

COMMENT

TAKING A BITE OUT OF CIRCUMVENTION: ANALYZING 17 U.S.C. § 1201 AS A CRIMINAL LAW

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INTRODUCTION

As the digital economy evolves, commentators are speculating on whether access technology or content will be the key commodity of the information society.¹ Most agree, however, that some combination of the two is necessary for electronic commerce to flourish.² After all, without adequate access technology, content cannot travel quickly or arrive in high-quality form. Conversely, without high-quality content, demand for new access technologies will lag. As online industries have grown, the intersection of access and content technologies has emerged as perhaps the key factor for success in the market. Yet this intersection has also created tension over which legal rules should govern the emerging products.

In particular, information content providers who depend heavily on copyright law are growing increasingly wary of advances in digital technology that allow manipulation of their content and potentially diminish the effectiveness of their copyright protection.³ Technology firms, on the

1. See, e.g., Mike Yamamoto and Jeff Peline, *Battle lines drawn for control of Net*, News.com, May 10, 1999, (visited January 27, 2000) <<http://www.news.com/SpecialFeatures/0,5,36312,00.html>>; Sandeep Junnarkar, *Can Lycos compete without USA Networks?*, NEWS.COM, May 10, 1999 (visited January 27, 2000) <<http://www.news.com/News/Item/0,4,36334,00.html>>.

2. See Yamamoto & Peline, *supra* note 1.

3. See, e.g., *RIAA threatens to sue Lycos over MP3*, News.com, March 25, 1999 (visited January 27, 2000) <<http://www.news.com/News/Item/0,4,34250,00.html>>.

other hand, are looking more and more at developing products which provide low-cost, high quality access to content without restriction.⁴ Thus, as technologists work feverishly to find new ways to free up information, content providers are fighting just as hard to constrain access in order to prevent market-killing duplication and distribution of their works.⁵

These two codependent yet clashing interest groups recently met on the political battlefield in Washington D.C. in the fight over section 1201 of the Digital Millennium Copyright Act (DMCA),⁶ a set of provisions limiting the use of technology to access copyrighted works and prohibiting the development and manufacture of technologies that enable certain kinds of access.⁷ The copyright industries emerged victorious from the 1201 battle, inserting strong prohibitions on access and device creation into federal copyright law.⁸ The technologists were less successful, managing only to win seven complex and narrow exemptions to the access prohibitions⁹ and failing to prevent the passage of strict restrictions on device innovation.¹⁰

The battle over 1201 teaches many useful lessons about the American information society and what our future may look like if content industries continue to dominate the national political domain. It presents a concise picture of who represents major copyright content providers,¹¹ what the terms of the debate are,¹² and the potential downside for the Silicon Valley if it continues to employ its “Let’s ignore Washington” mentality.¹³ More importantly, however, the battle over 1201

4. Such devices have typically been the bread and butter of successful Internet technology. Previous killer apps such as email, ftp, and web browsers essentially function as low-cost, high quality means to receive and access content from others. The PalmPilot and other mobile desktop apps promise the same revolutionary gain for technology users.

5. One may be able to picture this clash better through the metaphorical imagery of Manuel Castells’ information cities. See Frank Webster, *Theories of The Information Society* 200–202 (Routledge 1995) [hereinafter Webster]. While technologists and content providers are not all located in distinct geographically cities, one can imagine Los Angeles representing content providers and Silicon Valley representing technologists, each linked to the other via proximity and economy, yet having drastically divergent cultures and political manifestations.

6. Digital Millennium Copyright Act [hereinafter DMCA], Pub. L. No. 105-304, 112 Stat. 2860 (1998) § 1201 [hereinafter 1201].

7. For a detailed analysis of this political battle, see Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 Berkeley Tech L. J. 519 (1999) [hereinafter Samuelson].

8. See 17 U.S.C. § 1201(a)–(b) (1999).

9. See *id.* § 1201(d)–(j).

10. See *id.* § 1201(a)(2), (b)(1).

11. The main sponsor of the DMCA was Rep. Coble. Other sponsors included Sen. Hatch and Reps. Hyde, Frank, Conyers, Bono, McCollum, Berman, Paxon, and Pickering.

12. See Samuelson, *supra* note 7, at 521–22.

13. See *Presidential hopefuls mine Silicon Valley*, News.com, May 3, 1999, (visited December 22, 1999) <<http://www.news.com/News/Item/0-1005-200-341992.html>>.

demonstrates a fundamental shift in the scope and power of American intellectual property laws that control access to information. Restrictions previously based on property-like rights of display, duplication, and distribution have now begun to shift toward behavior-based, criminal law-like restrictions on individual behavior and technological innovation, regardless of whether property rights are violated or not. Such a shift represents a dangerous deviation from the delicate public/private balance that intellectual property laws have thus far attempted to maintain.¹⁴

This paper will focus on this shift from property rationales to behavior rationales as a demonstration of how the public/private balance of copyright is in jeopardy if we continue to allow policies like 1201 to become law without critiquing them through the appropriate analysis. Part II of this paper examines the provisions of 1201, highlighting the key issues that demonstrate its behavior-based rationale. Part III demonstrates why laws that attempt to regulate behavior are more properly rationalized as criminal laws, not property laws. Part IV evaluates the effectiveness of 1201 using a criminal law rationale, looking first at the balance between access restrictions and access allowance, then at restrictions on the creation of access-enabling devices. Part V suggests modifications to 1201 that promote a more consistent and balanced implementation of its behavioral-based goals.

I. A NEW ERA IN LEGAL COPYRIGHT PROTECTION

A. *Section 1201: The Shift From Controlling Exploitation to Prohibiting Access*

In 1998, Congress made a subtle but significant change to the federal copyright balance. As part of passing the DMCA, Congress enacted Section 1201, which prohibits any person from circumventing technological protection measures (TPMs) that effectively control access to a copyrighted work¹⁵ and from manufacturing any devices whose primary purpose is to enable the circumvention of TPMs.¹⁶

14. See *infra* notes 34–38 and accompanying text.

15. See 17 U.S.C. § 1201(a)(1)(A). To circumvent a TPM means to “descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner” *Id.* § 1201(a)(3)(A). A TPM effectively controls access to a work if it “in the ordinary course of operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.” *Id.* § 1201(a)(3)(B). The 1201(a)(1)(A) prohibition will not take effect for two years from enactment, due to the rule-making proceedings in 1201(a)(1)(B)–(D), but for purposes of this paper, I will ignore the effect of the moratorium except as an indication of rationale.

16. See 17 U.S.C. § 1201(a)(2) (prohibiting the manufacture, import, offer to public, provision, or otherwise trafficking of circumvention technology that undermines TPMs that effectively control access to copyrighted works); *Id.* § 1201 (b)(1) (prohibiting similar activi-

To those who have been following the legislative development of U.S. copyright policy, these provisions come as no surprise. From the very beginning, the Clinton Administration has pushed the agenda of high protection for intellectual property rights, with an especially strong emphasis on copyright protection. Both the administration's White Paper¹⁷ and Framework for Global Electronic Commerce¹⁸ tout robust copyright protection as a key facility for building the American infrastructure and economy in the information age. The DMCA and the anti-circumvention provisions were part of this plan to increase protections.¹⁹

Section 1201's prohibitions on circumvention add two new layers of legal protection to copyrighted works.²⁰ The first pertains to a person's right to access copyrighted information, the second with mechanisms that allow access. As to the first, the use of access controls is new to copyright law because copyright has not historically concerned itself with the user's ability to access a work. Display rights and performance rights have long been protected,²¹ but if a work was on display or being performed, copyright left access to that work to other fields of law, such as contract (e.g., purchase of a ticket required for attendance of an event), criminal (e.g., prohibition on stealing a book prevents access to content), or tort (e.g., liability for misappropriating trade secrets restricts access to information).²² Section 1201 changes this division of legal

ties regarding circumvention technology that effectively protects any right of a copyright owner). Section 1201's ban applies if the anti-circumvention device is "primarily designed or produced for the purpose of circumventing," or "has only limited commercially significant purpose or use other than to circumvent," or "is marketed by [a manufacturer or an associate known to the manufacturer] for use in circumventing" TPMs or the protection they offer. 17 U.S.C. § 1201(a)(2)(A)–(C), (b)(1)(A)–(C).

17. See U.S. Dep't of commerce Info. Infrastructure task force, intellectual property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 230 (1995).

18. See William J. Clinton & Albert Gore, Jr., A Framework for Global Electronic Commerce 9 (1997), (visited December 22, 1999) <<http://www.iitf.nist.gov/eleccomm/ecom.htm>>.

19. See Samuelson, *supra* note 7, at 521 (citing U.S. Gov't Working Group on Elec. Commerce, First Annual Report (1998)). The anti-circumvention provisions were supposedly included as an additional element of compliance with the World Intellectual Property Organization Copyright Treaty. However, it appears as if such provisions are vastly excessive, given the WIPO "adequate protection" standards for such laws. See *id.* at 530–31.

20. While the Senate report claims legislation prohibiting circumvention devices is not unprecedented, previous legislation was limited to very narrow circumstances in particular industries. See 105 S. Rpt. 190 (citing 17 U.S.C. § 1002(c)) (prohibiting devices whose primary purpose is to circumvent digital audio Serial Copy Management Systems); 47 U.S.C. § 605(e)(4) (prohibiting devices that primarily assist decryption of satellite signals); North American Free Trade Agreement, Dec. 8, 1992, Art. 1707, 32 I.L.M. 605 (1993) (same).

21. See 17 U.S.C. § 106(4)–(6) (1999).

22. See, e.g., *Computer Assocs. Int'l v. Altai, Inc.*, 982 F.2d 693, 716 (2d Cir. 1992) (holding state trade secret law is not pre-empted by 17 U.S.C. § 301 because it has the "extra

protection. Instead of simply prohibiting the reproduction, display, or performance of a work, copyright owners now have legal power to inhibit individuals from accessing their works, even if the accessors own a copy and only want to view it themselves.

This extension represents a significant expansion in the scope of copyright law. Display, performance, and reproduction all concern the manner in which a copyrighted work is exploited. Allowing such actions without consent of the copyright owner would quickly diminish the value of the work. For example, allowing the public to copy a popular novel with impunity would eliminate the need to buy it from the store, thereby depriving not only the author of incentive to write the novel, but also depriving the publisher of any incentive to reproduce and disseminate it.

Controlling access, on the other hand, moves from the realm of prohibiting exploitative use into the realm of controlling audience behavior. Nothing in Section 106 of the Copyright Act allows copyright owners to control who hears a song being played or who views a movie being shown or who reads a copy of a book that has been made; it only allows the owner to restrict the person who plays the song, projects the movie, or makes the copy.²³

In fact, the first sale doctrine of copyright law prohibits copyright owners generally from extending their power into the audience realm.²⁴ Copyright owners who have attempted to extend their Section 106 rights to audience control have often risked undermining the enforceability of those rights via the doctrine of copyright misuse.²⁵ Section 1201 now officially allows copyright owners to extend their rights into the audience arena, seriously altering the balance between public and private use

elements” of improper access and improper disclosure of information). However, query now whether, after 1201, the Copyright Act does not provide de facto preemption of state trade secret law under the Second Circuit test. For example, circumventing a TPM would almost certainly be seen as “improper means” under the Uniform Trade Secrets Act. *See* Uniform Trade Secrets Act, 14 U.L.A. 433, 437–38 (1990). Or if a former employee brought an encrypted software program with him to a new job, accessing such a work would be both a breach of his confidential duty to his former employer and a circumvention of the encryption without consent of the owner. *See id.*; 17 U.S.C. § 1201(a)(1). Even though Section 301 explicitly limits preemption to rights analogous to Section 106 of the Copyright Act, these actions are qualitatively similar to 1201 violations. *Compare* 17 U.S.C. § 301, with *Computer Assocs.*, 982 F.2d at 716–17.

23. *See* 17 U.S.C. § 106 (defining rights of copyright owners).

24. *See* 17 U.S.C. § 109; *Quality King Distributors, Inc. v. L'ANZA Research Int'l, Inc.*, 523 U.S. 135 (1997) (prohibiting copyright owner from controlling secondary sales of copyrighted shampoo bottles from foreign countries). *But see* *Mirage Editions, Inc. v. Albuquerque A.R.T. Co.*, 856 F.2d 1341 (9th Cir. 1988).

25. *See* Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111, 151–58 (1999).

of information. Under 1201, copyright owners have the power to control both the work and the audience, the rough equivalent of granting physical property manufacturers the right to control both the sale and subsequent use of their product (e.g., allowing automobile manufacturers to control when you could drive your car or to whom you could offer a ride).²⁶

The second new layer of protection concerns the means by which one can access copyrighted information. As mentioned above, until the passage of 1201, copyrights limited the manner in which works could be exploited, not the means by which works could be accessed.²⁷ The long history of copyright has always set limits on the scope of protection against copying,²⁸ but rarely, if ever, has it set limits on the method by which works could be copied.²⁹ Copyright law has historically governed the circumstances and effect of information exchange but has left alone the means by which the exchange occurred. The 1201 device controls represent an extension of copyright ownership into the arena of means.

To further understand their implications, consider how device controls like 1201 might play out in the universe of physical property. If such controls were available for physical property, auto manufacturers could control, post-sale, which mechanic you used to service your car, what equipment you used to change a flat tire, or who made the keys you used to open your door or start your engine.³⁰ With digital works, access devices represent mechanics and car keys, tools necessary to unlock and utilize information. Allowing copyright owners to control these devices extends their rights to the means by which one can access their works, regardless of whether such access violates a Section 106 right. Such an

26. Section 1201's expansion of copyright beyond Section 106 is similar to the recent effort to expand rights using contract law via shrink-wrap and click-wrap licensing. *See generally* ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996); Symposium, *Intellectual Property and Contract Law in the Information Age: The Impact of Article 2B of the Uniform Commercial Code on the Future of Information and Electronic Commerce*, 13 BERKELEY TECH. L.J. 809 (1998).

27. *See* 17 U.S.C. § 106.

28. *See, e.g.*, 17 U.S.C. § 107 (Factor One—transforming vs. superceding; Factor Three—amount of work taken); *Feist Publications, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340 (1991); *Baker v. Selden*, 101 U.S. 99 (1880).

29. *See, e.g.*, *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984). While *Sony* dealt with the use of a VCR to record TV programs, the analysis focused mostly on whether using VCRs was fair use or not, not whether the method VCRs used to copy was legal or not. *See also* *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988) (also discussing legality of use but not means).

30. This kind of “tying” has historically been illegal under the anti-trust laws; therefore we should be even more skeptical of allowing it as an extension of intellectual property monopolies.

extension affords a new layer of protection to copyright owners, above and beyond Section 106.

B. The Shift From Exploitation to Access Signals a Significant Deviation in the Rationale for Copyright Protection

So why are these shifts important? On one level, they simply seem like logical extensions of copyright enforcement. If it is presumptively illegal to display, duplicate, or distribute my work without my consent, it should also be within my rights to prohibit you from accessing it without my consent, as access would allow an easier violation of my Section 106 rights. And if I can prohibit access, then I should surely be able to prohibit the manufacturing or sale of a machine whose primary purpose is to allow access, or the value of my right to exclude access will become worthless under the burden of enforcement costs. By eliminating the audience's *ability* to access my work without permission, I have lowered the costs of investigating and enforcing my rights and increased the ease with which I can charge for its use,³¹ thus potentially increasing my incentive, the utilitarian purpose for which American copyright law was established.³²

Yet access control has much broader ramifications than simply increasing enforcement efficiencies. In regulating access, copyright owners are able to extend their control beyond their own property (the work) and into the realm of others' commercial and personal behavior. As the discussion below will show, the property laws governing exploitation do not account for the value of socially beneficial behaviors and activities; they simply account for the creation and maintenance of valuable property. Without accounting for the potential benefits of behavior, property laws tend to focus exclusively on absolute prevention of harm to the property. This extreme position threatens to ignore and discourage socially beneficial behaviors. Also, by ignoring beneficial behaviors, intellectual property laws can restrict the rate and direction of innovation in industries that depend on access to protected information, such as the technology industry.³³ Therefore, this new expansion into behavior control must be scrutinized carefully under an analysis which focuses equally on the protection of intellectual property and the potential benefits of behavior in order to avoid lopsided policies that fail to maximize social value.

31. For the case in favor of copyright owners enforcing per use charges versus one-time sales for digital works, see generally Tom W. Bell, *Fair Use vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine*, 76 N.C. L. REV. 557 (1998).

32. See U.S. Const., art. I, § 8, cl. 8.

33. For example, reverse engineering in the software industry. See *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1993).

II. FROM A PROPERTY RATIONALE TO A CRIMINAL RATIONALE

A. *The Difference Between Property and Criminal Law*

The shift from controlling property rights to controlling behavior represents a departure from the real property analogies used to conceptualize and justify copyright. Instead, it represents an adoption of the more behavior-oriented legal regime of criminal law. Traditional property law is premised on Lockean theory: ownership of resources is necessary in order to encourage investment in the development of public goods, leading to maximum social valuation and utilization of resources.³⁴ Individuals are given exclusive rights in property in return for the public benefit of resource development, a societal quid pro quo. Intellectual property attempts to strike a similar balance with information and ideas. Individual authors and inventors are given exclusive rights in their respective writings and discoveries for limited times in return for the public benefit of promoting science and the useful arts.³⁵ Thus, Section 106 rights are granted to authors in exchange for the creation of original works and, after term expiration, delivery of the work into the public domain.

However, property rights are limited to the property they protect. They do not extend to other incentives for resource development,³⁶ even if such incentives would dramatically increase investment in the property. They are only concerned with protecting the integrity and exclusivity of the property as an indicator of value. They also do not account for general effects on society. Exclusive rights in ideas or land may, in the end, have negative social results,³⁷ but such results do not nullify property laws. Instead, the government tries to identify limited areas where monopoly rights are necessary to promote the public benefit,³⁸ even while generally and legally discouraging monopoly rights elsewhere.³⁹

34. See John Locke, *Two Treatises Of Government* 285–302 (Peter Laslett ed., 2d ed. 1967); See also Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243 (1968).

35. See U.S. Const. art. I, § 8, cl. 8.

36. For example, labor improvements to land you own do not give you a stronger property right in that land. Nor do we give stronger patent rights to those who utilize their patents more economically over those who do not.

37. For example, an inventor of a life-saving drug could patent the drug and then deny access to it unless patients paid exorbitant fees, disregarding the social benefit of saving the lives of those who cannot afford the price.

38. “Thus, from the outset, federal patent law has been about the difficult business ‘of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.’” *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 148 (1989) (quoting 13 Writings of Thomas Jefferson 335 (Memorial ed. 1904)).

39. See Sherman Act, 15 U.S.C. § 1, 2 (1998).

The primary goal of criminal law, on the other hand, is deterrence of behaviors that cause social harm.⁴⁰ There are two kinds of deterrence: specific and general.⁴¹ General deterrence is aimed at preventing criminal acts by potential defendants in the general community.⁴² Specific deterrence inflicts punishment on convicted defendants to leave them less likely to engage in the crime again.⁴³ According to classical utilitarianism, the threat or imposition of punishment can reduce crime because, “[p]ain and pleasure are the great springs of human action,” and “[i]n matters of importance, every one calculates.”⁴⁴ In other words, according to deterrence theory, “human beings generally act hedonistically and rationally. That is, a person will act according to his immediate desires to the extent he believes that his conduct will augment his overall happiness.”⁴⁵ Thus the key to implementing an effective criminal law lies in the proper balance of punishing social harm and encouraging social good to achieve a net social benefit.⁴⁶

To further demonstrate the difference between the two rationales, consider an example from real property. I own a plot of land and surround it with a fence to clearly signal what is mine. As a land owner, I have the right to exclude the world from this land, and given the clear markings of what is mine, any person who willfully enters my land has violated this right. Because my right is a right of property, the degree of trespass is of no consequence. Whether the trespasser has ventured one foot or one mile onto my property, I am still entitled to the legal remedy of an injunction barring them from being present. In fact, no matter how costly or inefficient this enforcement may be, it is the law.⁴⁷ All I have to

40. See Model Penal Code and Commentaries (American Law Institute) (1985) , § 1.02(1) (“The general purpose of the provisions governing the definition of offenses are: (a) to forbid and prevent conduct that unjustifiably and inexcusably inflicts or threatens to inflict substantial harm to individual or public interests;”); New York Penal Law § 1.05 (1998) (“The general purposes of the provisions in this chapter are: . . . 6. To insure the public safety by preventing the commission of offenses through the deterrent influence of the sentences authorized . . . when required in the interests of public protection.”).

41. See Sanford H. Kadish and Stephen J. Schulhofer, *Criminal Law and Its Processes* 115 (6th Ed. Aspen 1997).

42. See *id.*

43. See *id.*

44. Joshua Dressler, *Understanding Criminal Law* § 2.03 [B] (Mathew Bender 2nd ed.) (quoting Jeremy Bentham, *Principles of Penal Law*, in *J. Bentham’s Works* 396, 402 (J. Bowring ed. 1843)).

45. *Id.*

46. See Michael S. Moore, *Law and Psychiatry* 238–43 (1984) (discussing net social gain as a necessary prerequisite for criminal punishment).

47. See, e.g., *Mannillo v. Gorski*, 241 A.2d 276, 282 (N.J. Super. Ct. Ch. Div. 1968) (holding that encroachment of fence onto neighbor’s property, even if only by 15 inches, entitled neighbor to demand removal under law). *But see, e.g., Reese v. Borghi*, 216 Cal. App. 2d 324 (1963) (holding that when “strictly necessary” to allow public access to land otherwise

demonstrate is that I own the land and that you are on it: case closed. Virtually no circumstantial reason for your trespass will save you.⁴⁸

In contrast, very few criminal laws have such bright line rules for liability.⁴⁹ Consider three separate scenarios where action is identical yet liability is different. First case: I shoot and kill a random person for no reason. Under most criminal laws, I am guilty of murder. Second case: I have just found a person in bed with my spouse. I shoot in the heat of passion. I am guilty of manslaughter. Third case: The person is trying to kill me when I shoot him; I am not guilty due to self-defense. All three scenarios involve the same action: my shooting another person to death. Yet each has a different result—maximum liability, diminished liability, no liability—based on the circumstances in which the behavior occurs. The focus is not exclusively on the occurrence of an act (such as entering someone’s property) but also on the context and reasons for the act (malice, revenge, self-preservation).

Property and criminal law rationales are often blurred by the overlap between them. For example, destruction of property is both a crime and a disincentive to invest. However, that is why there are both criminal and civil causes of action for destruction of property. The criminal suit is to deter social harm and promote beneficial behavior; the civil suit repairs the value of the lost property. This same confusion occurs in crimes against intellectual property owners. Those who duplicate digital copyrighted works are often called software “pirates,” thus implying that these individuals “steal” intellectual property.⁵⁰

Yet one of the key traits of intellectual property is that it is nonrivalrous. Copying a digital work does not remove it from the possession of

inaccessible, law requires mandatory easement over private property). While necessity can function as a limitation on private property rights, it is extremely disfavored and requires the court to find that there are absolutely no other reasonable avenues of access available to the public. *See id.*

48. *See Manillo* at 282 (holding that infringement of property right, even unintentionally, mandated injunctive relief). Some would argue that necessary is also a circumstantial defense to trespass. However, necessity defenses are similar to fair use copyright defenses in the sense that they balance the need for public versus private use of a resource and the proper allocation of its value to all. Criminal law, on the other hand, focuses on the social benefit of a specific actor’s behavior in light of the unique circumstances of that behavior, distinguishing one actor’s culpability from another’s.

49. Those that do are usually either minor “taxable” offenses such as speeding or offenses where the social harm is so great that deterrence must come at any cost. *See, e.g.,* Model Penal Code § 213.1(1)(d) (statutory rape).

50. *See* The WIPO Copyright Treaties Implementation Act: Hearing on H.R. 2281 Before the Subcomm. on Telecomm., Trade, and Consumer Protection of the House Comm. on Commerce, 105th Cong. 37 (1998) (Statement of Robert W. Holleyman, President and CEO, Business Software Alliance) [hereinafter Holleyman testimony] (asserting that U.S. implementation of the WIPO treaties would “improve our ability to fight back against those who would steal computer programs.”).

its owner; it simply creates more supply, thereby diminishing the value of each copy. The legal protection of software is based on a *property right*, a right that focuses on maintaining the value of property through exclusive exploitation, not a *criminal law* where the owner has been harmed as a member of society by the displacement of a valuable resource.⁵¹ Under property law, there is nothing technically wrong with stealing property—legal violations occur solely under tort and criminal laws for using property in a way that harms its rightful owner (e.g., conversion or stealing). Pickpockets are not prosecuted or sued for trespassing; they are prosecuted for larceny. A software “pirate” who physically steals a diskette containing a copyrighted work cannot not be sued for copyright infringement unless she duplicates or distributes it; she can only be prosecuted or sued for stealing under criminal or tort law. In other words, copyright does not prohibit use of a work unless that use somehow alters the value of the work and its accompanying incentive. Criminal law, on the other hand, protects property owners from the improper transfer of valuable works to others without their consent, regardless of whether or not the value of the work is affected.

Finally, criminal and property law differ over the importance of the method by which one violates the law. Property laws are generally unconcerned with the actual method of infringement. When you walk onto someone else’s property, you are trespassing, regardless of whether you are walking, running, or dancing. When you infringe a patent, it does not generally matter if you knew you were infringing,⁵² why you were infringing,⁵³ or how you were infringing.⁵⁴ Criminal law, on the other hand, is often very concerned with the perpetrator’s state of mind during the act and the means by which the act was performed.⁵⁵

51. The Copyright Act does have criminal provisions for willful and for-profit infringement. *See* 17 U.S.C. § 506 (1999). The criminal theory here *is* one of deterring social harm; the willful actor knows his act is infringing and without significant social benefit. Therefore the penalty is not based on loss of value but disregard for the law.

52. Except for willful infringement treble damages. *See* 35 U.S.C. § 284 (1999).

53. Except for a very narrow experimental use exception. *See* *Elizabeth v. Pavement Co.*, 97 U.S. 126 (1877). Yet query whether the experimental use exception is really a criminal law rationale for socially beneficial use in disguise.

54. *See* 35 U.S.C. § 271 (1999).

55. *See, e.g.*, Model Penal Code § 221 (defining burglary as entering a building at night with intent to commit a felony); Cal. Penal Code § 244.5 (West 1999) (specifically outlawing assaults upon police officers or firefighters with a stun gun or taser).

*B. Property Rationales Cannot Justify Access Controls;
Only Criminal Rationales Can Do So*

Property law and criminal law have distinct rationales: the first maintains the value of property; the second prevents others from misappropriating said value. Access controls essentially govern the proper use and distribution of valuable content but do not control or maintain the value itself; therefore, they must be based on a criminal law rationale.

Consider the difference between the property laws and criminal laws that govern exploitation of versus access to creative works. Copyright law controls the manner of exploitation for original authored works. This control is relatively consistent with the historical rationale for property rules. If one cannot reasonably control the marketable use of one's property, the property will be overused and thereby less valuable.⁵⁶ For example, if I am legally able to make a perfect copy of the Mona Lisa⁵⁷ at minimal cost, I will likely do so and sell it. As a rational economic actor, I will then make as many copies as I can and continue to sell them until the marginal revenue equals the marginal cost. Soon there will be thousands of identical Mona Lisas available, making the original significantly less valuable.

Controlling access to property, on the other hand, does not necessarily affect a work's inherent value. Assume there is still only one Mona Lisa. Whether one person, one hundred people, or one million people view the Mona Lisa every year does not affect its value in the marketplace.⁵⁸ The price people are willing to pay to view the painting may rise if fewer people are able to see it, but this change in value reflects the market for *access* to the work, not the market for the work itself. The market for access to the work governs how a work's value is shared or displaced among the owner and the audience but does not reflect or determine the inherent value of the work. A work that is shared among millions of audience members is not less valuable; its value has simply been spread from the copyright owner to the audience for the work. Thus, because property laws are designed solely to protect the value of the work and do not account for displacement between owner and audience, they cannot properly justify access controls.

56. See Hardin, *supra* note 34 (The Tragedy of the Commons).

57. For purposes of this example, assume the Mona Lisa is still protected by copyright and not in the public domain.

58. For instance, private collectors are often willing to purchase famous paintings for their home galleries for more money than public museums. Therefore, the number of viewers is a less significant indicator of value in comparison to the number of copies of the work available.

Criminal law, on the other hand, accounts for displacement of value. Just as we protect physical property from being stolen (an act that does not diminish its value but does harm the owner by displacing its value to the criminal), we can rationalize protecting copyrighted works from being accessed without consent as protecting the copyright owner from harm, even if the work's value remains unharmed.⁵⁹

In addition to preventing harmful displacement, criminal law also promotes displacement when the acts in question ultimately prove beneficial to society. For example, it is sometimes necessary and beneficial to break the law: e.g. when police must steal a car to apprehend criminals or an ambulance must speed to rush a dying person to the hospital. In these situations, the social benefit of law enforcement or life preservation outweighs the loss to owner of the stolen car or the risk of accident on the way to the emergency room. The net social benefit of these actions justifies the displacement of the car's value from the owner to the emergency user and the possible harm from running a red light.

Just as criminal law recognizes that the prevention of harm must be balanced with promotion of beneficial acts, so should laws on access control. Controlling access can prevent improper displacement of value, but it can also restrict the benefits of many legitimate uses of that information.⁶⁰ Property laws not only fail to account for any displacement of value, but they also fail to distinguish between beneficial displacements and harmful ones. Thus, access controls must be based on a criminal law rationale in order to account for socially beneficial behavior and maximize net social wealth.

III. ANALYZING SECTION 1201 UNDER A CRIMINAL LAW RATIONALE

To truly distinguish criminal and property rationales, one must look at what they attempt to control and why. Property rights control use of valuable property to make sure it does not lose its value. Criminal laws control behavior to make sure social harm does not outweigh social

59. Unlike copyright infringement, where damages are estimated based on the loss of a work's value, or the fair use defense where the market for the copyrighted work is taken into account, 1201 violations pay no attention to infringement damages or market effect. *Compare* 17 U.S.C. § 1201 *with* *Harper & Row Publishers v. Nation Enterprises*, 471 U.S. 539, 566 (1985).

60. *See, e.g.*, 17 U.S.C. § 1201(d)-(j); Samuelson, *supra* note 7, at *543-45 (suggesting many beneficial actions that could violate 1201). *See also* *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991) (implying that dissemination of unprotectable phone numbers was an appropriate displacement of valuable information under the copyright laws).

benefit. As this section will demonstrate, access controls such as 1201 make no attempt to determine whether a circumvention has a significant effect on the value of copyrighted works or not. It simply outlaws acts of circumvention and the production of devices that enable such acts, both considered socially harmful by copyright owners. The exceptions to the access prohibitions represent social benefits that counterbalance potentially harmful circumvention. Therefore, in order to properly evaluate 1201, one must use a criminal law rationale to fully account for both the potential harms and benefits it attempts to regulate.

A. Section 1201(a)(1) Prohibitions on Access

Having determined that access controls should be analyzed under a criminal law rationale, this Part shall examine 1201(a)(1) to see when and how it adheres to this rationale and where it diverges from it and why.

1. A Textual Analysis of 1201(a)(1) Supports a Criminal Rationale

The anti-circumvention access prohibitions of 1201 contain within their text elements of criminal law deterrence theory, not property rights. For example, 1201(a)(1)(A) states “no person shall circumvent a technology protection measure that effectively controls access to [a copyrighted work].”⁶¹ It focuses on the actor and his behavior.⁶² Compare this with Section 106 of the Copyright Act: “the owner of copyright under this title has the exclusive rights to do and to authorize any of the following”⁶³ The language here emphasizes the *ownership* of the copyright and the right of that owner to exclude or grant permission to others regarding the exploitative use of their work—“rights against the world,” as they are commonly called. The text of Section 106 is primarily concerned with maintaining the value of the copyright through exclusive rights. The text of 1201, on the other hand, primarily concerns controlling the behavior of *any* person who circumvents a TPM on *any* copyrighted work, regardless of the effect it has on the value of that work.⁶⁴

61. 17 U.S.C. § 1201(a)(1)(A).

62. Or as Professor Benkler described the provisions of 1201, “their primary institutional attribute is prohibiting the use and communication of information.” See 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, 413 (1999) (challenging 1201 on constitutional grounds).

63. 17 U.S.C. § 106.

64. Also, compare the focus on the behavior of the actor in 1201(a)(1)(A) with Section 210.1 of the Model Penal Code: Criminal Homicide (“A person is guilty of criminal homicide if he . . . causes the death of another human being.”).

2. Section 1201's Social Benefit/Social Harm Balance Supports a Criminal Law Rationale

Section 1201 also seeks to promote a social benefit/social harm balance.⁶⁵ Section 1201(a)(1)(A) prohibits any circumvention of a TPM that effectively protects a copyrighted work. In almost every situation covered by this section, there is potential for circumvention to produce some social harm to the copyright owner. For example, if a software pirate circumvents a TPM to duplicate and distribute the software for free around the world, this action would clearly harm the copyright owner and in turn, create less incentive to create software in general, thus diminishing the well-being of society.

Section 1201 also includes exemptions for seven socially beneficial circumventions.⁶⁶ These include exemptions for nonprofit libraries, archives, and educational institutions; law enforcement, intelligence, and other governmental activities; reverse engineering of computer programs; encryption research; parental control over access by minors to material on the Internet; protection of personally identifying information; and security testing.⁶⁷ Each of these categories represents a type of behavior where Congress felt the social benefit of the circumvention outweighed the possible social harm. For example, section 1201(f) allows legitimate software developers to circumvent TPMs in order to achieve interoperability.⁶⁸ The purpose of this exemption is "to foster competition and innovation in the computer and software industry."⁶⁹ Thus, even though some social harm (displacement of value) might arise out of competing software developers circumventing each other's TPMs, Congress weighed the balance of social harm and social benefit and concluded that the law should allow for such behaviors to occur.⁷⁰

65. According to Hollywood's lobbyists, however, it appears that copyright owners should control every facet of what Americans do with digital information, thus assuming that any and all circumventions are socially harmful and none beneficial. See Pamela Samuelson, *The Copyright Grab*, *Wired*, Jan. 1996, at 134. While this argument technically still has a behavior-based criminal law rationale, the refusal to acknowledge any social benefit from circumvention provides such a lopsided imbalance so as to appear to be a property-based "rights against the world" rationale.

66. See 17 U.S.C. § 1201 (d)–(j).

67. See *id.* However, these are not the only socially beneficial instances of circumvention. See *supra* note 60 and accompanying text.

68. 17 U.S.C. § 1201(f).

69. 105 S. Rpt. 190.

70. There is no mention in the legislative history of 1201 regarding how these efforts might affect the property values of the underlying copyrighted work, except for a citation to *Sega v. Accolade*, discussed *infra* notes 114–17 and accompanying text, a case holding that infringing research necessary for interoperability was fair use. While the *Sega* court did con-

Other exemptions have even less relation to the purpose of property rights. For instance, section 1201(h) exempts efforts by parents to circumvent TPMs in order to monitor exposure of their children to the Internet.⁷¹ Again, Congress determined that parental control of content was socially beneficial. The rationale behind this exemption was to support “the voluntary efforts underway . . . to empower parents to supervise and control the material their children access from the Internet.”⁷² While this exemption may raise concerns regarding First Amendment and privacy issues, there is no consideration in the legislative history of its effect on the value of copyrighted works or incentive for authors.

Finally, when one looks at the 1201(e) exemption for law enforcement, one sees the classic social harm/social good balance that criminal law attempts to strike. Just as law enforcement is a defense to homicide or theft,⁷³ it is also a defense to 1201 circumvention.⁷⁴ The House conference report on the law enforcement exemption states that it “will permit the continuation of information security activities that *protect the country against one of the greatest threats to our national security as well as our economic security [i.e. encryption of terrorist communications].*”⁷⁵ Compare this to section 3.07 of the Model Penal Code: Use of Force in Law Enforcement, “the use of force upon or toward the person of another is justifiable when the actor is making or assisting in making an arrest and the actor believes that such force is immediately necessary to effect a lawful arrest.”⁷⁶ Both rationales are based on the benefit gained from committing acts that are commonly construed as socially harmful in order to maintain the security of society via law enforcement. There is no connection to “rights against the world” or maintaining the value of property in either provision.

3. The Librarian of Congress Study and Rulemaking Process Supports a Criminal Law Rationale

In addition to the behavior-based language of 1201(a)(1)(A) and the categorical exemptions for access rights, one can also see the

duct an analysis of the economic effect of interoperability research (concluding displacement of value was proper and did not have a material effect on the value of the copyright), the Senate report provides no discussion of this analysis nor draws any connection between TPMs and their effect on property values.

71. 17 U.S.C. § 1201(h).

72. 105 S. Rpt. 190.

73. See Model Penal Code § 3.07.

74. See 17 U.S.C. § 1201(e).

75. H.R. Conf. Rpt. 105-796 (Oct. 8, 1998) (emphasis added).

76. Model Penal Code § 3.07.

criminal rationale in the noninfringement study and rulemaking sections. Sections 1201(a)(1)(A)–(D) delay the enforcement of the anti-circumvention access prohibitions for two years from the date of enactment in order to allow the Librarian of Congress to “make the determination in a rulemaking proceeding . . . whether persons who are users of a copyrighted work are, or are likely to be . . . adversely affected by [the anti-circumvention access prohibition] in their ability to make noninfringing uses . . . of copyrighted works.”⁷⁷ In other words, the provision enables the Librarian to exempt certain classes of users or works when necessary to preserve what Professor Samuelson has categorized as “socially valued noninfringing uses.”⁷⁸ The statute further instructs the Librarian to consider:

- the availability for use of copyrighted works;
- the availability for use of works for nonprofit archival, preservation, and educational purposes;
- the impact that the prohibition on the circumvention of TPMs has on criticism, comment, news reporting, teaching, scholarship, or research;
- the effect of circumvention of TPMs on the market for or value of copyrighted works; and
- such other factors as the Librarian considered appropriate.⁷⁹

The Librarian’s rulemaking process focuses on whether the anti-circumvention rules inhibit socially beneficial outcomes. Are they inhibiting criticism, comment, news reporting, teaching, scholarship, or research? Are they diminishing the availability for use of works for nonprofit archival, preservation and education purposes?⁸⁰ Clearly, Congress did not want these new rules to diminish or destroy the benefits that come from the proper uses of information, even if those uses involve the circumvention of TPMs and occur without the consent of the copyright owner. In other words, Congress wanted to make sure that beneficial uses of copyrighted information continue and are not inhibited by 1201(a)(1). If Congress simply wanted to outlaw all anti-circumvention acts (a property model), it would not have instituted a

77. 17 U.S.C. § 1201(a)(1)(C).

78. See Samuelson, *supra* note 7, at 547.

79. 17 U.S.C. § 1201(a)(1)(C)(i–v).

80. The study is to take into account the effect of circumvention on the market and value of copyrighted works, but this is only one factor and seems to be more of a concern over social benefit versus harm than loss of value.

rulemaking procedure to determine categorical exemptions; it would have simply mandated an absolute prohibition. Congress' insistence on allowing the Librarian to affirmatively exempt socially beneficial categories of TPM circumvention reinforces the underlying criminal law rationale behind the statute.

4. Section 1201's Legislative History Supports a Criminal Law Rationale

The legislative history of 1201 also speaks in criminal law terms. For instance, a major reason for passing 1201 was to supposedly put the United States in compliance with the WIPO Copyright Treaties.⁸¹ One of the provisions of the treaties was the implementation of adequate deterrence measures to protect copyrighted works.⁸² According to Robert Holleyman, president of the Software Business Alliance, to “meet the ‘deterrence’ requirement of the Treaties, national implementation must provide for remedies sufficient to act as such a deterrent. [Section 1201] accomplishes this goal” Property rules are not about deterrence; they are about maintaining the value of property. Thus, when a copyright is infringed, the remedies of injunction and damages serve to compensate the property owner and prevent further loss, not necessarily to deter the infringer from inflicting additional social harm. Only when infringement is willful do punitive damages and criminal liability become factors.⁸³ Unless an act is willful, deterrence will play little to no part in preventing it.⁸⁴

In addition, members of Congress used criminal metaphors to sell 1201 to their colleagues. One speaker before the House Judiciary Committee compared circumventing a copyright TPM to breaking into a locked library in order to access books, stealing newspapers from a vending machine in order to copy articles, and cracking open the vault at the National Archives to get a hold of the copy of the Declaration of Independence housed within.⁸⁵ Another speaker compared anti-circumvention devices to burglar's tools and the act of circumvention to “the act of breaking and entering into a home or warehouse.”⁸⁶

81. The U.S. was substantially in compliance already, however. *See* Samuelson, *supra* note 7, at 528 n.47.

82. *See id.* at 529.

83. The rationale for deterring willful infringement is based on criminal law as a means of maintaining social order and respect for the law. *See supra* note 51.

84. *See* Kadish and Schulhofer, *supra* note 41, at 115–19.

85. *See* Samuelson, *supra* note 7, at 539 n.110 and accompanying text.

86. *See* Holleyman Testimony, *supra* note 50.

While these metaphors are inaccurate depictions of circumvention,⁸⁷ the intention to frame 1201 as a law protecting society and deterring social harm seems clear. Several congressmen accepted this rationale and included it in the formal presentation of the bill.⁸⁸

B. *1201(c)(1)'s Defense of Fair Use Supports a
Criminal Law Rationale*

As mentioned, *supra*, the language of 1201(a)(1) focuses on the behavior of the actor.⁸⁹ Section 1201(c)(1) provides a defense to these behavioral controls, the traditional copyright defense of fair use.⁹⁰ Yet although they share the same name, the fair use defense to copyright infringement serves a different purpose than the 1201(c)(1) defense. Fair use in copyright infringement serves as an explanation for why one needs to utilize someone else's property, even though duplication presumptively diminishes the property's value.⁹¹ In section 1201, fair use serves as an explanation for why you need to access someone else's property, even though such an act is generally considered to create so-

87. Here is a perfect example of where the analogy of physical property to intellectual property breaks down. In order to obtain a fair use copy of a digital work, you do not need to invade the physical property of the copyright owner. See David Friedman, Comment, *In Defense of Private Orderings: Comments on Julie Cohen's "Copyright and the Jurisprudence of Self-Help."* 13 Berkeley Tech. L.J. 1151 (1998). You could simply access the work through a computer network and make a copy without disturbing the original data. In fact, many times the original data may be on a computer memory device which you have purchased (CD, diskette) or on your *own* personal property (hard drive). The examples of stealing a newspaper or the Declaration of Independence are even more absurd. There, the crime would be the taking of the physical paper embodying the information, not the information itself. I doubt the National Archives would care if you copied a digital .pdf file of the Declaration off their web site, but they would certainly care if you took the original paper copy from the vault because they would no longer have it. If these takings were only to make fair use copies and then to return the original, one could not say that any harm had come to the value of the property; the only reasonable justification for prohibiting these acts is a criminal justification of keeping the peace. If people were allowed to break into private physical property in order to make fair use, there would be increased social disorder and increased fears of diminished personal security and privacy. It is for these reasons that the aforementioned examples seem socially harmful, not because of their effect on the property values of the works in question.

88. See Samuelson, *supra* note 7, at 539 n.111 (citing House Manager's Report on 1201, which characterizes circumvention to get unauthorized access as "the electronic equivalent to breaking into a locked room to obtain a copy of a book").

89. See *supra* Part IV.A.I.

90. See 17 U.S.C. § 1201(c)(1); Samuelson, *supra* note 7, at 539-40.

91. The traditional fair use doctrine is based on two property theories. First, that the use does not significantly devalue the property. See 17 U.S.C. § 107 (factor four); Lawrence v. Dana, 15 F. Cas. 26 (C.C.D. Mass. 1869) ("[I]f so much is taken, that the value of the original is sensibly diminished . . . that is sufficient . . . to constitute a piracy pro tanto.") (Story, J.); Second, fair use furthers the constitutional goal of promoting the sciences by creating new works. See *Rosemont Enters. v. Random House, Inc.*, 366 F.2d 303, 307 (2d Cir. 1966).

cial harm. Thus, if one circumvents a TPM to access a copyrighted work for a fair use, one is essentially employing two fair use defenses—one to justify the behavior of circumvention and the other to justify the “trespass” onto the copyright owner’s intellectual property right. If 1201’s prohibitions are based on the criminal law rationale of controlling social harm caused by behavior, then 1201(c)(1)’s fair use defense against unlawful behavior must be analyzed under a criminal law rationale as well.

Criminal defenses come in two flavors: justifications and excuses.⁹² Each has its own rationale for excusing liability of the actor. In order to understand how the 1201(c)(1) fair use defense plays into the criminal law rationale of the 1201 scheme, we must first understand to which type of defense fair use is most analogous.

1. Justifications

A justification defense is one that defines conduct “otherwise criminal, which under the circumstances is socially acceptable and which deserves neither criminal liability nor even censure.”⁹³ It is “a good thing, or a right and sensible thing, or a permissible thing to do.”⁹⁴ In other words, it always promotes more social benefit than harm—a net social benefit.⁹⁵ For example, a law that prohibits any person from exceeding a speed limit of 55 miles per hour may diminish the frequency and severity of fatal accidents, but it also inhibits the ability of police officers to catch those most likely to cause such accidents. Thus, speeding laws are inapplicable to law enforcement officials in the pursuit of criminals.⁹⁶ The social benefit of catching criminals outweighs the potential harm of accidents along the way. To hold law enforcement officers liable for speeding in pursuit of criminals would allow more harm than good and thus diminish overall social wealth.

92. See Kent Greenawalt, *The Perplexing Borders of Justification and Excuse*, 84 Colum. L. Rev. 1897 (1984).

93. Peter D. W. Heberling, Note, *Justification: The Impact of the Model Penal Code on Statutory Reform*, 75 Colum. L. Rev. 914, 916 (1975).

94. Dressler, *supra* note 44, at § 16.03 [B] (quoting J.L. Austin, *A Plea for Excuses, Freedom and Responsibility* 6 (Herbert Morris ed. 1961)).

95. See Greenawalt, *supra* note 92, at 1897. Other theories such as Moral Forfeiture, Moral Rights, and Superior Interest have been used to rationalize justifications, but these are essentially variations of the net social benefit theory. See Dressler, *supra* note 44, at § 17.02. For simplicity, I will confine my discussion to the net social benefit theory.

96. See Model Penal Code § 3.03 (justifying violation of the criminal laws when required to execute specific public duties).

Justifications are not only applicable to those enforcing the laws. The criminal law also allows private actors to violate laws in the name of self-protection, the protection of others, the protection of property, assisting law enforcement, as a guardian for others, or when faced with a choice between two evils.⁹⁷ Thus, every member of society is entitled to justify their behavior if it results in a socially beneficial outcome.

When looking over the list of justified actions, a common trait emerges—they are all broad categories of behavior. For example, many actions in our society potentially fall under the labels of protecting other people or protecting property. There are an almost unlimited number of actions that could be framed as a choice between two evils. Yet if almost all of human behavior were justified, why have criminal laws at all?

The answer is, as it must necessarily be, that these categories have limitations on them. These limitations are designed to ensure that justification defenses are only applied in circumstances where social benefit *always* outweighs social harm. Thus, for self-protection, “the use of force upon or toward another person is justifiable when the actor believes that such force is *immediately necessary* for the purpose of protecting himself against the use of *unlawful force* by such other person on the present occasion.”⁹⁸ The requirements of immediate necessity and unlawful force are imposed on the actor to ensure that he was not able to flee the situation before resorting to violence (lessening the social harm of violence) and was not opposing law enforcement (inhibiting the social benefit of enforcing the laws).

However, even with these requirements, courts are given broad language and discretion for the application of justifications. For example, consider the ongoing controversy over the use of the self-protection justification in battered-woman syndrome defenses to murder.⁹⁹ Many experts have testified that women who are battered rarely know when their batterer will strike next or how.¹⁰⁰ Experts have also shown that batterers typically escalate their pattern of violence over time, often resulting in the murder of the victim.¹⁰¹ Thus, battered women often fear imminent death but do not know when it will occur. As a result, when they do retaliate, many kill their batterers while he sleeps.¹⁰² Under traditional justification theory, these actions are not

97. See Model Penal Code §§ 3.01–3.11.

98. Model Penal Code § 3.04(1) (emphasis added).

99. See generally Robert F. Schopp, et al., *Battered Woman Syndrome, Expert Testimony, and the Distinction Between Justification and Excuse*, 1994 U. Ill. L. Rev. 45 (1994).

100. See generally Lenore e. Walker, *The Battered Woman Syndrome* (1984).

101. See *id.*

102. See Schopp, *supra* note 99, at 45–6.

immediately necessary; the victim could have simply left the house or called the police. Yet because these women are often financially, psychologically, or emotionally dependent on the batterer, they often believe that they will eventually be killed by their spouse and that attacking them in their sleep is the only feasible (and thus immediately necessary) means of protecting themselves. While courts are split on the validity of this defense,¹⁰³ it is clear that under certain circumstances, courts have found such actions to promote the social benefit of protecting battered women and children from abusive and potentially murderous relationships. The discretion to allow such actions indicates the potential breadth of justifications in the criminal law.

Broad justifications are also applicable to the protection of property. Normally, the property justification excuses the use of force to prevent the illegal taking of property from one's person or home.¹⁰⁴ Yet consider this principle on a broader scale. For example, in the movie *Volcano*, starring Tommy Lee Jones and Anne Heche, a group of police officers and fire fighters move several cars into the path of oncoming lava in order to save half the city from being engulfed in flames. As this action is not part of enforcing any law, the law enforcement justification does not apply. However, the action is part of an effort to protect property and lives. Thus while the protection of property justification is normally applied to preventing the theft or destruction of property, one could easily see it expanded to allow the stealing or destruction of property when necessary to preserve more valuable property and save lives. The social benefit of saving half a city easily outweighs the social harm of stealing and destroying a few cars. Upon an appropriate examination of the circumstances, justification defenses demand such broad application to ensure that socially beneficial behaviors are not improperly deterred by existing criminal laws.

2. Excuses

Excuses are similar to justifications in that they serve as affirmative defenses to criminal liability. Yet excused actions do not produce socially beneficial results; instead, they represent situations where deterrence through punishment serves no purpose.

There are two basic situations where excuses are allowed. The first occurs when the actor is inhibited from making a rational decision. For example, if a mentally incompetent person walks into a store, picks up

103. *See id.* at 47 n.8.

104. *See* Model Penal Code § 3.06(1).

an item, and walks out without paying, punishing such a person will have little to no deterrent effect on prohibiting the social harm from occurring again. Unless they know why they are being punished and that what they did was wrong, people cannot make a rational decision about whether or not to do it again.

A second type of excuse occurs when the actor's decision-making process is so skewed in the direction of social harm as to be considered abnormal or extreme. For example, when an actor is forced to commit a crime at gunpoint or under threat of a loved-one being harmed. Because the actor would not have otherwise committed the crime absent the external factors, there is no point in attempting to deter them with punishment.

3. The Critical Policy Distinctions Between Justification and Excuse

There are also policy distinctions between justifications and excuses. Justifications represent actions that society wishes to promote. We want cops to chase after robbers; we want fire engines to run red lights to save children; we want potential victims to be able to defend themselves against murderers. We also want third parties to assist justified actions. Private citizens must pull over to clear the road for law enforcement and emergency services; martial arts and weapons instructors are allowed to teach us how to shoot, kick and kill to protect ourselves. In fact, the social benefit of justified actions is so great that we prohibit others who are capable of stopping them from interfering.¹⁰⁵ One should not stop a police officer from speeding or a fire engine from running a red light. Justifying an action sends out a message that people *should* perform the action, not simply that they will avoid punishment. Justifications provide incentive for people to act in society's best interest.

Excuses, on the other hand, relieve the actor of blame due to the circumstances, but the action itself is still one that society hopes to prevent.¹⁰⁶ Interference with excused actions is encouraged and assisting such actions is wrongful.¹⁰⁷ So, for example, A kidnaps B's daughter. A tells B to rob the bank and give him all the money or B's daughter will die. A's accomplice, C, drives B to the bank where B robs it. Even though C is only assisting B in committing the crime for which B is excused, C should still be held liable because he knows that B is under duress, and thus that the commission of the act is still

105. See Greenawalt, *supra* note 92, at 1899–1900.

106. See *id.*

107. See *id.*

causing social harm. In contrast, if C were a bystander at the robbery who uses his car to drive the security guard in pursuit of B at speeds exceeding the posted speed limit, he should not be held liable because the social benefit of assisting law enforcement outweighs the harm of speeding.

4. Section 1201(c)(1)'s Fair Use Defense Falls Within the Criminal Justification Rationale

When applying a criminal law rationale to the 1201(c)(1) fair use defense, it emerges as a justification defense because (1) it allows infringement when necessary to produce net social benefits,¹⁰⁸ (2) it encourages actions that produce such benefits,¹⁰⁹ and (3) it provides the court with broad discretion to balance circumstantial factors in determining whether net social benefit exists.¹¹⁰

For example, consider four cases involving fair use and the use of technology to access copyrighted works. In *Sony v. Universal*, the Supreme Court was asked to consider whether or not the makers of VCRs were legally contributing to copyright infringement by allowing users to copy broadcast programs off their televisions.¹¹¹ The Court said no, holding that because VCRs had a substantial non-infringing use (allowing fair use “time-shifting” of programs so users could watch them later), the potential harm of infringing uses was not significant enough to hold the makers liable.¹¹² In essence, the Court held that the social benefit of time-shifting outweighed the social harm of possible infringements both in terms of allowing the VCR companies to make their devices and allowing users to use them.¹¹³ Thus, fair use provided the justification for allowing the use of VCR technology to access works.

In *Sega v. Accolade*,¹¹⁴ the Ninth Circuit held that copying an entire software program into memory in order to de-compile it was fair use, if the use was the only way in which a competing software company

108. See Heberling *supra* note 93.

109. See *Sony Corp. of Am. v. Universal City Studios, Inc.* 464 U.S. 417, 451 (1984) (analyzing fair use by assuming that if allowed, the use will become widespread).

110. See 17 U.S.C. § 107; *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539 (1985).

111. 464 U.S. 417.

112. See *id.* at 442.

113. See *id.* at 436 (“Respondents argue that . . . supplying the ‘means’ to accomplish an infringing activity and encouraging that activity through advertisement are sufficient to establish liability for copyright infringement. This argument rests on a gross generalization that cannot withstand scrutiny.”).

114. See *Sega Enters. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1993).

could decipher the program to understand the ideas behind it.¹¹⁵ Thus, even though accessing the work constituted infringement,¹¹⁶ the court held that reverse engineering was a socially beneficial outcome.¹¹⁷ Having arrived at a fair use conclusion, the court implicitly authorized the means of access (reverse engineering) as justified.¹¹⁸

In *Vault v. Quaid*, a manufacturer of copy protection software sued a manufacturer of copy-enabling software for contributory copyright infringement.¹¹⁹ Following *Sony*, the Fifth Circuit held that Quaid's copy-enabling software could provide users with fair-use backup copies of their programs, thus it had a substantial non-infringing use.¹²⁰ Here, again, fair use provided for a fundamental social benefit—the allowance of back-up copies of software. Enabling access to the work for such uses outweighed the potential harm of allowing access for illegal copying.

Finally, consider *Sega v. MAPHIA*.¹²¹ In this case, a Federal District Court held that providing tools to enable game software to be copied from disks and posted to the Internet was contributory copyright infringement because using the tools was not a fair use.¹²² In its analysis, the court relied on the *Sony* holding in deciding that the software tools had no substantial non-infringing use.¹²³ In other words, the harm caused by using the tools was so great that it outweighed any potential benefit gained. Therefore, the use of the tools to access the work was not a fair use and not justified.

Allowing circumvention of TPMs for fair use also follows the policy of promoting the assistance of justified actions. If we assume that making fair use of a work is a socially beneficial behavior, then allowing circumvention of a TPM in order to enable fair use is simply a means for assisting an actor in achieving that benefit. This

115. *See id.* at 1522 (holding copyright did not extend to ideas under the idea-expression dichotomy).

116. *See MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993); *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330 (9th Cir. 1995). But consider that MAI may have been decided differently under a social benefit/harm analysis (hence the subsequent modification to section 117 of the DMCA) and that Triad essentially *was* implicitly decided under this analysis, 64 F.3d at 1336 (use of work for direct competition in service industry with copyright owner sans creation of new work was socially harmful).

117. *See Sega*, 977 F.2d at 1523 (determining that Accolade had made the copies “for a legitimate, essentially non-exploitative purpose”).

118. This is also supported by the exemption for interoperability in 1201 itself. *See* 17 U.S.C. § 1201(f).

119. 847 F.2d 255 (5th Cir. 1988).

120. *See id.* at 262.

121. 857 F. Supp. 679 (N.D. Cal. 1994).

122. *See id.* at 688.

123. *See id.* at 685.

“assisting” rationale closely resembles the rationale for allowing private citizens to assist law enforcement officers in their duties, or to rush dying victims to the hospital at illegal speeds, or to shoot and kill an attacker before he kills an innocent person. These behaviors are all justified behaviors in the criminal law because they allow and encourage socially beneficial outcomes. Circumvention of TPMs for fair use serves the same purpose of allowing and encouraging social benefits, therefore it should also be considered a justification.

Finally, fair use allows courts broad discretion to consider circumstantial factors in determining whether a use is “fair” and thus socially beneficial. For example, Section 107 of the Copyright Act explicitly states that the four factors of fair use listed are not limiting.¹²⁴ In addition, courts have applied fair use to extremely diverse factual situations, often times taking into account cutting edge technologies or copying techniques which were not available or even considered when Section 107 was enacted.¹²⁵ Courts have realized that new technologies and changing economic and industry circumstances demand case-by-case determinations as to the effect various uses have on society. Thus, fair use has essentially functioned as a justification defense to infringement and 1201 is properly rationalized as a justification defense to circumvention prohibitions.

C. Section 1201(a)(2) and (b)(1)’s Prohibition of Devices are Still Based Inappropriately on Property Rules

In criminal law, devices are rarely banned per se. With the exception of illicit narcotics and assault weapons, most “devices” used in criminal activities are at most regulated, not prohibited.¹²⁶ For example, explosives, most firearms, and lockpicks may be purchased under qualified restrictions, but none are illegal to manufacture, offer to the public, provide, or otherwise traffic.¹²⁷ These policies arise out of the social benefit/social harm balance. While we recognize that these devices may cause social harm, we do not ban them unless they have no substantial beneficial use. For example, explosives help

124. 17 U.S.C. § 107.

125. *See, e.g.*, *Sony Corp. of Am. v. Universal City Studios, Inc.* 464 U.S. 417 (1984) (VCRs), *Sega Enters. v. Accolade, Inc.* 977 F.2d 1510 (9th Cir. 1993) (decompiling object code), *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994) (rap music parody), *Recording Indus. Ass’n of America v. Diamond Multimedia Systems, Inc.*, 180 F.3d 1072 (9th Cir. 1999) (MP3 digital music archives), *American Geophysical Union v. Texaco Inc.*, 60 F.3d 913 (2nd. Cir. 1994) (photocopying for private corporate archives).

126. *See, e.g.*, Assault Weapon Ban Enhancement Act of 1999, H.R. 1809, 106th Cong.

127. *Compare* Cal. Health & Safety Code § 12303 (West. 1999) and Cal. Penal Code § 466 (West. 1999) *with* 17 U.S.C. § 1201(a)(2).

construction. Firearms help police, security services, and self-defense. Lockpicks help law enforcement and locksmiths. Thus the potential for socially beneficial outcomes rationalizes the risk of social harm. Assault weapons and illicit narcotics, on the other hand, have few if any socially beneficial uses in the civil population; therefore a ban is justified.

Given the high standard for banning devices in the criminal law, it is surprising that 1201's ban on devices is so absolute. There appears to be no rationale for this ban, other than that these devices *might* allow one to circumvent a TPM, regardless of whether that circumvention is justified or not. There is no social harm/social benefit balance. Thus the device ban appears to be based on an absolute property-like rationale instead of a balanced criminal law rationale. Under a property rationale, any violation of an exclusive right is illegal. Sections 1201(a)(2) and (b)(1) essentially allow copyright owners to prevent the manufacture, sale, use, or importation of any device whose primary purpose is circumvention of TPMs.¹²⁸ Thus, it grants copyright owners exclusive rights without any consideration of the appropriate harm/benefit balance.

IV. RECONCILING THE DIVERGENT RATIONALES OF 1201(a)(2) AND (b)(1) WITH 1201(a)(1) AND (c)(1)

As shown above, 1201(a)(1) and (c)(1) follow the criminal law rationale of net social benefit, and thus are generally consistent with the appropriate rationale for anti-circumvention legislation—behavior control. However, the property rationale of 1201(a)(2) and (b)(1) is inconsistent with the criminal rationale of 1201(a)(1), 1201(c)(1), and the overall purpose of the anti-circumvention provisions. Thus, in order to prevent the device prohibitions from creating inconsistent outcomes that undermine the purpose and effectiveness of 1201, the device prohibitions must be reconciled with the rest of the statute.

128. Query whether this might raise a constitutional issue of overlaps between copyright and patent. The Senate report for 1201 begins "Title I encourages technological solutions" to protecting copyrighted works. *See* 105 S. Rpt. 190. Encouraging technology has traditionally been the province of patent law. It makes one wonder if 1201 would be better suited 18 titles later in the U.S.C.

*A. The Access Exemptions of 1201(a)(1) Should be Broadened
to Include a Full Range of Justified Behaviors*

The first step in this reconciliation is to expand the exemptions for justified uses in (a)(1) and (c)(1). While the technology industries were able to insert seven narrow access exemptions into 1201(a)(1), justification policy in criminal law allows for broad categories that cover a wide range of behaviors.¹²⁹ By stating an absolute rule and then listing exemption after exemption, Congress has demonstrated its strained attempt to maintain the structure of “rights against the world” approach of property law in the anti-circumvention provisions, even though the substance is based on shifting to a criminal social harm/benefit approach.

1. Professor Samuelson’s Suggestion

Pamela Samuelson suggests that a more appropriate approach to 1201(a)(1) would be to include a judicially-empowered “legitimate uses” defense.¹³⁰ The structure of such a doctrine corresponds more accurately to the criminal justification rationale underlying 1201 as a whole. Legitimate uses are essentially uses that provide a net social benefit. Just as we allow for the use of violence in situations where it is immediately necessary to prevent unlawful killings, we should allow for the circumvention of TPMs when they result in a net social benefit.

A legitimate uses exemption also provides the appropriate forum for considering the net social benefit of certain behaviors. In criminal law, we allow broad categories of justification because we want triers of fact to assess the social benefit and harm in each factual situation on a case-by-case basis. Thus instead of exempting “use of firearms by a person who has a gun pointed at his head and is about to die,” we allow courts to determine if someone is justified in committing homicide when “when the actor believes that such force is immediately necessary for the purpose of protecting himself against the use of unlawful force.”¹³¹ Such broad language allows courts to consider many different self defense actions in many different contexts without restriction on type of weapon, type of actor, time, place, etc. In much the same way, the “legitimate uses” language would provide for a broad category of justification in which fact-dependent situations that provide more social benefit than harm in promoting the sciences could be ascertained.

129. See *supra*, notes 93–104 and accompanying text.

130. See Samuelson, *supra* note 7, at 539.

131. Model Penal Code § 3.04(1).

We could, of course, simply ask Congress to add new specific exemptions as they prove themselves socially beneficial, as suggested by the 1201(a)(1)(A)–(D) rulemaking process. Yet if we continue to add new items to the already long and confusing list of exemptions, we start to defeat the purpose of having specific exemptions in the first place. At that point, it would be simpler and more logical to create a general defense that allows for socially beneficial circumventions, rather than insisting on a painstaking and cumbersome legislative amendment or rulemaking every time we discover another socially beneficial use.

In addition, by limiting the exemptions to narrow industry-specific practices, we risk prohibiting many socially beneficial behaviors that may fall just outside those practices. Especially in areas of industry where innovation happens quickly and practices develop over short periods of time, depending on a rulemaking or amendment process to exempt a valuable practice could result in the practice being obsolete by the time the amendment is made. Plus, in the meantime, the general prohibition and potential liability may have already discouraged the practice from catching on, even though such a practice might have been a significant leap forward in the field. Social harm and social benefit are best measured as closely to the time of impact as possible. Judges and juries presiding over recent real-life situations are in much better positions to assess the net social balance than legislators working in a vacuum.

Finally, inserting the “legitimate uses” defense into 1201 would encourage broad assistance from others to help socially beneficial circumventions.¹³² This policy of assistance is an essential component of a justified defense. Consider the following linguistic comparison. Section 3.07(1) of the MODEL PENAL CODE states that “the use of force upon or toward the person of another is justifiable when the actor MODEL PENAL CODE is making or *assisting in making* an arrest and the actor believes that such force is immediately necessary to effect a lawful arrest.”¹³³

Notice the assistance language. Now replace “use of force” with the circumvention language of 1201(a)(1) and “lawful arrest” with “legitimate use”:

“The circumvention of a technological protection measure that effectively protects a copyrighted work is justifiable when the

132. See Samuelson, *supra* note 7, at 532 n. 151 (suggesting that fair use circumventors may need assistance, even if technically competent, but especially if not).

133. Model Penal Code § 3.07(1) (emphasis added).

actor is engaging in or assisting in the engagement of a legitimate use of the underlying work and the actor believes that such circumvention is immediately necessary to effect a legitimate use.”

Such a provision offers courts a reasonable and balanced standard by which to judge those who make and assist circumventions. It ensures a net social benefit and only encourages assistance when such a benefit is reasonably expected. Thus, a broad “legitimate uses” exemption would promote the assistance of justified circumventions and make 1201 structurally and substantively consistent with its rationale.

*B. The Device Prohibitions of 1201 Should be Reformulated
to Follow a Net Social Benefit Model*

The second step toward reconciling 1201 should reformulate the device prohibitions to follow a social harm/social benefit model. As discussed, *supra*, the (a)(2) and (b)(1) device prohibitions extend the exclusive monopoly of content owners beyond the boundaries of their works and into the technology industries that create means of access. Such a scheme not only deviates from the traditional limitation on property rights—narrow relation to their subject matter—but also allows content owners to indirectly control personal behavior.¹³⁴ If access control provisions are more properly rationalized under criminal law than property law, devices should be prohibited only if they have no substantially beneficial uses, e.g., illicit drugs and assault weapons. If circumvention devices can produce substantial net social benefits, then they should be allowed.

Section 1201 currently prohibits all devices that are either (1) primarily designed or are produced for the purpose of circumventing a TPM, (2) have only limited commercially significant purposes other than the circumvention of a TPM, or (3) marketed specifically for use in circumventing a TPM.¹³⁵ None of these standards takes into account social benefit or social harm, let alone the balance between the two. In contrast, consider the fact that in criminal law, we allow the manufacture of guns, even though their primary purpose, sadly, is often to commit violent socially harmful crimes.¹³⁶ We allow Detroit to build cars able to exceed 65 miles per hour, even though the primary

134. Samuelson suggests this was Hollywood’s real agenda—to extend their monopoly rights into the user realm and into other industries in order to secure their own content. *See* Samuelson, *supra* note 7, at 553.

135. *See* 17 U.S.C. § 1201(a)(2), (b)(1).

136. *See, e.g.*, the tragedy in Littleton, Colorado.

purpose of such speeding capacity violates a majority of driving laws. The technologies that allow guns to fire and cars to speed have limited legitimate commercially significant purposes other than shooting people and speeding.¹³⁷ So why are they legal? Shouldn't we ban them, just as we ban circumvention devices?¹³⁸

We allow such devices because we recognize that in specific contexts and for specific socially beneficial reasons, we want people to use guns and drive fast.¹³⁹ Devices enabling the circumvention of TPMs are no different. By allowing copyright owners to prohibit the manufacture, sale, and use of these devices, we are granting them property-like rights, rights to exclude the world of such devices. Yet if anti-circumvention laws are based on promoting social benefits and deterring social harm, then the current device prohibition rationale fails to distinguish between the likelihood of the two outcomes.

A more appropriate standard would be to prohibit circumvention devices that are either (1) primarily designed or produced for the purposes of *illegitimate* circumvention of a TPM, (2) have only limited *legitimate* commercially significant purposes other than the *illegitimate* circumvention of a TPM, or (3) are marketed specifically for the *illegitimate* circumvention of a TPM. Inserting the "legitimate use" standard into the device prohibitions both synchronizes them with broad 1201(a)(1) justification standards and aligns them with the appropriate net social benefit rationale.¹⁴⁰

CONCLUSION

The conflict between content and access technology has only begun to emerge in the digital economy. As each industry invests greater stakes in its online future, the battle over controlling law and controlling interest will only increase in proportion. In such a battle, the

137. There may be some debate as to whether guns and fast cars are marketed specifically for shooting people or speeding, but one could easily see such uses being inferred if not explicitly stated.

138. Notwithstanding the NRA and its strained defense of the Second Amendment, it is somewhat absurd to think that Congress and the copyright lobby see anti-circumvention technology as a greater threat to society than firearms.

139. Perhaps we also allow these devices to exist out of respect for individual liberty and the right to choose not to exhibit illegal behavior even when we have the capacity and the capability.

140. Another possible solution would be to adopt the contributory copyright standard set out by the Supreme Court in *Sony*, 464 U.S. at 442. Since the Court declared that allowing substantial fair uses is socially beneficial, one could simply change the "substantial non-infringing use" standard to a "substantial legitimate use" standard and insert into 1201(a)(2) and (b)(1), preserving the same balance through analogous language.

intellectual property interests of the content owners will continue to dominate as long as a property-based model is the dominant rationale behind federal law.

Perhaps more importantly, we will also continue to see socially-beneficial activities being ignored and outlawed. Useful technologies will continue to fall prey to laws that discard the critical social harm/social benefit balance. If, as some commentators have postulated, technological production plays a major role in social change, then the loss of these activities and technologies will begin to shape the social lives we lead as members of the information society.¹⁴¹ Fundamental social activities such as the ability to read a book, watch a movie, or listen to music may undergo drastic alternations. Whether such alternations are desirable or not remains to be seen, but unless we begin to account for them in our laws, we may never know how much we have lost or gained.

141. See Webster, *supra* note 5, at 195. If, as Daniel Bell writes, increases in productivity are the key to social change, then 1201 seriously threatens increases in the productivity of access technology. See *id.* at 34. It is, in essence, protectionism for content industries at the expense of technological productivity. If the Clinton administration truly hopes to foster and promote the advancement of the U.S. economy into the information age, passing laws that inhibit increases in productivity are among the last things they should want to do.