Sony*, 464 U.S. at 429 ("The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit."); United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948) ("The copyright law, like the patent statutes, makes reward to the owner a secondary consideration.").

10. 17 U.S.C. § 106 (2000).

11. *Id.* § 302–303.

12. *Id.* § 502, 504.

13. *Id.* § 506.

But the scope of copyright is limited to original expression, excluding ideas, processes, and functional aspects of protected works.[14] Copyright is also rife with exemptions, exceptions, and user privileges of every type. Some of these are quite narrow, such as the exception for owners of commercial business establishments to publicly perform broadcast music on receivers of a particular type,[15] or the exception allowing public performance of music at agricultural fairs.[16] Other privileges are quite broad, such as the so-called "first sale" doctrine, which cuts off the copyright holder's right of distribution in individual copies after they have been purchased, effectively allowing the consumer to resell or dispose of the copy in almost any manner she wishes.[17]

In the United States, the most important exception to the copyright holder's rights may be the "fair use" exception, which facilitates a broad range of unauthorized uses.[18] This exception is highly flexible, allowing otherwise prohibited uses of all or part of a work, depending on the circumstances.[19] Fair use plays a critical role in mediating between constitutionally mandated freedom of expression and copyright,[20] which might otherwise be used to suppress socially valuable criticism, commentary, or parody of copyrighted works.[21] As computer software has been added to the universe of copyrightable subject matter, courts have also looked to fair use theories to justify the temporary but unauthorized copying that inevitably occurs in reverse engineering software to create competitive or interoperable products.[22]

The presence of such exceptions and user privileges is often an annoyance to copyright holders, who might prefer to suppress such uses, or at least to profit

14. *Id.* § 102(b).
15. *Id.* § 110(5).
16. *Id.* § 110(6).
17. *Id.* § 109.
18. *Id.* § 107.
19. *See id.* (listing the factors considered in determining fair use).
20. *See* L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1, 3 (1987); Harry N. Rosenfield, *The Constitutional Dimension of "Fair Use" in Copyright Law*, 50 NOTRE DAME LAWYER 790, 796–98 (1975); Lionel S. Sobel, *Copyright and the First Amendment: A Gathering Storm?*, 19 COPYRIGHT L. SYMP. (ASCAP) 43, 66 (1971); *see also* Robert C. Denicola, *Copyright and Free Speech: Constitutional Limitations on the Protection of Expression*, 67 CAL. L. REV. 283, 289–99 (1979); Melville B. Nimmer, *Does Copyright Abridge the First Amendment Guarantees of Free Speech and Press?*, 17 UCLA L. REV. 1180, 1190 (1970).
21. *See* Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994) (recognizing the importance of fair use in promoting parody); Robert P. Merges, *Are You Making Fun of Me? Notes on Market Failure and the Parody Defense in Copyright*, 21 AIPLA Q.J. 305 (1993); Richard A. Posner, *When Is Parody Fair Use?*, 21 J. LEGAL STUD. 67 (1992).
22. *See, e.g.*, Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 602–08 (9th Cir. 2000); DSC Communications Corp. v. DGI Techs., Inc., 81 F.3d 597, 601 (5th Cir. 1996); Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1539 n.18 (11th Cir. 1996); Sega Enters. v. Accolade Inc., 977 F.2d 1510, 1520 (9th Cir. 1992); Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 843–44 (Fed. Cir. 1992).

by them. One strategy that has emerged for curtailing such uses is that of licensing. Licensing a work may be attractive to a copyright holder because the first sale doctrine does not apply if a copy of a work is leased rather than sold.[23] A licensing agreement may also provide that the user of a copy will surrender fair use or other privileges in return for use of the copy. In mass-market situations, negotiating such leases with every consumer who purchases a copy might be burdensome, but copyright holders have developed the strategy of the "shrink-wrap" license to deal with this problem.[24] Under this legal fiction, the consumer purportedly agrees to the terms of the license simply by opening the packaging or making use of the copy.[25]

However, the proliferation of digital technology makes monitoring and enforcement of the copyright holder's exclusive rights relatively more difficult.[26] Cheap and easy accessibility to computers and computer networks allows consumers to reproduce and distribute digitized materials, both in exercise of exceptions to copyright as well as in excess of those exceptions. The sheer volume of both permissible and infringing uses makes the task of detecting and censuring impermissible uses formidable. New technology makes the task of enforcing licenses that purport to eliminate otherwise legal uses equally difficult.

Copyright holders might prefer a world in which the rights granted under statute or asserted via license became self-enforcing.[27] Something close to this can be achieved through the employment of technological devices accompanying copies of a work as they are distributed.[28] Such devices may take a variety of forms as hardware, software, or some combination of the two.[29] Technological control systems may be used to prevent access to digital

23. David Nimmer et al., *The Metamorphosis of Contract into Expand*, 87 CAL. L. REV. 17, 136–38 (1999).

24. *See* Mark A. Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239 (1995); Michael J. Madison, *Legal-Ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L. REV. 1025, 1055–56 (1998); Charles R. McManis, *The Privatization (or "Shrink-Wrapping") of American Copyright Law*, 87 CAL. L. REV. 173, 173–75 (1999).

25. *See* Lemley, *supra* note 24, at 1241–42; David A. Rice, *Public Goods, Private Contract, and Public Policy: Federal Preemption of Software License Prohibitions Against Reverse Engineering*, 53 U. PITT. L. REV. 543, 630 (1992).

26. *See* COMPUTER SCI. & TELECOMM. BD., NAT'L RESEARCH COUNCIL, THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE 3–6 (2000) [hereinafter THE DIGITAL DILEMMA].

27. *See generally* Charles Clark, *The Answer to the Machine Is in the Machine*, *in* THE FUTURE OF COPYRIGHT IN A DIGITAL ENVIRONMENT 139 (P. Bernt Hugenholz ed. 1996); Kenneth W. Dam, *Self-Help in the Digital Jungle*, 28 J. LEGAL STUD. 393 (1999).

28. *See generally* THE DIGITAL DILEMMA *supra* note 26, at 153–76; Mark Stefik, *Shifting the Possible: How Trusted Systems and Digital Property Rights Challenge Us to Rethink Digital Publishing*, 12 BERKELEY TECH. L.J. 137 (1997).

29. *See* Eric Schlachter, *The Intellectual Property Renaissance in Cyberspace: Why Copyright Law Could Be Unimportant on the Internet*, 12 BERKELEY TECH. L.J. 15, 38–45 (1997).

content without the permission of the content owner. Access might be conditioned upon payment or terms of usage for the protected content. The consumer might well be presented with an extended license, perhaps in the form of a "clickwrap," to which he must acquiesce before the control system permits access.[30]

Alternatively, the control system itself might be designed so that the terms of use or payment are embedded as constraints upon the degree of access. For example, rather than agreeing in a written license that as a condition of access, the user will make only one copy of the content, the technological controls may be built to allow only one copy to be made. Rather than agreeing in a written license that as a condition of access, the user will pay a fixed price for a copy of the content, the technological controls may be built to require a credit card number upon access, which would be charged an incremental price each time a copy is made. Technological control systems might also tie use of the work to a certain machine, or when attached to a network or other signaling device, might monitor the degree and type of use of the work, perhaps to meter payment by the minute, by the bit, or by some other unit of usage. Indeed, where technological controls are used in combination with "clickwrap" licensing the terms may be enforced by the control system itself.[31] They may allow different levels of use depending on the level of payment made. Contingent or alternative terms might be programmed into the system, allowing a single access for a certain fee, or unlimited access for a higher fee. Access might even be revoked automatically, or by remote command, if payments are not made in a timely fashion.[32]

Consequently, where technological controls are software based, and software can be scripted to accommodate a variety of user behaviors, technological controls can be scripted to incorporate restrictions that might otherwise be the subject matter of a written license. Lawrence Lessig and Joel Reidenberg have each observed that because of these characteristics, technological control and legal control may be substituted in a variety of instances.[33] However, technological control and legal control do differ, notably in the degree of discretion afforded to the user. Because of this, content owners may prefer to instantiate the terms of use as computer code, rather than as contract or copyright law.

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30. *See* Tom W. Bell, *Fair Use v. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557, 559–60 (1998).

31. *See id.*; Dean S. Marks & Bruce H. Turnbull, *Technical Protection Measures: The Intersection of Technology, Law and Commercial Licenses*, 22 EUR. INTELL. PROP. REV. 198 (2000)

32. *See* Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 BERKELEY TECH. L.J. 1089, 1102–10 (1998).

33. *See* LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999); Joel R. Reidenberg, *Lex Informatica: The Formation of Information Policy Rules Through Technology*, 76 TEX. L. REV. 553 (1998).

Where legal regulation constitutes the barrier to use of content, users may breach it at their discretion, avoiding penalty until they are apprehended and legal process is complete. Technological barriers may be less difficult for content owners to police and enforce: Unless users are technologically sophisticated, unauthorized uses are simply impossible.

The drawback to reliance primarily upon technological controls is that technically sophisticated users may find ways to circumvent or disable the control system, and may even assist unsophisticated users in doing so. The barrier erected by one programmer may be circumvented by another. A skilled user may be able to "hack around" the controls built into technological content systems. While the majority of users are unlikely to have such skills, they might be supplied with user-friendly software "hacking tools" by others who are skilled.[34] The widespread availability of such skills, or of tools requiring little skill, could threaten technological control over content. Thus, while technological controls may increase the difficulty of unauthorized uses, technology alone cannot be expected to achieve complete control of protected content. Legal prohibitions against circumvention activity may be necessary to buttress the integrity and operation of the control system. The combination of legal and technical deterrents offers maximum control over content, each control mechanism complementing the other.

B. DMCA Anticircumvention

In the environment just described, content owners may be relatively unconcerned about obtaining or enforcing intellectual property rights as such rights have previously existed.[35] Where access and use can be controlled by built-in technological restrictions, regulation of the content via legal sanctions becomes far less attractive. Indeed, content owners may prefer to rely on anticircumvention laws to prohibit tampering with the technological controls, leaving the technology to prohibit whichever uses the content owner unilaterally chooses, rather than relying on copyright law to prohibit certain statutorily determined uses of the work. Anticircumvention laws used as an adjunct to technological controls confer upon content owners a degree of control never attainable under a regime of traditional copyright.[36]

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34. *See* James Raymond Davis, *On Self-Enforcing Contracts, the Right to Hack, and Willfully Ignorant Agents*, 13 BERKELEY TECH L.J. 1145, 1147 (1998).

35. *See* Schlachter, *supra* note 29, at 48–51; *see also* Glynn S. Lunney, Jr., *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA. L. REV. 813 (2001); Pamela Samuelson, *Will the Copyright Office Be Obsolete in the Twenty-First Century?*, 13 CARDOZO ARTS & ENT. L.J. 55 (1994).

36. *Cf.* Jane C. Ginsburg, *Copyright and Control Over New Technologies of Dissemination*, 101 COLUMB. L. REV. 1613 (2001) (arguing that the emergence of new technology may justify granting

Content owners in the United States received just such an anticircumvention entitlement in the provisions of the DMCA.[37] Likewise, recent language in a European Union directive promises the equivalent to European content holders.[38] In the United States, the DMCA statute was touted as legislation necessary to fulfill the United States' obligations under the World Intellectual Property Organization Copyright Treaty (WIPO Treaty).[39] However, the treaty requires only that signatory states provide "adequate legal protection and effective legal remedies" against circumvention of technological controls.[40] In the United States, such protection would already have been provided under the doctrine of contributory infringement, which attributes copyright liability to providers of technical devices that lack a substantial noninfringing use.[41] The contributory infringement doctrine could have been employed against provision of so-called "black box" devices intended to circumvent technological protections. The compliance of U.S. law with the requirements of the treaty was so substantial that the Clinton administration initially considered submitting the WIPO Treaty to the Senate for ratification without accompanying implementing legislation.[42]

Instead, content industry lobbying succeeded in obtaining the enactment of "implementing" legislation containing anticircumvention provisions that far exceed anything contemplated by the treaty.[43] Starkly put, the DMCA as enacted creates a new and unprecedented right to control access to copyrighted works. The statute outlaws the act of circumventing "a technological measure that effectively controls access to a work protected under this

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copyright owners a higher degree of control over works); JANE C. GINSBURG, FROM HAVING COPIES TO EXPERIENCING WORKS (Columbia Law School, Public Law Working Paper Number 8, 2000), *available at* http://papers.ssrn.com/paper.taf?abstract_id=222493 (same).

37. Digital Millennium Copyright Act, Pub. L. No. 105-304, Title I, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

38. *See* 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, 2001 O.J. (L 167) 10, at arts. 6(1)–(2). The European directive employs some technological protection language reminiscent of the DMCA, but adheres more closely than the DMCA to the Word Intellectual Property Organization Copyright Treaty (WIPO Treaty) in requiring member states to provide "adequate legal protection" against knowing acts of circumvention and against the manufacture and distribution of circumvention devices. *Id.* It lacks altogether the DMCA's byzantine thicket of complex exceptions and definitions.

39. *See* Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 VA J. INT'L L. 369, 411 (1997).

40. World Intellectual Property Organization: Copyright Treaty, December 20, 1996, art. 11, 36 I.L.M. 65.

41. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 442 (1984).

42. *See* Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 BERKELEY TECH. L.J. 519, 530 (1999).

43. Indeed, the DMCA anticircumvention provisions contain language very close to that rejected by the treaty's Diplomatic Conference as overbroad and detrimental to the public domain. *See* Samuelson, *supra* note 39, at 413–15.

title."[44] It also prohibits "trafficking" or providing the means to circumvent either technological access controls or technological measures that control the exclusive rights of a copyright holder: that is to say, copy controls, display or performance controls, and so on.

The DMCA provides for a handful of exceptions for purposes such as law enforcement, encryption research, and security testing. These exceptions are confusing and somewhat contradictory, but are primarily directed to the prohibition on circumvention; exceptions protecting those who might provide circumvention tools are extremely limited.

First, the Librarian of Congress is empowered under the statute to periodically exempt certain classes of works from the prohibition on access circumvention in order to preserve selected access for socially valuable noninfringing uses.[45] Additionally, the statute incorporates several standing exceptions to the access prohibition. Circumvention of technological controls is permitted for legitimate governmental intelligence and law enforcement purposes.[46] Nonprofit library and educational institutions may circumvent in order to make a good faith determination whether to acquire a copy of the protected work.[47] Circumvention is also permitted in order for software developers to achieve interoperability among computer products,[48] for encryption research,[49] and to test computer security.[50] Parents may circumvent in order to prevent their children from accessing harmful content on the Internet.[51] Individuals may circumvent in order to protect the privacy of their "online activities."[52] The act also states that digital equipment manufacturers are under no affirmative duty to design their products to accommodate particular content control systems.[53] The act further provides that the anticircumvention provisions are not intended to alter copyright remedies, limitations, or defenses such as fair use,[54] nor to broaden contributory or vicarious copyright liability,[55] nor to enlarge or

44. 17 U.S.C. § 1201(a)(1)(A) (2000).

45. 17 U.S.C. § 1201(a)(1)(B)–(D) (2000). In the first such rulemaking, which the Librarian delegated to the Register of Copyrights, consideration of exemptions was limited to situations in which actual harm from the inability to circumvent could already be shown. Consequently, only two exemptions were granted, the first for parents to access the list of restricted sites in Internet filtering software, and a second for circumvention of access controls on works where the technological measures had malfunctioned. *See* 37 C.F.R. § 201.40.

46. 17 U.S.C. § 1201(e) (2000).

47. *Id.* § 1201(d).

48. *Id.* § 1201(f).

49. *Id.* § 1201(g).

50. *Id.* § 1201(j).

51. *Id.* § 1201(h).

52. *Id.* § 1201(i).

53. *Id.* § 1201(c)(3)

54. *Id.* § 1201(c)(1)

55. *Id.* § 1201(c)(2)

diminish rights of free speech or press activities involving consumer electronics, telecommunications, or computing products.[56]

The DMCA anticircumvention device provisions are directed toward two different types of technological measures. The first is directed to devices that circumvent technological measures that control access to a copyrighted work.[57] The second is directed to devices that circumvent technological measures that protect the rights of a copyright holder in a work or portion of a work.[58] Each of these provisions prohibits the manufacture, importation, provision, public offering, or trafficking in a technology, product, service, device, component, or part thereof, if the item is primarily designed or produced for the purpose of circumventing, or has only limited commercially significant purposes or use other than to circumvent, or is knowingly marketed for use in circumvention.[59]

These device provisions are subject to confusing and contradictory exceptions that are narrower than the seven exceptions to the provision prohibiting acts of circumvention. Circumvention devices necessary for interoperability are privileged,[60] but devices for law enforcement and privacy reasons are not. Devices necessary to circumvent access controls are privileged for encryption and for security research,[61] but devices to circumvent rights controls for the same purposes are not. There is no provision for devices necessary to gain access or circumvent rights controls in order to make fair use or other uses permissible under the copyright act, despite the statements in the DMCA that it was not intended to alter such privileges.[62]

Thus, with very few and very limited exceptions, the statute penalizes the circumvention of technical protection measures, as well as supplying the means for such circumvention. The exceptions to the act of circumvention by no means accommodate the range of uses permissible to consumers under copyright law. There is, for example, no explicit provision allowing the owner of a copy to make fair use of the work embodied in that copy, and at least one court has rejected the argument that such an exception should be read into the statute.[63] Fair use encompasses a wide range of legitimate uses, including quotation for criticism and commentary, many educational uses, and the reverse engineering of software for purposes of interoperability.[64]

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56. *Id.* § 1201(c)(4)
57. *Id.* § 1201(a)(2)
58. *Id.* § 1201(b)(1)
59. *Id.* § 1201(a)(2)(A)–(C), (b)(1)(A)–(C).
60. *Id.* § 1201(f)(2)
61. *Id.* § 1201(g)(4), (j)(4).
62. *Id.* § 1201(c)(1), (c)(2).
63. Universal City Studios, Inc., v. Corley, 273 F.3d 429, 459 (2d Cir. 2001). *But see* Ginsburg, *supra* note 36, at 15–16 (arguing that the DMCA may be read to provide a right of "fair access.")
64. *See supra* notes 18–20 and accompanying text.

Presumably, then, if a user wishes to make fair use of a technologically protected work, she must first either locate an unsecured copy of the work, or in the absence of such a copy, ask the permission of the content owner. This has not been the rule where rights are secured by copyright rather than by technical measures, and for good reason. Many socially valuable fair uses might be deemed offensive or undesirable by the rights owner. We would expect permission to be denied by rational rights holders in many core instances of fair use, such as where the fair user wishes to engage in criticism or parody of the work.[65] But in such cases, even where permission for the use has been explicitly declined by the rights owner, fair use has been permitted to proceed over the owner's objections.[66]

But the DMCA anticircumvention provisions appear to make no accommodation for such unauthorized uses, even among the explicit exceptions to the prohibition on circumvention of access controls.[67] Indeed, the explicit exceptions to the circumvention provisions have been correctly criticized as narrow and shortsighted, failing to anticipate any new or unexpected reason that users might legitimately have for needing access to a work.[68] The exceptions fail to accommodate many obvious reasons for needing access. As one commentator has pointed out, the owner of a copyrighted work cannot even circumvent technical protections on another's copy in order to determine if his work has been infringed![69] The point of such an example is not that copyright owners have a burning need to engage in such reverse engineering, but that enacting a sweeping blanket prohibition with discrete exceptions is a foolish approach to legislation covering multipurpose technologies. It is impossible to anticipate beforehand all the legitimate activities—from critical to trivial—that will have been prohibited.

What should be clear from this description of the DMCA anticircumvention provisions is, first, that they enable a new form of exclusive right, a right of access.[70] Although they appear as part of the "Digital Millennium

65. *See* Alfred C. Yen, *When Authors Won't Sell: Parody, Fair Use, and Efficiency in Copyright Law*, 62 U. COLO. L. REV. 79, 85–90 (1991).

66. *See, e.g.*, Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994).

67. *See* David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673 (2000).

68. *See* Samuelson, *supra* note 42, at 543; *see also* Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575, 1642–43 (2002) (listing additional representative legitimate reasons for circumvention that are not accommodated by the DMCA exceptions).

69. *See* Samuelson, *supra* note 42, at 543.

70. *See* Jane C. Ginsburg, *Copyright Legislation for the "Digital Millennium,"* 23 COLUM-VLA J.L. & ARTS 137, 140–43 (1999) (arguing that the DMCA creates a new "right of access"); Ginsburg, *supra* note 36 (same). Professor Ginsburg argues that creation of a right of access is proper under Congress's enumerated powers, and although she does not explicitly say so, seems to assume that this was Congress's

Copyright Act," are codified along with copyright in Title 17 of the U.S. Code, and are frequently mentioned in connection with copyright, these prohibitions on circumvention of technical protections are entirely separate from the exclusive rights under copyright. Violation of the technological protections on a copyrighted work is an infringement entirely separate from unauthorized reproduction, distribution, adaptation, public performance, public display, or digital transmission of the controlled material—the technological infringer need engage in none of these exclusive activities to violate the anticircumvention provision.[71]

The separation between the anticircumvention right and copyright becomes apparent when comparing the limitations on each. As described above, copyright contains numerous exceptions and user privileges, such as statutory provisions allowing unauthorized use of copyrighted works in classroom instruction,[72] in certain religious services,[73] and creation of "back-up" copies of computer programs,[74] to name a few. None of these uses is sanctioned by the anticircumvention provisions. If a work is protected by technical controls, circumventing those controls to act in a manner privileged under the copyright act is still prohibited. Outside of circumvention for the few exceptions described above, the only statutorily sanctioned method for gaining access to technically protected works is with the permission of the content owner.

Second, it should be apparent that, as a statutory matter, the anticircumvention provisions of the DMCA extend protection far beyond any exclusive right granted in the protected work. Indeed, they likely extend protection beyond any right that could lawfully be granted by Congress under the Copyright Clause of the U.S. Constitution, causing some commentators to question the constitutionality of the statute.[75] For example, in accordance with

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intent in enacting the DMCA anticircumvention provisions. *Id.* As will be apparent from this discussion, I hesitate to attribute to Congress any such clear understanding of what they were doing.

71. 17 U.S.C. § 1201(c)(1) (2000) (making this distinction explicitly by stating that nothing in the anticircumvention statute is to "affect rights, remedies, limitation, or defenses to copyright infringement").

72. *Id.* § 110(1).

73. *Id.* § 110(3).

74. *Id.* § 117.

75. *See* Cohen, *supra* note 32, at 1128–37; *see also* Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on the Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354 (1999) (criticizing the DMCA anticircumvention provisions on separate constitutional grounds); Brief of Amici Curiae Intellectual Property Law Professors, Universal City Studios, Inc. v. Corley, 273 F.3d 429, 458–59 (2d Cir. 2001) (No. 00-9185), http://www.eff.org/IP/DMCA/MPAA_DVD_cases/20010126_ny_lawprofs_amicus.html. To date, courts have not been amenable to addressing such arguments. *See, e.g.*, Universal City Studios, Inc. v. Corley, 273 F.3d 429, 458–59 (2d Cir. 2001) (avoiding, on procedural grounds, constitutional challenges to DMCA anticircumvention provisions).

the Constitution, a copyright expires after a "limited time,"[76] but the anticircumvention statute contains no such provision for expiration. Similarly, the Supreme Court has held that copyright cannot constitutionally be extended to facts or unoriginal compilations,[77] yet such information, if controlled by technical measures, would appear to be protected by the anticircumvention right. The statute does require that in order to qualify for the anticircumvention right, a technological system must control some copyrightable content.[78] But copyrightable content is typically mixed with uncopyrightable content, which will also be under the control of the technological protection system. Unauthorized extraction of unprotectable content from a copyrighted work has consistently been held not to violate copyright,[79] but extraction of such unprotectable content from a technically controlled copy would likely violate the anticircumvention right.

Because the right of access is defined in terms of the technological system, rather than the terms of the content, both copyrightable and uncopyrightable materials will be covered by the anticircumvention right. The controlled content may include uncopyrightable facts, public domain materials, or purely functional works, yet unauthorized access will constitute just as much of a violation as it would if the content were copyrightable original expression. The limited exceptions described above do not significantly change this result. For example, the statutory exemptions do not provide a general exception that would allow extraction of facts from a copyrightable database arrangement, even though the individual facts are unprotected by copyright. The exemption most closely covering such an act might be the exemption allowing circumvention to extract unprotectable elements of computer programs in reverse engineering, but absent an enormously creative judicial construction of this exemption, extracting facts from a database would not seem to be reverse engineering a computer program. Such data extraction might sometimes constitute fair use, which may be a permissible reason for circumvention under § 1201 (c)(1). However, the statute does not explicitly say that circumvention for purposes of fair use is a permissible reason for unauthorized access,

76. To date courts have declined to set an endpoint for such exclusive rights, but presumably the constitutional language requires some endpoint to a right created under the Patent and Copyright power. *See* Eldred v. Ashcroft, 123 S. Ct. 769 (2003).

77. Feist Publ'ns Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344–46 (1991).

78. *See, e.g.*, 17 U.S.C. § 1201(a)(1)(A) (2000) (prohibiting circumvention of technological measures controlling access to "a work protected under this title [Title 17]").

79. *See, e.g.*, Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 602–08 (9th Cir. 2000); DSC Communications Corp. v. DGI Techs., Inc., 81 F.3d 597, 601 (5th Cir. 1996); Bateman v. Mnemonics, Inc., 79 F.3d 1532, 1539 n.18 (11th Cir. 1996); Sega Enters. v. Accolade, Inc., 977 F.2d 1510, 1520 (9th Cir. 1992); Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 843–44 (Fed. Cir. 1992).

and under some readings of the statute, might constitute an illegal circumvention.[80] Under any of these readings, the question of access is likely moot, as there is no provision in the statute allowing the majority of users to obtain circumvention tools.

As stated at the outset, anticircumvention provisions are neither constitutionally nor statutorily related to copyright. They permit exclusivity that copyright clearly does not, extending to uncopyrightable but technologically controlled content. They create another set of rights altogether; a right to control access to eligible works.[81] The novel character of these rights, extending far beyond those in copyright, has caused some commentators to dub the anticircumvention right "paracopyright,"[82] signifying a right both apart from copyright and a right extending far beyond that permitted under copyright.

The corollary to these conclusions is a third unique aspect of the anticircumvention right: This new right of access facilitates not merely the licensing of copyrighted materials—copyright law standing alone would enable such licenses—but also allows licensing of access to unprotected materials. Just as in the case of any other intellectual property right, the owner of technologically controlled materials may authorize or deny access, which is to say that he may license access. Such licenses may be conditioned upon terms set by the rights holder. Certainly price and manner of payment should be expected among such terms, as should conditions of use and other restrictions. Such licenses may be presented in writing prior to access, or may be incorporated into the technological controls themselves.

Fourth, although Congress may not have fully appreciated this result, the antitrafficking provisions of the DMCA confer upon content owners an ancillary property right in circumvention technology, which is to say, a property right in the means of accessing content. The right to prevent importation, distribution, or provision of circumvention technology necessarily entails the right to authorize such activity by waiving suit. Because this dimension of paracopyright effectively grants copyright holders a sweeping new ability to impose licensing terms upon the creators of access technologies, such terms may extend to markets and activities unrelated to the controlled content. This effectively allows copyright holders a new method to control competition and innovation beyond the market for protected content. The first crop of cases

80. *See* Nimmer, *supra* note 67; *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294, 324 (S.D.N.Y. 2000) (concluding that Congress enacted the anticircumvention statute without providing access for fair use).

81. *See* Ginsburg, *supra* note 70; Ginsburg, *supra* note 36.

82. *See* H.R. Rep. No. 105-551, at 24 (1998) (quoting a letter endorsed by sixty-two copyright professors characterizing the DMCA anticircumvention provisions as "paracopyright").

enforcing the anticircumvention right suggests that the opportunity to exercise such control has not been lost on its beneficiaries.

C. Leveraging Paracopyright

In the relatively short time since their enactment, the DMCA anticircumvention provisions have been invoked in a handful of cases and reported incidents. Courts have typically been sympathetic to the plaintiff's claims when the incidents have reached the point of judicial action. Oddly, however, the facts of these cases have seldom involved misappropriation of technically protected content. Perhaps the most extreme example of this trend may be found in the facts of the recently filed case *Lexmark Int'l Inc. v. Static Control Components Inc.*,[83] in which a manufacturer of computer printers filed a DMCA circumvention infringement suit against the manufacturer of computer chips incorporated into competing new or refilled ink cartridges.[84] Lexmark, a major computer printer manufacturer, sells both printers and ink toner cartridges. The cartridges are recognized by the printer via a software authentication sequence programmed into a chip in the cartridge.[85] Rival manufacturers' refilled aftermarket cartridges would not function with the printer unless they mimicked this sequence. The complaint alleges that by providing chips that allow rival cartridges to be recognized by the printer, Static Control was trafficking in a tool circumventing a technological measure. Yet this claim has nothing to do with the pirating of music or other copyrighted content; rather, it is a fairly naked attempt to suppress competition in the market for printer ink cartridges.

A similar employment of the DMCA may be found in the opinion from *RealNetworks v. Streambox*[86] in which content piracy is also, somewhat alarmingly, quite absent. Instead, the DMCA action was brought by the publisher of a popular software package used to receive music or video "streams" via the Internet. The RealPlayer receiver software, which would typically be installed on a user's desktop machine, achieves connection with a RealPlayer music or video server elsewhere on the network through a "secret handshake" protocol that allows the server and receiver to recognize one another.[87] Once a connection is achieved, the system contains a feature to determine whether the

83. Civil Action No. 02-571-KSF (E.D. Ky. Dec. 30, 2002).
84. *Id.*
85. *Id.*; *see also* Declan McCullough, *Lexmark Invokes DMCA in Toner Suit*, CNET News, Jan. 8, 2003, *at* http://news.com.com/2100-1023-979791.html.
86. No. C99-2070P, 2000 U.S. Dist. LEXIS 1889 (W.D. Wash. Jan. 18, 2000), at *1.
87. *Id.* at *6.

receiver's user has obtained rights to copy the music files sent by the server, or only to listen to the music as it is sent.[88]

The defendant Streambox produced a competing receiver, as well as several other pieces of software designed to be interoperable with the RealPlayer system. In order to play RealPlayer signals, the Streambox receiving components connected with the RealPlayer server by emulating the "secret handshake" protocol.[89] However, once the connection was established, the Streambox product lacked the restriction feature that would prevent unauthorized copying of streamed music or video. RealNetworks brought suit against Streambox, alleging that their receiving components constituted a "circumvention device" under the DMCA. In an unpublished opinion, the court granted the preliminary injunction, holding that the emulation of the "secret handshake" protocol constituted a circumvention of the RealPlayer restriction features.[90]

The most striking feature of this opinion is that no content owner appears—although the DMCA was purportedly enacted to protect owners of copyrighted content. In this case, only producers of competing software technology were involved. No pirating or unauthorized reproduction of any copyrighted content was shown, only the production of an interoperable product that could have been used to produce unauthorized copies of content. One way to view the facts is as an attempt by a software publisher to impede or abolish the distribution of a rival product, and at a minimum the case demonstrates that the statute could be turned to such purposes.

Control over interoperable technology, rather than an explosion of unauthorized copying, seemed also to lie at the heart of the DMCA dispute in *Universal City Studios v. Reimerdes*.[91] The *Reimerdes* suit was based upon circumvention of a technical control system known as the Content Scrambling System, or CSS, which was designed to secure access to DVD movie discs.[92] A key feature of the system was that the software controls embedded in the disc allowed discs to be played only on approved consumer playback machines.[93] Machines manufactured in different geographic areas were designed to allow access to the content of a given DVD only if the disc was coded to be played in that corresponding geographic area, thus allowing significant control over the timing and distribution of movies released in different parts of the globe. The corollary to this technological control system is that DVDs may only be

88. *Id.*
89. *Id.* at *11.
90. *Id.* at *19–*20.
91. 82 F. Supp. 2d 211 (S.D.N.Y. 2000), *aff'd sub nom* Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001).
92. *Corley*, 82 F. Supp. 2d at 214.
93. Universal City Studios, Inc. v Reimerdes, 111 F. Supp. 2d 294, 308 (S.D.N.Y. 2000).

played on approved playback equipment, whose manufacturer has built the equipment for use with the control system.[94]

A fifteen-year-old Norwegian youth developed a program that he called "DeCSS," designed to circumvent the access controls, purportedly in order to allow DVDs to be played on unapproved playback systems.[95] Use of the DeCSS program would thus allow DVDs purchased in one area of the world to be played on equipment that would otherwise be geographically incompatible. It would also allow DVDs to be played on unapproved playback equipment, and in particular, allow the discs to be played on a Linux operating system platform, for which no approved device existed.[96] The owners of the DVD content alleged that the DeCSS "hacking tool" violated the DMCA provisions prohibiting trafficking in circumvention devices, and successfully filed suit to prevent various web sites from either directly distributing the program or offering hypertext links to other sites where it might be found.[97]

A similar result was reached in *Sony Computer Entertainment America v. Game Masters*,[98] where the alleged circumvention device, a "game enhancer," was an add-on module to the PlayStation video game console. The Game Enhancer was sold with instructions on how to use the device not only to modify games, but also to use a U.S. marketed console to play games intended for sale only in Europe or Japan.[99] Much like the DVD CSS territory codes in *Reimerdes*, the PlayStation console was designed to operate when encrypted data from a game CD verified that the game was a Sony product authorized for distribution in the same geographical territory as the console. The instructions allowed players to initialize a U.S. game, then temporarily turn control of the console over to the Game Enhancer while the U.S. game was removed and an import game inserted and loaded.[100] Control was then turned back over to the console's operating system, which would execute the game software based on the previous authorization. The court concluded that this constituted circumvention of a technological measure in violation of the DMCA, and that distribution of the Game Enhancer violated the DMCA trafficking provisions.[101]

To date, there have been relatively few lawsuits based on anticircumvention claims, but court action is always the exception, rather than the rule, in legal disputes. Other incidents involving application of the DMCA to control consumer use of lawfully purchased products have come to light, typically when

94. *Id.*
95. *Id.* at 311.
96. *Id.*
97. *Corley*, 82 F. Supp. 2d 211, 215 (S.D.N.Y. 2000).
98. 87 F. Supp. 2d 976 (N.D. Cal. 1999).
99. *Id.* at 981.
100. *Id.* at 981–82.
101. *Id.* at 987.

content owners reference the anticircumvention provisions to facilitate legal intimidation via threatening demand letters. Perhaps the most notorious of these incidents has been the attempt by Sony Corporation to suppress distribution of software tools amongst owners of Sony's programmable "Aibo" robot dogs.[102] Of particular concern to Sony was an Internet website where a robotics enthusiast under the pseudonym of "AiboPet" offered a variety of software tools designed to be used for modifying Aibo robots' programming. The robots are in fact designed to be programmable, and Sony itself offers a suite of such software tools for sale. However, the tools offered on the website apparently allowed modifications to the robot's operating system beyond those contemplated by Sony, prompting a demand letter that "AiboPet" cease offering the software.[103] Although Sony acknowledged that the tools could only be of use to owners who had legitimately purchased an Aibo robot, the letter asserted, among other allegations, that the software tools offered on the "AiboPet" site constituted a DMCA violation, as they could permit owners of the robot to circumvent technical protections of the Aibo software.[104] Sony relented in its accusations only after Aibo enthusiasts threatened to boycott Sony products.[105]

These incidents suggest that the anticircumvention right lends itself to use in ways that may be entirely unrelated to preventing unauthorized copying or distribution of copyrighted works. In *Lexmark*, *Streambox*, or the AiboPet incident, the anticircumvention right was arguably employed to suppress competing technology by preventing interoperability with products that include technical protections. The *Reimerdes* case suggests that paracopyright may be used to force consumers to purchase or employ related products—for instance, the DVD access controls require that the disc be played on approved hardware, effectively dictating the consumer's purchase of particular playback equipment.

Paracopyright seems additionally positioned to facilitate anticompetitive licensing terms. In cases where a particular use would be permissible under copyright law, content owners may be able to exclude the use as a condition of access. For example, reverse engineering or fair use that might be permissible under the Copyright Act would not constitute an acceptable reason to circumvent technical controls in order to make such uses, so the content owner's permission must be sought to obtain access to the work. The anticircumvention

102. Farhad Manjoo, *Aibo Owners Biting Mad at Sony*, WIRED NEWS, Nov. 2, 2001, *at* http://www.wired.com/news/business/0,1367,48088,00.html.

103. *Id.*; David Labrador, *Teaching Robot Dogs New Tricks*, SCI. AM., Jan. 21, 2002, *at* http://www.sciam.com/article.cfm?articleID=0005510C-EABD-1CD6-B4A8809EC588EEDF.

104. *See* Labrador, *supra* note 103.

105. James Middleton, *Sony Plays Ball with Aibo Hackers*, May 7, 2002, *at* http://www.vnunet.com/news/1131538.

statute makes some provision for reverse engineering, but purchasers of software may not develop an interest in reverse engineering a product until after they have accessed it. This interest is irrelevant if the owner has contractually required a user to agree not to engage in fair use or reverse engineering as a condition of access. Judging by current trends in copyright "shrinkwrap" licensing, similar access licensing restrictions might include noncompetition provisions or restraints on resale, lease, or lending of the controlled copy.

At some point, such leveraging of access control seems certain to overstep the bounds militated by sound policy or intended by Congress. In the past, abuse of intellectual property rights has been, to some extent, restrained by judicial application of the misuse doctrine. The history of this doctrine suggests that it may be adaptable to use in new situations and admirably suited to curtailing overreaching uses of "paracopyright."

II. THE SECRET LIFE OF MISUSE

While it creates a set of new exclusive rights, and facilitates a new range of intellectual property licensing, the DMCA anticircumvention statute makes no provision for the proper scope of new licenses in uncopyrightable content and in content access technologies. This is a particular problem in the case of technologically embedded controls, which as we have seen, may either supplement or supplant written licenses, but that may go unrecognized as the "coded" contracts they essentially are. The statute appears to protect against the circumvention of technologically embedded terms that would likely be void or preempted if they were presented in a written contract. The originators of the statute, if they considered this issue at all, likely assumed that anticircumvention licenses would be subjected to existing constraints on licensing. In the past, such constraints on intellectual property licensing have included the doctrine of misuse, which has been applied in situations strongly reminiscent of the recent DMCA paracopyright cases.

A. Patent Misuse

The misuse doctrine first arose in the patent context, applying when the exclusive rights granted under patent law were leveraged into licensing terms exceeding the proper scope of the patent grant.[106] Misuse is an equitable

106. Richard Calkins, *Patent Law: The Impact of the 1988 Patent Misuse Reform Act and Noerr-Pennington Doctrine on Misuse Defenses and Antitrust Counterclaims*, 38 DRAKE L. REV. 175, 180–87 (1989).

doctrine, closely related to the doctrine of unclean hands.[107] The commonality of these doctrines is that a plaintiff who seeks the aid of a court to enforce his rights against someone who has violated them must not himself have been guilty of violating others' rights.[108] A defendant may therefore raise misuse as an equitable defense to infringement although the defendant himself need not be the victim or target of the misuse. A court finding misuse exercises its discretion by refusing to aid the wrongdoer. Consequently, the effect of a misuse finding is that the court will decline to enforce the patent right against any party, whether or not harmed by the misuse, until the misuse has been "purged"—that is, until the rights holder has reversed the effects of the misuse.[109]

1. Development of the Doctrine

Misuse of patent rights has typically been found where a defendant can show some attempt by the patent holder to obtain more than was intended by the grant of the patent, or to restrain trade in ways not contemplated by the patent grant.[110] Such behavior frequently, although not exclusively, involved licensing, and classic cases of patent misuse typically concerned cases of "tying"—a practice requiring purchase of an unpatented item in conjunction with the purchase or license of a patented item.[111] For example, in the *Morton Salt Co. v. G.S. Suppinger Co.*[112] case where the U.S. Supreme Court firmly established the misuse defense, the patent holder was found to have exceeded the patent granted on its machine for depositing salt tablets by requiring licensees to use the machines only with salt tablets purchased from the patent holder.[113] According to the Court, use of patent rights to leverage sales in an

107. *See* Robert P. Merges, *Reflections on Current Legislation Affecting Patent Misuse*, 70 J. PAT. & TRADEMARK OFF. SOC'Y 793, 796 (1988).

108. B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1427 (Fed. Cir. 1997).

109. *See* United States Gypsum Co. v. Nat'l Gypsum Co., 352 U.S. 457, 465 (1957); White Cap Co. v. Owens-Illinois Glass Co., 203 F.2d 694, 698 (6th Cir.); *In re* Yarn Processing Patent Validity Litig., 472 F.Supp. 180, 190–91 (S.D. Fla. 1979); *see generally* 6 DONALD S. CHISUM, CHISUM ON PATENTS § 19.04[4] (2001) (discussing purging and dissipation of misuse). *But see* Mark A. Lemley, Note, *The Economic Irrationality of the Patent Misuse Doctrine*, 78 CAL. L. REV. 1599, 1618–19 (1990) (criticizing the misuse doctrine on the grounds that the remedy unnecessarily rewards infringers).

110. *See generally* 6 CHISUM *supra* note 109, at § 19.04.

111. *See generally* Kenneth J. Burchfiel, *Patent Misuse and Antitrust Reform: "Blessed Be the Tie?,"* 4 HARV. J.L. & TECH. 1 (1991).

112. Morton Salt Co. v. G.S. Suppinger Co., 314 U.S. 488, 490–91 (1942).

113. *Id.* Although *Morton Salt* has long been viewed as the definitive statement on misuse, the Court had recognized the claim somewhat earlier in a case involving tying of dry ice sales to a patented refrigeration system. *See* Carbice Corp. of Am. v. Am. Patents Dev. Corp., 283 U.S. 27 (1931).

unpatented item tends to thwart the public policy underlying the patent grant, even if the patent holder does not violate the antitrust statutes.[114]

In the decades subsequent to *Morton Salt*, patent misuse expanded to encompass a wide range of anticompetitive activities. Many of these activities coincided with violations of the antitrust laws; others were uniquely patent policy violations. In *Brulotte v. Thys Co.*,[115] a patent holder's attempt to collect royalties from licensees beyond the term of the patent grant was declared contrary to public policy, and constituted misuse. If such licensing were permitted, the Court reasoned, the movement of the claimed invention into the public domain, after expiration of the patent, would be frustrated.[116] The Court held the attempt to leverage the patent beyond the set term per se unlawful, establishing a new category of per se patent misuse.[117]

The holding in *Brulotte* established federal patent policy as a basis for finding misuse, although the Court remained a bit vague about the exact parameters of the policy involved. Clearly, private attempts to re-legislate the scope of a patent grant would constitute misuse, although it was the temporal scope of the grant—the statutory period of the patent—that could be precisely determined. This federal policy argument was extended in a later ruling, *Lear, Inc. v. Adkins*,[118] in which a patent holder raised the state law doctrine of licensee estoppel to prevent a licensee from challenging the validity of the licensed patent.[119] In *Lear*, unlike *Brulotte*, the license required payment of royalties on a potentially invalid patent, rather than upon an expired patent.[120] The Supreme Court followed its holding in *Brulotte* to rule that the federal policy favoring elimination of invalid patents preempted the state contract law doctrine of licensee estoppel.[121] These decisions formed the basis for a separate line of cases delineating the proper role of state and federal law in the protection of proprietary rights, ultimately explicating rules that constrain state

114. *Morton Salt*, 314 U.S. at 493.

115. 379 U.S. 29 (1964).

116. *Id.* at 32–33. This reasoning has been criticized, most recently by Judge Richard Posner, as an irrational restraint on the patent holder's ability to extract higher patent royalties by spreading payments beyond the life of the patent. *See* Scheiber v. Dolby Labs. Inc., 293 F.3d 1014, 1017–22 (7th Cir. 2002). Previous Seventh Circuit opinions have demonstrated a general hostility on the part of Judge Posner and certain of his colleagues to the doctrine of misuse, but this stance appears to stem from an approach that assumes misuse is merely a variation of antitrust law. *See, e.g.*, USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 510 (7th Cir. 1982).

117. *Brulotte*, 379 U.S. at 32.

118. 395 U.S. 653 (1969).

119. *Id.* at 660.

120. *Id.* at 658.

121. *Id.* at 670–71, 674.

intellectual property law by both federal public policy and constitutional dimensions.[122]

The doctrine of misuse proper developed independently of the *Brulotte/Lear* line of cases, but the legal milieu of its development, together with the lack of clear guidance as to the limits of federal patent policy, fueled its unchecked and ultimately unwarranted proliferation.[123] Given the judicial suspicion of restraints on trade in the early twentieth century, patent misuse became a favorite tool to implement courts' general hostility to patents. In a period when courts tended toward an expansive interpretation of antitrust law, patents were frequently regarded as "monopolies" to be voided at any opportunity. Because it frequently overlapped with real or perceived antitrust violations, misuse was frequently invoked to vindicate such judicial antipathy, or used as a low-cost substitute for antitrust analysis. Misuse eventually became viewed, with some justification, as a bargain-basement, all-purpose claim against patent enforcement.[124]

In response to profligate use of the doctrine, Congress has limited the scope of patent misuse, especially where it may overlap with antitrust violations.[125] The patent statute now catalogs a variety of patent-related activities, such as refusal to license, that may at one time have been considered misuse, but which are now statutorily approved.[126] Tying arrangements between patented inventions and other items specifically adapted for use with the patented invention are similarly approved.[127] Even tying of patented inventions and unpatented staple articles of commerce is prohibited only when the tie meets the antitrust test of market power in the tying item.[128]

Historical antipathy toward patenting has also receded, replaced over the last two decades by an effusive new attitude, not merely of tolerance, but of nearly unbounded enthusiasm toward patents.[129] This patent fervor has, in part,

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122. *See* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141 (1989); Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974); Aronson v. Quick Point Pencil Co., 440 U.S. 257 (1979).

123. *See* Tom Arnold & Louis Riley, *Contributory Infringement and Patent Misuse: The Enactment of § 271 and Its Subsequent Amendments*, 76 J. PAT. & TRADEMARK OFF. SOC'Y 357, 365 (1994).

124. *See, e.g.*, C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1373 (Fed. Cir. 1998) (characterizing misuse as having become an "open-ended pitfall for patent-supported commerce").

125. Act of Nov. 19, 1988, Pub. L. No. 100-703, § 201, 102 Stat. 4674, 4676 (1988).

126. 35 U.S.C. § 271(d) (2000).

127. *Id.*

128. *Id.*; *see also* Virginia Panel Corp. v. MAC Panel Co., 133 F.3d 860, 869 (Fed. Cir. 1997) (recognizing the statutory requirement of market power to find misuse for tying). Note that in matching misuse to the antitrust standard, Congress did not state the necessity of an antitrust violation, but instead articulated the then current test for an antitrust tying violation. *Cf.* Process Patents Amendments Act of 1987, S. 1200, 100th Cong. (1987) (misuse reform bill containing unadopted language that required a "violation of the antitrust laws" rather than "market power" to find tying misuse).

129. *See* John H. Barton, *Patents and Antitrust: A Rethinking in Light of Patent Breadth and Sequential Innovation*, 65 ANTITRUST L.J. 449, 449 (1997) (noting a shift from configuration of strong

been fueled by the creation of the U.S. Court of Appeals for the Federal Circuit, a body invested by Congress with exclusive appellate jurisdiction over patent cases,[130] and with a perceived mandate to produce a uniform body of U.S. patent law.[131] The Federal Circuit has generally taken this as a charge to support and expand patent law, and in the course of doing so it has drastically limited the scope of misuse. Outside of those practices explicitly declared by Congress not to be misuse,[132] and a few categorical instances of "per se" misuse, the Federal Circuit has elaborated a "reasonableness" standard for evaluating misuse,[133] and seems inclined to find almost any activity a patent holder engages in to be reasonable.

Despite this general contraction of the patent misuse doctrine, the Federal Circuit continues to recognize misuse as applicable when the patent holder unreasonably attempts to extend its rights beyond the statutory limits of the patent.[134] Presumably, even under the permissive standard articulated by the court, truly outrageous practices on the part of patent holders would be found unreasonable.[135] In many cases such unreasonable or overreaching behavior in patent licensing will constitute an antitrust violation. Even when it does not, the behavior may still constitute misuse. This is certainly the case in the "per se" categories of misuse, such as extension of royalties beyond the patent term.

2. The Contributory Connection

Patent misuse has been closely tied to the doctrine of contributory infringement, which penalizes activities that, while not directly infringing the patent, are clearly intended to achieve the same result by aiding and abetting infringement.[136] For example, a contributory infringer might avoid making, using, or selling the claimed invention, by instead selling the individual unassembled parts of the invention, together with instructions on their assembly.[137]

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antitrust enforcement and weak patent enforcement in the 1970s to strong patent enforcement and weak antitrust enforcement in the 1990s).

130. 28 U.S.C § 1295 (2000).

131. *See* Rochelle Cooper Dreyfuss et al., *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 6–8 (1989); Donald R. Dunner, *The United States Court of Appeals for the Federal Circuit: Its First Three Years*, 13 AM. INTELL. PROP. L. ASS'N Q.J. 185 (1985).

132. 35 U.S.C. § 271(d) (2000).

133. *See* Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 708 (Fed. Cir. 1992); Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001–02 (Fed. Cir. 1986).

134. *See Mallinckrodt*, 976 F.2d at 706–09 (recognizing, but limiting, the application of patent misuse).

135. *See, e.g.*, Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 BERKELEY TECH. L.J. 623 (2002) (arguing that inequitable conduct by patent owners seeking to promote their technology as an industry standard should be recognized as misuse).

136. *See generally* 5 CHISUM *supra* note 109, at § 17.02.

137. *Id.* § 17.03.

This activity might avoid a strict, formalistic infringement of the patent claims, but its effect is tantamount to infringement. The doctrine of contributory infringement developed to deter such nominally permissible activity by penalizing those who materially assist direct infringement.

At the same time, the development of this doctrine posed some danger that unrestrained contributory infringement might sweep into its ambit entirely innocent activity, such as the sale of standard, off-the-shelf items that could be assembled into an infringing device. The doctrine was not intended to threaten the business of every hardware or electronics parts business whose wares might be fashioned into an infringing device. A corollary effect of this doctrine would be to place patent holders in a position to approve or disapprove of the sales of certain unpatented products, effectively expanding the scope of their patents beyond the claimed invention.[138] Relying upon claims of contributory infringement, patent holders sued, threatened to sue, licensed, and even demanded royalties for the sale of unpatented items that might be used to infringe their core claims.[139]

This prospect was ameliorated in some measure by the development of a scienter requirement—the contributory infringer must know, or have reason to know, that he is aiding and fostering direct infringement.[140] This standard led to a practical limitation on the items that could be considered to contribute to infringement, based upon the reasonable inference that could be drawn from the circumstance of their sale or provision to a direct infringer.[141] This limitation excluded from consideration "staple articles of commerce," focusing instead upon items specially adapted for use with a patented invention, which would have no substantial noninfringing use.[142] The provider of specially adapted items could, because of their nature, reasonably be inferred to know of the likely use to which such items would be put, because they could realistically only be used to infringe. However, the seller of staple items, by their

138. *Id.*

139. *See generally* Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 189 (1980), which summarizes the history of contributory infringement doctrine as:

> marked by a period of ascendancy, in which the doctrine was expanded to the point where it became subject to abuse, followed by a somewhat longer period of decline, in which the concept of patent misuse was developed as an increasingly stringent antidote to the perceived excesses of the earlier period.

Id.

140. *See* A. Samuel Oddi, *Contributory Infringement/Patent Misuse: Metaphysics and Metamorphosis*, 44 U. PITT. L. REV. 73, 77 (1982).

141. The inference of knowledge extends back to the first case recognizing contributory infringement, *Wallace v. Holmes*, 29 F. Cas. 74 (C.C. Conn. 1871), where the court inferred intent to assist infringement from the defendant's actions. *Id.* at 80.

142. *See* Oddi, *supra* note 140, at 88 (collecting cases).

mere sale, could not be expected to know their intended use, as they could be put to a range of innocent or infringing uses.

In addition to this circumstantial limitation, the doctrine of misuse was employed to reprimand patent owners who expanded their contributory infringement enforcement far beyond their core patent claims. The threat of suit for contributory infringement allowed patent holders not only to deter such activity, but to license and even collect royalties on the activity, even though the activity or items sold would not be covered by the patent proper. While contributory infringement allowed patent holders some control over ancillary nonpatented items, misuse kept attempts to tie patented and nonpatented items within certain bounds.[143] Misuse acted in this sense as the foil to contributory infringement, constraining the scope of penumbral patent rights that might otherwise reach deep into ancillary markets.[144] It has been rightly said that contributory infringement is ultimately a matter of patent scope, and the corollary is that misuse is a matter of patent scope, as well.[145]

This balance was eventually reflected in complementary sections of the patent code, §§ 271(c) and 271(d). Section 271(c) explicitly prohibits contributory infringement, as defined by the requirement of knowledge and by the staple article of commerce doctrine. A companion section, § 271(d), mirrors this prohibition in terms of affirmative rights, explicitly recognizing the licensing implications of § 271(c). As mentioned above, § 271(d) affirms the patent holder's right to sell nonstaple articles, to assert contributory infringement to prevent others from selling nonstaple articles, and to license the sale of nonstaple articles.[146]

The reciprocal nature of §§ 271(c) and (d) is illustrated most starkly in *Dawson Chemical Co. v. Rohm & Haas Co.*,[147] a case at the outermost limits of the staple article doctrine. The defendant was sued for contributing to the infringement of the plaintiff's patented method of weed prevention. The method involved application of an unpatented and unpatentable chemical, propanil, to weeds.[148] The defendant sold propanil together with instructions on how to apply it according to the patented method. The method could not be practiced without the use of propanil, but propanil had no alternative use

143. *See id.* at 95–105.

144. *See id.*; *see also Dawson Chemical*, 448 U.S. at 180 ("The two concepts, contributory infringement and patent misuse, often are juxtaposed, because both concern the relationship between a patented invention and unpatented articles or elements that are needed for the invention to be practiced.").

145. *See* ROBERT P. MERGES, PATENT LAW AND POLICY 1193 (2d ed. 1997); Giles S. Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 INT'L REV. IND. PROP. & COPYRIGHT L. 497 (1990).

146. 35 U.S.C. § 271(d) (2000).

147. 448 U.S. 176 (1980).

148. *Id.*

other than as contemplated in the method. The defendants counterclaimed for misuse, asserting that plaintiffs' enforcement of the patent against contributory infringers, together with their refusal to license the method, effectively extended their exclusive rights to the unpatented chemical used in the process.[149]

The Supreme Court accepted the defendant's assertion that enforcement of the patent against contributory infringers extended the patent holder's rights, but refused to recognize this as misuse.[150] The Court held, instead, that enforcement of statutorily recognized contributory infringement rights in this case did not constitute misuse.[151] The Court reasoned that the reciprocal provisions of § 271(c) and (d) must be read in light of one another, so that misuse must be defined in terms of contributory infringement.[152] Because enforcement against suppliers of nonstaple articles, such as propanil, is expressly provided for in § 271(d), such enforcement cannot constitute misuse.[153]

The *Dawson* case established the § 271 relationship between misuse and contributory infringement for nonstaple articles. In responding to complaints from patent holders that patent misuse was being overemployed in tying cases, Congress subsequently amended § 271(d) to specify that tying licenses to the sale of products could only be misuse when the patent holder has market power in the patented item.[154] This language appears to largely ignore the distinction between staple and nonstaple articles, focusing instead upon the finding of market power.[155] Absent such a finding, the amendment appears to create a zone in which § 271(d) shields a patent holder from accusations of misuse for tying staple articles, and in which § 271(c) prevents other parties from being penalized for contributory infringement by supplying staple articles.[156]

A finding of market power in the tying product has been a key to finding antitrust violations.[157] Thus, a tie would certainly constitute misuse when it constitutes an antitrust violation, but the legislative history suggests that misuse for tying need not be limited to the antitrust context. Congress rejected the terminology of "antitrust violation" in the amendment,[158] adopting instead the term "market power," and declining to specify the level of market power that

149. *Id.*
150. *Id.* at 223.
151. *Id.*
152. *Id.* at 200–01.
153. *Id.* at 202.
154. *See* S. REP. NO. 100-83, at 21 (1987).
155. *See* MERGES, *supra* note 145.
156. *Id.*
157. *See* Marina Lao, *Unilateral Refusals to Sell or License Intellectual Property and the Antitrust Duty to Deal*, 9 CORNELL J.L. & PUB. POL'Y 193, 207 (1999).
158. *See* Process Patents Amendment Act of 1987, S. 1200, 100th Cong. (1987) (unadopted language in § 271 specifying the "violation of the antitrust laws" rather than the "market power" test).

must exist in order to trigger misuse.[159] Something less than the conduct necessary for an antitrust tying violation might be sufficient for a finding of misuse even under amended § 271(d). Robert Merges has further suggested that the staple or nonstaple nature of the tied item may be germane to the market power inquiry: The more tenuous the technological connection between the tied items, the more likely a tie reflects market power, suggesting that the contributory infringement definition of § 271(c) may yet inform the amended tying analysis of § 271(d).[160]

If the amendment of § 271(d) is not fully consonant with an antitrust analysis, it nonetheless moves the standard for patent tying misuse closer to that of antitrust tying. But it leaves untouched the application of misuse to other circumstances, such as contractual term extensions.[161] Although Congress in § 271(d) chose to express the role of tying misuse in terms of market power, it is apparent that in other contexts the doctrine has continued viability independent of the competitive values fostered by antitrust law. Recent commentary on misuse has identified at least three independent structural functions fulfilled by the doctrine, illustrating its importance in furthering the competitive goals of intellectual property.[162]

First, misuse appears to serve a coordination function, mediating between different areas of law.[163] With regard to patents, this coordinating role is particularly important in harmonizing the incentive purposes of intellectual property law with the competitive purposes of antitrust law. Second, the doctrine serves a "gap-filling" function, covering the interstices between intellectual property law and adjacent bodies of law.[164] In the case of patents, misuse has most notably coped with previously unaddressed gaps between patent and antitrust, providing a common law patch to cover licensing issues, at least until they

159. *See* 134 CONG. REC. H10648 (daily ed. Oct. 20, 1988) (remarks of the amendments' sponsor Rep. Kastenmeier) ("We have chosen not to explicitly guide the courts as to the level of 'market power' required for a finding of misuse.").

160. MERGES, *supra* note 145, at 1194. Merges equates the staple article doctrine with the "co-specific assets" analysis offered by David Teece. *See* David J. Teece, *Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy*, 15 RES. POL'Y 285, 288–90 (1986).

161. *See* 134 CONG. REC. S17146 (daily ed. Oct. 21, 1988) (statement of Senator DeConcini, Chair, Senate Judiciary Subcommittee on Patents, Copyrights, and Trademarks) (The § 271(d) amendment covers "a small piece of the patent misuse problem—tying arrangements—and leaves the rest for us to address in the future."); *see also* Scheiber v. Dolby Labs. Inc., 293 F.3d 1014, 1019–21 (7th Cir. 2002).

162. *See* Brett Frischmann & Dan Moylan, *The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and Its Application to Software*, 15 BERKELEY TECH. L.J. 865, 872–78 (2000). Although Brett Frischmann and Dan Moylan focus primarily on copyright misuse, they reason by analogy from patent misuse, and the functions they identify are common to both settings.

163. *Id.* at 872–75.

164. *Id.* at 875–77.

were addressed by Congress in § 271. Third, misuse serves a public interest function to safeguard the public policies undergirding patent and related areas of law.[165] In this mode, misuse confines the exercise of patent rights to their statutory purposes, and to the constitutional purposes behind the statute.

In addition to these previously identified functions, misuse may well serve others. For example, one might argue that as an equitable doctrine, misuse serves a function sounding in judicial integrity, preserving the courts from the reputational damage of enforcing legal claims that might be technically legitimate, but which would lead to socially perverse outcomes.[166] Misuse may also serve functions of judicial economy by defusing explosive constitutional questions that might otherwise require controversial rulings on vertical federalism or the scope of federal power.[167] In this role, application of misuse parallels the familiar interpretive rule that statutes should be construed so as to avoid constitutional conflict.[168] Activity that constitutes misuse is in many cases characterized as overreaching in violation of statutory policy, but such cases may well include overreaching in violation of constitutional authority.

This avoidance function is most apparent in the licensing cases beginning with *Brulotte*, in which the federal supremacy issue is either latent or extant. Such cases deal either implicitly or explicitly with the purposes of federal intellectual property policy, and the potential for frustration of such policies through state law licenses. From *Brulotte*, two distinct but related lines of cases emerged, the first dealing with licensing misuse, and the second culminating in policy cases such as *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*[169] But the constitutional questions implicated in such cases are not only those of vertical federalism, but those of legislative power as well. The Supreme Court in *Graham v. John Deere*[170] has addressed the subject matter limits of Congress' intellectual property power, holding that it is constitutionally limited to nonobvious inventions.[171] Extension of patent or contributory patent rights to unpatented articles could potentially exceed Congressional authority. The application of the misuse doctrine avoids

165. *Id.* at 877–78.

166. *See* B. Braun Med. Inc. v. Abbott Labs., 124 F.3d 1419, 1427 (Fed. Cir. 1997).

167. Ralph Clifford has postulated such a role for misuse in copyright, although not in the general terms that I suggest here. *See* Ralph D. Clifford, *Simultaneous Copyright and Trade Secret Claims: Can the Copyright Misuse Defense Prevent Constitutional Doublethink?*, 104 DICK. L. REV. 247 (2000) (arguing that application of the misuse doctrine is needed to prevent constitutional clashes between copyright and trade secrecy in computer software protection).

168. *See* Int'l Ass'n of Machinists v. Street, 367 U.S. 740, 749–50 (1961). *But see* RICHARD POSNER, THE FEDERAL COURTS: CRISIS AND REFORM 285 (1985) (arguing, with no apparent hint of irony, that the canon of constitutional avoidance is unhealthy because it foments judicial activism).

169. 489 U.S. 141 (1989).

170. 383 U.S. 1 (1966).

171. *Id.* at 14–17.

addressing an expansion of penumbral rights and licensing practices beyond the limits of the Patent Clause.

B. Copyright Misuse

Although the importance of the misuse defense has waned in patent law, it has experienced a somewhat surprising renaissance within the law of copyright. This flourishing may be due to the relatively recent employment of copyright to cover technological inventions. Early commentary considering Congress' decision to include software within copyright predicted that, in order to accommodate the characteristics of functional works, copyright might need to borrow doctrines such as misuse from patent law.[172] True to prediction, the typical setting for a finding of copyright misuse has been in the context of computer software, and courts developing this relatively new claim have drawn heavily on older patent cases for their rationale. As in classic patent misuse, to establish copyright misuse, a defendant must establish either (1) that the plaintiff violated the antitrust laws, or (2) that the plaintiff illegally extended its monopoly beyond the scope of the copyright or violated the public policies underlying the copyright laws.[173]

1. Development of the Doctrine

Parallels between patent law and copyright law have long lent themselves to claims of copyright misuse, but favorable treatment of the claim was long in coming. In 1948 a district court in Minnesota recognized the defense of copyright misuse, but the decision was reversed on appeal.[174] For the next forty years, defendants unsuccessfully asserted the defense.[175] More recently, courts have begun to actively apply misuse principles to overreaching in copyright licensing. The germinal case in this line of doctrinal development was *Lasercomb America, Inc. v. Reynolds*,[176] where the court found that a license attempting to

172. *See* Paul Goldstein, *Infringement of Copyright in Computer Programs*, 47 U. PITT. L. REV. 1119, 1127–30 (1986).

173. *See* Frischmann & Moylan, *supra* note 162, at 881–84.

174. *See* M. Witmark & Sons v. Jensen, 80 F.Supp. 843 (D. Minn. 1948), *appeal dismissed*, M. Witmark & Sons v. Berger Amusement Co., 177 F.2d 515 (8th Cir. 1949). Copyright misuse was arguably implicit in the unclean hands doctrine even earlier. *See, e.g.*, Alfred Bell & Co. v. Catalda Fine Arts, Inc., 191 F.2d 99, 105–06 (1951).

175. *See* Harms, Inc. v. Sansom House Enters., Inc., 162 F. Supp. 129, 135 (E.D. Pa. 1958), *aff'd*, Leo Feist, Inc. v. Lew Tendler Tavern, Inc., 267 F.2d 494 (3d Cir. 1959) ("The affirmative defense of violation of the Anti-Trust laws . . . is not permitted in a copyright infringement action."); *see also* Orth-O-Vision, Inc. v. Home Box Office, 474 F. Supp. 672, 686 (S.D.N.Y. 1979); Foreign Car Parts, Inc. v. Auto World, Inc., 366 F. Supp. 977, 979 (M.D. Pa. 1973).

176. 911 F.2d 970 (4th Cir. 1990).

prevent the licensees from independently innovating a competing product amounted to copyright misuse.[177] The defendant in *Lasercomb* had licensed four copies of a die-cutting computer program from the plaintiff, then circumvented the software's protective devices and made three unauthorized copies of the program.[178] When the copyright holder sued for infringement, the defendant asserted copyright misuse on the basis of Lasercomb's standard licensing agreement, which provided that licensees were barred from independently innovating a competing product for ninety-nine years.[179]

In accepting the defendant's claim of misuse, the Fourth Circuit relied heavily on the patent misuse reasoning from *Morton Salt*.[180] Of particular concern to the court was the copyright holder's attempt to withdraw its competitor's creative abilities from the public. The agreement not only attempted to suppress any independent implementation of the idea, but also to forbid the licensee from developing or assisting in developing any kind of computer-assisted die-making software.[181] The licensee was required to prevent all its directors, officers, and employees from assisting in any manner the development of computer-assisted die-making software.[182] In a nod to the *Brulotte* line of patent cases, the court noted that the license's ninety-nine year prohibition could outlast the copyright itself.[183] Significantly, the court held that the defendant need not itself be subject to the egregious licensing term in order to assert the defense.[184]

Following *Lasercomb*, several other courts recognized claims of copyright misuse. Notably, the Ninth Circuit, in *Practice Management Information Corporation v. American Medical Association*,[185] held that the American Medical Association (AMA) had engaged in copyright misuse by licensing its medical coding system to an agency in exchange for that agency's agreement not to use a competing coding system.[186] At issue was a medical procedure indexing code in which the AMA claimed copyright, and licensed to a governmental agency, the Health Care Financing Agency (HCFA), on terms that HCFA would promote the use of the AMA code and agree not to use any competing system.[187] When a publisher of medical texts brought a declaratory judgment action

177. *Id.* at 979.
178. *Id.* at 971.
179. *Id.* at 972–73.
180. *Id.* at 975.
181. *Id.* at 978–79.
182. *Id.* at 973, 978.
183. *Id.* at 978.
184. *Id.* at 979.
185. 121 F.3d 516 (9th Cir. 1997).
186. *Id.*
187. *Id.* at 517–18.

against the AMA, asserting that the HCFA license constituted misuse, the Ninth Circuit agreed, holding that public policy was offended by the AMA's attempt to license its code by imposing an anticompetitive exclusivity restriction.[188]

The Fifth Circuit also recognized the defense of copyright misuse in 1996,[189] and then in *Alcatel USA, Inc. v. DGI Technologies, Inc.*,[190] held that a license limiting the use of operating system software to hardware produced by the copyright owners constituted copyright misuse.[191] *Alcatel* provides a particularly important example of copyright misuse doctrine in the context of computer interoperability. The plaintiff Alcatel produced equipment for telephone switching systems, which were controlled by a copyrighted operating system software.[192] The operating system was licensed to customers under terms that allowed use of the operating system only in conjunction with Alcatel's hardware. Customers frequently needed to expand the call handling capacity of their switches, and one way of accomplishing this was by adding microprocessor cards. When an Alcatel competitor copied Alcatel's software in order to design a competing microprocessor card, Alcatel sued for copyright infringement. However, the court upheld the defendant's claim of copyright misuse, reasoning that Alcatel was leveraging its software copyright to obtain patent-like control over the market for its unpatented microprocessor cards.[193]

Following these three leading cases, other circuit courts indicated acceptance of copyright misuse, and the doctrine appears to have become firmly ensconced in the law of copyright.[194] The discussion about copyright misuse now focuses primarily on its proper application and extent, rather than on its existence as a defense to infringement. However, the precise contours of the doctrine are still not clear, and the exact border between copyright misuse and antitrust remains particularly vague and controversial.[195] As in the previous development of patent misuse, antitrust violations may constitute copyright misuse, but misuse is not limited to the antitrust context.[196] While the lack

188. *Id.* at 520–21.
189. DSC Communications Corp. v. DGI Tech., Inc., 81 F.3d 597, 601 (5th Cir. 1996).
190. 166 F.3d 772 (5th Cir. 1999).
191. *Id.* at 793.
192. *Id.* at 777.
193. *Id.* at 793.
194. *See, e.g.*, qad inc. v. ALN Assocs. Inc., 974 F.2d 834 (7th Cir. 1992); Bateman v. Mnemonics Inc., 79 F.3d 1532 (11th Cir. 1996); Data General Corp. v. Grumman Systems Support Corp., 35 F.3d 1147 (1st Cir. 1994).
195. *See* Aaron Xavier Fellmeth, *Copyright Misuse and the Limits of the Intellectual Property Monopoly*, 6 J. INTELL. PROP. L. 1, 34–36 (1998); Ramsey Hanna, Note, *Misusing Antitrust: The Search for Functional Copyright Misuse Standards*, 46 STAN. L. REV. 401, 416–19 (1994); Troy Paredes, Note, *Copyright Misuse and Tying: Will Courts Stop Misusing Misuse?*, 9 HIGH TECH. L.J. 271 (1994).
196. *See* Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 978 (4th Cir. 1990).

of congruity between copyright misuse and antitrust has frustrated certain commentators,[197] these features of the doctrine in fact position it to play the gap-filling, coordinating, and policy preserving roles discussed in the previous section.

2. The Contributory Connection

Misuse in copyright appears to play a variety of functions similar or identical to those discussed above for patent law, including a role in defusing potential constitutional conflicts.[198] This function is apparent, for example, in *Alcatel*, where misuse was invoked to prevent copyright licensing from extending patent-like protection to telecommunications hardware. As in the case of patent misuse, this type of decision preserves not only the statutorily embodied federal intellectual property policy, avoiding a Supremacy Clause abrogation of state licensing law, but also avoids conflict regarding the extent of the copyright power. Much as it addressed the constitutional limitations of patentable subject matter in *Graham v. John Deere*, the Supreme Court addressed the constitutional limitations of copyrightable subject matter in *Feist Publications, Inc. v. Rural Telephone Services Co.*, holding that copyright cannot extend to unoriginal expression, such as facts.[199] The Court has also suggested that copyright doctrines such as the idea/expression dichotomy prevent copyright from running afoul of the First Amendment.[200] One can imagine that, as in patent law, misuse doctrine may be important to prevent penumbral contributory infringement rights from extending to subject matter that might exceed the constitutionally permissible scope of copyright. This may be particularly important as copyright has been expanded to encompass utilitarian items of technology such as computer software, where much of the work lies outside copyright, and the scope of protection is thin. Indeed, misuse has primarily been applied to copyright in cases where software was involved.[201]

Yet in copyright law the functions performed by misuse doctrine vis-à-vis contributory infringement have a very different character than in patent law. Copyright law contains a contributory infringement doctrine as well as a misuse doctrine, although the relationship between the two is less well defined than

197. Most notably the Seventh Circuit judicial adherents to the Chicago School of Law and Economics. *See, e.g.* Saturday Evening Post Co. v. Rumbleseat Press, Inc., 816 F.2d 1191, 1200 (7th Cir. 1987) (declining to create "a federal common law rule [of misuse] that would jostle uncomfortably with the Sherman Act"); *see also supra* note 195.

198. *See supra* note 167 and accompanying text.

199. 499 U.S. 340, 347 (1991).

200. Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 555–57 (1985).

201. *See* Frischmann & Moylan, *supra* note 162, at 919 (arguing that misuse is particularly appropriate where software is concerned). Even the application of misuse in *Practice Management* involved an indexing system, a strongly utilitarian work in which the copyright would be "thin." Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 517 (9th Cir. 1997).

that in patent law. This is perhaps unsurprising given the relatively short history of copyright misuse relative to that of patent misuse; the relationship of patent misuse to contributory infringement has had much longer to develop. At the same time, contributory infringement in copyright is largely a transplant from patent law, and one might expect that misuse would have been transplanted as well.[202] The important role of misuse in constraining the extent of an intellectual property owner's penumbral rights suggests that the two doctrines must operate in tandem, lest the scope of contributory infringement grow unchecked.

However, the Supreme Court did not import these concepts to copyright law in tandem. In *Sony v. Universal Studios*,[203] the Supreme Court drew upon the jurisprudence of patent contributory infringement to construct only a parallel doctrine of copyright contributory infringement.[204] In *Sony*, the issue was whether consumer video recording devices contributed to unauthorized copying of broadcast content. The Supreme Court recognized the possibility of contributory copyright infringement, but drawing on the familiar staple article of commerce doctrine, held that provision of items with substantial noninfringing uses is not contributory infringement.[205] In the particular case of Sony's video device, the fair use of "time shifting" broadcast programs provided the necessary substantial noninfringing use.[206]

Consequently, although contributory infringement and the accompanying staple article concept are now well established in copyright, they have been unaccompanied by the limiting influence played in patent law by misuse.[207] Instead, for copyright, this limiting role has generally been played by the doctrine of *fair* use, as it did, for example, in the *Sony* opinion.[208] There, in almost the same instant that contributory infringement was recognized as a fresh principle of copyright, the Supreme Court employed fair use to reign in the potential reach of the new principle, holding that fair use of video recording technology provides the substantial noninfringing use that saves the technology from contributorily infringing.[209] Fair use has similarly been employed in a series of computer interoperability cases to allow the development of competing

202. *See* A. Samuel Oddi, *Contributory Copyright Infringement: The Tort and Technological Tensions*, 64 NOTRE DAME L. REV. 47, 82 (1989).

203. 464 U.S. 417 (1984).

204. *Id.* at 456.

205. *Id.* at 439–42.

206. *Id.* at 442–43. More recently, a similar result has been achieved with regard to portable consumer music devices by adapting this concept to "space-shifting." *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1079 (9th Cir. 1999).

207. *See* Oddi, *supra* note 202, at 78–86.

208. *See* Marshall Leaffer, *Engineering Competitive Policy and Copyright Misuse*, 19 DAYTON L. REV. 1087 (1994) (noting the employment of fair use rather than misuse).

209. *Sony*, 464 U.S. at 442–43.

technology that might otherwise have been suppressed or co-opted by copyright.[210] So, for example, where a competitor reverse engineers software, producing in the process a technically infringing copy of that software, courts have held that the production of the copy is a permissible fair use.[211]

Similar interoperability concerns were at issue in *Alcatel*, where unauthorized software access was the key to a competitive hardware market. It is the *Alcatel* opinion that finds copyright misuse playing the foil to contributory copyright infringement in much the same manner that patent misuse has played to contributory patent infringement: preventing the copyright holder from exercising a stranglehold on technologies adjacent to the primary intellectual property right. And it is worth noting that in *Alcatel*, copyright misuse plays a doctrinal role that might otherwise have been played by fair use: vindicating the defendant's use of copyrighted software in order to exploit uncopyrightable aspects of the disputed technology. The direct copying of the copyright holder's operating system to produce a competing microprocessor card, as well as the contributory copying of the operating system by users of the DGI expansion cards, could well have been characterized as fair use under the rule articulated in the software reverse engineering cases.[212]

This functional substitution of fair use and misuse has been explored in some detail by recent commentators discussing the proper scope of intellectual property protection for software.[213] The common use of the two doctrines to preserve a right of reverse engineering suggests a conceptual linkage between them, at least at a functional level. At the same time, fair use and misuse occupy conceptually separable positions relative to the central right of the copyright holder. Although both claims have roots in equity, and are typically

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210. *See* Pamela Samuelson, *Fair Use for Computer Programs and Other Copyrightable Works in Digital Form: The Implications of* Sony, Galoob, *and* Sega, 1 J. INTELL. PROP. L. 49, 73–102 (1993).

211. *See, e.g.*, Sony Computer Entm't, Inc. v. Connectix Corp., 203 F.3d 596, 602–08 (9th Cir. 2000); DSC Communications Corp. v. DGI Techs., 81 F.3d 597, 601 (5th Cir. 1996); Bateman v. Mnemonics, 79 F.3d 1532, 1539 n.18 (11th Cir. 1996); Sega Enters., Ltd. v. Accolade, Inc., 977 F.2d 1510, 1520 (9th Cir. 1992); Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 843–44 (Fed. Cir. 1992).

212. *See* James A.D. White, *Misuse or Fair Use: That Is the Software Copyright Question*, 12 BERKELEY TECH. L.J. 251 (1997).

213. *See, e.g.*, Clifford, *supra* note 167; Leaffer, *supra* note 208; White, *supra* note 212; Karen E. Georgenson, Note, *Reverse Engineering of Copyrighted Software: Fair Use or Misuse?*, 5 ALB. L.J. SCI. & TECH. 291 (1996); *see also* Goldstein, *supra* note 172 (arguing that either fair use or misuse, or both, would be necessary to accommodate copyright doctrine to the functional characteristics of computer software). *But see* Eric Douma, *Fair Use and Misuse: Two Guards at the Intersection of Copyrights and Trade Secret Rights Held in Software and Firmware*, 42 IDEA 37 (2002) (arguing, contrary to Professor Clifford, that fair use provides sufficient opportunity for software reverse engineering without resort to misuse). A full discussion of Eric Douma's disagreement with Clifford lies beyond the scope of this article, particularly as Douma concedes that he agrees with Clifford's, and presumably my, concerns regarding misuse of copyright in licensing. *Id.* at 79.

raised as defenses to infringement, misuse analysis focuses exclusively upon the conduct of the copyright holder. Indeed, misuse may be claimed on the basis of the right holder's activities toward third parties, making misuse a tool to vindicate the rights of nonparties to the suit. By contrast, fair use analysis focuses primarily on the type of work involved and the conduct of the work's recipient or user.[214] Misuse occurs specifically because of improper activity by the right holder; fair use typically occurs without reference to the right holder.[215] On the other side of the equation, fair use may be precluded by inequitable conduct on the part of the defendant,[216] whereas misuse may be found in spite of defendant's bad conduct.[217]

These differences suggest that, although fair use and misuse may occasionally be employed to similar policy ends, the two concepts are not altogether fungible, and their employment in one setting or another may implicate very different doctrinal and policy goals. *Alcatel* provides a clear example of a situation in which, for doctrinal reasons, fair use could not be employed to achieve access for purposes of interoperability, leaving misuse as the only viable choice. There, the defendants employed deceptive means to obtain the plaintiff's software code, clouding the defendant's ability to raise a claim of fair use for reverse engineering purposes.[218] Characterizing the question as one of misuse rather than fair use shifts the focus from the defendant's misconduct to the plaintiff's misconduct, making certain that the public interest is vindicated even if defendant's activity is not exemplary of the public interest.

The fair use doctrine has never been available in patent law, where misuse and contributory infringement originated. Without a doctrine of fair use or any equivalent, the focus in patent law is squarely on the patent holder, whose use or misuse of the patent determines its enforceability or unenforceability,

214. *See* 17 U.S.C. § 107 (2000) (listing standard fair use factors).

215. Some cases suggest that courts may sometimes take into account the copyright holder's conduct in determining whether the defendant's use is fair. *See, e.g.*, Rosemont Enters., Inc., v. Random House, Inc., 366 F.2d 303 (2d Cir. 1966) (preventing billionaire Howard Hughes from invoking copyright to deter biographical writings).

216. *See, e.g.*, Fisher v. Dees, 794 F.2d 432, 436–39 (9th Cir. 1986) (weighing the propriety of the defendant's conduct in assessing fair use); Lloyd Weinreb, *Fair's Fair: A Comment on the Fair Use Doctrine*, 103 HARV. L. REV. 1137, 1150–53 (1990); *but see* Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105 (1990) (arguing that public interest in fair use outweighs even scurrilous behavior by defendants).

217. *See, e.g.*, Alcatel USA, Inc. v. DGI Techs., Inc. 166 F.3d 772, 784–85 (5th Cir. 1999) (upholding a misuse claim despite defendant's misconduct); Lasercomb Am., Inc. v. Reynolds, 911 F.3d 970, 980–81 (9th Cir. 1990) (upholding a misuse claim despite finding of fraud by defendant). Although defendants' conduct typically does not preclude a finding of misuse, there is some disagreement as to whether an equitable claim of misuse can be pressed by a defendant with unclean hands. *See, e.g.*, Atari Games Corp. v. Nintendo of Am., Inc., 975 F.2d 832, 846 (Fed. Cir. 1992) (purporting to apply Ninth Circuit law to hold that unclean hands can preclude a defendant's misuse defense).

218. *See Alcatel*, 166 F.3d at 784–85.

regardless of the defendant's activity. Yet the decline of misuse in patent law has substantially weakened the constraints on the ability of patent owners to control adjacent technologies, at a time when patent has expanded to cover technologies such as software, which rely heavily upon reverse engineering for progress.[219] Expansion of patentable subject matter has also occurred through the application of patent law to communicative technologies that might traditionally have been the provenance of copyright.[220] Not surprisingly, several commentators have called for development of a patent doctrine similar to copyright fair use, in order to secure the access that fair use has provided in copyright.[221]

These trends center on technologies, such as software, which do not fit neatly into traditional categories of patent or copyright subject matter, and which consequently are covered by both.[222] The development of overlapping protection for such legal hybrids signals not only a convergence of patentable and copyrightable subject matter,[223] but perhaps the convergence of the limiting doctrines from each area as well. The migration of misuse from patent to copyright seems responsive to the demands now placed upon copyright law, and a similar migration of fair use from copyright to patent may be necessary to buttress the changing role of patents. Given the partial substitutability of the two doctrines in securing reverse engineering access for software and similar technologies, the diminished role of misuse in patent law may make the need for patent fair use more compelling. And it may be that *Alcatel* and other copyright misuse cases signal a similar need for misuse in copyright, perhaps due to a decline in judicial amenability to claims of copyright fair use.[224]

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219. Julie E. Cohen & Mark A. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CAL. L. REV. 1, 16–37 (2001).

220. *See* Dan L. Burk, *Patenting Speech*, 79 TEX. L. REV. 99, 136–50 (2000).

221. *See id.* at 151–58; Cohen & Lemley, *supra* note 219, at 29–30; Maureen A. O'Rourke, *Toward a Doctrine of Fair Use in Patent Law*, 100 COLUM. L. REV. 1177 (2000); *see also* Donald S. Chisum, *The Patentability of Algorithms*, 47 U. PITT. L. REV. 959, 1018 (1986) (making the earliest suggestion regarding a patent fair use doctrine).

222. *See* Dennis S. Karjala, *The Relative Roles of Patent and Copyright in the Protection of Computer Programs*, 17 J. MARSHALL J. COMPUTER & INFO. L. 41, 50–52 (1998); *see also* J.H. Reichman, *Charting the Collapse of the Patent-Copyright Dichotomy: Premises for a Restructured International Intellectual Property System*, 13 CARDOZO ARTS & ENT. L.J. 475, 508–10 (1995).

223. *See* Reichman, *supra* note 222, at 484–85; J.H. Reichmann, *Legal Hybrids Between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432, 2444 (1994).

224. Recent claims regarding fair use in digital technologies have been met with skepticism, and even some disdain by courts reviewing such cases. *See, e.g.*, Universal City Studios, Inc. v. Corley, 273 F.3d 429, 458–59 (2d Cir. 2001); A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1014–19 (9th Cir. 2001).

III. ANTICIRCUMVENTION MISUSE

Several commentators have previously observed that the misuse doctrine might be employed to curb abuses in the licensing of digital content. Such abuses occur where "shrinkwrap" or mass-market licensing exceeds the copyright grant in the licensed materials, including abuses occasioned by the advent of technological content controls.[225] Others have suggested that copyright or patent misuse might come into play where a patent or copyright in technological measures is used to deter circumvention of a technical measure, and hence prevent reverse engineering of the protected content.[226] Indeed, with her usual prescience, long before passage of the DMCA, Julie Cohen analyzed at some length the application of misuse doctrine to suits brought by such technological "vigilantes," who employed copyright law to secure their technical self-help measures from reverse engineering.[227]

My argument here is rather different. Certainly, copyright or patent misuse may well be implicated in many cases involving shrinkwrap or clickwrap. As in the *Lasercomb* case, they may even be implicated in cases involving technical protections. However, a great deal has occurred since Cohen published her analysis of copyright "lock-out" misuse; the DMCA has legitimized such technological exclusion, in effect deputizing the vigilantes.[228] Adopters of self-help measures need no longer look to copyright infringement as a hedge against circumvention of their technological protections. Rather, the DMCA now confers upon content owners a new exclusive right to control not only access to technologically protected works, but also, as the cases reviewed here demonstrate, to control ancillary technologies related to content protection. Recognizing that the anticircumvention right is an entirely separate right from either patent or copyright, the type of anticompetitive overreaching that I anticipate cannot be said to implicate patent or copyright misuse. Rather than leveraging the copyright or patent, such cases involve leveraging of the anticircumvention right, suggesting the need to recognize a new claim of anticircumvention or paracopyright misuse.

225. *See* Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CAL. L. REV. 111, 151–58 (1999); J.H. Reichman & Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. PENN. L. REV. 875, 922–25 (1999).

226. *See* Julie E. Cohen, *Reverse Engineering and the Rise of Electronic Vigilantism: Intellectual Property Implications of "Lock-Out" Programs*, 68 S. CAL. L. REV. 1091, 1096–97 (1995).

227. *Id.*

228. *See supra* note 33 and accompanying text.

A. Developing the Doctrine

The history of misuse reviewed here underscores the past importance of misuse in modulating the reach of intellectual property rights, not so much as a tool to curb anticompetitive effects on consumer markets, but to curtail the forays of rights holders beyond the uses intended for those rights. The consistent theme of misuse cases is refusal to reward private extension of intellectual property rights contrary to public policy; not simply to ward off antitrust violations, or even to prevent economically anticompetitive activity. Some types of overreaching will surely create anticompetitive effects, and curtailing overreaching may cure some anticompetitive behaviors. To the extent that misuse doctrine does so, it may complement or overlap antitrust law, and might sometimes be mistaken for antitrust law. But the most recent copyright misuse cases make clear, as do the early patent cases, that the unique role of misuse is to police the constitutional and statutory limitations on exclusive rights.[229]

A second, and perhaps more striking, feature of the history reviewed here lies in the structural connection between misuse and contributory infringement in both patent and copyright. The two doctrines are tightly coupled in both the history and the statutory language of patent law.[230] Contributory infringement effectively provides an expansion of a patent holder's exclusive rights, and unchecked, may allow a patent holder to control the development and use of ancillary technologies.[231] Although conceived as a limit on the patent owner's ability to overreach in licensing, misuse evolved in part to counterbalance contributory infringement, tempering the patent owner's ability to control markets adjacent to that of the claimed invention. This dynamic seems born out by the recent history of copyright law, where contributory infringement has been repeatedly asserted in a long line of technological power grabs, including attempts to control home video recording technology,[232] to restrict availability of consumer digital audio tape (DAT) devices,[233] to curtail sales of portable MP3 music players,[234] and most recently to effectively control

229. *See supra* notes 175–193 and accompanying text.

230. *See* Oddi, *supra* note 140, at 75–81.

231. *See id.*; MERGES, *supra* note 145; *see also* Stacey L. Dogan, *Is Napster a VCR? The Implications of* Sony *for Napster and Other Internet Technologies*, 52 HASTINGS L.J. 939 (2001) (analyzing contributory copyright infringement in terms of adjacent markets).

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

233. *See* Gary S. Lutzker, Note, *DAT's All Folks:* Cahn v. Sony *and the Audio Home Recording Act of 1991—Merrie Melodies or Looney Tunes?*, 11 CARDOZO ARTS & ENT. L.J. 145 (1992). In the case of digital audio tape, the threat of contributory infringement liability was leveraged into passage of the Audio Home Recording Act (AHRA), which mandated that digital recording devices incorporate a form of technical protection system, the Serial Copy Management System (SCMS). *See* 17 U.S.C. § 1002 (2000).

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

the use of peer-to-peer Internet technology.[235] Just as the proliferation of a species transplanted into an unfamiliar ecosystem may be controlled by parallel introduction of the species' natural predators, it is not surprising to see the courts introducing misuse into copyright law as the native copyright doctrines holding contributory infringement in check begin to fail.

Patent or copyright misuse will be inadequate to limit overreaching digital content licenses, in part because such licenses need not be based on a release from copyright or patent liability, but on release from circumvention liability. One can already see the precursor to such a case in the current dispute over access controls in *Reimerdes*. Note that in *Reimerdes*, the CSS was used to limit the playback of technologically controlled works to certain approved DVD players. This is in essence a form of tying, using the technological control system, and the legal sanctions backing it, to force customers who purchase DVDs to use only particular DVD players. It is only a very short step from these facts to an anticompetitive situation in which customers are required to purchase particular players to play discs that, absent the access control, could be played using the DVD machines manufactured by other, unapproved manufacturers. Even if such tying did not rise to the level of an antitrust violation, there would arguably be a misuse of the anticircumvention right: leveraging the right granted in the technological control system to control unpatented players, much as the copyright in *Alcatel* was leveraged to control telephone switching hardware.

The *Reimerdes* case foreshadows an additional consideration, not previously encountered in the history of misuse—that anticircumvention rights may be leveraged via terms built into the technological control system itself. As mentioned above, Joel Reidenberg and Larry Lessig have convincingly demonstrated how technological constraints may be substituted for legal constraints.[236] In the DMCA cases, licensing terms have been replaced by their technological equivalent.[237] The geographic limitation of the DVD playback system was not written out in a license, but was instead built into a technical standard. Indeed, were such limitations incorporated into a written license, they might well create antitrust issues.[238] Neither should it matter whether such contractual prohibitions are instantiated as text accompanying the authorized access to content, or are built into the technology that controls the use of the content once it has been accessed. Such overreaching is

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

236. *See supra* Part I.A.

237. *See supra* note 33 and accompanying text.

238. *See* PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATIONS ¶¶ 556, 1641 (2000) (describing permissible and impermissible uses of geographic restrictions).

equivalent, whether as text backed by law or as software backed by law, and either is a candidate for limitation via misuse.

Thus, the question to be addressed regarding anticircumvention misuse is not simply whether the particular application of the right is anticompetitive, although some, and perhaps all, anticompetitive uses will surely be misuses. Rather, a finding of misuse would be proper where the ends to which the anticircumvention right is put exceed the reasonable grant of the right. For this standard to have any definite structure it will be necessary to determine what the bounds of the anticircumvention grant might be. That in turn entails some determination of the Congressional intent in creating the right in the first place.

Fortunately, the legislative history behind the DMCA anticircumvention provisions is fairly clear, if not repetitious, regarding congressional intent on this point. The legislative record of the DMCA is replete with references to the need for anticircumvention measures to prevent "piracy."[239] While this pejorative is used rather loosely by the content industries who backed the DMCA—to include even legitimate though unauthorized copying of a work[240]—the legislative record reflects a use of the term by both legislators and anticircumvention proponents most often to refer to large-scale, unauthorized commercial reproduction and distribution of copyrighted works in competition with the legitimate copyright owner. Some uses of the term also refer to widespread but private unauthorized reproduction and distribution that might not be explicitly commercial, but that would adversely affect the commercial market for authorized copies of the work. Content industries lobbying Congress for circumvention protection repeatedly emphasized the potential of digital piracy as the threat motivating their appeal to the legislature. Legislators who sponsored or favored the DMCA repeatedly cited the threat of piracy as the motivation for their support.

Given this stated purpose, the employment of the anticircumvention statute to date should come as something of a surprise. The record suggests that the anticircumvention right was intended by Congress as a shield rather than

239. *See, e.g., NII Copyright Protection Act of 1995: Hearings on H.R. 2441 Before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary*, 104th Cong. 22 (1996) (statement of Jack Valenti, President and CEO, Motion Picture Association of America, Inc.); *WIPO Copyright Treaties Implementation Act; and Online Copyright Liability Limitation Act: Hearing on H.R. 2281 and H.R. 2280 Before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary*, 105th Cong., 200 (1998) (statement of Hilary Rosen, President and CEO, Recording Industry Association of America); *WIPO Copyright Treaties Implementation Act: Hearing on H.R. 2281 Before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the House Committee on Commerce*, 105 Cong. 54, 55 (1998) (statement of Steven J. Metalitz on Behalf of the Motion Picture Association of America).

240. *See* JESSICA LITMAN, DIGITAL COPYRIGHT 85–86 (2001).

as a sword, intended as a means to prevent wholesale misappropriation of copyrighted content, rather than as a means to extend content owners' exclusivity to cover adjacent, uncopyrighted technologies. Yet the cases brought by rights holders thus far, as described above, have been characterized by a decided lack of anything resembling "piracy" or unauthorized copying.[241] Rather, the common employment of the anticircumvention right in these cases has been—certainly in effect, if not in intent—directed to suppressing competitive products. Such use of the anticircumvention right is strikingly similar to that of copyright in the copyright misuse cases. And if an AMA or *Lasercomb* analog of anticompetitive anticircumvention licensing has not yet occurred, it can only be a matter of time before one does.

B. The Contributory Connection

Given the historic interplay between misuse and contributory infringement, misuse seems particularly appropriate for application to this new right that in some sense plays a role that could have been played by contributory infringement. Anticircumvention is, or should be, an adjunct to protecting copyright or patent, much as contributory infringement has been. Both extend the penumbra of an intellectual property owner's rights into adjacent markets for related technology. Indeed, the language of the DMCA anticircumvention provisions, defining the subject matter of the device provisions as directed to devices "primarily designed or produced" or having "only limited commercially significant purpose" other than to circumvent, or "marketed for use"[242] in circumvention, echoes the patent staple article of commerce concept that was imported into copyright in the *Sony* decision.[243]

The DMCA does not directly adopt the staple article of commerce definition, instead employing broader definitions of a contributorily infringing device. Although the DMCA § 1201(b) trafficking provisions play an equivalent role to patent law's § 271(c), the DMCA extends the trafficking prohibition beyond devices "specially adapted" to those "primarily designed or produced" for infringement. In the reciprocal definition, DMCA shifts the focus from § 271(c)'s "substantial non-infringing use" to that of "limited commercially significant purposes" besides circumvention. These definitional expansions create a comparatively broader zone of penumbral rights than would exist with regard to either copyright contributory infringement rights in an underlying technologically protected work, or with regard to copyright and patent rights in the technological protection system itself.

241. *See supra* notes 232–235 and accompanying text.
242. 17 U.S.C. § 1201(b)(1) (2000).
243. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 439–42 (1984).

This expanded zone of penumbral rights may seem to leave less room for misuse doctrine to operate, as the range of devices statutorily prohibited is larger. But this broader range of "contributory circumvention infringement" makes the need for limits such as misuse all the more compelling, fixing a different demarcation point for misuse, but not eliminating the necessity of its doctrinal function. Consequently, the relationship between "paracopyright" and anticircumvention misuse should properly mirror the patent law relationship between contributory infringement and patent misuse. Even though there is no statutory DMCA cognate for patent's § 271(d), the right to license or refuse to license prohibited technologies is inherent in the right to prevent their deployment. An equitable counterbalance to this right is similarly inherent in the anticircumvention right.[244]

The precedent for elaborating such an anticircumvention misuse claim lies in the recent development of copyright misuse imported from the patent context. Misuse may again be transplanted out of its previous milieu and into the realm of anticircumvention. Such application of misuse entails an important constitutional dimension parallel to that seen in copyright, as for example in the *Alcatel* case where the court's abrogation of a copyright license covering an unpatented microprocessor card avoided the problem of extending an effective monopoly to obvious or known technology.[245] I have suggested that as applied in the patent or copyright contexts, misuse may avert difficult constitutional questions, paralleling the familiar canon of statutory interpretation.[246] Misuse may serve a similar function in the anticircumvention context, where the scope and limitations of legislative power to promulgate paracopyright are prominent questions.[247] By declaring certain practices to constitute anticircumvention misuse, courts may avoid analyses of the statute that might otherwise impeach Congressional authority or ensnare the statute in conflict with limiting constitutional doctrines such as the First Amendment.

This limiting role cannot be played by fair use, as it was for many years in copyright. Much of the analysis regarding fair use in the DMCA context

244. *Cf.* Lasercomb Am. Inc. v. Reynolds, 911 F.2d 970, 973 (9th Cir. 1990) (holding that "a misuse of copyright defense is inherent in the law of copyright just as a misuse of patent defense is inherent in patent law").

245. *Cf.* Graham v. John Deere Co., 383 U.S. 1 (1966).

246. *See supra* notes 167, 198 and accompanying text.

247. *See, e.g.*, Benkler, *supra* note 75, at 412–29; Neil Weinstock Netanel, *Locating Copyright Within the First Amendment Skein*, 54 STAN. L. REV. 1 (2001) (questioning the constitutionality of the DMCA anticircumvention provisions on First Amendment grounds); Brief of Amici Curiae Intellectual Property Law Professors, *supra* note 75 (questioning the constitutionality of the DMCA anticircumvention provisions on enumerated power and First Amendment grounds); *see also* Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace*, 28 CONN. L. REV. 981 (1996) (questioning the constitutionality of anticircumvention legislation on speech and privacy grounds).

has been on the anticircumvention right's potential to disrupt fair use of the underlying materials.[248] But the concern here is the availability of fair use or a similar doctrine to prevent the anticircumvention right itself from being leveraged into control of adjacent technologies. For example, the circumvention and analysis of CSS might equitably be considered "fair" in order to design a compatible, if unauthorized, DVD player using the Linux platform. But the DMCA makes no explicit provision for fair use with regard to the anticircumvention right itself; it provides only that fair use in the *underlying work* remains available if the work can be accessed. The limited exceptions provided under the statute, or under the rulemaking authority of the Librarian of Congress, lack the breadth and flexibility to fill the equitable role played by fair use. The scope of the anticircumvention right, lacking the liability doctrine of fair use, and defined in terms of functionality,[249] in some senses confers broader rights than patent protection. Consequently, as in the case of patent law, development of a robust misuse doctrine is needed to hold the anticircumvention right in check.

As in the case of both patent and copyright misuse, as the doctrine develops, there will be questions regarding the contours of anticircumvention misuse and antitrust law. It should be apparent that the trafficking provisions of the DMCA confer not simply an extra measure of content control, but broad power to dictate technological format and interoperability. The very concept of a secure or managed digital environment contemplates that only approved or certified interoperation will occur: Unapproved devices or applications potentially compromise the security of the system. This type of interoperability control is a version of the technical standards problem that has been identified in other commentaries of computer technology, and a full analysis of the issue lies beyond the scope of this Article.[250] But examples such as the DVD CSS or RealAudio "secret handshake" serve to illustrate the general point that control of a dominant technical protection standard can allow a firm or group of firms to dictate who will be allowed to offer competing or complementary products in a given market.

The anticircumvention statute serves to extend and cement such technical control. Exceptions to the DMCA access and device provisions may permit competitors to reverse engineer secure platforms and products to produce

248. *See, e.g.* Benkler, *supra* note 75, at 412–29; Dan L. Burk & Julie E. Cohen, *Fair Use Infrastructure for Rights Management Systems*, 15 HARV. J.L. TECH. 41, 47–54 (2001); Nimmer, *supra* note 67; Netanel, *supra* note 247; *see also* Lydia Pallas Loren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1 (1997).

249. 17 U.S.C. § 1201(a)(3) (2000).

250. *See* Samuelson & Scotchmer, *supra* note 69, at 1623–25; *see generally* Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041 (1996); Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL L. REV. 479 (1998).

interoperable software, but the reverse engineering exception does not extend to reverse engineering hardware or data. Neither does it allow reverse engineering for any purpose other than software interoperability.[251] Nor does it necessarily allow consumers to use the interoperable product produced, particularly if the product does not itself comply with the security standard. This places firms under additional pressure to adopt the dominant standard, and, potentially, in legal jeopardy if they promulgate competing or complementary products under a different standard.

The ability to police and control technical standards for content management holds the potential to concentrate enormous market power in the hands of a small number of companies—already dominant software and hardware manufacturers, Microsoft and Intel, come quickly to mind.[252] Such control over technical compatibility could be used to curtail innovation and deter the development of alternative technologies. To the extent that manufacturers with a large installed user base can use anticircumvention rights to prevent reverse engineering, and maintain licensing exclusivity to their products, the DMCA represents an enormous advantage in maintaining their current position.[253] Some such activity will fall within the apparent extent of the anticircumvention right given by Congress. The grant of the right may have been unwise, but that is the legislature's failure, not the recipient firms'.

But protection of copyrighted content, not maintenance of market dominance, was the stated legislative intent behind granting the anticircumvention right. This suggests that sooner or later, the leveraging of "paracopyright" will cross the line into the realm of antitrust violation. Stated differently, there will inevitably arise some friction between exercise of anticircumvention rights legitimately granted by Congress and the restrictions on anticompetitive behavior imposed by antitrust law. As it has in patent and copyright law, misuse doctrine may serve to coordinate anticircumvention with antitrust, helping to reconcile the requirements of the two bodies of law. Misuse may also serve a common-law gap-filling function to cover anticompetitive behaviors that may not rise to the level of a formal antitrust violation. These functions may be particularly necessary for anticircumvention, given that the right is new, the statute creating it is vague, and Congress seems to have given little thought to the anticompetitive effects of the statute.

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251. 17 U.S.C. § 1201(f)(1),(2) (2000).

252. *See* United States v. Microsoft Corp., 253 F.3d 34, 54–58 (D.C. Cir. 2001) (finding that Microsoft held monopoly power in the operating system market for Intel-compatible personal computers); *see also* Franklin M. Fisher & Daniel L. Rubinfeld, U.S. v. Microsoft—*An Economic Analysis*, 46 ANTITRUST BULL. 1, 4 (2001).

253. *See* William E. Cohen, *Competition and Foreclosure in the Context of Installed Base and Compatibility Effects*, 64 ANTITRUST L.J. 535, 537 (1996); Samuelson & Scotchmer, *supra* note 69, at 1617.

Additionally, misuse may assist in coordinating between the anticircumvention right and other more established forms of intellectual property, particularly patent and copyright, when those rights are all extant in the same technical system. This type of coordination may be critical with regard to the technical protections themselves, rather than with regard to the content protected. Rights management systems are themselves likely to be covered by various forms of intellectual property: copyright for rights management software; patent for rights management software and hardware, as well as for processes related to the system.[254] Portions of the technology may be covered by combinations of patent or copyright or the anticircumvention right, or by no proprietary right at all. Use of these rights, or combinations of these rights, to improperly deter analysis or duplication of the unprotected elements of the technology should be subject to an appropriate combination of patent, copyright, and anticircumvention misuse claims.

The misuse functions of doctrinal coordination and gap-filling are related by an underlying theme of limiting and defining proprietary rights, but the safeguarding function related to misuse seems a matter of particular importance for paracopyright. As in the case of patent and copyright misuse, some applications of the anticircumvention right will frustrate the policy animating the right, even if those applications are not anticompetitive, or are not sufficiently anticompetitive to constitute an antitrust violation. Anticircumvention misuse should not be coterminous with antitrust violations, anymore than copyright misuse is now coterminous with antitrust violations. Neither should this newly recognized misuse claim serve as a sloppy substitute for antitrust claims, as patent misuse so often has done; the two are intended to serve quite different purposes.

CONCLUSION

The need for a limiting and coordinating doctrine seems particularly acute in the case of anticircumvention, given the introduction of a sweeping new right, whose parameters are unclear and whose relationship to adjacent law is ill-defined. Although no court to date has considered a claim of anticircumvention misuse, and none has elaborated the facts of any particular decision with an eye toward such a claim, the facts as they stand in recent anticircumvention cases suggest that the need for a doctrine of anticircumvention misuse is real, and the time for its application will arrive shortly, if indeed it has not already arrived.

254. *See* Cohen, *supra* note 226, at 1181–82.