

LOCKING UP THE BRIDGE ON THE DIGITAL DIVIDE—A CONSIDERATION OF THE GLOBAL IMPACT OF THE U.S. ANTI-CIRCUMVENTION MEASURES FOR THE PARTICIPATION OF DEVELOPING COUNTRIES IN THE DIGITAL ECONOMY

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I. INTRODUCTION

The Internet and digital technologies offer the promise of greater dissemination of information and technology globally. However, the same technological developments have been classified by U.S. copyright owners as a “unique digital threat” to their businesses because they also potentially enable mass, anonymous individual copying by users located across the globe.

In response to this perceived threat, copyright owners have apparently adopted a twofold strategy. Firstly, they have promoted the development and deployment of technological protections, such as encryption and password protections, which control the ability of users to access and use digitized content and technology, such as software, otherwise than on their terms.¹ Secondly, copyright owners have pushed for the legal backup of these technological protections in the form of “anti-circumvention measures,” so called because they give proprietors a cause of action against devices or services which circumvent these technological protections.²

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1. See, e.g., Amy Harmon, *Studios Use Digital Armor to Fight Piracy*, N.Y. TIMES, Jan. 5, 2003, at A1, available at <http://www.nytimes.com/2003/01/05/business/05CONT.html?ntemail0> (last visited Jan. 22, 2003).

2. Coupled with these anti-circumvention measures are provisions which protect rights management information included within copyrighted material, such as watermarking. Rights management information technology simply persistent records details of the author, owner and other descriptions with the item, and can be used to track use. Although rights management

The anti-circumvention measures first took shape³ as international standards for copyright protection in the digital age in the WIPO Copyright Treaty 1996 and the WIPO Performances and Phonograms Treaty 1996 (collectively, “WIPO Internet Treaties”).⁴ These WIPO Internet Treaties were concluded in 1996 and took effect on March 6, 2002 and May 20, 2002, respectively, three months after thirty countries had ratified or assented to each of the treaties.⁵ The U.S. was one of the first ten countries to ratify the WIPO Internet Treaties⁶ and adopted a “maximalist” interpretation of its WIPO obligations⁷ in the form of § 1201 of the Digital Millennium Copyright Act of 1998 (“DMCA”).⁸

The DMCA’s anti-circumvention measures have been much debated. The debate has focused primarily on the implications of § 1201 on the formulation of U.S. copyright laws. The purpose of this paper is to explore the international ramifications of § 1201, in particular for developing countries. In the international arena, the competing interests of copyright owners and copyright users are similar to those in the domestic U.S. market but the variables are different, particularly for developing countries where the market is

information can form an important part of a technological control and tracking system for copyrighted materials, it is less restrictive of the ability of users to access and use protected material. Consequently, this paper will not consider the rights management information provisions in detail.

3. Similar measures were also proposed by the Clinton Administration in its “White Paper” on “Intellectual Property and the National Information Infrastructure” published in September 1995. See generally Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Measures Need to be Revised*, 14 BERKELEY TECH. L.J. 519 (1999).

4. WIPO Copyright Treaty and Agreed Statements Concerning the WIPO Copyright Treaty, adopted Dec. 20, 1996, available at <http://www.wipo.int/clea/docs/en/wo/wo033en.htm> (last visited Jan. 15, 2003) [hereinafter WCT]; WIPO Phonograms and Performers Treaty and Agreed Statements Concerning the WIPO Phonograms and Performers Treaty, adopted Dec. 20, 1996, available at <http://www.wipo.int/clea/docs/en/wo/wo034en.htm> (last visited Jan. 15, 2003) [hereinafter WPPT].

5. World Intellectual Property Organization, *WCT Notification No. 32, WIPO Copyright Treaty, Entry Into Force*, at http://www.wipo.int/edocs/notdocs/en/wct/treaty_wct_32.html (last visited Apr. 15, 2004); World Intellectual Property Organization, *WPPT Notification No. 32, WIPO Performances and Phonograms Treaty, Entry Into Force*, at http://www.wipo.int/edocs/notdocs/en/wppt/treaty_wppt_32.html (last visited Apr. 15, 2004).

6. World Intellectual Property Organization, *WCT Notification No. 2, WIPO Copyright Treaty*, at http://www.wipo.int/edocs/notdocs/en/wct/treaty_wct_2.html (last visited Apr. 8, 2004); World Intellectual Property Organization, *WPPT Notification No. 1, WIPO Phonograms and Performers Treaty*, at http://www.wipo.int/edocs/notdocs/en/wppt/treaty_wppt_1.html (last visited Apr. 8, 2004).

7. See *infra* Part III(D).

8. Pub. L. No. 105-304, 112 Stat. 2860, 2863 (1998).

less attractive to copyright proprietors and the impact copyrighted goods can have on public well-being is greater.

Section 1201 sets a high level of legal protection for technological measures. As such, it has very real implications for the developing world. The new provisions were designed to encourage U.S. copyright owners to make their works available online.⁹ Relying on § 1201, they are increasingly doing so in technically protected formats which circulate beyond U.S. borders. The terms on which access to these items can be gained therefore reflect the commercial and legal interests of these U.S. copyright owners rather than the domestic laws of a user's country—laws that are likely to be tailored to reflect that country's specific developmental and cultural objectives. Technological protections can, as a practical matter, directly interfere with the ability of residents of developing countries to access and use a considerable amount of copyrighted materials, thereby halting the public benefits which can flow from the use of those materials, such as education, research and scholarship, as well as, participation in the digital economy. In other words, by introducing legal protections of technological locks, § 1201, and the technology it protects, has the potential, either by example or direct application, to lock the gate on the bridge spanning the digital divide. As one commentator has observed “[i]t is indeed ironic that that the very technology that has the potential of truly evening out the playing field is the same technology that may widen the gap between the ‘haves’ and the ‘have nots.’”¹⁰

This paper argues that it should be a matter for each country, particularly developing countries, to decide the level of protection their laws afford to technological locks on copyrighted materials. The background and context of U.S. copyright law recognizes the value of access and use of copyrighted materials to promote economic, cultural and social well-being. Fair use exceptions and other limitations temper copyright law to facilitate these benefits. However, similar limitations have not been translated into the new anti-circumvention measures introduced in the U.S. While the U.S. maximalist interpretation of its obligations to protect technological locks under the WIPO Internet Treaties may be reasonable in the context of U.S. interests, correspondingly high levels of protection may not be appropriate in other countries.

9. See S.R. REP. NO. 105-190, at 8 (1988) [hereinafter Senate Judiciary Comm.].

10. Ruth Okediji, *Copyright and Public Welfare in Global Perspective*, 7 IND. J. GLOBAL LEGAL STUD. 117, 182 (1999).

It appears, however, that the U.S. Congress intended that § 1201 serve as a model for other legislatures in formulating their own anti-circumvention measures. Section 1201, therefore, has international implications by serving as an model for legislatures of other countries adopting § 1201-style provisions, in accordance with their obligations under bilateral and multilateral agreements negotiated with the U.S., or failing that, possibly, by the direct application of § 1201 to foreign activity.

Rather than having § 1201 serve as a uniform example of anti-circumvention measures, the model of anti-circumvention measures adopted in other countries, whether maximalist, minimalist or a combination, should be structured sensitive to the domestic situations of those other countries. A review of the status of recent bilateral and multilateral agreements suggests that the interests of developing countries are better addressed through international, multilateral intellectual property negotiations, rather than through bilateral negotiations.

II. RELEVANCE OF COPYRIGHT LAW AND CONSIDERATION OF ITS RATIONALE AND APPLICATION

Copyright has been variously described as the “sleeping giant”¹¹ and the “dog that didn’t bark”¹² in current debates about the role of international intellectual property law and developing countries. The focus of these debates has traditionally been on patents and other industrial inventions and applications because they have been perceived as having a more direct connection to the health and development of countries. However, copyright is also relevant to such considerations of health and development.

A. *Relevance of Copyright to Developing Countries and the Digital Economy*

Although copyright law is territorial, in its various domestic guises it commonly protects a wide range of tools, which are vital to the education, health, and technical literacy of developing countries. Copyright law applies to the infrastructure of communications

11. Alan Story, *Study on Intellectual Property Rights, the Internet, and Copyright*, INTEGRATING INTEL. PROP. RTS. & DEV. POL’Y 8 (Commission on Intellectual Property Rights ed., 2002).

12. Paul Goldstein, *Comment on “Lessons from Studying the International Economics of Intellectual Property Rights,”* 53 VAND. L. REV. 2241, 2241 (2000).

systems, such as software and hardware, which are essential for participation in the digital world.

The Internet and e-commerce potentially “offer developing countries considerable opportunities to enhance economic growth and welfare”¹³ by providing new export prospects, which in turn attract foreign investment, and also by improving access to information, education and medical services.¹⁴ The promise of the Internet and digital technologies is to “make it easier for producers in poor countries to become part of an international bidding and supply process from which they were largely excluded in the past.”¹⁵ Although this promise may constitute the bridge which erases developmental differences, current levels of digital participation are inconsistent and create a digital divide which exists within and between countries. Generally, “digital divide” refers to the gap between those who can effectively access and use new information and communication tools, such as the Internet, and those who cannot.¹⁶

The precise definition and size of the digital divide are debatable, but there are strong arguments that several divides exist based on levels of Internet penetration, technological development, and online participation and access to information. One of these divides contributes to an informational divide or “knowledge gap” between developed and developing countries. This informational divide may be bridged by improving the ability and opportunities for currently excluded people to access information and technology.

Libraries play an important role in facilitating such access. Educational institutions also play an important role by teaching people how to acquire such access and use information and communications tools to their advantage. Technical training of residents is key to enabling developing countries’ participation in the global and digital economy. Copyright protected educational and

13. Marc Bacchetta et al., *Special Studies: Electronic Commerce and the Role of the WTO*, at 43 (World Trade Organization ed. 1998).

14. *Id.*

15. *Id.*

16. See generally Digital Divide Network, at <http://www.digitaldividenetwork.org> (last visited Apr. 8, 2004) (providing information and statistics on the range of digital divides). “Digital divides” can be defined according to a range of different characteristics in terms of geographic location, socio-economic status, racial, and/or ethnic background. The common feature is the lack of effective access to and use of information and communications technologies based on one or more of these characteristics.

technological tools represent important building blocks for such training.¹⁷

The U.S. model for access to copyrighted materials impacts on the ability of developing countries to access copyrighted tools for two reasons. Firstly, U.S. copyright owners currently control the rights to many of those tools. Secondly, the U.S. model is likely to be replicated by other legislatures around the world or even directly enforced on foreign circumvention activity.

B. Rationale of U.S. copyright law

The U.S. Congress has the power to enact copyright laws under the Constitution in order to promote the progress of Science.¹⁸ This clause reflects the belief that a limited grant of private property rights serves the general public interest by encouraging the creation and dissemination of new works.¹⁹ It also gives rise to an ongoing tension in copyright law between balancing, on the one hand, the provision of private incentives to create and produce, with, on the other hand, the maintenance of the public benefits of production and dissemination of the results of creation and production.

The philosophical underpinnings of U.S. copyright law have been described as “utilitarian” as opposed to the European “personality approach.”²⁰ Copyright protection is granted for the sake of achieving an overarching public good of creating works.²¹ The U.S. Supreme Court has repeatedly acknowledged that the public interest is the ultimate objective of copyright law.²²

17. However, copyright is not the only factor in increasing access to the Internet and online participation. See Story, *supra* note 11, at 35. For developing countries, copyright and intellectual property rights protection is not a primary concern in and of itself. Development is the key goal. Intellectual property is only relevant to the extent it relates to development and may otherwise be considered a luxury. See Ruth Gana, *Prospects for Developing Countries under The TRIPS Agreement*, 29 VAND. J. TRANSNAT’L L. 735, 771 (1996).

18. U.S. CONST. art I, §8, cl. 8.

19. PAUL GOLDSTEIN, 1 COPYRIGHT §1.14.1 (2d ed. 2003)

20. Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 288–89 (1988).

21. See *id.* at 296–311.

22. See *Mazer v. Stein*, 347 U.S. 201, 219 (1954) (“The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare”); *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349 (1991) (“The primary objective of copyright is not to reward the labor of authors, but ‘[t]o promote the Progress of Science and useful Arts.’”).

Under economic theory, copyright law represents an attempt to solve the economic problem²³ of intangible goods, more specifically that such goods are both non-excludable and indivisible. In other words, once information has been produced, it can be infinitely consumed without imposing additional cost on the producer or impeding the enjoyment of that information by other users. Copyright provides the means by which creators and producers can appropriate value from their work by granting exclusive rights. In the words of a lead U.S. copyright scholar, “[the] copyright solution to the problem of inappropriability inevitably conflicts with the social benefits of indivisibility.”²⁴

Copyright law is widely regarded as a creature of Western culture.²⁵ In the context of § 1201 and the concerns of developing countries, it is interesting to note that within the theoretical underpinnings of U.S. copyright law there is support for promoting access to and use of information for social welfare purposes. As the following discussion illustrates, the materials most relevant to developing countries and the development purposes for which they will typically be used, would, if occurring within the U.S., be likely to constitute fair use.

1. The purpose of “developing country use” is likely a fair use

The nature of the use to which developing countries will put copyright protected information and technology goods will be, in large part, for instructional, scholarly, and research purposes. These purposes are likely under U.S. copyright law to come within fair use or a specific statutory exception.

Under U.S. copyright law, fair use has been developed by the courts as an equitable rule of reason to which a copyright owner’s exclusive rights are subject. It is applied on a case by case basis. However, § 107 of the Copyright Act offers an illustrative list of “fair use” activities²⁶ and provides four factors against which the courts can weigh the facts presented to determine whether a fair use exists.²⁷

23. See GOLDSTEIN, *supra* note 19, at §1.14.1.

24. *Id.*

25. See Story, *supra* note 11, at 15 (“[C]opyright, as a legal and philosophical concept, is the product of Western societal development at a particular historical moment. . . .”); see also Okediji *supra* note 10, at 147–48; Gana, *supra* note 17, at 770–71.

26. 17 U.S.C. § 107 (2000).

27. The four factors to which regard must be had under § 107 are: (1) the nature and character of the use, including whether the use is of a commercial nature or is for nonprofit

The first of those factors refers to the nature and character of the use and specifically, whether the use is for “teaching (including multiple copies for classroom use), scholarship, or research.”²⁸ Although the educational or noncommercial nature of a use will not guarantee a fair use finding, it weighs in favor of such a finding.²⁹

Consistent with Congress’ view that use for educational, library and personal research purposes should be excluded from copyright’s legitimate reach, §§ 108 and 110 of the Copyright Act provide express statutory exceptions to infringement for specified educational and library activities.³⁰

There are, however, likely to be some uses prevalent in developing countries which do not fall so clearly within the fair use doctrine as educational and library uses. Two specific examples are: (1) reverse engineering for software compatibility, for example with the run open source software³¹ such as Linux, with other proprietary products; and (2) to facilitate the continued use of outdated technology and uses of medical texts and journals by health practitioners.

Whether a particular act of reverse engineering constitutes a fair use requires a fact specific analysis involving factors such as the particular method of reverse engineering and the extent to which the new program incorporates elements of the reverse engineered program. In the case of reverse engineering it has been held to be fair use when conducted for the purpose of developing interoperable products.³² Therefore, it is possible that such a use constitutes a fair use.

Copying of works for public health purposes had not yet been expressly recognized as a fair use and would similarly require a fact

educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and, (4) the effect of the use upon the potential market for or value of the copyrighted work. *Id.*

28. Although this has been constrained by some extent by the Agreement on Guidelines for Classroom Copying in Non-For-Profit Educational Institutions with Respect to Books and Periodicals, H.R. REP. NO. 94-1476, at 5 (1967).

29. The other factors would need to be balanced against this first factor, specifically, the nature of the work (which is discussed *infra* Part II(B)(2) and notes 33–38), amount and substantiality of such use, as well as the impact on the potential market for the work. This would require a case by case analysis but does not detract from the fact that educational and scholarly uses are recognized by Congress to be socially beneficial.

30. 17 U.S.C. §§ 108, 110 (2000).

31. Open source software is popular in developing countries because of lower cost and more permissive terms, which can improve technical literacy. See Story *supra* note 11, at 28.

32. See *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1527–28 (9th Cir. 1992).

specific inquiry according to the fair use factors. Although these activities may require a more detailed fair use analysis, their overwhelming public interest nature, consistent with copyright law's overarching objective, suggest they should be held to constitute fair use.

Overall, "developing country use" (as discussed above) of copyrighted materials is likely to weigh the first fair use factor strongly in favor of treating such uses as non-infringing. Developing country use is consistent with the objectives of fair use and other statutory exceptions to copyright in promoting the dissemination of works for socially beneficial purposes.

2. The building blocks necessary for developing countries are primarily "thin copyrights" and utilitarian works

Within copyright law, certain types of works are recognized as closer to the core of copyright protection than others. Although this distinction does not detract from the strength of exclusive rights granted, the differential treatment is evident in judicial assessment of claims of fair use.³³ In general, the distinction can be said to arise either because the work involves less creative effort and/or because it includes more unprotectable elements such as functional or public domain material.

Music³⁴ and novels are examples of works which are close to core of copyright protection. Highly factual works,³⁵ compilations of data,³⁶ instructional materials,³⁷ or public domain materials are "thin" copyright works. Thus, many copyrighted materials (such as scientific and other professional journals) most relevant for digital development in developing countries are likely, when considered within the rubric of U.S. copyright law and subjected to a "fair use" analysis, to be deserving of a lower level of copyright protection. Similarly, computer programs are regarded as more utilitarian and therefore further removed from the core of copyright's intended scope of protection.³⁸

33. This is the consideration involved in the second factor of the fair use analysis in § 107(2).

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

35. See *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539 (1985).

36. See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

37. See *Kepner-Tregoe, Inc. v. Carabio*, 203 U.S.P.Q. 124, 131-32 (E.D. Mich. 1979).

38. See *Sega Enters., Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1525 (9th Cir. 1992).

Consistent with the treatment of educational and instructional journals, audiovisual materials which contain high levels of factual material should also be deserving of a lower level of copyright protection when subjected to a fair use analysis.

III. THE ANTI-CIRCUMVENTION MEASURES AND THEIR RATIONALE

The DMCA was enacted in order to encourage copyright owners to make their material available online.³⁹ However, § 1201 was criticized for going beyond copyright's usual ambit of regulating information, and not regulating the technology by which such information is delivered, in a letter by copyright law professors to the Commerce Committee warning that the measures caused copyright law to make "an unprecedented departure into the zone of what might be called paracopyright."⁴⁰

The Commerce Committee responded by moving the anti-circumvention measures to be a free-standing provision,⁴¹ available as a separate and additional claim to copyright actions, thereby seeking to keep copyright law technology neutral.⁴² The Commerce Committee retained the anti-circumvention measures in the DMCA on the basis that they were necessary to "protect the interests of copyright owners in the digital environment,"⁴³ interests which faced a "unique threat."⁴⁴

By making the anti-circumvention measures a stand-alone provision, a new body of law, open to interpretation, potentially without reference to copyright⁴⁵, was effectively created. However, because anti-circumvention actions have arisen, and are most likely for the foreseeable future to arise, in relation to copyrighted works, this paper will primarily consider the ability of U.S. courts to apply §

39. See Senate Judiciary Comm., *supra* note 9, at 8.

40. H.R. REP. NO. 105-551, pt. 2, at 24 (1998) [hereinafter Commerce Comm.].

41. *Id.*

42. *Id.*

43. *Id.* at 25.

44. *Id.*

45. See Jane Ginsburg, *From Having Copies to Experiencing Works: the Development of an Access Right in U.S. Copyright Law*, COLUMBIA LAW SCHOOL PUBLIC LAW & LEGAL THEORY WORKING PAPER GROUP, PAPER NUMBER 8, 15-16 (2000), at <http://papers.ssrn.com> (arguing that circumvention defenses should evolve and do not necessarily need to be co-extensive with traditional fair use defenses); Pamela Samuelson *Towards More Sensible Anti-Circumvention Regulations*, Proceedings of Financial Cryptographers, 2000, at 5, available at http://www.umuc.edu/distance/odell/cip/links_dmca.html (copy on file with author) (noting that no underlying copyright infringement action is necessary to establish a violation of § 1201 and that it is unclear whether any showing of harm is a prerequisite to proving a violation).

1201 across borders within the rubric of copyright law.⁴⁶ Despite difficulties in identifying the proper status of the anti-circumvention measures, Congress intended to enact the anti-circumvention measures to compliment and support copyright and to facilitate the realization of copyright's purpose in the digital environment.⁴⁷ This provides additional justification for considering § 1201 in the context of copyright law principles.

A. Rationale for the Anti-Circumvention Provisions

Numerous Congressional committees considered, tinkered with and reported on the DMCA.⁴⁸ Although the Conference Report can be considered the most authoritative,⁴⁹ this paper will principally rely on the reports of the Senate Judiciary Committee and the House Commerce Committee as evidence of Congress' intent in enacting the anti-circumvention measures because these Committees were responsible for the first formulations of the U.S. legislative response to the WIPO Internet Treaties and because the key features and overall structure of the provisions were established by these two committees. The legislation was developed in stages by each committee, "each stage . . . retaining what came before and adding new material to it."⁵⁰ Thus each subsequent consideration in large part implicitly accepted the rationales of the previous legislative committees, particularly those of the initial committees of the Senate Judiciary Committee and the House Commerce Committee.

The reports of the Judiciary Committee and the Commerce Committee indicate three main reasons to include the anti-circumvention measures in the DMCA. First, as a signatory to the WIPO Copyright Treaty and WIPO Performers and Phonograms Treaty, the U.S. was required to implement laws consistent with the provisions of these treaties.⁵¹ Second, copyright industries are a significant contributor to the U.S. economy. The Judiciary

46. *But see* Pamela Samuelson, *Towards More Sensible Anti-Circumvention Regulations*, Proceedings of Financial Cryptographers, 2000, at 6 (copy on file with author) (arguing that the anti-circumvention measures and exceptions have been framed by a copyright-centric mindset and may therefore adversely impact other industries which use technical measures).

47. Senate Judiciary Comm., *supra* note 9, at 1.

48. *See generally* David Nimmer, *Appreciating Legislative History The Sweet and Sour Spots of the DMCA's Commentary*, 23 CARDOZO L. REV. 909, 921–23 (2002).

49. *Id.* at 923.

50. *Id.*

51. *But see* Samuelson, *supra* note 3, at 521 (arguing that the DMCA was largely unnecessary because U.S. law complied with all but one minor provision of the WIPO Internet Treaties).

Committee described them as one of the country's "largest and fastest growing assets," achieving foreign sales and exports of \$60.18 billion in 1996.⁵² As such, the WIPO Internet Treaties were important to protect U.S. copyright industries abroad and in the global digital marketplace. Third, protection was necessary in the face of the "unique threat"⁵³ which digital technologies posed. Protection would give copyright owners the reassurance and incentive necessary to make their works available in digital format⁵⁴ and this would, in turn, promote greater availability of creative works in the digital environment.

B. The Three Basic Offense Provisions

Section 1201 contains the following three basic prohibitions:

- (1) ***Act of access circumvention prohibition*** – proscribes the act of circumventing a technical measure which effectively controls access to a protected work.⁵⁵
- (2) ***Trafficking in access circumvention devices or services prohibition*** – proscribes the manufacture, commercial dealing in or making available of a device or service which is primarily designed or produced for, or has no commercially significant purpose other than, the circumvention of a technical measure which effectively controls access to a work, or is marketed for such circumvention.⁵⁶
- (3) ***Trafficking in copy protection circumvention devices or services prohibition*** – proscribes the manufacture, commercial dealing in or making available of a device or service which is primarily designed or produced for, or has no commercially significant purpose other than, the circumvention of a technical measure which effectively protects a right of the copyright owner in relation to a work, or is marketed for such circumvention.⁵⁷

Section 1203 creates a civil cause of action available to any person injured by a violation of § 1201⁵⁸ and § 1204, criminal

52. Senate Judiciary Comm., *supra* note 9, at 10.

53. Commerce Comm., *supra* note 40, at 25.

54. See Senate Judiciary Comm., *supra* note 9, at 7.

55. 17 U.S.C. §1201(a)(1)(A) (2000).

56. *Id.* § 1201(a)(2).

57. *Id.* § 1201(b).

58. *Id.* § 1203.

sanctions where a person violates § 1201 willfully and for commercial advantage.⁵⁹

C. Exceptions to and limitations on the Anti-Circumvention Provisions

The anti-circumvention measures are tempered by several specific statutory exceptions as well as other, more general common law exceptions such as fair use. Although creating the anti-circumvention measures outside of copyright to avoid upsetting copyright's traditional distinction between content and device regulation, the Commerce Committee sought to preserve copyright's balancing act between innovation and access by applying the fair use exception to anti-circumvention measures as well. The Commerce Committee recognized that "marketplace realities" may one day have the effect that the potential of the Internet, being to make informational resources more accessible to "American students, researchers, consumers and the public at large,"⁶⁰ to be obstructed by the very anti-circumvention provisions which sought to promote such access.

Despite the Committees' good intentions, fair use and other exceptions for digital works have not been preserved to the same extent as they exist in the analog world. In particular, users of copyrighted building blocks in developing countries will not be able to avail themselves of these exceptions in the event that § 1201 is directly applied to their activity or national laws are adopted by their local government which substantially replicate § 1201. This is despite the fact that their uses and the types of works most relevant to their situation should be excused from copyright infringement in keeping with copyright law's fundamental purposes, as discussed above in Part II.

1. Specific Exceptions

Section 1201 expressly provides for seven exempted activities which are "deemed to be in the greater public interest."⁶¹ Three of these exemptions particularly relevant to promoting education, research and scholarship⁶² are the exemptions for nonprofit libraries,

59. *Id.* § 1204.

60. Commerce Comm., *supra* note 40, at 35–36.

61. *Id.* at 24.

62. The other exceptions cover law enforcement, intelligence and other government activities (§ 1201(e)); protection of minors (this exemption applies to both the act of access

archives and educational institutions,⁶³ reverse engineering,⁶⁴ and encryption research.⁶⁵ The conduct that comes within these exceptions is very narrow.

The exemption for libraries and nonprofit educational institutions permits the act of access circumvention only for the purpose of determining in good faith whether they wish to purchase a copy of the work and then only in relation to works which are not reasonably available in another form.⁶⁶ This “shopping privilege”⁶⁷ is unnecessary because many works are currently still available in print form. Further, publishers are generally keen to show their works to libraries and educational institutions in order to elicit purchase orders.⁶⁸ Where libraries and nonprofit educational institutions wish to pursue acts of access circumvention, it is unclear what works will be considered “reasonably available.”⁶⁹ For example, is reasonable availability assessed as a factor of distance or cost or reasonableness of the terms of the license granting access?

The reverse engineering exception applies only for the purpose of achieving program-to-program interoperability and to the extent reverse engineering is necessary to do so.⁷⁰ Further, information learned from reverse engineering cannot be shared except for the purpose of enabling program-to-program interoperability.⁷¹ Therefore, reverse engineering for research or educational purposes is unlikely to fall within the exception.⁷² In addition, reverse engineering for program-to-data interoperability does not come within the exception. This makes it a violation of § 1201, for example, to reverse engineer technically protected content, which has been made available to run on a Microsoft windows platform, so that it can run on a Linux platform.⁷³

circumvention prohibition as well as the trafficking in access circumvention prohibition) (§ 1201(h)); protection of personal privacy (§ 1201(i)); and security testing (§ 1201(j)).

63. 17 U.S.C. § 1201(d) (2000).

64. *Id.* § 1201(f).

65. *Id.* § 1201(g).

66. *Id.* § 1201(d).

67. Samuelson, *supra* note 3, at 540.

68. *Id.* at 541.

69. 17 U.S.C. § 1201(d)(2).

70. *Id.* § 1201(f).

71. *Id.*

72. See Pamela Samuelson, *Anticircumvention Rules: Threat to Science*, SCIENCE, September 14, 2001, at 2028–29.

73. *Universal Studios, Inc v. Reimerdes*, 82 F. Supp. 211 (S.D.N.Y. 2000), *aff’d sub nom.* *Universal Studios, Inc v. Corley*, 273 F.3d 429, 443 (2d Cir. 2001).

The encryption research exemption is only available for “good faith encryption,”⁷⁴ where a person attempts to obtain the copyright owners’ permission in advance. Factors which contribute to a finding of good faith include whether the person provided the results of their work to the copyright owner,⁷⁵ whether the person is engaged in a legitimate course of study,⁷⁶ whether the person is employed or is appropriately trained in encryption technology,⁷⁷ and whether the person made the information available to others.⁷⁸ These factors suggest neither amateur encryption research nor encryption research independent of the copyright owner is permitted. These factors also tend to restrict scientific discussion and the exchange of ideas and findings.⁷⁹

All three of the above exemptions excuse only acts of access circumvention but not trafficking in a circumvention device or service necessary for the exempted act. This means that the person engaging in the act of access circumvention must possess the sufficient technical skills to take advantage of the exception. Although persons able to come within the encryption research exception and the reverse engineering exceptions will probably possess such skills, it is unlikely that library employees, educational institution employees, or their users, will possess such skills.

Overall, the specific exceptions are so narrow that their practical utility in preserving fair use activity in a world of digital lock up seems at best limited, at worst non-existent.

2. Fair Use

The House Commerce Committee sought to preserve fair use under § 1201 by two mechanisms. However, neither of these mechanisms guarantees access to digital copyrighted materials as educational or research tools. As discussed below, it is incredibly difficult to obtain fair access under § 1201 to protected information and technology in order to take advantage of traditional fair use exceptions and the specific statutory exceptions under copyright law for educational, research and scholarship activity.

74. 17 U.S.C. §1201(g).

75. *Id.* §1201(g)(3)(C).

76. *Id.* §1201(g)(3)(B).

77. *Id.*

78. *Id.* §1201(g)(3)(A).

79. See Samuelson, *supra* note 72, at 2029.

The first mechanism by which the Committee sought to preserve fair use was a two-year delay upon enforcing anti-circumvention measures, coupled with a triennial review conducted by the Librarian of Congress.⁸⁰ The Librarian of Congress determines the extent to which § 1201 adversely affects a particular user's ability to make noninfringing uses of copyrighted works and declares exemptions to the access circumvention prohibition for three years to address such adverse effects.⁸¹

In the initial rulemaking in 2000, the Librarian of Congress declared only two exemptions: (1) "compilations consisting of lists of websites blocked by filtering software applications," and (2) "literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence."⁸² In the recent second rulemaking, the Librarian granted substantially the same two initial exemptions and found only two additional exemptions: (3) computer programs and video games which can only be accessed in an original format, which is obsolete (and therefore can't be accessed by archives seeking to produce copies for archival purposes); and (4) literary works protected by access controls which prevent read aloud or other means for blind people to access them.⁸³

The limited nature of exemptions granted to date stems from two structural problems with the current rulemaking procedures which preclude effective exemptions from being granted. The Librarian requires exemptions to be phrased in reference to the class of work, rather than the type of use being made of the work or the class of user.⁸⁴ This was criticized by the five major U.S. library associations and the Association of American Universities as allowing no meaningful exemptions because whether a particular use is non-infringing depends on the circumstances of the use and the user, not the category of work.⁸⁵ The Librarian also requires a high standard of evidence to support an exemption—it must be either substantial or

80. 17 U.S.C. § 1201(a)(1).

81. *Id.* § 1201(a)(1)(B), (C).

82. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 65 Fed. Reg. 64556, 64564–66 (Oct. 27, 2000) (to be codified at 37 C.F.R. pt 201).

83. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 68 Fed. Reg. 62011, 62013–14 (Oct. 31, 2003).

84. *See* Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 65 Fed. Reg. at 64559–64.

85. *See* Comments on Rulemaking on Exemptions on Anticircumvention, at <http://www.copyright.gov/1201/2003/comments/index.html> (last visited Apr. 8, 2004).

likely based on a “specific, strong and persuasive” showing.⁸⁶ Such a showing is difficult, if not impossible, to achieve given the highly dispersed, uncoordinated and individualized impact of any adverse effects. Thus, the Librarian’s current approach effectively precludes access circumvention exceptions for educational, research, and scholarship purposes or by classes of users such as students, technicians or academics.

The second mechanism by which the House Commerce Committee sought to preserve fair use was enacted as § 1201(c)(1), which provides that nothing in § 1201 affects the “rights, remedies, limitations, or defenses to copyright infringement, including fair use.”⁸⁷ However, by reason of § 1201’s stand-alone status, fair use—which has relevance only in copyright actions—has no role in relation to the new tort of unauthorized circumvention or trafficking.⁸⁸ Section 1201(c)(1) only has relevance in relation to acts which implicate copyright, such as acts of circumvention of copy controls, acts which occur only after access has been obtained. If access cannot be obtained, then fair uses of copyrighted material are effectively locked up. Thus, it would seem that § 1201(c)(1) has little utility.

Professor Jane Ginsburg argues, however, that the wording of § 1201(c)(1) supports a defense of “fair access” to the tort of access circumvention, which given the right fact pattern, could allow a court to carve out an equitable defense.⁸⁹ Professor Ginsburg’s view has not yet gained resonance with the courts.⁹⁰ The U.S. District Court for the Northern District of California’s current stance on § 1201 is that “[i]t may . . . have become more difficult for such [fair] uses to occur with regard to technologically protected digital works, but the fair uses themselves have not been eliminated or prohibited [by the DMCA].”⁹¹

The existence of a viable fair access defense is also called into doubt by the rule-making procedure under § 1201 (a)(1)(A). Congress apparently intended any difficulties in obtaining access to

86. See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 65 Fed. Reg. at 64558–59.

87. 17 U.S.C. §1201(c)(1).

88. David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 731 (2000).

89. See Ginsburg, *supra* note 45, at 16–17.

90. See, e.g., *Universal Studios, Inc v. Corley*, 273 F.3d 429, 443 (2d Cir. 2001); *United States v. Elcom Ltd.*, 203 F. Supp. 2d 1111, 1120–24 (N.D. Cal. 2002).

91. *Elcom*, 203 F. Supp. 2d at 1131.

technologically protected digital works to be overcome through this mechanism.

Hence, as a practical matter, the extent to which fair use is available to users to access information in a digitally protected world is extremely limited, if it exists at all.

D. Section 1201 Represents a Maximalist Model

Section 1201 was drawn up in accordance with the WIPO Internet Treaties to which the U.S. agreed to as part of multilateral negotiations by WIPO members.⁹²

Requirements to protect technological measures were not included in the main multilateral, international intellectual property treaty annex—the Agreement on Trade Related Aspects of Intellectual Property (“TRIPS”)—which was concluded in 1994.⁹³ The WIPO Internet Treaties, concluded two years after TRIPS, seem designed to take account of technological developments which occurred subsequent the TRIPS negotiations.⁹⁴ The WIPO Internet Treaties require member states to adopt more specific IP protection addressed to issues that arise in the digital environment.⁹⁵

Article 11 of the WIPO Copyright Treaty and Article 18 of the WIPO Performances and Phonograms Treaty (“Articles”) similarly and relevantly provide that member states must:

provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.⁹⁶

In a recent report, WIPO acknowledges the WIPO Internet Treaties provide national governments with significant flexibility in determining the “details of appropriate implementation.”⁹⁷ Section 1201 goes far beyond what is required in three respects.

92. Commerce Comm. *supra* note 40, at 28.

93. See Agreement on Trade-Related Aspects of Intellectual Property Rights, Annex 1C, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, at http://www.wto.org/english/docs_e/legal_e/legal_e.htm#TRIPS (last visited Apr. 28, 2004).

94. See UNITED STATES TRADE REPRESENTATIVE, 2002 SPECIAL 301 REPORT, at 2, at <http://www.ustr.gov/reports/2002/special301-execsumm.PDF> (last visited Apr. 28, 2004).

95. See WCT, *supra* note 4, Preamble; WPPT, *supra* note 4, Preamble.

96. WCT, *supra* note 4, art. 11; WPPT, *supra* note 4, art. 18.

97. World Intellectual Property Organization, *Intellectual Property on the Internet: A Survey of Issues*, at 35 (2002) [hereinafter WIPO REPORT], available at

Firstly, the Articles refer only to measures used in connection with the exercise of their rights.⁹⁸ A right to control access has never been part of a copyright owner's exclusive rights.⁹⁹ By granting copyright owners the right to control access to their works, § 1201 (a)(1)(A), however, effectively grants copyright owners a defacto access right.

Secondly, the Articles expressly refer to acts which are "permitted by law" as a limitation or exception to the legal protection and remedies which member states are required to give technical measures.¹⁰⁰ As the discussion above in Part III(C)(1) and (2) demonstrates, acts otherwise permitted by law, such as statutory library exceptions or fair use, are practically much more difficult, if at all possible, and no "fair access" right has yet been recognized, under § 1201.¹⁰¹ Therefore, many acts permitted by law are not carved out of the § 1201 offense provisions.

Finally, what constitutes "adequate and effective legal remedies"¹⁰² as required by the Articles is open to different interpretations. Section 1201 has adopted a wholesale ban of trafficking in circumvention devices and services and on access circumvention. In addition, both civil and criminal prosecutions are available. These measures do not necessarily constitute adequate legal protection and effective legal remedies, but arguably go beyond what is necessary to satisfy the wordings of the Articles for two reasons. Firstly, as the discussion in Part III(C)(1) demonstrates, a wholesale ban on trafficking and access circumvention precludes effective fair use of digital works.¹⁰³ Secondly, within certain domestic contexts civil sanctions may be sufficiently effective deterrents to and remedies for an anti-circumvention violation.

It appears that the U.S. government was well aware that its proposed measures went beyond what was required under the WIPO Internet Treaties, but that it argued for these broader measures "in part

<http://ecommerce.wipo.int/survey/pdf/survey.pdf> (last visited May 9, 2004).

98. *See id.* at 38.

99. *But see* Ginsburg, *supra* note 45, at 16–17 (arguing that the access right is a "necessary and integral component of copyright law" in the digital environment).

100. *See* WIPO REPORT, *supra* note 97, at 38.

101. *Compare* 17 U.S.C. §1201, *Universal Studios, Inc. v. Corley*, 273 F. 3d 429, 443 (2d Cir. 2001) *and* *United States v. Elcom Ltd.*, 203 F. Supp. 2d 1111, 1120–24 (N.D. Cal. 2002) *with* Ginsburg, *supra* note 45, at 16.

102. WIPO REPORT, *supra* note 97, at 38.

103. *See supra* notes 67–79 and accompanying text.

to set a standard that would help the U.S. persuade other countries to pass similarly strong rules.”¹⁰⁴

IV. THE U.S. SETTING AN INTERNATIONAL BENCHMARK

Section 1201 sets an international benchmark against which attempts by other countries to legally protect technological protection measures can be measured, and certainly will be measured, by the U.S.

As a general rule, U.S. statutes are presumed to not have extraterritorial effect absent an express intent by Congress to the contrary.¹⁰⁵ There is no evidence of such intent by Congress in language of the DMCA. However, § 1201 may transcend national confines either by direct application by U.S. courts to foreign circumvention activities on a case by case basis, or by serving as a model code representative of the level of protection which the U.S. deems appropriate to protect against circumvention devices and services—a model which will carry considerable weight within the international trade arena. As the Office of U.S. Trade Representative (“USTR”) has said, “[i]n the competition for foreign direct investment, these countries [which have implemented the WIPO Internet Treaties] now hold a decided advantage.”¹⁰⁶

Legislative history shows that Congress intended to address the risk of dissimilar laws in other countries by setting § 1201 as an example for other signatories to the WIPO Internet Treaties. The Senate Judiciary Committee, in formulating the initial anti-circumvention measures, acknowledged “[t]he Committee is keenly aware that other countries will use U.S. legislation as a model.”¹⁰⁷ The Senate Judiciary Committee commented that:

The importance of the treaties to the protection of American copyrighted works abroad cannot be overestimated. . . . [T]he Berne Convention and the [WIPO Internet Treaties] set minimum standards of protection. Thus, the promise of the [WIPO Internet Treaties] is that, in an increasing global digital marketplace, *U.S. copyright owners will be able to rely upon strong, non-*

104. Samuelson, *supra* note 3, at 537.

105. See PAUL GOLDSTEIN, INTERNATIONAL COPYRIGHT 65 (Oxford University Press, 2001).

106. UNITED STATES TRADE REPRESENTATIVE, *supra* note 94, at 2.

107. Senate Judiciary Comm., *supra* note 9, at 11.

discriminatory copyright protection in most countries of the world.”¹⁰⁸

Although the WIPO Internet Treaties offer flexibility in interpretation rather than strong protection, Congress here assumes that other signatories to the WIPO Internet Treaties will follow the high level of protection adopted by the U.S. when they enact local laws consistent with their treaty obligations.

Thus, Congress intended § 1201 to set a benchmark for other countries, which have ratified or assented and will ratify or assent the WIPO Internet Treaties.¹⁰⁹ Section 1201 may also serve as an example to countries that have not ratified the WIPO Internet Treaties. The U.S. has clearly established the DMCA’s anti-circumvention measures as a trade issue in its bilateral and regional dealings with all countries. Recent bilateral and regional agreements between the U.S. and countries which did not ratify or assent to the WIPO Internet Treaties independently¹¹⁰ (“non WIPO-signatory countries”), such as Jordan and Singapore, require those countries to adopt protections against circumvention devices and services, and to give meaning to those requirements in a manner which reflect the maximalist wording of § 1201.

Although these subsequent bilateral and multi-lateral agreements could not have been within Congress’ intended scope in 1998 when the DMCA was enacted, § 1201’s intended exemplary role to WIPO signatory countries can be extended to these non-WIPO signatory countries because it clearly stands as a model for the level of protection which the U.S. Congress considers appropriate. More importantly it serves as the standard which U.S. copyright owners consider to be an essential precondition to trade in other countries. By way of example, the International Intellectual Property Alliance, a private sector coalition which represents six significant U.S. copyright industry trade associations, has proclaimed that compliance with the WIPO Internet Treaties by other countries, including the anti-circumvention measures, is necessary for “adequate and effective

108. *Id.* at 10 (emphasis added).

109. The U.S. was relatively quick in ratifying the WIPO Internet Treaties, being the eighth country, out of 39 total current signatories, to ratify or assent to the WIPO Treaties thereby enabling § 1201 to serve as a model for later signatories.

110. See World Intellectual Property Organization, *WIPO Treaties Database, Notifications, WCT*, at <http://www.wipo.int/treaties> (last visited Apr. 12, 2004). Jordan assented to the WIPO Internet Treaties only in January 2004, after having executed the U.S.-Jordan Free Trade Agreement which requires accession. *Id.* As of April 12, 2004, Singapore had not yet assented or ratified the WIPO Internet Treaties. *Id.*

protection”¹¹¹ and considers that the U.S. “should make it a priority to encourage other countries to follow this path [of amending their laws consistent with the WIPO Internet Treaty standards].”¹¹²

Regardless of whether anti-circumvention measures are required of TRIPS signatories as a result of the current or subsequent round of TRIPS negotiations, there is already a global trend, at the behest of the U.S., towards individual adoption by other jurisdictions of maximalist anti-circumvention measures, including those who did not initially ratify the WIPO Internet Treaties.

The danger which arises from the incremental adoption of a U.S.-dictated maximalist global standard is that proper consideration of economic, cultural, and social differences in other countries may be neglected. Proper consideration of these differences may require a lesser standard of legal protection of technological locks. Given global intellectual property standards typically ratchet upwards, the consequences are potentially irreversible.

In the event that other countries do not adopt a high level of protection against circumvention devices and services consistent with the expectation of U.S. copyright owners, U.S. copyright owners may be motivated to seek the direct application of § 1201.

A. Review of Recent Bilateral Treaties and Regional Agreements

The U.S. has been encouraging other countries to adopt legal protections for technological locks in other countries by express requirements in bilateral and regional agreements. The USTR confirmed this strategy by commenting:

The U.S. is committed to a policy of promoting increased intellectual property protection. In this regard we are making progress in advancing the protection of these rights through a variety of mechanisms, including through the negotiation of free trade agreements. As part of the negotiations with Chile and Singapore, as well as in the hemisphere Free Trade Area of the Americas, we are seeking higher levels of intellectual property protection in a number of areas covered by the TRIPS Agreement. These negotiations . . . give us the opportunity to build upon the

111. INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE, RESPONSE TO REQUEST FOR PUBLIC COMMENT ON THE IDENTIFICATION OF COUNTRIES UNDER SECTION 182 OF THE TRADE ACT OF 1974 (AS AMENDED) (“SPECIAL 301”), 66 Fed. Reg. 66429 (Dec. 26, 2001) dated February 15, 2002, at <http://www.iipa.com>.

112. *Id.*

standards in the TRIPS Agreement to reflect the technological changes that have occurred since the late 1980s and early 1990s.¹¹³

Not only does the U.S. appear to be seeking the adoption of WIPO Internet Treaties, including anti-circumvention measures, by countries such as Singapore and Jordan which were not otherwise signatories to the WIPO Internet a Treaties—it appears the U.S. strategy is to ensure that such countries adopt those measures which conform to § 1201's high standards. This strategy appears to have been more successful in bilateral Free Trade Agreements with Jordan, Singapore and Chile, than the multilateral agreements. Several of these agreements are illustrative of this U.S. strategy in each corner of the globe.

1. Agreement between the United States of America and the Hashemite Kingdom of Jordan on the Establishment of a Free Trade Area, signed October 24, 2000 ("U.S.-Jordan FTA")¹¹⁴

The U.S.-Jordan FTA is considered to be economically and politically important to the U.S. interests, serving as an example to the region.¹¹⁵ The USTR states that the agreement "incorporate[s] the most up-to-date international standards for copyright protection."¹¹⁶

The agreement requires, in relevant part, that the parties, at a minimum, give effect to several of the provisions of the WIPO Internet Treaties, including Articles 11 of the Copyright Treaty ("WCT") and Article 18 of the WIPO Performances and Phonograms Treaty ("WPPT"), which set out the anti-circumvention measures.¹¹⁷ In applying the prohibition under Article 11 of the WCT and Article 18 of the WPPT, the parties must provide civil and criminal sanctions on the manufacture and trafficking of any device or service that is designed or marketed for circumventing technological measures, or has only a limited commercially significant purpose or use other than such circumvention.¹¹⁸

113. UNITED STATES TRADE REPRESENTATIVE, *supra* note 94, at 2.

114. Free Trade Agreement, Oct. 24, 2000, U.S.-Jordan [hereinafter U.S.-Jordan FTA], at http://www.jordanusfta.com/free_trade_agreement_text_en.asp (last visited Apr. 16, 2004).

115. See generally United States Trade Representative, *The U.S.-Jordan Free Trade Agreement Fact Sheet*, at <http://www.ustr.gov/releases/2000/10/factsheet.html> (last visited Apr. 16, 2004).

116. *Id.*

117. U.S.-Jordan FTA, *supra* note 114, art. 4(1)(c), (d).

118. *Id.* art. 4(13).

The parties are required to ratify the WIPO Internet Treaties and comply with Article 4(13) within two years of the date of the treaty, December 17, 2001.¹¹⁹ As a practical matter, the U.S.-Jordan FTA imposes burdens only on Jordan since, at the time the U.S.-Jordan FTA was executed, the U.S. had already ratified the WIPO Internet Treaties and adopted § 1201.

There are a few noteworthy features of the U.S.-Jordan FTA and related materials which preclude Jordan from taking advantage of the “significant flexibility”¹²⁰ identified by WIPO in the WIPO Internet Treaties as to the model of anti-circumvention measures Jordan adopts. Firstly, Article 4(13) defines how to comply with the anti-circumvention measure provisions of the WIPO Internet Treaties.¹²¹ The language reflects the wordings of subsections § 1201(a)(1)(A)(2) and § 1201(b) of the U.S. Copyright Act.¹²² As the U.S. had already adopted § 1201 before the U.S.-Jordan FTA was finalized, those provisions of § 1201 had the effect of shaping Jordan’s anti-circumvention measures.

Secondly, Article 4(13) requires both civil and, more importantly, criminal offenses in compliance with the WIPO Internet Treaties Articles 11 and 18 respectively.¹²³ It also contains a wholesale ban on all circumvention devices and services.¹²⁴ These provisions go further than the “adequate legal protection and effective legal remedies”¹²⁵ required by the WIPO Articles.

Finally, although there is no express requirement that the parties proscribe acts of access circumvention, this is not excluded. Moreover, there is no express allowance for exceptions to the anti-circumvention measures. This is despite the fact that the Preamble to the agreement recognizes that Jordan is “still in a state of development and faces special challenges.”¹²⁶ Article 4(16) requires the parties to “confine limitations or exceptions to *exclusive rights* to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holders.”¹²⁷ This provision contemplates only copyright

119. *Id.* art. 4(29)(a).

120. WIPO REPORT, *supra* note 97, at 35.

121. U.S.-Jordan FTA, *supra* note 114, art. 4(13).

122. 17 U.S.C. § 1201(a)(1)(A)(2), (b) (2000).

123. U.S.-Jordan FTA, *supra* note 114, art. 4(13).

124. *Id.*

125. *See* WIPO REPORT, *supra* note 97, at 35.

126. U.S.-Jordan FTA, *supra* note 114, Preamble.

127. *Id.* art. 4(16) (emphasis added).

exceptions, rather than any fair access exceptions, because it refers to exclusive rights which do not include an express right of access. “Fair access” to copyrighted materials for educational, research and scholarly purposes in Jordan in the wake of its compliance with the U.S.-Jordan FTA is therefore not guaranteed.

2. U.S.-Singapore Free Trade Agreement, signed May 6, 2003 (“U.S.- Singapore FTA”)

The U.S.-Singapore FTA, like the U.S.-Jordan FTA, is significant for its strong anti-circumvention measures. But the U.S.-Singapore FTA mirrors the language of § 1201 more closely than the Jordan FTA, particularly in regard to specific exceptions to the anti-circumvention measures.¹²⁸

Similar to the U.S.-Jordan FTA, the U.S.-Singapore FTA requires the parties to ratify the WIPO Internet Treaties.¹²⁹ Article 16.4(7) requires the parties to enact specific offense provisions “[i]n order to provide adequate legal protection and effective legal remedies against the circumvention of effective technological protection measures”¹³⁰ used “in connection with the exercise of their rights and that restrict unauthorized acts in respect of their [copyrighted] works.”¹³¹ Note that this requirement is more expansive and protects measures used *in connection* with copyright, not just those that protect copyright’s exclusive rights. Specifically, the U.S.-Singapore FTA makes it an offense to knowingly circumvent a technological measures which controls access to a work,¹³² or to manufacture or commercially deal in devices or services which are marketed for the purpose of circumvention of a technological measure, have only limited commercially significant purpose other than the circumvention of a technological measure, or are primarily designed or made for the purpose of circumventing a technological measure.¹³³

Both parties must make civil and criminal remedies available. Similar to § 1203, criminal liability arises where a person willfully

128. For a copy of the final text of the FTA, see Free Trade Agreement, May 6, 2003, U.S.-Singapore, [hereinafter U.S.-Singapore FTA], at <http://www.ustr.gov/new/fta/Singapore/final.htm> (last visited Apr. 29, 2004).

129. *Id.* art. 16.1(2)(a)(iii), (iv).

130. *Id.* art. 16.4(7).

131. *Id.*

132. *Id.* art. 16.4(7)(a)(i).

133. *Id.* art. 16.4(7)(a)(ii).

engages in the proscribed activity for commercial advantage.¹³⁴ In addition, the agreement defines a technological measure as any measure which controls access or protects a copyright or related rights.¹³⁵

Not only are these offense and remedy provisions close to verbatim repetition of offense and remedy provisions of §1201, the permitted exceptions in the treaty nearly mirror the exceptions under § 1201. For example, parties may make exceptions to circumvention liability for reverse engineering,¹³⁶ good faith encryption research,¹³⁷ and for nonprofit libraries and educational institutions for the “sole purpose of making acquisition decisions.”¹³⁸ The U.S.-Singapore FTA also limits the application of these exceptions to circumstances which are very similar to those provided in § 1201.

The U.S.-Singapore FTA therefore places a clear obligation on Singapore to adopt the maximalist model for anti-circumvention measures set out in § 1201 in implementing the WIPO Internet Treaties. By adopting the U.S.-Singapore FTA, Singapore is not in a position to take advantage of the flexibility WIPO intended to make available for local adoptions of anti-circumvention measures, even if a lesser standard of protection were more suited to Singapore’s current economic and cultural development.

3. U.S.-Chile Free Trade Agreement, signed June 6, 2003 (“U.S.-Chile FTA”)

The terms of the U.S.-Chile FTA are substantially similar to those of the U.S.-Singapore FTA. It provides for both civil and criminal penalties for the act of access circumvention and for trafficking in access and copy protection circumvention devices.¹³⁹ The exceptions and limitations on these offenses also reflect closely the wording of § 1201 and permit the parties to excuse good faith reverse engineering,¹⁴⁰ good faith encryption research,¹⁴¹ as well as

134. U.S.-Singapore FTA, *supra* note 128, art. 16.4(7).

135. *Id.* art. 16.4(7)(b).

136. *Id.* art. 16.4(7)(e)(i).

137. *Id.* art. 16.4(7)(e)(ii).

138. *Id.* art. 16.4(7)(f)(i).

139. Free Trade Agreement, June 6, 2003, U.S.-Chile, [hereinafter U.S.-Chile FTA], art 17.7(5), at <http://www.ustr.gov/new/fta/Chile/final/index.htm> (last visited Apr. 29, 2004).

140. *Id.* art. 17.7(5)(d)(ii).

141. *Id.* art. 17.7(5)(d)(iii).

providing a shopping privilege for nonprofit libraries, archive and educational institutions.¹⁴²

There are only two primary differences between the U.S.-Singapore FTA and the U.S.-Chile FTA in relation to intellectual property rights. Firstly, the U.S.-Chile FTA does not include an express obligation on the parties to adhere to the WIPO Internet Treaties. This is because Chile is already a signatory to the WIPO Internet Treaties.¹⁴³ The U.S.-Chile FTA, however, effectively forecloses Chile's ability to customize economically and socially suitable anti-circumvention provisions pursuant to its WIPO Internet Treaty obligations. Secondly, the U.S.-Chile FTA includes an additional permitted exception to the anti-circumvention measures.¹⁴⁴ Under Article 17.7(5)(d)(i) the parties may fashion an exception for a period of not more than three years upon the conclusion of a legislative or administrative proceeding that recognizes an "actual or likely adverse effect on noninfringing uses with respect to a particular class of works or exceptions or limitations to copyright or related rights with respect to a class of users."¹⁴⁵ This additional exception is reminiscent of the § 1201(a)(A)(1) rulemaking proceedings by which the Librarian of Congress (discussed above at Part III(C)(2)) may grant three-year exceptions to the prohibition on acts of access circumvention.¹⁴⁶

On the one hand, this similarity suggests again that the U.S. seeks to establish its maximalist interpretation of the WIPO Internet Treaties as the benchmark, with FTA partners able only to negotiate for the same as or less than the exceptions permitted by § 1201. On the other hand, the U.S.-Chile FTA permits slightly broader exceptions to be made under its auspices than the § 1201(a)(A)(1) rulemaking. It permits exceptions to be framed with reference to a class of users¹⁴⁷ and thereby enables more effective exceptions to be declared. However, against the steady U.S. trend of seeking to spread the adoption of maximalist anti-circumvention measures across the globe, this small discrepancy with § 1201 can either be viewed as an oversight or as minor concessions granted because of their likely

142. *Id.* art. 17.7(5)(d)(viii).

143. *See* World Intellectual Property Organization, *supra* note 110.

144. U.S.-Chile FTA, *supra* note 139, art 17.7(5)(d)(i).

145. *Id.*

146. 17 U.S.C. § 1201(a)(1)(C) (2000).

147. *See* Comments on Rulemaking on Exemptions on Anticircumvention, *supra* note 85, and accompanying text for discussion of the impact of defining the exception by reference to "class of work" rather than "class of user."

minimal impact. Not only does a legislative or administrative body have to be convinced of adverse effects, but any exceptions declared will be limited in application by their terms to relieve the particular effect identified for the reasons in Part III(C)(2) above.

The U.S.-Chile FTA is intended to serve as a model for trade agreements with other countries in the Western Hemisphere region. The USTR expected the U.S.-Chile FTA would "encourage progress on negotiations of the Free Trade Area of the Americas . . . as well as the ongoing global trade negotiations."¹⁴⁸ This is particularly interesting given the current draft of the Free Trade Area of the Americas agreement includes proposals for a less than maximalist anti-circumvention measures.

4. Negotiations of the Free Trade Area of the Americas Agreement

The negotiations of the Free Trade Area of the Americas Agreement ("FTAA") have so far produced a third draft of the agreement dated November 21, 2003.¹⁴⁹ The FTAA represents the most interesting example so far of a "sufficiently flexible"¹⁵⁰ model for implementing anti-circumvention measures under the WIPO Internet Treaties. Many of the South and Central American countries which are party to the FTAA negotiations were among the first thirty countries to ratify the WIPO Internet Treaties, such as Colombia, Argentina, Chile, Guatemala and Peru.¹⁵¹ Most parties to the FTAA are already required to comply with the WIPO Internet Treaties. The current draft of the FTAA therefore shows an alternative to § 1201 to meet the anti-circumvention obligations of the WIPO Internet treaties, models which appear more conducive to the interests of developing countries.

The third draft of the FTAA contains various proposed clauses for anti-circumvention measures, with suggested alternate clauses included side-by-side in parentheses. These alternate clauses demonstrate a clear tension between adoption of a minimalist model, similar to the WIPO Internet treaties, and the U.S. maximalist model. For example, one proposal is that parties must give effect to specific

148. Press Release, United States Trade Representative, U.S. and Chile Conclude Historic Free Trade Agreement (Dec. 11, 2002), at <http://www.ustr.gov/releases/2002/12/02-114.htm> (last visited Apr. 15, 2004).

149. Free Trade of the Americas (FTAA), *Third Draft FTAA Agreement*, Nov. 21, 2003, at http://www.ftaa-alca.org/FTAADraft03/Index_e.asp (last visited Apr. 12, 2004).

150. See WIPO REPORT, *supra* note 97, at 35.

151. See World Intellectual Property Organization, *supra* note 110.

provisions of the WIPO Internet Treaties, including those dealings with anti-circumvention measures “[f]or the purpose of [granting] [ensuring] adequate and effective protection and enforcement of the intellectual rights and obligations referred to in this Chapter [on Intellectual Property Rights].”¹⁵² And also that the parties provide “adequate legal protection and effective legal remedies” against the circumvention of technological measures used in connection with the exercise of their copyrights and that restrict acts which are not authorized by or permitted by law.¹⁵³ This wording closely follows the more flexible model set out in the WIPO Internet Treaties.

Alternately, it is proposed that “[i]n order to provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures”, make it an offense to: (1) knowingly circumvent an effective technological measure, (2) manufacture or traffic in devices or services which are primarily designed to, or have only limited commercially significant purpose other than, or are marketed for the purpose of, circumvention of an effective technological measure, and (3) further provide that these violations are independent of any infringement which may occur under copyright laws.¹⁵⁴ This proposal is more reflective of the U.S. maximalist model.

Interestingly, the enforcement measures proposed require a party to provide “adequate legal protection and effective legal remedies” against specified acts, including the circumvention of a copy protection or commercial dealing with works, from which technological protections have been removed.¹⁵⁵ But another proposed measure states that no party is obliged to render such proscribed acts criminal offenses “if the civil remedies available are sufficient and adequate.”¹⁵⁶ These proposals represent a lower level of enforcement than under the criminal offense provisions of § 1204¹⁵⁷ or under the bilateral agreements entered into by the U.S. with Jordan, Singapore and Chile. This suggests that such strong penalties may not be wholly consistent with the interests of developing countries.

The tension between maximalist and minimalist anti-circumvention measures exists due to largely divergent interests

152. FTAA, *supra* note 149, Chapter XX Intellectual Property Rights, section A, proposed art. 5.3 (second and third alterations in original; first and second alternations added).

153. *Id.* section B.2.c, proposed art. 22.1

154. *Id.*

155. *Id.* section B.3, proposed art. 6.1.

156. *Id.* section B.3, proposed art. 6.2.

157. 17 U.S.C. §1204 (2000).

between net exporters of IP, such as the U.S., and net IP importer developing and transition countries. Other draft provisions of the FTAA relating to intellectual property, as well as the FTAA-Joint Government-Private Sector Committee of Government Representatives on Electronic Commerce¹⁵⁸ ("FTAA E-commerce Report") suggest that the role of intellectual property protections in the context of development and social welfare has been recognized as an issue within the FTAA negotiations.

The FTAA E-commerce Report highlights the existence of a digital divide within and between members of FTAA countries and identifies the following specific issues as relevant to closing the digital divide: training and development of abilities, development of content, encouragement of research and development, local production of technology and broader use of information technology and the Internet in schools.¹⁵⁹ The recommendations of FTAA E-commerce Report to "convert the digital divide into digital opportunities"¹⁶⁰ are framed broadly and included activities designed to "encourage the use of information technologies and e-commerce"¹⁶¹ and "advance the use of information technologies to meet social needs, such as education and medical care."¹⁶² These recommendations could support a more minimalist adoption of anti-circumvention measures.

Other of the proposed draft provisions of the Chapter on Intellectual Property Rights are designed to temper the intellectual property rights obligations in the FTAA, which include anti-circumvention measures, and to facilitate access to information and technology goods for social welfare and education purposes. Below are illustrative draft provisions:

- (1) Parties may adopt measures to protect public health and which takes into account each party's right to protect public health and to promote access to existing medicines and to the research and development of new medicines.¹⁶³

158. FTAA, *FTAA-Joint Government-Private Sector Committee of Government Representatives on Electronic Commerce, Third Report with Recommendations*, Nov. 1, 2002, at http://www.ftaa-alca.org/SPCOMM/ecom5_e.asp (last visited Apr. 15, 2004).

159. *Id.*

160. *Id.*

161. *Id.*

162. *Id.*

163. FTAA, *supra* note 152, section A, proposed art. 1.4.

- (2) Parties may, in formulating or amending their laws, adopt measures necessary to protect public health and nutrition or promote public interest in sectors of vital importance to their socioeconomic and technological development.¹⁶⁴
- (3) Parties may include rules which prohibit contractual conditions which limit the effective transfer of technology.¹⁶⁵
- (4) Parties may make appropriate measures to protect public health and nutrition, socioeconomic and technological development of sectors of vital importance and prevent abusive exercise of IPR by rightsholders or practices which unreasonably limit trade or adversely affect the transfer of technology. In so doing, a party may take into consideration the social purposes of intellectual property.¹⁶⁶

Although none of these proposed articles or the Recommendations of the FTAA E-commerce Report provide a concrete strategy to address the issues of anti-circumvention measures and bridging the digital divide, it seems that the issue of more flexible implementation of the WIPO Internet Treaties' anti-circumvention obligations is at least on the FTAA table and their ultimate resolution in this forum may prove instructive for other developing countries.¹⁶⁷

B. Direct Enforcement of § 1201 on Foreign Circumvention Activity

In the event that the FTAA or any other country which has executed a bilateral treaty with the U.S. fails to implement the high standard of protection for anti-circumvention measures set out in § 1201, U.S. copyright owners will likely seek to assert § 1201 directly to foreign circumvention activity. Current trends may cause U.S. companies to intensify their pursuit of claims in U.S. courts against foreign nationals under § 1201. The continuing trend of foreign nationals breaking digital locks devised by U.S. copyright owners,¹⁶⁸

164. *Id.* section A, proposed art. 3.1.

165. *Id.* section B.1, proposed art. 4.4.

166. *Id.* section A, proposed art. 3.1, 3.2; section B.1, proposed art. 5.2.

167. Negotiations are set to conclude by January 2005, with the agreement intended to enter into force no later than December 2005.

168. A recent example of such foreign circumvention activity is the recent posting by UK programmer Dan Jackson of Convert Lit, a program which apparently removes copy protection from Microsoft Reader format files, to his website. See John Leyden, *Hackers Take on MS* on

coupled with the perceived lack of adequate prosecution of such nationals possible under local laws,¹⁶⁹ may prompt U.S. copyright owners to bring suit in a U.S. court under § 1201. They may also attempt to argue in a foreign court that § 1201 applies to the alleged foreign circumvention activity. While this is currently unlikely, it should not be completely discounted.

In order to apply § 1201 directly to foreign circumvention activity, a U.S. court must properly assert jurisdiction and determine § 1201 is applicable law. Alternately, but less feasibly, a foreign court could claim jurisdiction and determine § 1201 is applicable law in relation to that activity. Recent U.S. judicial decisions have considered the ability of a court to exercise jurisdiction in respect to proscribed circumvention activity occurring outside U.S. borders¹⁷⁰

1. Subject matter jurisdiction in anti-circumvention cases

The subject matter jurisdiction of a U.S. federal court over foreign nationals who had engaged in foreign circumvention activity was challenged in *United States v. Elcomsoft*.¹⁷¹ This case was brought in Northern California and involved the criminal prosecution for violation of the access circumvention trafficking and copy protection circumvention trafficking prohibitions against a Russian programmer named Dmitry Sklyarov and his Moscow based employer, Elcomsoft, who produced a program known as Advanced eBook Processor ("AEBPR").¹⁷²

The AEBPR program removed access restrictions from files Adobe Acrobat reader format.¹⁷³ Adobe, a Californian company, had

Copyright Protection for eBooks, THE REGISTER, Jan. 6, 2003, at <http://theregister.co.uk/content/4/28736.html> (last visited May 9, 2004).

169. An example is the recent acquittal of Jon Johansen, who cracked the DVD code and posted it on the Internet, by a Norwegian court. See Timothy O'Brien, *Norwegian Hacker, 19, Is Acquitted in DVD Piracy Case*, N.Y. TIMES, Jan. 8, 2003, at C4, available at <http://www.nytimes.com/2003/01/08/technology>. The action, apparently brought under computer theft crime was not successful, although this decision has been appealed. See Associated Press, *'DVD Jon' Acquittal Under Appeal*, WIRED NEWS, Jan. 20, 2002, available at <http://www.wired.com/news/digiwood/0,1412,57301,00.html> (last visited Jan. 23, 2003).

170. See, e.g., *United States v. Elcom Ltd.*, 203 F. Supp. 2d 1111 (N.D. Cal. 2002); *Pavlovich v. Superior Court*, 29 Cal. 4th 262 (Cal. 2002).

171. 203 F. Supp. 2d 1111 (N.D. Cal. 2002) ("*Elcomsoft*").

172. Declan MacCullagh, *Russian Adobe Hacker Busted*, WIRED NEWS, July 17, 2001, available at <http://www.wired.com/news/politics/0,1283,45298,00.html> (last visited May 9, 2004); Michelle Delio & Brad King, *Sklyarov, Boss Plead Not Guilty*, WIRED NEWS, Aug. 30, 2001 available at <http://www.wired.com/news/politics/0,1283,46396,00.html> (last visited Apr. 13, 2004).

173. *Elcomsoft*, 203 F. Supp. 2d at 1118.

developed its Acrobat reader program so that publishers could set limitations on the use which consumers could make of Adobe formatted eBooks.¹⁷⁴ Using AEBPR to remove those restrictions, an eBook purchaser could copy, print and electronically redistribute the content, either for fair use or infringing purposes.¹⁷⁵ The program was developed in Russia and then sold over the Internet. During trial, there was evidence that this conduct did not violate any Russian laws.¹⁷⁶

Sklyarov was arrested by the FBI while attending a DefCon Hacker Conference in Las Vegas,¹⁷⁷ and later, charges were brought against his employer, Elcomsoft.¹⁷⁸ The U.S. court successfully asserted personal jurisdiction over the defendants because of Sklyarov's physical presence in the U.S. Defendants responded by mounting a challenge on subject matter jurisdiction.¹⁷⁹

Elcomsoft argued that its activities were conducted only in Russia or in cyberspace.¹⁸⁰ The AEBPR program was developed in Russia, uploaded from Russia and sold over the Internet, without regard to the location of the purchasers.¹⁸¹ Consequently, Elcomsoft contended that it did not intend to violate U.S. law, nor did it direct its conduct towards the U.S.

The U.S. District Court for the Northern District of California denied defendant's motion to dismiss for lack of subject matter jurisdiction on the basis that the anti-trafficking conduct complained of had occurred in the U.S.¹⁸² The court relied on three facts to find territorial jurisdiction: (1) the server from which Elcomsoft had

174. *Id.*

175. *Id.* at 1118–19.

176. Matt Richtel, *Russian Company Cleared of Illegal Sales*, N.Y. TIMES, Dec. 18, 2002, at C4, available at www.nytimes.com/2002/12/18/technology/18DIGI.html (last visited Jan. 6, 2003).

177. MacCullagh, *supra* note 172.

178. Charges against Sklyarov were ultimately dropped. Michelle Delio, *Russian Hacker Charges Dropped*, WIRED NEWS, Dec. 13, 2001, available at <http://www.wired.com/news/politics/0,1283,49122,00.html> (last visited May 9, 2004).

179. See Defendant's Notice of Motion and Motion to Dismiss Indictment for Lack of Jurisdiction, CR 01-20138 RMW, January 14, 2001, available at http://www.eff.org/IP/DMCA/US_v_ElcomSoft/20020114_elcom_dismiss_juris_motion.html (last visited May 9, 2004).

180. *Id.* at 14.

181. *Id.*

182. See Order Denying Defendant's Motion to Dismiss Indictment for Lack of Subject Matter Jurisdiction, in *U.S. v. Elcomsoft*, Mar. 27, 2002, available at http://www.eff.org/IP/DMCA/US_v_Elcomsoft/20020327_dismiss_deny_order.html (last visited May 9, 2004).

offered its program for sale was based in the U.S., (2) the program had been purchased by U.S. consumers, including a purchaser in California, and (3) payments were directed to and received by a U.S. entity. These factors are unlikely to be present in many instances of foreign circumvention activity which is for the developing country purposes of education, research and scholarship where the provider of the program is not based in and receiving payments in the U.S. or where the program is made available for free. However, the Elcomsoft case shows that it is possible for foreign circumvention activity to be tried in U.S. courts, particularly where infrastructure supporting that activity is based in the U.S.

Ultimately, a jury acquitted Elcomsoft and Sklyarov, finding their actions did not amount to a *knowing* violation of § 1201.¹⁸³ Despite the legal finding of jurisdiction, it appears that the jury found the link between conduct by Russians in Russia and § 1201 too tenuous to warrant criminal liability.¹⁸⁴

2. Personal jurisdiction in relation to circumvention activity

The Elcomsoft case is unusual because the peculiar facts meant that personal jurisdiction was not in dispute. Where an individual in a foreign developing country circumvents a U.S. copyrighted work's technological protection or makes it available to others, it will be rare that he or she then travels to the U.S., for example, as an invited speaker at a DefCon Hacker Conference, as was Sklyarov. Lack of personal jurisdiction will likely bar any attempts by a plaintiff to obtain redress under § 1201 in U.S. courts from circumvention activities in foreign developing countries.

Personal jurisdiction will be found either where there is general jurisdiction or specific jurisdiction. The factors which are considered by a U.S. court in assessing whether personal jurisdiction is present are applied consistently, regardless of whether the person is a foreign national or not.¹⁸⁵ General jurisdiction will be found where a person

183. Given Elcomsoft was being prosecuted criminally under §1204, evidence of willful and therefore, knowing violation of the law was necessary to sustain a conviction.

184. See Lisa M. Bowman, *Elcomsoft Verdict: Not Guilty*, Dec. 17, 2002 available at <http://news.com.com/2100-1023-978176.html> (last visited Apr. 12, 2004) ("Jury foreman Dennis Strader said the jurors agreed ElcomSoft's product was illegal but acquitted the company because they believed the company didn't mean to violate the law.").

185. See, e.g., *Zippo Mfg Co. v. Zippo Dot Com, Inc.*, 952 F. Supp. 1119 (W.D. Pa. 1997); *Panavision Int'l, L.P. v. Toeppen*, 141 F.3d 1316 (9th Cir. 1998); *Yahoo! Inc. v. La Ligue Contre Le Racisme Et, L'Antisemitisme*, 145 F. Supp. 2d 1168 (N.D. Cal. 2001).

has substantial or continuous and systematic contacts with the forum.¹⁸⁶ Such contacts are less likely to be found in the case of circumvention activity occurring wholly outside of the U.S. Specific jurisdiction will be exercised if three conditions are satisfied: (1) the defendant purposefully availed himself or herself of the jurisdiction, (2) the claim arises out of the defendants' forum-related activities, and (3) the exercise of jurisdiction is reasonable.¹⁸⁷ Standards for purposeful availment and reasonableness of jurisdiction are particularly relevant in cases involving foreign nationals.

What constitutes purposeful availment in relation to circumvention activity proscribed under § 1201 was recently considered by the Supreme Court of California.¹⁸⁸ Although *Pavlovich* does not directly consider § 1201 because the suit was brought as a trade secrets misappropriation action, the case is relevant to discussion about the jurisdictional reach of § 1201 because it is factually similar to *Corley v. Universal City Studios*,¹⁸⁹ where posting a circumvention code on a website was held to violate § 1201 (a)(2)(A), which prohibits trafficking in access circumvention.¹⁹⁰

In *Pavlovich*, the DVD Copy Control Association ("DVDCCA") filed a complaint against Matthew Pavlovich alleging he misappropriated trade secrets by maintaining a website to which DeCSS was posted.¹⁹¹ The website was maintained as part of a university project which provided information to improve video and DVD support for Linux.¹⁹² The DVDCCA is a nonprofit trade association, incorporated in Delaware, which controls and administers the licensing of Content Scrambling System ("CSS"), and has its principal place of business in California.¹⁹³

CSS encrypts and protects copyrighted motion pictures on DVDs.¹⁹⁴ In doing so, CSS prevents playback of the DVD on any

186. *Zippo*, 952 F. Supp. 1122–23; *Panavision*, 141 F.3d at 1320; *Yahoo*, 145 F. Supp. 2d at 1173.

187. *Zippo*, 952 F. Supp. 1122–23; *Panavision*, 141 F.3d at 1320; *Yahoo*, 145 F. Supp. 2d at 1173.

188. See *Pavlovich v. Superior Court* (DVD Copy Control Association as real party in interest), 29 Cal. 4th 262 (Cal. 2002) (reviewing the application of the minimum contacts doctrine).

189. 273 F.3d 429 (2d Cir. 2001).

190. 17 U.S.C. §1201(a)(2)(A) (2000).

191. *Pavlovich*, 29 Cal. 4th at 267.

192. *Id.*

193. *Id.* at 266.

194. For a discussion of the history and technology of DVDs and CSS, see *Corley*, 273 F.3d at 436–37.

machine other than an authorized DVD player.¹⁹⁵ In turn, an authorized DVD player permits only the playback and not any copying or further distribution of the DVD's contents.¹⁹⁶ DeCSS circumvented the CSS technology by decrypting data contained on DVDs so that it could be played back on any storage device, including a computer running Linux.¹⁹⁷ Once decrypted, the DVD's contents could then be copied and further distributed, including over the Internet.

Pavlovich challenged a California court's personal jurisdiction over him.¹⁹⁸ Pavlovich is a Texan resident with no connections to California.¹⁹⁹ All his allegedly infringing activity occurred in the state of Indiana.²⁰⁰ DVDCCA argued jurisdiction was proper because Pavlovich had misappropriated trade secrets knowing that this would adversely impact "a substantial array of California business enterprises – including the motion picture industry, the consumer electronics industry, and the computer industry."²⁰¹ DVDCCA contended that posting code to a website which a person knows will harm a licensing entity as well as the motion picture, consumer electronics, and computer industries, which are generally known to be based in California, is sufficient evidence of purposeful availment.

The California Supreme Court rejected DVDCCA's contentions,²⁰² which the court said would allow a U.S. court to improperly assert jurisdiction in the following situations:

[A]ny creator or purveyor of technology that enables the copying of movies or computer software – including a student in Australia who develops a program for creating backup copies of software and distributes it to some of his classmates or a store owner in Africa who sells a device that makes digital copies of movies on videotape – would be subject to suit in California because they should have known that their conduct may harm the motion picture or computer industries in California. . . . Because finding jurisdiction under the facts in this case would effectively subject all intentionally tortfeasors whose conduct may harm California to

195. *Id.*

196. *Id.*

197. For a discussion of the history and technology of DeCSS, see *Corley*, 273 F. 3d 437–40.

198. *Pavlovich*, 29 Cal. 4th at 267.

199. *Id.* at 266, 273–74.

200. *Id.* at 266.

201. *Id.* at 267.

202. *See id.* at 276–78.

jurisdiction in California, we decline to do so.²⁰³

Here, the court specifically cited instances of foreign circumvention activity which may have positive local social benefits within that foreign jurisdiction, and refused to apply a low standard of the ‘effects test’ based on what out-of-staters or foreign nationals should know about U.S. industries, companies and law.

In any event, the court held that the evidence did not satisfy the higher standard “effects test.” Pavlovich had not *expressly aimed or intentionally targeted California*.²⁰⁴ Pavlovich could not be said to have expressly aimed his conduct at California merely because he was aware that a licensing entity controlled the CSS technology.

In discussing the level of knowledge relevant to the higher standard of the “effects test,” the court held that mere foreseeability that third parties may use DeCSS to harm motion picture industries located in California does not show purposeful availment.²⁰⁵ According to the court, the record showed only that Pavlovich “should have guessed that many licensees of the CSS technology resided in California because there are many consumer electronic and computer companies in California.”²⁰⁶ The court considered the DCAA’s argument – that this alone constituted a sufficient basis to assert jurisdiction – to be too attenuated and refused to assert jurisdiction on this argument that based on mere foreseeability of possible harm to an industry located in California.²⁰⁷

Nevertheless, the court emphasized the narrowness of its decision, holding only that knowledge alone is insufficient to demonstrate “expressly aiming” as required by the effects test.²⁰⁸ The court indicated, however, that evidence of knowledge that conduct would harm industries located in California is “undoubtedly relevant” and may support a finding of jurisdiction, presumably together with other facts which give rise to reasonable basis for the assertion of jurisdiction.²⁰⁹

203. *Id.* at 278 (footnote omitted).

204. *Pavlovich*, 29 Cal. 4th at 271.

205. *Id.* at 276–77.

206. *Id.* at 277.

207. *Id.* at 276–77.

208. *Id.* at 278.

209. *Id.* The U.S. Supreme Court initially stayed the effect of the Californian Supreme Court judgment. Declan McCullagh, *Supreme Court Enters DVD-copying case*, CNET NEWS.COM, at <http://news.com.com/2102-1023-978985.html> (last visited Apr. 9, 2004). However, the Supreme Court withdrew the stay a short while later, without commenting on the merits of the case, after submissions were filed later. DVDCCA said they were concerned that

Dissenting Judge Baxter accepted DVDCCA's arguments and held that "[b]y acting with broad intent to harm industries [Pavlovich] knew were centered or substantially present in this state, [Pavlovich] forged sufficient 'minimum contacts' with California 'that he should reasonable anticipate being haled into court [here].'"²¹⁰ In reaching this conclusion, Judge Baxter considered the efficient administration of justice to favor finding jurisdiction of a California court. Where, as here, plaintiffs are seeking relief against a large number of persons who are geographically dispersed, and the defendant's due process rights were not compromised, Judge Baxter considered a suit against all defendants in a single forum such as California which has a substantial interest in the subject matter given the location of the affected industries, would provide a more efficient resolution than a multiplicity of suits in each of the defendant's individual forums.²¹¹

The *Pavlovich* case clearly sets out the competing arguments as to whether § 1201 can be applied to foreign nationals in respect to foreign circumvention activity. The low standard proposed by the DVDCCA and accepted by Judge Baxter would create a situation where any foreign nationals engaging in acts of circumvention and trafficking in circumvention tools could potentially fall under the personal jurisdiction of the courts of California and, thereby, potentially subject to § 1201.

The U.S. justiciability of foreign circumvention activity will ultimately depend on the specific facts of the case. Circumvention activity in developing countries is more likely to come under U.S. jurisdiction where some or all the conduct occurs via the Internet, rather than just within the physical, geographic confines of the non-U.S. country, and where the purported infringing activity is something more than just passively making the circumvention tool available to the world. Additional factors would need to be present, such as a demonstrable awareness that U.S. companies or particular industries will be harmed, derivation of some benefit such as revenues from U.S. citizens, actively targeting U.S. based users either by posting to a website targeting them, or using a host server located in the U.S.

Pavlovich would repost the code but Pavlovich's attorney that the defendant did not intend to repost and that the code was widely available at other websites in any event. See Declan McCullagh, *Supreme Court Backs Off DVD case*, CNET NEWS.COM, at <http://news.com.com/2102-1023-979197.html> (last visited Apr. 9, 2004). Supreme Court guidance on the issue of jurisdiction based on the "effects doctrine" in these circumstances would be welcome and may be forthcoming, although perhaps in another case.

210. *Pavlovich*, 29 Cal. 4th at 279 (citations omitted).

211. *Id.* at 280.

These last two factors may be relatively easy to show given approximately 37% of the world's Internet users are based in North America²¹² and roughly 60% of hosts are based in the U.S.²¹³

If circumvention tools are not publicly posted to the Internet but exchanged, for example, via email not using U.S. servers or the provision of physical discs, for no fee, or if they are simply made available, without more, or made available with a clear purpose to be used within a foreign jurisdiction, it will be more difficult for a U.S. court or copyright owner to claim personal jurisdiction over the provider of the tool.

3. Reasonableness of asserting jurisdiction

Even if a U.S. court finds that it has subject matter jurisdiction and that the foreign circumvention activity constitutes purposeful availment by those foreign defendants of U.S. jurisdiction, the court still must consider whether the exercise of its jurisdiction is reasonable, and comports with fair play and substantial justice.²¹⁴

On the issue of the reasonableness of jurisdiction, the burden is on the defendants to show a compelling case of unreasonableness.²¹⁵ Courts consider a variety of factors including, importantly, the extent of any conflict with the sovereignty of the defendant's home state.²¹⁶ It is here that principles of comity factor into the balancing. However, other factors such as the interest of U.S. courts in adjudicating the dispute and the plaintiff's interest in convenient and effective relief could easily weigh against the principle of comity, and in favor of the exercise of U.S. jurisdiction, as is evident from Judge Baxter's dissenting opinion.

Resolution of the reasonableness of jurisdiction will similarly depend on the circumstances and, ultimately requires a policy based assessment of the equities, having regard to those circumstances.

Based on the cases discussed above, it seems unlikely that circumvention activity occurring in developing countries run a high risk of being subject to the U.S. jurisdiction.

212. WIPO REPORT, *supra* note 97, at 8.

213. *Reno v. ACLU*, 521 U.S. 844, 849–51 (1997).

214. *See, e.g., Zippo Mfg. Co. v. Zippo Dot Com, Inc.*, 952 F. Supp. 1119, 1123 (W.D. Pa. 1997); *Panavision Int'l, L.P. v. Toeppen*, 141 F.3d 1316, 1322 (9th Cir. 1998); *Yahoo! Inc. v. La Ligue Contre Le Racisme Et, L'Antisemitisme*, 145 F. Supp. 2d 1168, 1172–73 (N.D. Cal. 2001).

215. *Panavision*, 141 F.3d at 1322; *compare with Yahoo*, 145 F. Supp. 2d at 1173.

216. *See, e.g., Panavision*, 141 F.3d at 1323; *Yahoo*, 145 F. Supp. 2d at 1177.

4. Determining the applicable law

Once the issue of jurisdiction has been resolved, applicable law must still be determined. Regardless of whether a U.S. court or a foreign court asserts jurisdiction, that court must then assess whether § 1201 applies to the foreign circumvention activity in question. This paper will consider copyright law's methods of identifying the applicable law when dealing with issues of multi-jurisdictional conduct because § 1201 lacks its own frame of reference on this issue, and, as noted above in Part III, § 1201 is closely connected to copyright.

Private international law governs copyright disputes which involve foreign elements but the rules differ according to the laws of the relevant jurisdiction considering the dispute. Consequently, within the international copyright framework, various approaches have been proposed as a means of resolving the potentially unlimited and multi-jurisdictional nature of infringement litigation in the age of the Internet²¹⁷ based on approaches adopted around the globe. These approaches are instructive when considering the potential applicability of § 1201 to foreign circumvention activities. Although not all circumvention activities for the developing country purposes will necessarily occur via the Internet, for the reasons noted above at Part IV (B)(2), U.S. interests are more likely to be implicated where some or all of the conduct occurs via the Internet.

Section 1201 can be held to be the applicable law, either in a U.S. court or in a foreign court, under many of the following proposed approaches:

*a. The law of the forum.*²¹⁸

If U.S. jurisdiction is found, § 1201 will likely apply under this approach. If a foreign court is exercising jurisdiction, this approach would preclude the application of § 1201.

217. See generally WIPO REPORT, *supra* note 97, at 113–47; Ginsburg & Janklow, *Private International Law Aspects of the Protection of Works and Objects of Related Rights Transmitted Through Digital Networks*, Nov. 30, 1998, available at http://www.wipo.int/documents/en/meetings/1998/gcpic/pdf/gcpic_2.pdf (last visited May 9, 2004)[hereinafter Private International Law Aspects Report]; Ginsburg & Janklow, *Private International Law Aspects of the Protection of Works and Objects of Related Rights Transmitted Through Digital Networks (2000 Update)*, Dec. 18, 2000, available at http://www.wipo.int/pil-forum/en/documents/pdf/pil_01_2.pdf (last visited May 9, 2004)[hereinafter Private International Law Aspects 2000 Update].

218. See WIPO REPORT, *supra* note 97, at 127–31; see also Private International Law Aspects Report, *supra* note 217, at 34–36.

*b. The law of the territory in which the author/
producer is resident.*²¹⁹

In the case of U.S. copyright owners, § 1201 will apply under this approach. The justification for this theory is that the relevant law should be that of the territory where the harm is felt.²²⁰

*c. Law of the territory of the “root copy.”*²²¹

Under this theory, the governing law is the law of territory in which the initial acts of the proscribed conduct occurred and all further proscribed acts such as further dissemination are subject to the same law on the basis that the wider misconduct derived from the initial proscribed activity.²²² It seems unlikely that § 1201 would apply to foreign circumvention activities. However, this approach has been criticized because U.S. courts seem to apply it only where it justifies applying U.S. law, and not when it would justify the application of foreign law, particularly where the application of foreign law would excuse the conduct the subject of complaint.²²³ In such circumstances, U.S. courts are likely to apply the law of country of receipt of the infringing work, namely domestic law. Consequently, applicable law determinations may be fluidly applied by U.S. courts to ensure the higher standard of § 1201 applies. Where a foreign court is exercising jurisdiction, however, the opposite result may occur.

*d. Law of the territory with multiple points of
attachment*²²⁴

The governing law under this approach is the law of country with the most significant relationship to the harm. Points of attachments which may be considered include the defendant's place of business, where the occurrence of the harm in the particular was foreseeable and the country of receipt.²²⁵ This approach, while suited to a copyright infringement action where harm is the acts of infringement, is less certain in the case of § 1201, where it is unclear that harm is necessary to give rise to a cause of action for

219. Private International Law Aspects Report, *supra* note 217, at 41–42.

220. *Id.* at 41.

221. *Id.* at 36–39.

222. *Id.*

223. *Id.* at 39.

224. *Id.* at 42–44.

225. *Id.*

circumvention.²²⁶ However, leaving the issue of harm aside, with the exception of the location of the defendant's place of business, it is not difficult to see many of the points of attachment could support the application of § 1201 to foreign circumvention activity.

Having identified that it is unlikely that a U.S. court could assert jurisdiction over foreign circumvention activity absent specific U.S.-related factors, the potential for § 1201 to be held to be the applicable law seems more likely, particularly if the court asserting jurisdiction is a U.S. court and the conduct complained of is excused under local foreign laws (which is likely to be case in the event that a U.S. copyright owner is arguing for the direction application of § 1201 on foreign circumvention activity).

V. ANTI-CIRCUMVENTION MEASURES AND THE GLOBAL AGENDA

As this paper discussed in Part II, copyright law applies to many of the building blocks which enable participation in the digital economy. Consequently, the rights and exceptions of copyright law can dictate the terms of that participation. Technological protections of copyrighted material are capable of persistent enforcement of those terms, across national borders.

The WIPO Internet Treaties sought to globally harmonize the national standards of protection for intellectual property rights in the digital environment, including by setting standards for the legal protections for technological locks. Of the thirty countries which have ratified or assented to the WIPO Internet Treaties, many are developing countries.²²⁷ This suggests that the concept of regulating circumvention devices is not aberrant to the interests of developing countries. This may be because anti-circumvention measures are not perceived in and of themselves an irreversible intrusion on user rights but rather a means of shoring up the benefits which intellectual property laws may offer.

A. Balancing the pros and cons of the anti-circumvention measures

Global harmonization promotes certainty and a baseline level of consistency of protections, particularly where the territorial nature of laws can otherwise give rise to different results when foreign elements are involved in a particular case. It can prevent the

226. See generally Samuelson, *supra* note.

227. See *supra* note 112.

potentially unfair situation from occurring where conduct permitted in one jurisdiction is penalized in another.

The introduction of legal protections for technological measures may be a valid response to the digital environment for several technological and economic reasons. Digital technologies do facilitate copying and distribution of copyrighted works on an unprecedented scale and with unprecedented ease. Consumers have been trained, in the analog world, to equate the scope of their permitted use with the physical form, which has given rise to a misunderstanding about their rights. Therefore, it is not inconceivable that digital technologies pose new challenges for copyright owners to appropriate the value of their works. Technological protections can educate users about the scope of their permitted use.

An access right is arguably unprecedented in copyright law but may, for reasons of technology, be an integral part of copyright in the digital age.²²⁸ Anything a computer can see, a computer can copy, and the Internet has been described the world's biggest copying machine.²²⁹ By accessing content online or via cable or other digital transmissions, users will either make a copy as part of the technical process of accessing the work, from which further copies can be made, or will be readily able to make copies as part of that process, thereby invoking a copyright owner's rights. Consequently, copyright protection in the digital environment may be illusory without incorporating some ability to the copyright owner to control access to their work in digital format.²³⁰ Interestingly though, this argument presumes that the losses sustained by proprietors from the uncontrolled access by consumers to digital works outweighs the cost savings caused by digital technologies in the production and distribution of works. By facilitating greater and more granular control of copyrighted works, technological measures can eliminate many costs to copyright owners of making their product available. These eliminated costs can include the cost of pursuing piracy. The higher degree of control can also increase copyright owners' revenues by allowing them to claim more royalties through more highly differentiated product offerings and greater price discrimination. This suggests that the ease of copying which digital technologies usher in

228. See generally Ginsburg, *supra* note 45.

229. WIPO REPORT, *supra* note 97, at 30.

230. Ginsburg, *supra* note 45, at 10.

to the consumer's lounge room may not be so fatal to incentives to create.

At first glance, technological protection mechanisms from an economic standpoint seem to reduce market failure and therefore obviate the need for fair use. Under this analysis, fair use is seen as a tool to "permit uncompensated transfers that are socially desirable but not capable of effectuation through the market."²³¹ Thus, fair use should be applied only where the following three conditions are present: 1) market failure exists, 2) the transfer to the user will be value maximizing, and 3) there will not be substantial injury to the copyright owner's incentive to create.²³² Situations of market failures include the presence of high transaction costs, a high cost of externalities and the existence of non-monetizable interests.²³³ Technological protections reduce transactions costs and therefore achieve copyright's public benefit objectives by giving better access to better information, albeit possibly for a fee where one wouldn't have been charged before.²³⁴

The primary difficulty with this argument is the "inherent circularity"²³⁵ of its premise, namely that copyright owners are entitled to revenue for all uses of their works.²³⁶ One of four factors in the fair use analysis under § 107 similarly requires consideration of the "effect of the use on the potential market for or value of the work."²³⁷ This premise problematically assumes that the value of all uses of copyright protected works is monetizable and that such value should be monetizable. This may not be possible where the benefits of a particular use extend beyond the individual concerned, such as the societal benefit from teaching or research or technical literacy.²³⁸

The lead proponent of the "fair-use-as-market-failure" approach²³⁹ acknowledges that teaching and scholarship yield high external benefits or that a user's activity may involve social values

231. Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors*, 82 COLUM. L. REV. 1600, 1601 (1982).

232. *Id.* at 1626.

233. *See id.* at 1627-36.

234. 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, 561 (1998).

235. *See* Lydia Pallas Loren, *Redefining Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1, 6 (1997).

236. Gordon, *supra* note 231, at 1651.

237. 17 U.S.C. § 107(4) (2000).

238. Loren, *supra* note 235, at 49.

239. *See generally* Gordon, *supra* note 231.

such as human health, which are not readily monetizable. But she cautions the courts to take care in relation to these types of market failure because such uses may not actually be cases of market failure but rather the result of a flawed perception of value, a perception which is not valid because “it should not be extended to make copyright law an instrument of income redistribution.”²⁴⁰ Again, the difficulty of circular reasoning is evident here. Here reappears the assumption that the copyright owner is entitled to the income, and that the income is redistributed. It ignores the possibility that government may confine the possible market for a work by excluding certain uses which are socially desirable in and of themselves, and achieve the overriding public benefit objectives of copyright law without interfering with its private benefit motivations. As the discussion in Part III demonstrated, U.S. copyright law has traditionally excused types of uses similar to developing country use of copyrighted works and given lesser protection to those works which are building blocks. Therefore, technological measures may not be capable of realizing benefit to developing countries because their desired uses represent an externality or non-monetizable interest.

The “fair-use-as-market-failure” approach also ignores the second part of the economic problem of copyright, namely the indivisible nature of information. The indivisibility of information means that private incentives will not necessarily be curtailed if certain uses are removed from the market for copyrighted goods. The market for copyrighted goods is arguably as large as a copyright owner’s expectation. Therefore, policy decisions can be made about what constitutes fair remuneration for a copyright owner and which uses are beyond the market and beyond what is necessary to overcome the problem of appropriability.

The persistence of externalities or non-monetizable interests in the digital landscape, which includes anti-circumvention measures, has lead one copyright scholar to discuss the appropriateness of defenses similar to fair use being applied to circumvention measures. Possible defenses include where a “copyrightable figleaf” has been applied to a “thin copyright” work, where subsequent access to a lawfully obtained copy of a work is sought, and a right of “fair access.”²⁴¹ Such defenses are arguably necessary because technological measures and the benevolence of copyright owners

240. *Id.* at 1632.

241. Ginsburg, *supra* note 45, at 11–16.

alone may be insufficient to realize the public benefit objectives of copyright law.

In the context of developing countries' access to copyrighted building blocks, the principal problem which arises is that this discussion of benefits and disadvantages of technological protection measures, and possible equitable exceptions to them, assumes the utilitarian purpose of copyright law characteristic of U.S. copyright law. In other words, it is a problem that the discussion takes place within the philosophical and economic theory background of U.S. copyright law.

B. Conducting the balancing in the global arena

Intellectual property laws in general, and copyright law in particular, are territorial and reflect policy choices of national governments on a range of domestic economic, cultural and social issues.²⁴² Section 1201, although separate from copyright law, is a good example of this because its standalone status represents the U.S. Congress' policy choice as dictated by historical circumstance. Other jurisdictions have regulated anti-circumvention measures within existing copyright frameworks.²⁴³ Consequently it seems fair to conclude that technological protection measures are a matter of domestic information and cultural policy, similar to copyright laws.

Viewed from this perspective, the wholesale export of strong anti-circumvention measures developed in one jurisdiction, such as the U.S., to other countries may be an ill-fit with local conditions. Given intellectual property laws are regularly lauded for their ability to stimulate trade, local industries, technology transfer and foreign investment in developing countries,²⁴⁴ and assuming this to be true for the purposes of this paper, the consequence of introducing foreign-fashioned laws such as § 1201 can interfere with part of this intellectual property promise.

Technological protections can prevent access to and use of the very items, the trade in which is supposed to be encouraged by strong intellectual property laws. Such access and use may be facilitative of the knowledge and skills necessary for the development of local

242. WIPO REPORT, *supra* note 97, at 120; Graeme W. Austin, *Social Policy Choices and Choice of Law for Copyright Infringement in Cyberspace*, 79 OR. L. Rev. 575, 597-98 (2000).

243. See Directive on the harmonization of certain aspects of copyright and related rights in the information society, Directive of the European Parliament and of the Council 2001/29/EC, 2001 O.J.L. 167, 22/06/2001 (P. 0010 - 0019).

244. See, e.g., WIPO REPORT, *supra* note 97, at 164.

industries and the ability to attract and take advantage of technology transfer and foreign investment. Where local industries are not well established and human resource capability levels are not sufficiently advanced, strong copyright laws and anti-circumvention measures are more likely to generate a flow of benefits one way, back to the U.S. copyright owners.

Whilst some legal protection for technological measures may be an agreed fixture on the global intellectual property agenda, the level of protection has not yet been agreed. As this paper demonstrated in **Part III (C)**, the WIPO Internet Treaties set a permissive minimum standard for legal protection of technological measures. These treaties give countries latitude as to the level of legal protection and remedies which they have to technological protections. Relying on this flexibility, the U.S. Congress made a policy choice as to the appropriate level of protection for U.S. industry, a maximalist model, and identified global adoption of this high standard as consistent with this policy choice. However, this represents the domestic information policy of one country and should be critically assessed by other countries, particularly developing countries, to the extent possible, against their own domestic agendas. Currently, many developing countries may have an interest in enhancing their access to and participation in the digital economy. The extent of legal protection afforded technological measures domestically therefore represents an important part of either enabling or precluding that access and participation.

Certainly, global harmonization of national anti-circumvention measures to a high standard is likely to encourage U.S. copyright owners to disseminate their works more widely online. This may assist in achieving the promise of the Internet, namely the greater dissemination of information and technology. However, greater dissemination of information and technology holds little benefit for developing countries if the terms of access and use are too high or prohibitive.

The logic that anti-circumvention measures offers comfort to copyright owners in the face of digital piracy, when translated to the international arena, assumes that other countries are “pirate nations”²⁴⁵ and ignores the fact that “domestic copyright regimes may reflect different policy considerations, many of which touch on fundamental areas of life.”²⁴⁶ It assumes that unauthorized use in

245. Austin, *supra* note 242, at 617.

246. *Id.*

developing countries represents a loss to foreign copyright owners. As one commentator argues, “we must break with the hegemony of the notion . . . that all unpaid uses are illegal uses and represent lost sales.”²⁴⁷

In addition to the cost of access to information, sovereignty may be compromised. Technological protection measures, in essence, rely on private ordering to achieve copyright policy objectives. Therefore, even if legal protections for technological measures are structured to maximize domestic social welfare concerns, responsibility is devolved from government to individual copyright owners. Especially where those copyright owners are nationals of a foreign country, developing countries should carefully consider the significant ramifications this may have for local governance. At a minimum, it demands reliance on the benign foreign copyright owner to identify and allow uses which involve high externalities or non-monetizable interests, for the benefit of local conditions.

It is possible to argue within the philosophical and economic framework of U.S. copyright and anti-circumvention law that developing country use and developing country purposes should represent exceptions to the local adoption of anti-circumvention measures. Domestic information policy may, at certain times, permit uses and lower levels of protection as consistent with social welfare objectives.

Economic theory arguments can also be made against relying solely on the ability of technological measures to enforce market forces and thereby realize social gains. As one commentator notes, it is “economic fact that if left in the hand of private decision makers, i.e., the market, too little of the goods that generate external benefits will be consumed.”²⁴⁸

It may be useful, for example, for developing countries to argue for the existence of an “international fair use” doctrine²⁴⁹ in order to secure some “wiggle room”²⁵⁰ in which to create exceptions to and limitations on legal protections of technological locks “to deal with . . . unique developmental challenges.”²⁵¹ Recognizing that such a doctrine does not yet exist, Okediji argues for its establishment and

247. Story, *supra* note 11, at 18.

248. Loren, *supra* note 235, at 53.

249. See generally Ruth Okediji, *Toward an International Fair Use Doctrine* 39 COLUM. J. TRANSNAT'L L. 75 (2000).

250. *Id.* at 87.

251. *Id.*

then seeks to locate it either as an international customary norm or as an international standard.²⁵² Despite the fact that fair use is distinctive of U.S. copyright law and the U.S. maximalist model for anti-circumvention is possibly immune from fair use intrusion, an international fair use doctrine, tailored to local conditions, can have relevance and application in the global copyright context without undue intrusion on legitimate copyright interests. Okediji proposes that fair use act as an international standard, setting a ceiling on limitations and exceptions.²⁵³ It would apply where the state can assert a public policy objective, the exceptions and limitations are reasonably related to those identified public policy goals and the limitations and exceptions are not disguised attempts to undermine the integrity of TRIPS or obligations required under international agreements.²⁵⁴

While consideration of proposals for recognizing developing country concerns in a world of technological locks is worthwhile, overall, the main challenge which § 1201 presents for developing countries is the fact that it is being established as the default international minimum standard, without broad-based, international consultation. By shifting the debate about the suitability of such a maximalist model from the international, multilateral to the bilateral agenda, developing countries seem less able to resist its adoption. When part of a multiparty negotiation, it seems that developing countries are able to negotiate sufficient compromise on strong copyright protections within which their domestic information policy objectives can be realized.

This is evident in the WIPO Internet Treaties which set a permissive minimum standard for protection of technological measures.²⁵⁵ In addition, the current draft of the FTAA shows the benefit of pooling the resources of developing countries in a multilateral arena to argue for sufficient flexibility in the implementation of anti-circumvention measures to permit limitations which allow access to vital copyrighted materials in the national public interest.²⁵⁶ These developments suggest that multi-lateral negotiations are more conducive to realizing the concerns of developing countries.

252. See generally Okediji, *supra* note 249.

253. *Id.* at 168–70.

254. *Id.*

255. See generally WIPO REPORT, *supra* note 97.

256. See *supra* notes 150–67 and accompanying text.

Given the consequences of “digital lock up” for developing countries are considerable, they require both a national and an international response, within a multilateral framework, so that the concerns of developing countries are appropriately addressed.